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98-PAS-141(R)

**MEMORANDUM FOR REGIONAL DIRECTORS, DCAA**  
**DIRECTOR, FIELD DETACHMENT, DCAA**

**SUBJECT: Audit Guidance on Maintaining Audit Documentation**

This memorandum sets forth guidance and procedures for the creation and maintenance of electronic working papers.

**Background**

DCAA's accumulated experience in using electronic working papers and tools is steadily expanding. Auditors and staff members have accomplished a number of initiatives to enhance our capabilities, such as providing regular replacements of computer hardware and systems, electronic transmission of audit reports, and introduction of electronic working papers to parallel technological advances in EDP. Plans are underway to build on our experiences and apply refinements to our electronic tools. The next two stages of enhancements to DCAA electronic working papers will bring us improved file sharing capabilities via an Agency-wide Intranet, introduction of MS-Exchange to facilitate file sharing and electronic review, automatic updating of permanent files, and links to ICAPS/ICQs. DCAA is also deploying desktop and portable scanners to digitize relevant source records to include in computer-based working paper and audit report files, and to further enhance the electronic transmission of audit reports to our customers. All of these developments dovetail into DoD initiatives to achieve a paperless procurement process by the year 2000.

Guidance on completing audit working papers and maintaining permanent files exist in different sources focusing on particular requirements. These are principally addressed in:

- **CAM 4-400 - Audit Working Papers** provides general guidance for the preparation, format, contents, and filing of audit working papers, whether prepared manually or with computers.
- **MRD 97-OAL-139(R)** dated 13 November 1997, subject: Audit Management Guidance Electronic Transmission of Correspondence and Audit Reports, provides information on procedures to be followed in providing our customers with electronically transmitted files.

All working papers must be cross-referenced to adequately identify sources of information included in the draft audit report. Working papers which document the significant conclusions and judgments of the auditor are to be annotated, when completed, with the auditor's and supervisor's initials and date. *These requirements are fundamental to the auditing standards and are applicable to working paper files prepared in a paper or electronic environment.*

## Guidance

The enclosure to this memorandum contains detailed procedures for electronic audit working papers which are effective immediately. The procedures address documentation requirements and safeguarding considerations for electronic working paper files and include standardized file naming conventions for use in electronic environments. For the immediate future, auditor working paper packages will include a mix of hardcopy and electronic files. All working paper files must contain hardcopies of the following:

- Signed Audit Report
- Index of Administrative Working Papers
- Index of Audit Working Papers
- Listing of all Electronic Files

When the FAO transmits an audit report electronically, the signed original of the report should be included in the working paper file. If the customer's system cannot support the paperless format, the original will be forwarded to the customer and a copy will be retained in the file. Supporting documentation in electronic or paper form should be maintained in the working papers and permanent files as appropriate to the assignment and findings. Auditors and supervisors must ensure that working papers are indexed using the "top-down" format discussed in CAM 4-403, that working papers requiring sign-off are initialed and dated, and that the draft audit report is cross-referenced to the working papers.

FAOs need to ensure electronic working papers are readily identifiable and accessible after the audit is complete. Therefore, the standardized file naming convention identified in the enclosure must be observed. Electronic files for each audit assignment must be saved on a storage medium appropriate to the space requirement. For most assignments, a diskette, when coupled with software compression utilities, will provide adequate storage. For larger assignments, a CD-ROM may be required. The storage medium must be properly labeled and filed in the working paper package. The label of the diskette or CD-ROM should include the audit report number, date, and description of contents. Electronic media should be safeguarded and retained in the same manner as other audit files.

Scanners will soon be available in all FAOs. The decision to transfer hardcopy documentation to electronic form is a matter for auditor judgment. When presented as evidence in litigation, the courts will allow a document reproduced from electronic format to be treated as an original. Special care must be taken to avoid any alteration of the data, or appearance of alterations. DCAA scanner software will default to saving scanned documents as image files, which cannot readily be modified. The software also has the capability to convert a scanned document to Optical Character Recognition (OCR) form. OCR scans are subject to transcription error and may easily be changed in word processing and spreadsheet programs. Therefore, the image format should generally be used as a means to scan audit documentation such as correspondence, invoices, travel vouchers, quotes, and similar records.

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SUBJECT: Audit Management Guidance on Maintaining Audit Documentation

**Concluding Remarks**

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/s/ Robert DiMucci for

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Enclosure

Procedures for Electronic Audit Working Papers

DISTRIBUTION: C

## **Procedures for Electronic Audit Working Papers**

This enclosure provides procedures to be used in preparing audit working papers in an electronic environment. CAM 4-400 provides general guidance on the preparation of working papers. This section of CAM applies equally to both manually and electronically prepared working papers. However, the use of electronic working papers introduces additional complexities to the preparation, format, content, and filing of audit working papers. It is important to establish consistent guidelines and standards for electronic working papers. This enclosure is divided into major areas that require special attention in an electronic working paper environment.

### **Working Paper Indexing**

Audit Working Paper indexing protocol is described in CAM 4-400. Specifically, CAM Figure 4-4-1 provides the standard structure for indexing Audit Working Papers, and Figure 4-4-2 provides the standard structure for indexing the Administrative Working Papers.

In current practice, auditor working paper packages can consist entirely of hardcopy working papers, or include a mix of hardcopy and electronic files. DCAA's future goals are to migrate to a completely electronic audit working paper package. Regardless of the type of audit working paper generated, the standard indexing must be followed. The indexing of hardcopy working paper packages is not new to DCAA and the process is straightforward. However, with the advent of electronic working papers, additional clarification and guidance is required:

1. The standard indexing structure is to be applied to all working paper types, i.e., electronic or hardcopy.
2. Each audit working paper package will include a **printed index** of the Administrative Working Papers.
3. Each audit working paper package will include a **printed index** of Audit Working Papers.
4. When the audit report has been electronically transmitted to the customer, the audit working paper package will include the signed original report; otherwise, include a copy of the audit report in accordance with CAM 10-203.9(a).
5. Every audit working paper package that includes electronic files must contain a **printed listing** of all electronic files. This listing should be considered part of the Administrative or Audit Working Paper index. The listing of electronic files should be sorted by working paper section. If the assigned file name does not adequately describe the electronic file, additional narrative should be provided. The following example is provided for working paper section A which is in part electronic, and working paper section D, which is entirely electronic:

## Procedures for Electronic Audit Working Papers

Supplemental Index to Audit Working Papers Electronic Files		
Working Paper	File Name	Description
A	A- Audit Summary XYZ Proposal.doc	
A-1	A-1 Planning Document – XZY proposal.doc	
D	D- Summary Review of Labor Rates.doc	
D-1	D-1 Audit Program for Review of Labor Rates.doc	
D-2	D-2 Detailed Review of Labor Rates.doc	
D-2a	D-2a Determination of Current Labor Rates.xls	
D-2b	D-2b 531199x class E-Payroll.dat	Extract from May 1998 Total payroll - 5398x.txt

### Auditor's and Supervisor's Initials and Date

The requirement for the auditor and supervisor initials and dating applies to all working papers whether they are hardcopy documents or working papers that exist only as an electronic file. Traditionally, the auditor identifies his/her work by initialing in the lower right corner of the audit working paper. This requirement holds true also for electronic working papers. When preparing or completing electronic working papers, the auditor's initials will be typed in by the auditor using the ***Bold Italic*** font, which will set the auditor's initials out from the text of the working papers:

For example, ***J.K.R.***

***12/16/97*** - would be acceptable

Color fonts may also be used to further distinguish initials and dates; however, care should be taken in selecting colors that are easy to read when printed.

As with the auditor's initials, the supervisor's initials on electronic working papers should be in a font style that sets it apart from the text of the working papers. For supervisory review, also use the ***Bold Italic*** font to easily distinguish the supervisor's initials from the audit working paper text.

The Agency's electronic working paper application is structured to provide space for auditor initials and date in the lower right corner of audit working papers as appropriate. Spacing is also provided for supervisory approvals.

### Referencing Audit Working Papers

Referencing of audit working papers is an important part of the audit. The working paper reference scheme should follow a "top-down" approach per CAM 4-404h(3), and applies equally to both hardcopy and electronic working papers. As a minimum, reference the following:

1. The summary results and notes in the draft audit report to the summary and lead working papers

## Procedures for Electronic Audit Working Papers

2. Information in the summary working papers to the related lead working papers
3. Risk assessment/preliminary review working papers to the related detailed working papers
4. The lead working papers to the detailed working papers
5. The detailed working papers to the next lower level of supporting working papers

Traditionally, audit working papers have followed the top-down approach using any one of the following examples:

*See W/P K-2a, OR Source W/P K-2a, OR JUST W/P K-2a*

All are acceptable, provided they clearly direct the auditor to the appropriate source working paper. It may be preferable to provide a more detailed reference such as: “*See W/P –L-1, line 45, column B.*” The level of reference detail is subject to individual auditor judgment and to any supervisory or FAO specific preferences.

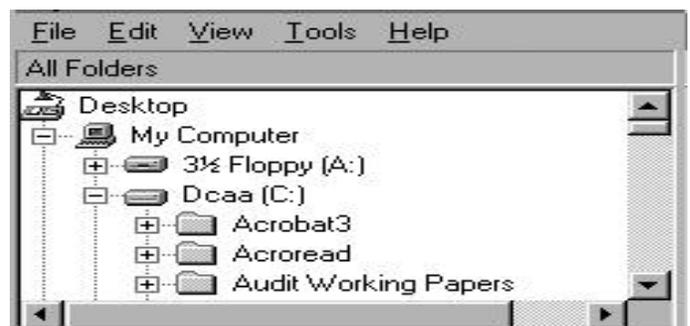
Electronic working papers can add increased complexity to the referencing process. The easy integration of our current software packages such as MS Word or MS Excel allow for electronic references to source data. Specifically, such functions as Hyperlinks, Copy and Paste, Linked Objects, Embedded Objects, etc., increase the auditor’s ability to manipulate data within and between working papers. Auditors are encouraged to make use of this technology; however, we believe that it is essential to maintain the requirement to specifically annotate the appropriate working paper reference.

Accordingly, electronic working papers must include a stated reference, since we may need to print the working paper at a later date, or in the event that electronic links are severed. We believe maintaining a stated reference within the electronic working paper is a sound business practice. Similar to the designation of auditor and supervisory initials, working paper references should be distinguished using the ***Bold Italic*** font. Color fonts may also be used to further distinguish working paper references; however, care should be taken in selecting colors that are easy to read when printed.

### Naming Conventions

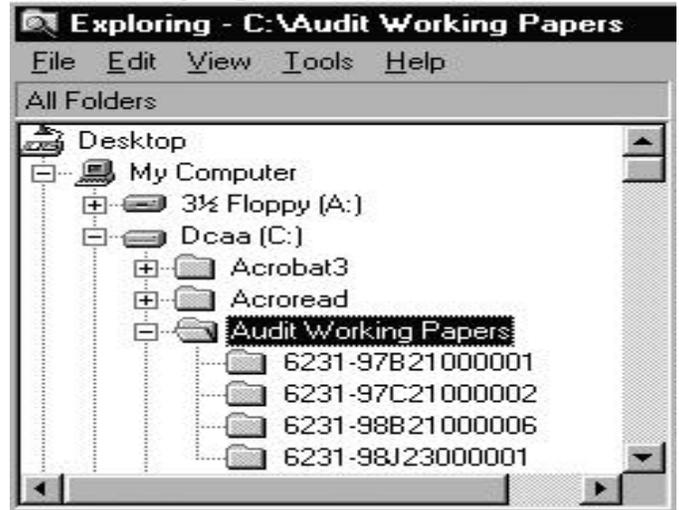
To simplify the indexing process in an electronic environment, DCAA must adopt a standardized file naming convention. This convention also establishes standardized procedures for storing in-process electronic working papers. The procedures include:

- Auditors should establish a new folder on the hard drive of their primary computer. This folder should be named **Audit Working Papers**.



## Procedures for Electronic Audit Working Papers

- For each assigned audit, the auditor should establish a new folder within the Audit Working Papers folder. This new folder is assignment specific and should be named the actual assignment name, such as: **6231-97B21000001**



All in-process electronic working papers will be stored within the appropriate electronic assignment folder. This methodology will greatly simplify locating audit working papers. In addition, the Agency's improved version of electronic working paper software will support this naming and storing convention.

Standardization also applies to naming electronic audit files. One of the benefits of DCAA's movement to the Windows 95 environment is the ability to have large file names. Users are no longer limited to eight characters with a three-character extension. To make it easier to find documents, auditors should make use of the longer, more descriptive file names. The complete path to the file, including the drive letter, server name, folder path, and file name, can contain up to 255 characters. Be aware that not all applications are capable of employing the full 255 characters, for example some CD-ROM Writers are limited to 64 characters. Generally, when an application is not capable of using the 255 characters, it will modify the file name. This modification may impact the descriptive nature of the file name originally assigned by the auditor. File names cannot include any of the following characters:

forward slash (/)  
greater than sign (>)  
asterisk (\*)  
quotation mark (")  
colon (:)  
question mark (?)

backslash (\)  
less than sign (<)  
period (.)  
pipe symbol (|)  
semicolon (;)

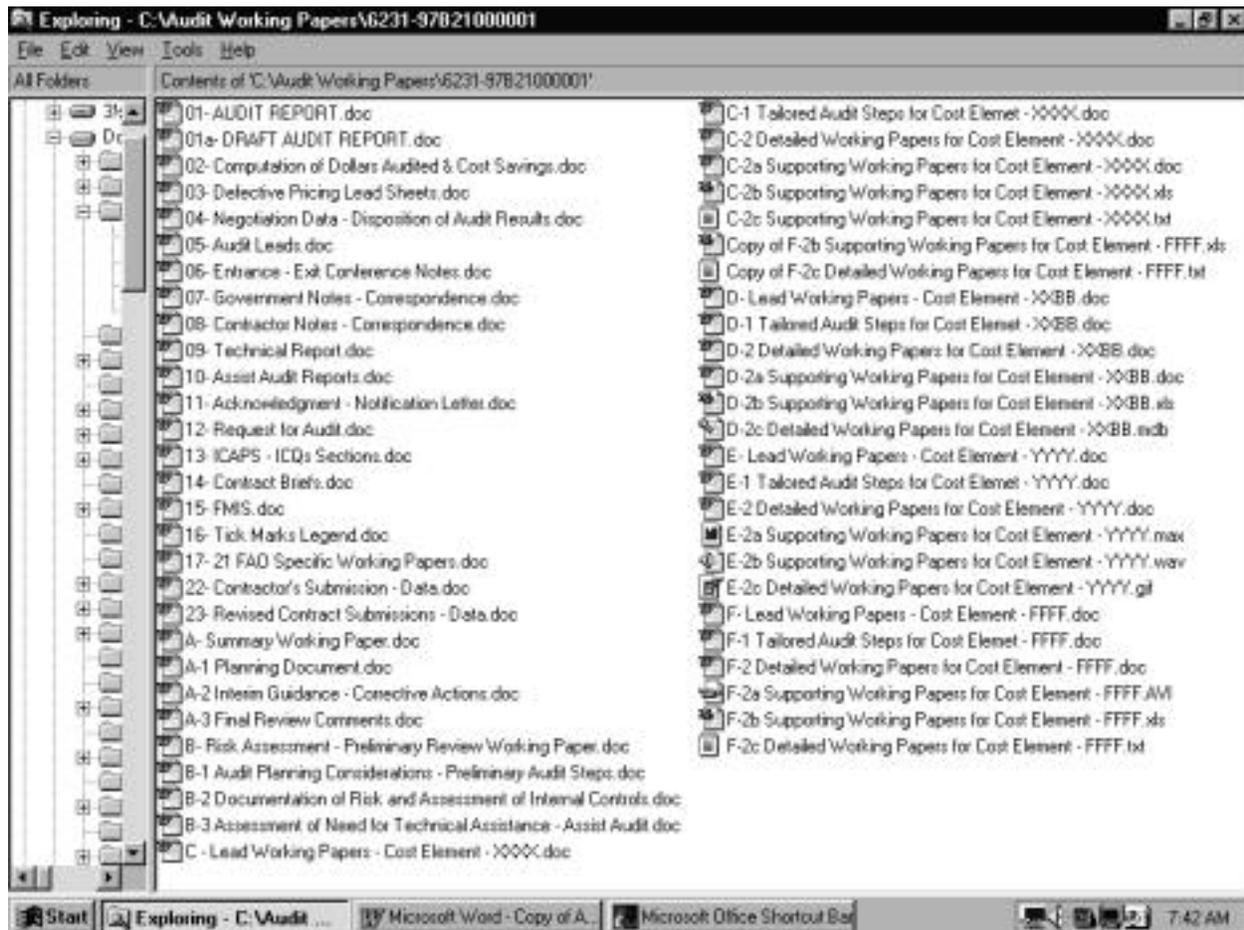
Auditors should name each file beginning with the actual working paper reference, such as A-1, B-2a, T-4, etc. This will be followed with a brief description or actual title of the working paper, such as Review of Engineering Labor Rates or Determination of Current Labor Rates. The combined result will make the identification of electronic working papers much clearer. An example of the file naming convention is shown below:

W/P                      Appropriate File Name

## Procedures for Electronic Audit Working Papers

<b>A</b>	A-Audit Summary XYZ Proposal.doc
<b>D-2</b>	D-2 Detailed Review of Labor Rates.doc
<b>D-2a</b>	D-2a Determination of Current Labor Rates.xls

The Agency's improved version of the electronic working paper software will support this working paper naming feature. To illustrate the naming and file conventions discussed above, an assignment folder for an entire electronic working paper package could look like the following:



The implementation of the standardized methodology has other benefits as well. This practice may simplify future file archiving techniques, will simplify application of file compression techniques, and provide a central location for work in-process files. This provides a uniform file location that will allow for other auditors to locate files in the absence of the prime auditor. The above image of all electronic files for 6231-97B21000001 could become the supplemental index listing required for all electronic working papers. The image was created by:

1. Displaying the folder in Windows Explorer
2. Modifying the window to display all the files
3. Press Print Screen to capture the entire screen image to the clipboard
4. Pasting the image into the word document

## Procedures for Electronic Audit Working Papers

### Movement and Storage of Working Papers

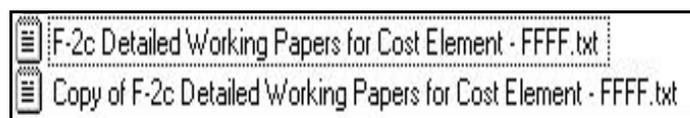
The standardized naming convention defined earlier should be carried throughout the audit working paper package, including local storage of the completed assignment official records and the corresponding audit report.

As with any audit assignment, the integrity of our audit working papers must be maintained; this is especially so with electronic audit files. During an audit, many interactions take place between an auditor, other team members, technical specialists, the supervisory auditor, and the FAO Manager. The following requirements follow the audit workflow process and incorporate standard procedures to protect working paper integrity, specifically the integrity of the official electronic working papers.

**In-process Procedures (Interim):** During the performance of an audit, it is necessary for the auditor to coordinate his/her work with the audit supervisor. This includes interim guidance as well as obtaining supervisory review and approval of individual working papers. This requires that electronic files be accessible to audit supervisors. Within DCAA, we have available several means to transmit electronic files from point A to point B. These include:

1. Physical delivery of files on diskette or other removable media
2. Sharing access to files through common LAN drives or networks
3. E-mail transmittal
4. FTP (File Transfer Protocol)
5. DCAA's Bulletin Board System

When an electronic audit file is returned to the auditor after supervisory review, the auditor is responsible for ensuring that only the most current audit file, i.e., the reviewed file, is included in the audit package. A recommended practice is to create a copy of the file, prior to sending the original to the audit supervisor. This provides a temporary backup, until the approved file is returned. At that time the **copy** file should be deleted. If you use Windows Explorer to make your initial copy, it will automatically insert the term “*copy of*” into the new file name:



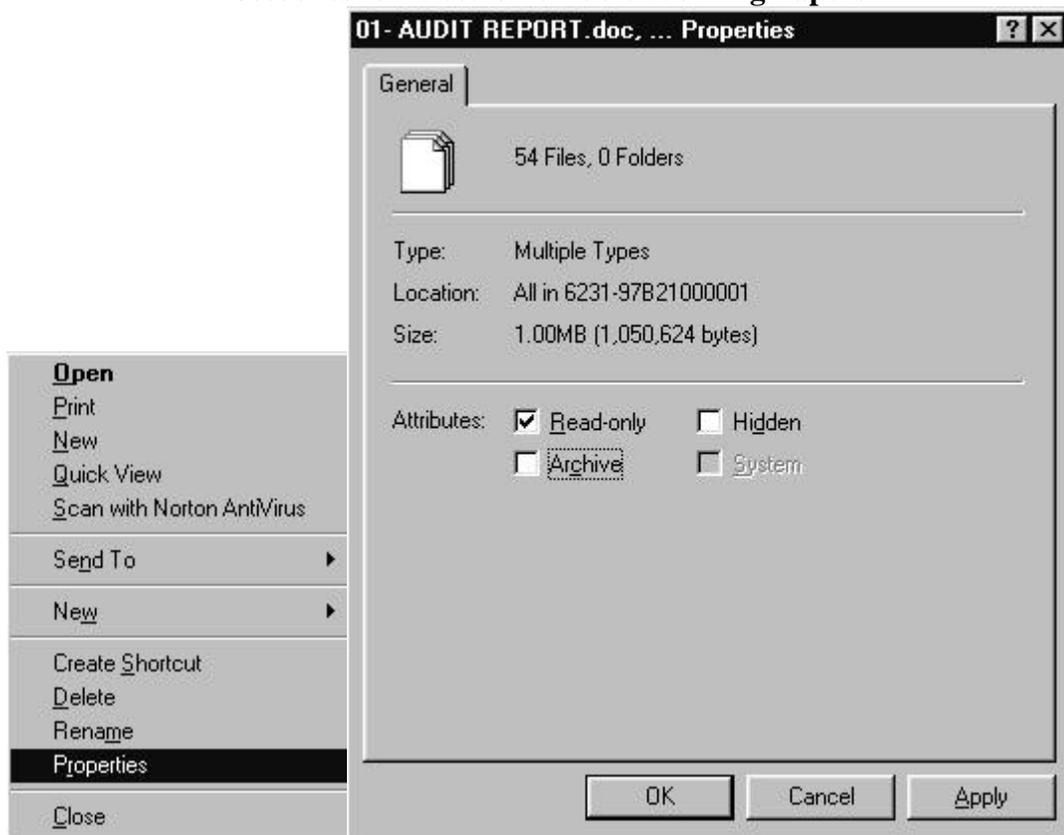
The Auditor should then provide the original electronic working paper file to the supervisory auditor for review. As part of this process, the auditor may consider enabling existing software functions to track any changes made to the files. One method is to “protect” the files. In MS Word, the auditor can use the **Tools** menu to **Protect Document** for **Tracked Changes**. MS Excel files can be protected, by selecting **Tools, Protection, Protect and Share Workbook and Sharing with Track Changes**.

**Completed Working Paper Packages – Final Review:** When an audit package is completed and ready for supervisory auditor final review, the following procedures are required for working paper packages that include electronic files:

## Procedures for Electronic Audit Working Papers

1. As with traditional hardcopy working paper packages, a hardcopy folder will be established to consolidate and house assignment working papers – including electronic media.
2. Hardcopy working papers will be included in the normal manner.
3. All electronic working papers will be moved from the auditor’s personal computer or LAN drive and placed on a removable storage medium that will be placed in the working paper package.
4. Auditor judgment should determine if the included electronic files require compression based on file size. If compression is used, the standard compression software used by DCAA is PKZIP for Windows. Compressed files must be self-extracting (executable), and continue to use the standard naming convention. Examples of naming conventions are shown below:
  - Individual files: Working Paper D-2a Determination of Current Labor Rates.xls will be compressed as D-2a Determination of Current Labor Rates.exe
  - All Files: Should the auditor choose to compress all electronic working papers into a single file, use the standard naming convention based on the assignment number; the file should be named 6231-97B21000001.exe
5. These electronic files are official audit working papers; any copies of these files maintained on the auditor's hard drive must be renamed or otherwise designated as nonofficial copies.
6. The removable medium must be labeled and, as a minimum, the label must include:
  - The complete assignment number
  - A brief assignment description. An example is shown below:  
**6231-97B21000001**  
**Review of YXX Proposal for Multicolored Widgets**
7. The package is then provided to the supervisory auditor/FAO Manager for final review and completion of the associated audit report. If hardcopies of any electronic working papers are to be included in the package, the supervisor should verify that they are the exact versions that are included in the electronic media.
8. The following closing actions should be followed:
  - When the audit report has been electronically transmitted to the customer, the signed original report will be filed in the audit working paper package; otherwise include a copy of the signed audit report in accordance with CAM 10-203.9(a). Special note - prior guidance under MRD 97-OAL-139(R) required that a hardcopy printout of the audit acknowledgement letter be included in the audit working paper package. This specific requirement is rescinded; however, be sure to maintain the electronic version of the acknowledgment letter in the audit working paper package. The remaining guidance included in MRD 97-OAL-139(R) is still in effect.
  - Hardcopy printouts of the Administrative and Audit Working Papers indexes, including the Supplemental listing of electronic files will be included in the working paper package.
  - All electronic files should be modified so that the file properties for each file are now marked “read only”. This step is necessary to avoid any unintentional modification of the “official” electronic files. This can be easily accomplished for an entire folder of working paper files simultaneously. Using Windows Explorer, simply highlight the appropriate assignment folder, select **Edit** on the menu bar, and then select **Select All**. On the menu bar select **File** and then select **Properties**. Finally, mark the “**Read-only**” box, select **Apply** and then **OK**.

## Procedures for Electronic Audit Working Papers



- After the file attributes have been set to “Read-Only”, all the files may be compressed using the PKZIP for Windows software to reduce storage space. Should a compression technique be used, the resulting file must be self-extracting (executable), and continue with the standard naming convention – assignment number - 6231-97B21000001.exe.
- Ensure the electronic files (stored on removable media) are securely enclosed in the working paper package. The use of sleeves or other appropriate techniques should be employed to ensure the electronic files are not separated or lost from the working paper package. It is recommended that each FAO assess their existing controls over official records/files to ensure strong controls are in place to protect the integrity of the files as well as their physical security. The completed folder will be then be stored consistent with standard FAO procedures.
- We suggest that the FAO consider the establishment of an electronic file library to house *copies* of electronic working papers that may be accessed by the audit staff for future use. Such action would thereby limit access to official electronic files, reducing the possibility of loss or damage to the records.

### Work In-process Backup

As we continuously grow dependant on electronic files, it will soon become evident that one of the most important computer proficiency skills required will be the daily backup of current work in-process files. As we have all experienced, files get lost, destroyed, hard drives crash and entire computers are sometimes stolen. Such

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an occurrence could result in loss of the entire in-process electronic working paper package. When this occurs, it can be a destructive blow to the ongoing audit, impacting productivity and creating a negative reflection of professional competency. Thus we must implant the requirement for at least a daily backup of in-process files. The following procedures should be followed on a daily basis:

1. At a minimum, a backup of in-process electronic audit files will be made at the end of each business day. In simplest terms, this is a copy of the master files. The auditor may employ file compression techniques if desired.
2. The backup copy(s) should be stored in a separate location from the master file(s). For example, master files on the auditor's hard drive could be copied to floppy disk and stored in the auditor's desk drawer. Auditors using portable laptops must ensure that backup files are not stored with the laptop computer (i.e., carrying bag) in case both are lost together.
3. A backup set of all assignment audit files will be maintained until the entire audit is completed and forwarded to the audit supervisor or manager for final closure. Upon closure, the backup files can be deleted.