

# **Innovative Uses of Computer Audit Techniques and Continuous Auditing**

The 2001-2002 Research Project

Conducted by the Dallas Chapter of the Institute of Internal Auditors

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## TABLE OF CONTENTS

	<u>Page</u>
Introduction.....	3
Project Scope .....	3
Research Methodology .....	4
Data/Responses .....	5
Conclusion/Results .....	11
Acknowledgement .....	13
Appendix.....	14

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**Innovative Uses of Computer Audit Techniques and Continuous Auditing  
Institute of Internal Auditors Dallas Chapter**

**INTRODUCTION**

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The Institute of Internal Auditor’s Dallas Chapter Board of Governors approved ‘Innovative Uses of Computer Audit Techniques and Continuous Auditing’ as the research topic for the 2001-2002 term. According to the AICPA, “As e-business moves us to a world of real-time transactions and real-time reporting, we also need real-time, or continuous, auditing.” In addition, as stated in Montgomery’s Auditing, “Using the computer itself in the audit, by testing general control procedures or using computer software to test the programmed procedures that carry out accounting and control activities...has become all but essential in modern processing systems.” With this greater level of importance being placed on continuous auditing, the primary objectives of this research project is to increase awareness of computer audit techniques and continuous auditing through analysis of the use of such techniques by internal audit departments, to identify the tools being used, and to identify the benefits realized by companies using these techniques and tools. Furthermore, this research project will provide value to the chapter’s members through sharing of information and enabling them to benchmark their practices to the practices of other leading companies in the Dallas/Fort Worth area.

**Project Scope:**

Research was obtained from 20 companies of various sizes located / headquartered in the Dallas/Fort Worth area that are represented in the Institute of Internal Auditor’s Dallas Chapter. Information obtained from the surveyed companies includes each of their specific uses, tools, and benefits of computer audit techniques and continuous auditing.

The main discussion areas in the report are as follows:

- Research Methodology – detailed research procedures
- Data / Responses – information gathered in the form of tables, charts, and graphs
- Conclusion / Results – analysis of the responses obtained

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**RESEARCH METHODOLOGY**

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**Research Methodology:**

A survey consisting of thirteen questions, regarding the use of computer audit techniques and continuous auditing and their resulting benefits, was developed by the core research team. Questions regarding demographic information were also included in order to identify the individual respondent's level of responsibility, as well as the size of the company and its internal audit department. This questionnaire was placed on the Dallas Chapter's website and participation was solicited in the monthly newsletter and chapter meeting. Of the 130 companies represented in the IIA Dallas Chapter, twenty responded to the survey. After responses were received from these chapter members, more detail was obtained from specified respondents. Results of the survey were then analyzed to highlight the extent to which companies actually use computer audit techniques and continuous auditing, the most common tools used, as well as the wide range of benefits obtained by those companies using these techniques. A copy of the survey is included in the Appendix.

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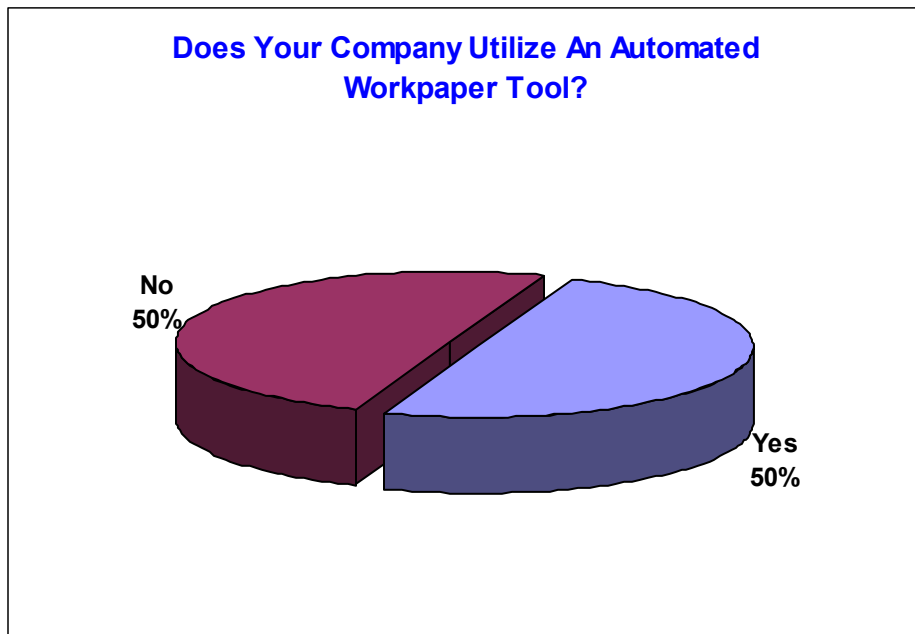
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**DATA/RESPONSES**

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**Responses:**

Of the 130 companies in the Dallas IIA chapter, twenty or 15% responded to the survey. The following graphs illustrate their responses:



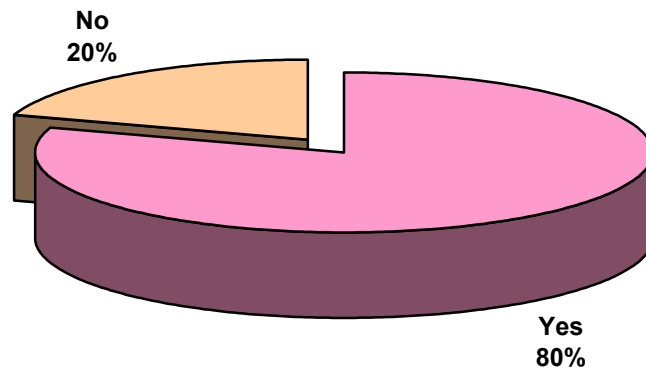
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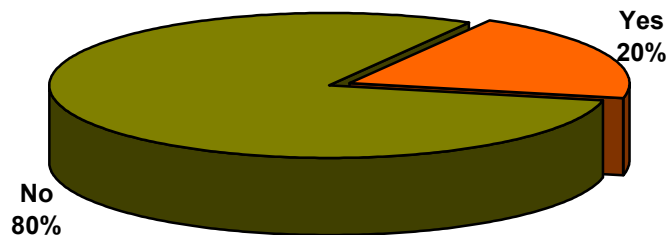
**DATA/RESPONSES**

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**If Your Company Utilizes An Automated Workpaper Tool, Is It Mandatory That You Use It?**



**If Your Company Utilizes An Automated Workpaper Tool, Does It Fully Replace Your Paper Files?**

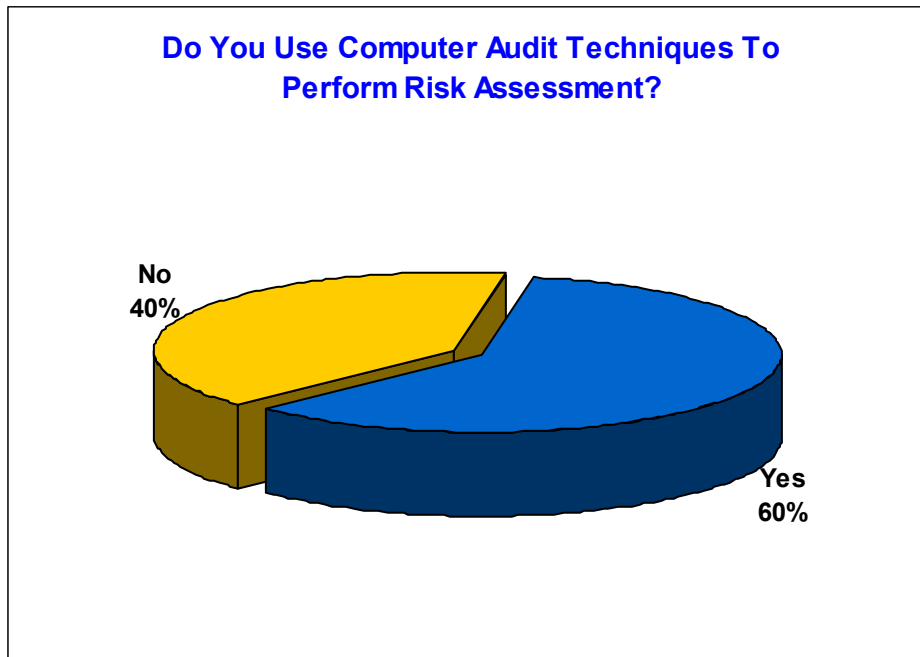
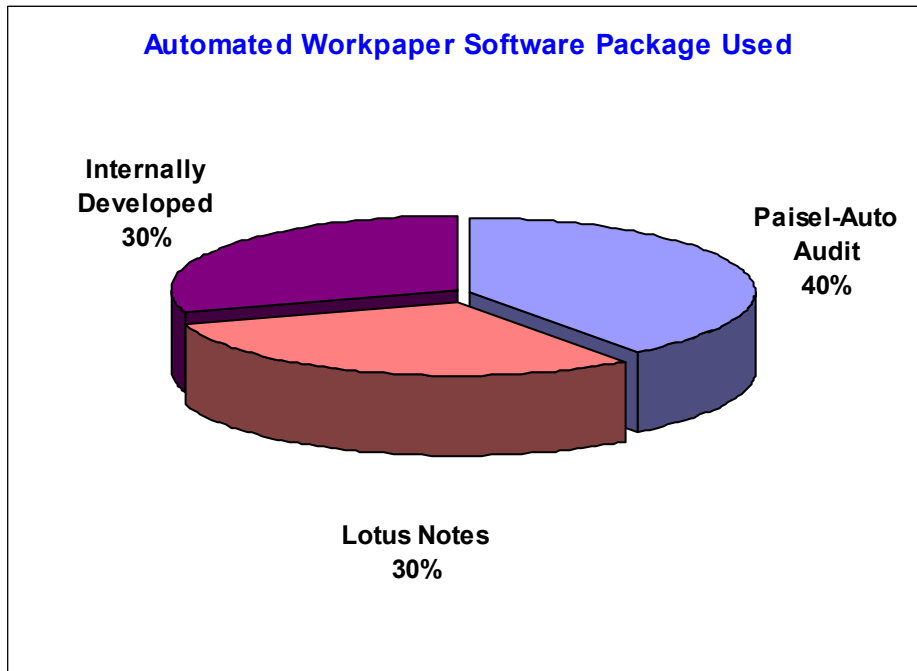


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Institute of Internal Auditors Dallas Chapter**

**DATA/RESPONSES**

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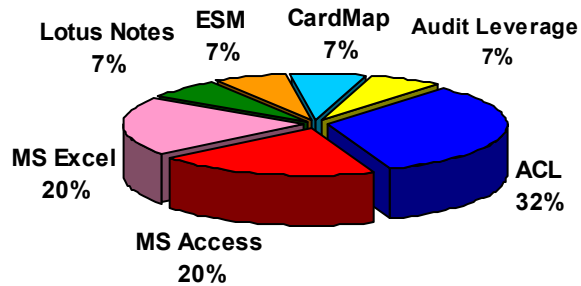
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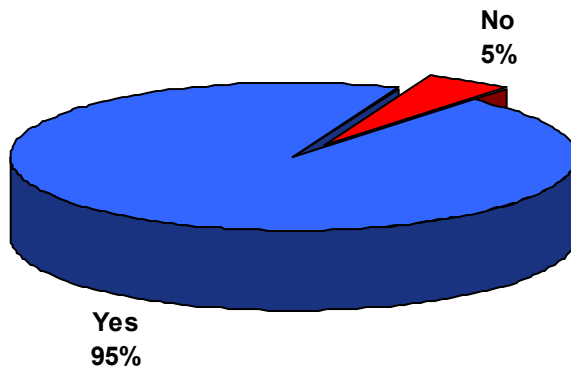
**DATA/RESPONSES**

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**Which Software(s) Do You Use To Perform Your Risk Assessments?**



**Does Your Company Have A Follow-Up Program To Monitor Audit Results and Management Actions?**

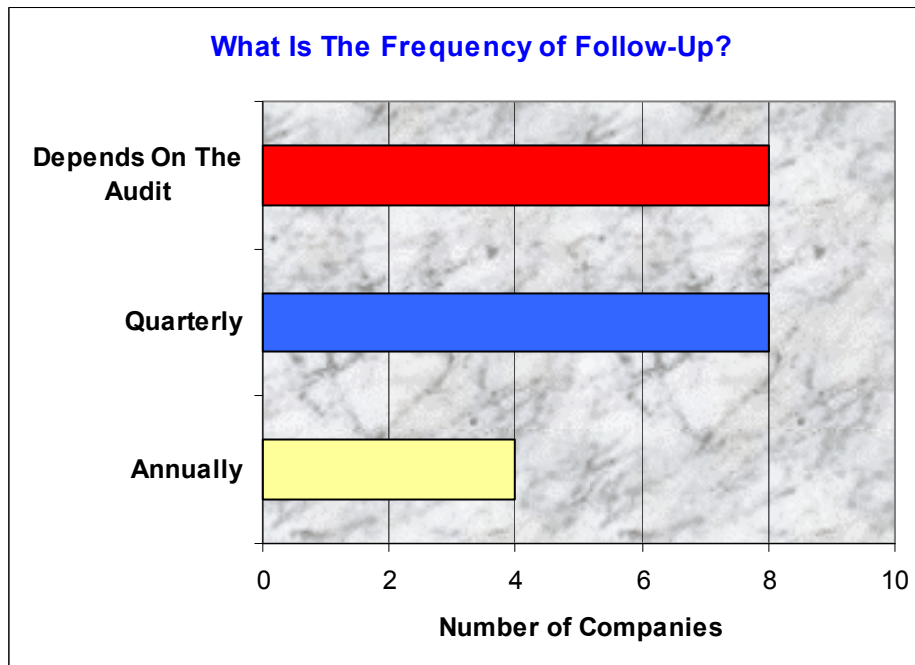
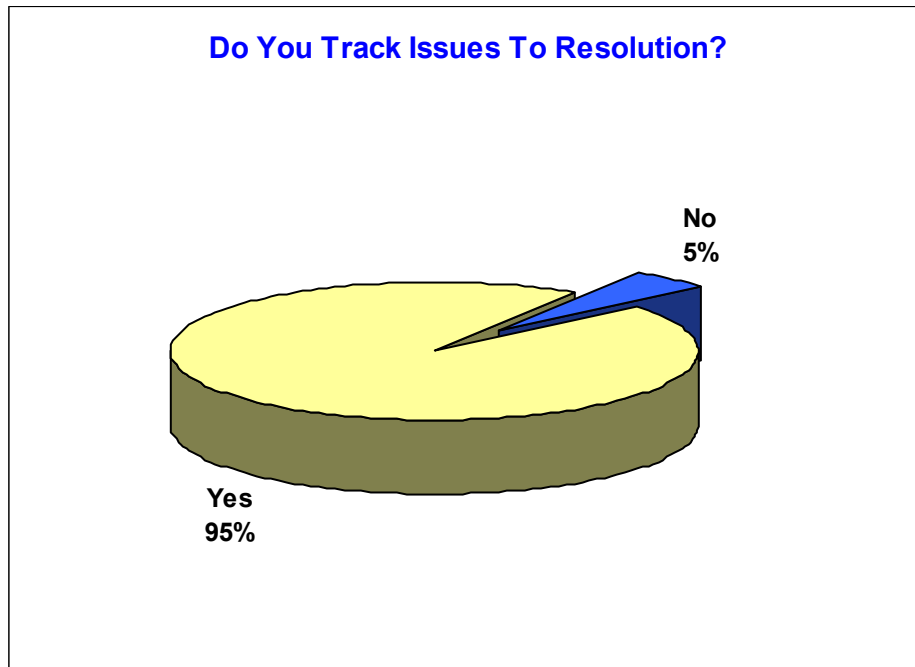


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**DATA/RESPONSES**

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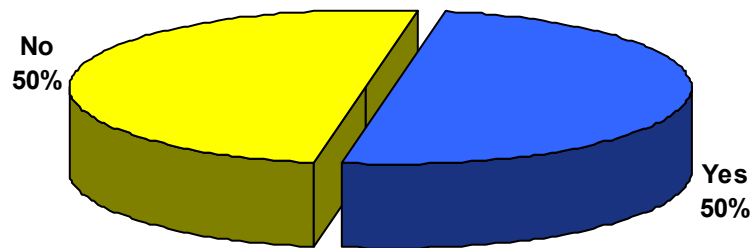
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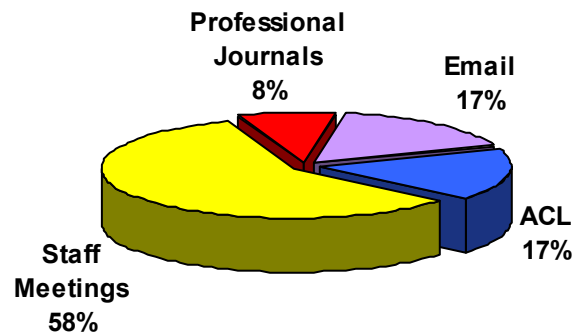
**DATA/RESPONSES**

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**Do You Have A Continuous Auditing Program?**



**What Tools Do You Use To Monitor and Stay Informed About Your Auditees' Business?**



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**CONCLUSION/RESULTS**

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The survey indicates that computer assisted audit techniques are used extensively by some audit groups, however, it may not be used as much as might have been expected. No matter what technique or tool is used, auditor analysis and interpretation is key. As noted in the Internal Auditor's seventh annual software survey "Software does not replace good auditing. Indeed, skills such as the ability to understand, interpret, and think critically about information will always be the most essential components of the auditor's toolkit".

**Automated Workpaper Tool:**

Fifty percent of the survey participants indicate that they use an automated workpaper tool. Of those using automated workpapers, 80 percent report that it is mandatory to use the tool and that the automated workpapers fully replace paper files.

Most respondents indicate they use either Auto Audit or a Lotus Notes application, with the remainder using an internally developed system.

**Risk Assessment:**

The majority of respondents – 60 percent – indicate that they use computer audit techniques to perform risk assessments. The software tools most widely used are ACL, MS Access and MS Excel.

**Follow-Up Program:**

The vast majority of companies surveyed – 95 percent – have a follow-up program to monitor audit results and management actions. In addition, these companies track follow-up issues to resolution. Survey results indicate that 40 percent of the respondents perform quarterly follow-up and 20 percent perform annual follow-up. The remainder of the participants responded that follow-up is based on expected completion date of action items and/or the severity of the issue.

Most of the respondents with automated workpapers indicate they have automated the follow-up process by electronically tracking unresolved issues and using email notifications to prompt action. The participants indicate that email is an integral part of the follow-up process. In addition, depending on the magnitude of the finding, they follow-up with discussion, observation, and/or testing.

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Institute of Internal Auditors Dallas Chapter**

**CONCLUSION/RESULTS**

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**Continuous Auditing Program:**

Fifty percent of the survey respondents indicate that they have a continuous auditing program. The majority of the respondents – 58 percent – meet with client management to monitor and stay informed about their clients business. Other resources used to keep abreast of current issues include ACL, email, client operating and financial information, and professional journals.

**Benefits:**

Benefits noted by respondents fell into two categories:

Data mining and analysis:

- Automated tools allow vast amounts of data to be analyzed to identify anomalies.
- Sampling is increased to 100%.
- Speed and accuracy are increased.

Consistency and communication:

- Software tools provide a consistent, structured, well-documented methodology.
- Auditors in geographically dispersed areas are able to easily share information and a significant amount of fieldwork can be performed from the home office.

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Institute of Internal Auditors Dallas Chapter**

**ACKNOWLEDGEMENT**

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**Participants:**

We would like to thank the following companies for participating in the survey:

AAFES	Federal Home Loan Bank of Dallas
Alcatel USA, Inc.	Federal Reserve Bank of Dallas
Arthur Andersen	JCPenney
BHCS	JPMorgan Chase & Co.
Citigroup	Nortel Networks
City of Denton	Rockwell Collins
Credit Suisse Group	Sabre
DART	Triad Hospitals, Inc.
EDS	TXU Corp.
Excel Communications	University of Texas, Dallas

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Institute of Internal Auditors Dallas Chapter**

**APPENDIX**

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*Innovative Uses of Computer Audit Techniques and Continuous Auditing*

We are excited to be researching this topic because it will benefit every internal auditor and company.

You can use the results to benchmark your company's implementation of computer audit techniques:

- Are you an early implementer? The results can reinforce your decision and tell you about possible additions to your toolbox.

- Is your company slow to adopt? We will identify benefits to help you support an implementation plan.

You will also learn about the techniques and advantages of continuous auditing.

Then you can use the research as a basis to start or fine tune your company's program.

Thank you for participating in the annual research project.

Does your company utilize an automated workpaper tool?  Yes  No

Is it mandatory within the company?  Yes  No

Software package: \_\_\_\_\_

Does it fully replace paper files?  Yes  No

Do you use computer audit techniques to perform risk assessments?  Yes  No

What tools: \_\_\_\_\_

What are the benefits: \_\_\_\_\_

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Institute of Internal Auditors Dallas Chapter**

**APPENDIX (Continue)**

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Does your company have a follow-up program to monitor audit results and management actions?

Yes  No

Do you track issues to resolution?  Yes  No

What is the the frequency of follow-up?  Quarterly  Annually  Other:

\_\_\_\_\_

Briefly describe follow-up actions (email, testing, etc):

\_\_\_\_\_

\_\_\_\_\_

A continuous auditing program can involve regular meetings with auditees, monitoring key performance indicators, or other ongoing processes to select audit scope throughout the audit cycle based on risk factors.

Do you have a continuous auditing program?  Yes  No

What tools do you use to monitor and stay informed about your auditees' business?

\_\_\_\_\_

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Thanks again for your participation in the Dallas IIA research project. Please let us know your name and employer so we can properly catalog the results:

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Title/Position: \_\_\_\_\_

May we contact you if we need follow-up interviews?  Yes  No

Phone number: \_\_\_\_\_

Email: \_\_\_\_\_