# FEDERAL AUDIT EXECUTIVE COUNCIL

# Committee on

Auditing In a Paperless Environment

Survey of Computer-Assisted Audit Tools

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#### SURVEY OF COMPUTER-ASSISTED AUDIT TOOLS

#### SUMMARY

Federal Audit Executive Council (FAEC) audit staffs use many computer-assisted audit tools (CAATs) to increase their efficiency and effectiveness. All staffs use data base, presentation graphics, spreadsheet, and word processing software. Many staffs also use calendar managers, flowchart drawers, internet browsers and search engines, office suite packages, remote access software, scanning tools, statistical sampling packages, and virus detectors. Relatively fewer audit staffs are using computer security evaluators, desktop publishers, file translators, groupware, project schedulers, and questionnaire tools. No audit staff used all 19 CAATs.

The use of CAATs is influenced by the size of the audit staff, the availability of computer specialists, the types of audits performed, the auditee's level of automation, computer resources and funds available to the audit staff, and the skills and interest of the individual auditor. Formal classroom training may not be required for basic use of CAATs that have extensive online help capabilities, but classroom training is recommended for many CAATs. One respondent to the questionnaire stated that a major factor to be considered is how easily the staff can reuse the skills they have obtained in using the various CAATs. Without repetition and continual training, the skills decrease and are not fully developed.

We gratefully thank the FAEC organizations that participated in this survey.

#### OBJECTIVES, SCOPE, AND METHODOLOGY

The objectives of the survey were to determine the CAATs used by the audit staffs of the members of the FAEC and to obtain any comments on CAATs that would benefit the FAEC organizations. The survey was an activity of the FAEC committee on Auditing In a Paperless Environment. A questionnaire identifying 19 types of CAATs <sup>1</sup> was developed in early October 1996. The questionnaire was sent to 33 FAEC audit staffs, of which 27 returned the questionnaire.

<sup>&</sup>lt;sup>1</sup> For this survey, we excluded software tools for accessing client databases (such as IDEA and ACL) and for automating working papers (such as various Lotus Notes packages and Price Waterhouse's Teammate), which are being reviewed by the *Auditing In a Paperless Environment* committee separately.

The data from those 27 questionnaires were used for this report.

#### SURVEY ORGANIZATIONS

The 27 audit staffs that participated in this survey were from the:

Air Force Audit Agency

Army Audit Agency

Central Intelligence Agency

Defense Contract Audit Agency

Defense Intelligence Agency

Department of Agriculture

Department of Commerce

Department of Defense

Department of Energy

Department of Health and Human Services

Department of Housing and Urban Development

Department of Justice

Department of Labor

Department of the Interior

Department of the Treasury

Department of Transportation

Department of Veterans Affairs

Environmental Protection Agency

Federal Deposit Insurance Corporation

General Services Administration

Government Printing Office

National Aeronautics and Space Administration

Naval Audit Service

Nuclear Regulatory Commission

Office of Personnel Management

Railroad Retirement Board

Small Business Administration

#### SURVEY RESULTS

## Calendar Manager

Twenty audit organizations reported 12 different calendar managers. Microsoft Schedule+ was the most used software. Comments indicated that calendar managers generally are easy to use. Training requirements ranged from little or none to less than one day. Group-wide calendar features were not often used, possibly because calendar managers are not used by every auditor.

	Number of
	Organizations
Microsoft Schedule+	8
Campbell Services On Time	3
Calendar in Novell	3
Groupwise	
Calendar in Corel	2
WordPerfect Suite	
Others used by only one	8
organization	

	Microsoft			Corel	
	Schedule+	On Time	Groupwise	WP Suite	Others
Air Force Audit Agency	X				
Army Audit Agency	X				
Central Intelligence Agency		X			
Defense Contract Audit Agency					
Defense Intelligence Agency					
Department of Agriculture			Χ	X	
Department of Commerce					
Department of Defense		X			
Department of Energy					
Department of Health and Human Services					
Department of Housing and Urban Development					X
Department of Justice	X				
Department of Labor					X
Department of the Interior	X				
Department of the Treasury	X				
Department of Transportation		X			Х
Department of Veterans Affairs	X				X
Environmental Protection Agency	X		Χ		
Federal Deposit Insurance Corp.	X				
General Services Administration					X
Government Printing Office					X
National Aeronautics and Space Administration					X
Naval Audit Service					
Nuclear Regulatory Commission				Χ	
Office of Personnel Management			Χ		
Railroad Retirement Board					
Small Business Administration					Х

## Computer Security Evaluation

Seventeen audit organizations reported 14 different computer security evaluators. Access Control Facility 2 (ACF2) was the most frequently used package. Users of this software often are computer specialists, not auditors. Most auditors would need both classroom and on-the-job training to effectively use this software.

# Number of Organizations

ACF2	10
CA Top Secret	9
RACF	8
CA Examine	4
Network Security	2
Others used by only one	9
organization	

		CA		CA	Network	
	ACF2	Top Secret	RACF		Security	Others
	ACFZ	Top Secret	KACE	Examine	Security	Others
Air Force Audit Agency						
Army Audit Agency						
Central Intelligence Agency	X					
Defense Contract Audit Agency						
Defense Intelligence Agency						
Department of Agriculture	X	X	Χ	Χ	Х	Х
Department of Commerce						
Department of Defense	Х	X	Χ			X
Department of Energy	Х			Х		Х
Department of Health and Human Services						
Department of Housing and Urban Development		X				Х
Department of Justice		X		Χ		
Department of Labor						
Department of the Interior			Χ			Х
Department of the Treasury	X	X	Χ			
Department of Transportation	X		X			
Department of Veterans Affairs		X				
Environmental Protection Agency			Χ	Х	Х	
Federal Deposit Insurance Corp.	X	X				Х
General Services Administration						
Government Printing Office		X				
National Aeronautics and Space Administration	X	X	Χ			Х
Naval Audit Service			Х			
Nuclear Regulatory Commission						
Office of Personnel Management	X					
Railroad Retirement Board	Х					
Small Business Administration						

## Database

Twenty-seven audit organizations used 17 different databases to support their activities. Access and dBase were the most commonly used software. Both computer specialists and non-ADP auditors use this software. Classroom training is beneficial, but online help features often are sufficient to allow basic use of the software without formal training.

	Number of
	Organizations
Microsoft Access	19
Borland dBase	19
Borland Paradox	9
Microsoft Fox Pro	5
Oracle	4
Sysbase	2
DB2	2
Others used by only one organization	10

	Access	<u>dBase</u>	Paradox	FoxPro	Oracle	Sysbase	DB2	Others
Air Force Audit Agency	X		X					
Army Audit Agency	X	Х						Х
Central Intelligence Agency	X			Х				X
Defense Contract Audit Agency	X	Х						
Defense Intelligence Agency		X						
Department of Agriculture	Х	X			Х	Х	Х	Х
Department of Commerce			Х					
Department of Defense	Х		X					
Department of Energy	Х	Х	Х					
Department of Health and Human Services		Х						
Department of Housing and Urban Development	X	Х	Х	Х				
Department of Justice	Х	Х						
Department of Labor	Х	Х	Х	Х	Х			
Department of the Interior	X	Х						
Department of the Treasury	X							Χ
Department of Transportation	X							Χ
Department of Veterans Affairs	X	Х						X
Environmental Protection Agency		Х			Х			
Federal Deposit Insurance Corp.	X	X	Х	Х				
General Services Administration			X					X
Government Printing Office		Х		X				
National Aeronautics and Space Administration	X		X		Х	X	Х	X
Naval Audit Service		X						
Nuclear Regulatory Commission	X	X						
Office of Personnel Management		X						
Railroad Retirement Board	X	X						
Small Business Administration	X	X						

## Desktop Publishing

Eight audit organizations reported using nine different desktop publishers in their activities. Corel Ventura was the most used package. It appears that many audit organizations consider that their word processing software already has sufficient desktop publishing capabilities, thus negating the need for a separate desktop publisher.

	Number of Organizations
Corel Ventura	3
Microsoft Publisher	2
Aldus Pagemaker	2
Others used by only one organization	6

	Corel	Microsoft	Aldus	
	<u>Ventura</u>	<u>Publisher</u>	Page Maker	Others
Air Force Audit Agency				
Army Audit Agency				
Central Intelligence Agency				
Defense Contract Audit Agency				
Defense Intelligence Agency				
Department of Agriculture		X		X
Department of Commerce	X			
Department of Defense				
Department of Energy				
Department of Health and Human Services	X			
Department of Housing and Urban Development				
Department of Justice				
Department of Labor			X	
Department of the Interior				
Department of the Treasury				
Department of Transportation				Χ
Department of Veterans Affairs		Χ		X
Environmental Protection Agency				
Federal Deposit Insurance Corp.			X	
General Services Administration				
Government Printing Office				
National Aeronautics and Space Administration	X			
Naval Audit Service				
Nuclear Regulatory Commission				
Office of Personnel Management				
Railroad Retirement Board				
Small Business Administration				

## File Translation

Twelve audit organizations used 17 different file translators. No single file translator was reported by more than four audit organizations. One audit organization stated that Monarch was relatively easy to use and that its user guide was well written. The most frequently used file translators may be the built-in file converters in existing word processing, spreadsheet, and database packages.

	Number of
	Organizations
	·
Monarch	4
Data Junction	2
Quick View	2
Adobe Acrobat	2
Word-for-Word	2
ACL	1
Others used by only one	11
organization	

		Data	Quick	Adobe	Word for		
	Monarch	Junction	View	Acrobat	Word	ACL	Others
Air Force Audit Agency							
Army Audit Agency	X						
Central Intelligence Agency							
Defense Contract Audit Agency							
Defense Intelligence Agency							
Department of Agriculture		Х	Х	X			X
Department of Commerce			Х				
Department of Defense					Х		
Department of Energy							
Department of Health and Human Services							
Department of Housing and Urban Development							
Department of Justice						X	X
Department of Labor							
Department of the Interior	X						Х
Department of the Treasury					Х		
Department of Transportation							X
Department of Veterans Affairs	X						X
Environmental Protection Agency							
Federal Deposit Insurance Corp.		Х					
General Services Administration							
Government Printing Office							
National Aeronautics and Space Administration							
Naval Audit Service							
Nuclear Regulatory Commission				X			
Office of Personnel Management	X						
Railroad Retirement Board							
Small Business Administration							

# Flowchart and Organization Chart Drawer

Twenty-two audit organizations reported 11 different flowchart and organization chart drawers. ABC Flowcharter and Flowcharting were the most reported packages. Formal classroom training generally is not required to use this software.

	Number of Organizations
Flowcharting	8
Micrografx ABC Flowcharter	7
Visio	5
EZFlow	4
allCLEAR	2
Others used by only one or	6
two organizations	

	Flow	ABC				
	Charting	Flowcharter	Visio	EZFlow	allCLEAR	Others
Air Force Audit Agency			X			
Army Audit Agency	Х					
Central Intelligence Agency			Х			
Defense Contract Audit Agency						
Defense Intelligence Agency						
Department of Agriculture				X		X
Department of Commerce						Χ
Department of Defense		Χ		X		
Department of Energy		Χ				
Department of Health and Human Services	Х					
Department of Housing and Urban Development	Х		Х			
Department of Justice						
Department of Labor				X		Х
Department of the Interior		Χ				X
Department of the Treasury	Х					X
Department of Transportation		Χ				
Department of Veterans Affairs		Χ			X	Х
Environmental Protection Agency	Χ					
Federal Deposit Insurance Corp.			X			Х
General Services Administration	Х					
Government Printing Office						
National Aeronautics and Space Administration				X	X	
Naval Audit Service		Χ				
Nuclear Regulatory Commission		X				
Office of Personnel Management	Х		Χ			
Railroad Retirement Board	Х					
Small Business Administration						

# Groupware and Workflow Manager

Twelve audit organizations reported four different groupware products. The primary products were Novell Groupwise and Lotus Notes. The primary use of these products is e-mail. Some audit applications are being developed in Lotus Notes.

Number of
Organizations

Novell Groupwise	5
Lotus Notes	5
Microsoft Exchange	4
Artisoft LANTastic	1

	Novell	Lotus	Microsoft	
	Groupwise	Notes	Exchange	LANTastic
	-		_	
Air Force Audit Agency	Х		Χ	
Army Audit Agency			X	
Central Intelligence Agency		Χ		
Defense Contract Audit Agency				
Defense Intelligence Agency				
Department of Agriculture	X			
Department of Commerce				
Department of Defense				
Department of Energy				
Department of Health and Human Services				
Department of Housing and Urban Development		Χ		
Department of Justice				
Department of Labor	X			Χ
Department of the Interior				
Department of the Treasury			Χ	
Department of Transportation				
Department of Veterans Affairs				
Environmental Protection Agency	X	Χ		
Federal Deposit Insurance Corp.		Χ		
General Services Administration		Χ		
Government Printing Office				
National Aeronautics and Space Administration				
Naval Audit Service				
Nuclear Regulatory Commission				
Office of Personnel Management	X			
Railroad Retirement Board				
Small Business Administration			Χ	

## Internet Browser

Twenty-six audit organizations reported that they used seven different internet browsers. Netscape Navigator was the most used browser. Formal classroom training generally is not required to use this software.

	Number of Organizations
Netscape Navigator	19
Microsoft Internet Explorer	12
Netcom Netcruiser	2
Others used by only one	4
organization	

	Netscape	Microsoft	Netcom	
	Navigator	Internet Explorer	Netcruiser	Others
Air Force Audit Agency		X		
Army Audit Agency	X	X		
Central Intelligence Agency	X			
Defense Contract Audit Agency		X		
Defense Intelligence Agency				X
Department of Agriculture	X			
Department of Commerce		X		
Department of Defense	X	X		
Department of Energy	X	X		
Department of Health and Human Services	X			
Department of Housing and Urban Development	X			
Department of Justice		X		
Department of Labor	X	X	X	
Department of the Interior				Х
Department of the Treasury	X	X		
Department of Transportation	X			
Department of Veterans Affairs	X	Χ	Х	Х
Environmental Protection Agency	X			
Federal Deposit Insurance Corp.	X			
General Services Administration	X			
Government Printing Office				
National Aeronautics and Space Administration	X			
Naval Audit Service	Х	Х		
Nuclear Regulatory Commission	Х			
Office of Personnel Management	Х			
Railroad Retirement Board	X			Х
Small Business Administration		Х		

# Internet Searcher

Twenty-one audit organizations reported using 11 different internet search engines. Many responders said they used all of the search engines listed in the questionnaire. The most frequently mentioned search engine was Yahoo.

	Number of Organizations
Yahoo	20
Alta Vista	16
Excite	15
Lycos	15
WebCrawler	15
Infoseek	14
Others used by only one or	5
two organizations	

		Alta			Web		
	Yahoo	Vista	Excite	Lycos	Crawler	Infoseek	Others
Air Force Audit Agency	Χ	X	Χ	Χ	Χ	Χ	
Army Audit Agency	X	Х	Χ	Χ	Χ	Χ	
Central Intelligence Agency	X	Х	Χ	Χ	Χ	Χ	
Defense Contract Audit Agency							
Defense Intelligence Agency							
Department of Agriculture	X	X	X	X	X	Χ	
Department of Commerce	X	X	Χ	Χ	Χ	Χ	
Department of Defense	X	X	Х	X	Χ	Χ	
Department of Energy	X	Х	X	X	Х	Χ	X
Department of Health and Human Services	X	X	X	X			
Department of Housing and Urban Development	X	X	Χ	Χ	Χ	Χ	X
Department of Justice	X	X					
Department of Labor	X	X	Χ		Χ	Χ	
Department of the Interior	X						X
Department of the Treasury	X	Χ	Χ	Χ	Χ	Χ	
Department of Transportation	X	X	X	X	X	Χ	
Department of Veterans Affairs	X	X	Χ	Χ	Χ	Χ	
Environmental Protection Agency							
Federal Deposit Insurance Corp.	X	Χ	X	X	Χ	Χ	
General Services Administration							
Government Printing Office							
National Aeronautics and Space Administration	X			X			Х
Naval Audit Service							
Nuclear Regulatory Commission	X				X		
Office of Personnel Management	X						
Railroad Retirement Board							X
Small Business Administration	Χ	Χ	Χ	Χ	Χ	Χ	

# Office Suite Package

Twenty-three audit organizations reported four different office suite packages. Microsoft Office was, by far, the primary package in use. Online help features generally allow beginning users to get started, but formal classroom training is recommended for use of advanced features of the software.

Number of
Organizations

Microsoft Office	19
Corel WordPerfect	5
Microsoft Works	2
Borland Office 2	1

	Microsoft	Corell	Microsoft	Borland
	Office	WordPerfect	<u>Works</u>	Office 2
Air Force Audit Agency	X			
Army Audit Agency	X			
Central Intelligence Agency	X		Χ	
Defense Contract Audit Agency	X			
Defense Intelligence Agency				
Department of Agriculture				
Department of Commerce		X		
Department of Defense	X			
Department of Energy	X			
Department of Health and Human Services		X		
Department of Housing and Urban Development	X			
Department of Justice	X			
Department of Labor	X	X		
Department of the Interior	X	X		
Department of the Treasury	X			
Department of Transportation	X			
Department of Veterans Affairs	X			
Environmental Protection Agency				
Federal Deposit Insurance Corp.	X			
General Services Administration	X			
Government Printing Office			X	
National Aeronautics and Space Administration	X			Х
Naval Audit Service	X			
Nuclear Regulatory Commission		X		
Office of Personnel Management				
Railroad Retirement Board	X			
Small Business Administration	X			

## Presentation Graphics

Twenty-seven audit organizations reported seven different presentation graphics packages. Microsoft PowerPoint was used the most. Formal classroom training lasting one or two days is beneficial to users of this software. Online help features may be sufficient for beginning users to get started without formal training.

	Number of Organizations
Microsoft PowerPoint	19
SPC Harvard Graphics Lotus Freelance Graphics	16 8
Corel Presentations Others used by only one or two organizations	3

	Microsoft	Harvard	Freelance	Corel	
	<u>PowerPoint</u>	<u>Graphics</u>	<u>Graphics</u>	<u>Presentations</u>	Others
Air Force Audit Agency	X				
Army Audit Agency	X	Х			
Central Intelligence Agency	X				
Defense Contract Audit Agency	X				
Defense Intelligence Agency	^	Х			
Department of Agriculture		X	Х		Х
Department of Commerce		~	X	Х	
Department of Defense	X		X		
Department of Energy	X	Х			
Department of Health and Human Services		X		Х	
Department of Housing and Urban Development	Х	Х			
Department of Justice	Х	Х			
Department of Labor	X	Х		Х	
Department of the Interior	X			Х	Х
Department of the Treasury	Х				
Department of Transportation	X				
Department of Veterans Affairs	X				
Environmental Protection Agency		X	X		
Federal Deposit Insurance Corp.	X	X	X		
General Services Administration	X	Х			
Government Printing Office			X		
National Aeronautics and Space Administration	X	Х			
Naval Audit Service	X	X			
Nuclear Regulatory Commission	X	X			
Office of Personnel Management		Х	Х		
Railroad Retirement Board	X	X			
Small Business Administration			Х		

# Project Scheduling

Twelve audit organizations have six different project schedulers. Microsoft Project was the most used. Online help features may be sufficient for beginning users to get started without formal training, but formal classroom training may be beneficial for use of advanced features.

	Number of Organizations
Microsoft Project	7
CA Superproject	2
Time-line	2
Others used by only one organization	3

	Microsoft	CA		
	<u>Project</u>	Superproject	Time-line	<u>Others</u>
Air France Audit America	V			
Air Force Audit Agency	X			
Army Audit Agency	.,			
Central Intelligence Agency	X			
Defense Contract Audit Agency				
Defense Intelligence Agency				
Department of Agriculture	X	X		X
Department of Commerce	X			
Department of Defense		X		
Department of Energy				
Department of Health and Human Services				
Department of Housing and Urban Development			X	
Department of Justice				
Department of Labor				
Department of the Interior				
Department of the Treasury	X			
Department of Transportation				
Department of Veterans Affairs			Х	
Environmental Protection Agency				Х
Federal Deposit Insurance Corp.	Х			Х
General Services Administration				
Government Printing Office				Х
National Aeronautics and Space Administration	Х			
Naval Audit Service				
Nuclear Regulatory Commission				
Office of Personnel Management				
Railroad Retirement Board				
Small Business Administration				

# Questionnaire Tool

Only three audit organizations reported having a questionnaire tool. RAOSOFT was the only questionnaire software mentioned by more than one organization.

Number of
Organizations

RAOSOFT 2 SAS 1

	RAOSOFT	SAS
Air Force Audit Agency		
Army Audit Agency		
Central Intelligence Agency		
Defense Contract Audit Agency		
Defense Intelligence Agency		
Department of Agriculture		X
Department of Commerce		
Department of Defense		
Department of Energy	X	
Department of Health and Human Services		
Department of Housing and Urban Development	X	
Department of Justice		
Department of Labor		
Department of the Interior		
Department of the Treasury		
Department of Transportation		
Department of Veterans Affairs		
Environmental Protection Agency		
Federal Reserve Board		
General Services Administration		
Government Printing Office		
National Aeronautics and Space Administration		
Naval Audit Service		
Nuclear Regulatory Commission		
Office of Personnel Management		
Railroad Retirement Board		
Small Business Administration		

# Remote Access to Office Desktop Computer

Twenty audit organizations reported 13 remote access tools. PC Anywhere and LapLink were the primary packages used. Formal classroom training generally is not required to use this software.

	Number of Organizations
Symantec PC Anywhere	11
LapLink	11
Reachout	4
Carbon Copy	3
Others used by only one	9
organization	

	PC			Carbon	
	Anywhere	LapLink	Reachout	Copy	Others
Air Force Audit Agency					
Army Audit Agency					
Central Intelligence Agency					
Defense Contract Audit Agency	X	Х			
Defense Intelligence Agency					
Department of Agriculture	X		X		Χ
Department of Commerce		Χ			
Department of Defense		Χ	X		Χ
Department of Energy	X	Χ			
Department of Health and Human Services		Χ			
Department of Housing and Urban Development	X			Х	Χ
Department of Justice	X				
Department of Labor	X	Х		Х	
Department of the Interior					Χ
Department of the Treasury					Χ
Department of Transportation					
Department of Veterans Affairs		Χ			Χ
Environmental Protection Agency					
Federal Deposit Insurance Corp.		X	X		
General Services Administration	X	Χ	X		
Government Printing Office					
National Aeronautics and Space Administration		Х			
Naval Audit Service	X				
Nuclear Regulatory Commission	X				
Office of Personnel Management	X				
Railroad Retirement Board	X				
Small Business Administration		Х		Х	

# Scanning Tools

Twenty audit organizations used 14 different scanning tools. OmniPage Pro was most frequently used. Formal classroom training generally is not required to use this software. The effectiveness of scanning depends on the photographic quality of the document being scanned. Scanning is a labor intensive process, especially if the scanner does not have an automatic page feeder.

	Number of Organizations
Caere OmniPage Pro	15
Calera WordScan	2
Quarterdeck Hijaak Pro	2
Hewlett Packard HP Scan	2
Others used by only one	10
organization	

	OmniPage	Calera	Hijaak	HP	
	Pro	WordScan	Pro	Scan	Others
Air Force Audit Agency	X				
Army Audit Agency	X				
Central Intelligence Agency	Х				
Defense Contract Audit Agency			X		
Defense Intelligence Agency	X				
Department of Agriculture					X
Department of Commerce					Х
Department of Defense	Х	Χ			
Department of Energy					
Department of Health and Human Services					
Department of Housing and Urban Development	X	Χ	X	Х	Х
Department of Justice	X				X
Department of Labor	X				Х
Department of the Interior					
Department of the Treasury					X
Department of Transportation	X				
Department of Veterans Affairs	X			Х	
Environmental Protection Agency	X				
Federal Deposit Insurance Corp.	X				
General Services Administration					
Government Printing Office					
National Aeronautics and Space Administration	X				
Naval Audit Service	X				
Nuclear Regulatory Commission					
Office of Personnel Management					Χ
Railroad Retirement Board	Х				
Small Business Administration					

## Spreadsheet

All twenty-seven audit organizations reported using spreadsheet software. Lotus 1-2-3 and Microsoft Excel were the most used among seven different spreadsheets identified. Online help features may be sufficient for beginning users to get started without formal training, but formal classroom training is recommended for use of advanced features.

	Number of
	Organizations
Lotus 1-2-3	18
Microsoft Excel	18
Corel Quattro Pro	9
Microsoft Works	2
Others used by only one	3
organization	

	Lotus		Quattro	Microsoft	
	<u>1-2-3</u>	Excel	<u>Pro</u>	<u>Works</u>	<u>Others</u>
Air Force Audit Agency		X			
Army Audit Agency		X	Χ		
Central Intelligence Agency		X		X	
Defense Contract Audit Agency		X			
Defense Intelligence Agency	X				Χ
Department of Agriculture	X		Χ		Χ
Department of Commerce			Χ		
Department of Defense	X	X	Χ		
Department of Energy		X			
Department of Health and Human Services	X		Х		
Department of Housing and Urban Development	Х	Х			
Department of Justice		X	Χ		
Department of Labor	X	X	Χ		
Department of the Interior	X		Χ		
Department of the Treasury		X			
Department of Transportation		X			
Department of Veterans Affairs	Х	Х			
Environmental Protection Agency	Х				
Federal Deposit Insurance Corp.	Х	Х			
General Services Administration	Х	X			
Government Printing Office	Х			Χ	
National Aeronautics and Space Administration	Х	X	Χ		
Naval Audit Service	X	Χ			
Nuclear Regulatory Commission	Х				
Office of Personnel Management	Х				
Railroad Retirement Board	X	Х			
Small Business Administration	X	X			

## Statistical Sampling

Twenty-three audit organizations reported 14 different statistical sampling packages. By far, SAS was the most used package. However, there was considerable use of statistical sampling software developed in-house by various Federal agencies. Often this software is used by specialists. Most auditors would benefit from both classroom and on-the-job training to effectively use this software. Formal classroom training is not required for very basic use of the software.

	Number of Organizations
SAS	14
DCAA E-Z-Quant	6
IDEA	5
HHS Ratstat	4
Army Audit Agency Software	3
Others used by only one	9
organization	

		DCAA		HHS	Armv	
	SAS	E-Z-Quant	IDEA	Ratstat	Audit	Others
Air Force Audit Agency						
Army Audit Agency	X				Х	
Central Intelligence Agency					Х	
Defense Contract Audit Agency	X	Χ				
Defense Intelligence Agency						
Department of Agriculture	X					Χ
Department of Commerce	X					
Department of Defense	X					
Department of Energy	X	Χ		Χ	Х	
Department of Health and Human Services				Х		
Department of Housing and Urban Development		Χ	X			
Department of Justice						X
Department of Labor	X					X
Department of the Interior	X		X			
Department of the Treasury			Х			
Department of Transportation						X
Department of Veterans Affairs	X			Х		Х
Environmental Protection Agency	X	Χ	X	Х		Х
Federal Deposit Insurance Corp.	X					
General Services Administration						
Government Printing Office						
National Aeronautics and Space Administration						Χ
Naval Audit Service	X					
Nuclear Regulatory Commission		Χ				
Office of Personnel Management	X					
Railroad Retirement Board	X					
Small Business Administration		X	X			

# Virus Detection

Twenty-six of the 27 audit organ izations reported 14 different virus detection programs in use. McAfee VirusScan was the most used software. This software generally runs automatically on the computer systems used by the auditors.

	Number of Organizations
McAfee VirusScan	12
Symantec Norton AntiVirus	6
IBM AntiVirus	4
Norman Data Defense System	2
LANDESK	2
Others used by only one organization	9

				Norman		
	McAfee	Norton	IBM	Data Defense		
	VirusScan	AntiVirus	AntiVirus	System	LANDESK	Others
	Tindoodan	7 4144 7 11 40	7 11 11 11 11 11 11	970.0	27.11.72.2011	0
Air Force Audit Agency			Х			
Army Audit Agency			Х			
Central Intelligence Agency	X					
Defense Contract Audit Agency		Х				
Defense Intelligence Agency			X			
Department of Agriculture	X	Χ			X	Х
Department of Commerce				X		
Department of Defense	X					
Department of Energy						Х
Department of Health and Human Services	X					
Department of Housing and Urban Development	X					
Department of Justice	X					
Department of Labor		Χ		Х		
Department of the Interior	X					
Department of the Treasury	X					
Department of Transportation						Х
Department of Veterans Affairs	X	Χ				Х
Environmental Protection Agency	X				Х	
Federal Deposit Insurance Corp.	X					
General Services Administration		Χ				
Government Printing Office						
National Aeronautics and Space Administration						Х
Naval Audit Service			Х			
Nuclear Regulatory Commission		Х				
Office of Personnel Management						Х
Railroad Retirement Board						Х
Small Business Administration	X					

## Word Processing

All 27 audit organizations use word processing software. Microsoft Word and Corel WordPerfect were about equally used, with only one other word processor mentioned. Online help features may be sufficient for beginning users to get started without formal training, but formal classroom training is recommended for use of advanced features.

Number	of
Organizat	ions

Microsoft Word	20	
Corel WordPerfect	19	
Microsoft Works	1	

	Microsoft	Corel	Microsoft
	Word	WordPerfect	<u>Works</u>
Air Force Audit Agency	X		
Army Audit Agency	X	X	
Central Intelligence Agency	X		
Defense Contract Audit Agency	X		
Defense Intelligence Agency	X	X	
Department of Agriculture		X	
Department of Commerce		Χ	
Department of Defense	X		
Department of Energy	X		
Department of Health and Human Services		X	
Department of Housing and Urban Development	X	X	
Department of Justice	X	X	
Department of Labor	X	X	
Department of the Interior	X	X	
Department of the Treasury	X		
Department of Transportation	X		
Department of Veterans Affairs	X	Χ	
Environmental Protection Agency		Χ	
Federal Deposit Insurance Corp.	X	Χ	
General Services Administration	X	X	
Government Printing Office		Χ	X
National Aeronautics and Space Administration	X	Χ	
Naval Audit Service	X	Χ	
Nuclear Regulatory Commission		X	
Office of Personnel Management		Χ	
Railroad Retirement Board	X		
Small Business Administration	X	X	