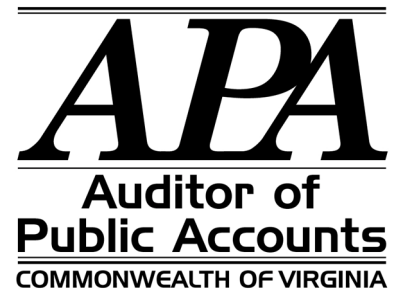


Data Reliability and Quality Assurance

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OBJECTIVES

- Define Data Reliability
- Current Standards
- Proposed Standards
- Key Factors to consider in data reliability
- Documentation

DATA RELIABILITY

An auditor's job is to complete complex audits on or under budget while complying with professional standards including:

- [SAS No. 94](#), The Effect of Information Technology on the Auditor's Consideration of Internal Control in a Financial Statement Audit
- [SAS No. 99](#), Consideration of Fraud in a Financial Statement Audit

DATA RELIABILITY

- eCommerce and other initiatives have changed many traditional business practices
- Many economic events are captured, measured, recognized, and reported electronically without any paper-based trail
- Data is stored in many different methods and in a variety of different forms
- The convergence of electronic processes toward real-time financial management is displacing traditional audit methods with 'smart' electronic analytics and continuous auditing techniques
- Auditors are facing increased pressure for efficiency and demands to increase value

DATA RELIABILITY

- *Data reliability* refers to the accuracy, consistency and completeness of computer-processed data, given the intended purposes for use. Data is reliable when it is *complete* (it contains all of the data elements and records needed), *accurate*, (it reflects the data that was entered at the source, or if available in the source documents) *and consistent* (it is entered and coded the same way over time and across different locations). (GAO)

DATA RELIABILITY

Validity and reliability of data includes:

- Controls over the validity and reliability of data include policies and procedures that officials of the audited entity have implemented to reasonably ensure that valid and reliable data are obtained, maintained, and fairly disclosed in reports.

DATA RELIABILITY

Current Standards –

- Auditors should obtain sufficient, competent, and relevant evidence that computer-processed data is valid and reliable when this data are significant to the auditor's findings. (GAS 7.59)

PROPOSED STANDARDS

- When computer-processed or electronically stored information comprises part of the collective evidence used to support findings, conclusions, and recommendations, assessing the appropriateness of the information requires additional procedures and specific documentation. Auditors should determine whether computer-processed or electronically stored information, regardless of their source, are appropriate when significant to the auditors' findings.

PROPOSED STANDARDS

- This determination should be made whether information is obtained in hardcopy format or electronically. Auditors should not conclude that information is appropriate without performing an assessment simply because information was obtained from a computer-based system. The goal is to assess whether the information is appropriate based on the audit objectives and the use of the information to answer the audit objectives. (GAS 7.61.3)

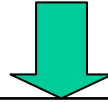
KEY FACTOR:

*GAIN AN UNDERSTANDING OF THE ENTITY
AND/OR CYCLE*

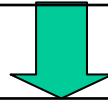
- **Comprehension**
 - **What** is done, **when**, in what **sequence**, **where**, and by **whom**
 - Level of system understanding
 - Identification of controls
- **Communication**
 - With management or other users
- **Evaluation**
 - Identify patterns
 - Identify control strengths and weaknesses

PLANNING

Define the objectives of the test



Identify the most appropriate file



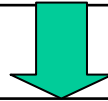
Define the criteria/parameters of the test



Select the appropriate tool



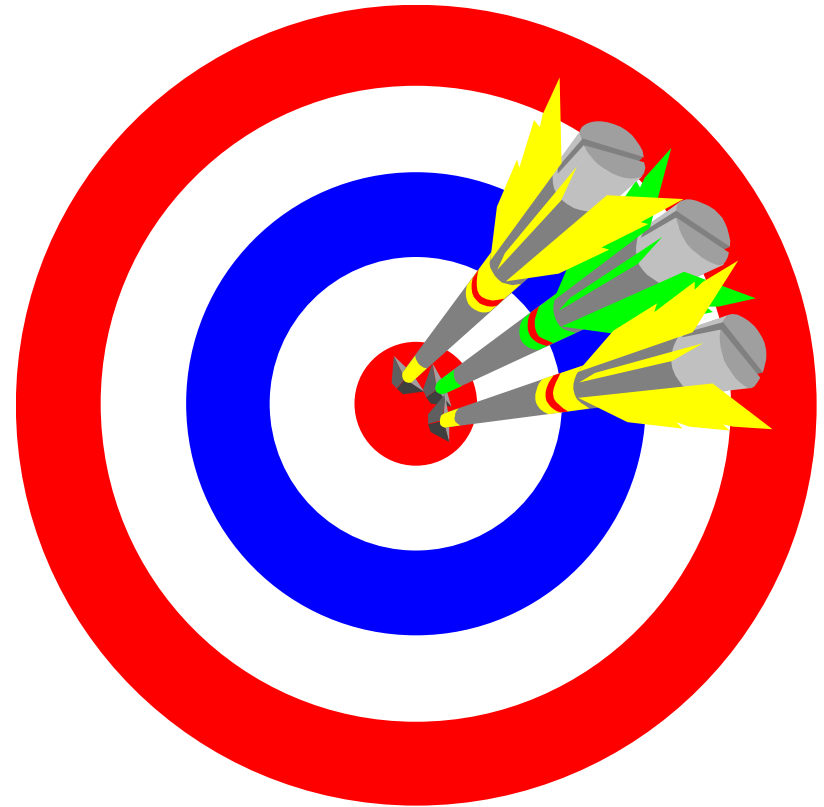
Develop downloading and integration procedures



Develop procedures to ensure data integrity

DATA EXTRACTION AND ANALYSIS

- Faster Data Analysis and Reporting
- Improved Data Integrity
- Expanded Application System Knowledge
- Improved Security at the Application Level



DATA EXTRACTION AND ANALYSIS - Benefits

- Provides an economic means of performing necessary audit steps,
- Facilitates the use of more effective audit procedures,
- Allows for timely performance of audit procedures,
Expands capabilities of limited staff resources,
Enhance auditor understanding of auditee systems,
- Permits execution of multiple audit steps simultaneously, and reduce total audit costs.

DATA EXTRACTION AND ANALYSIS - Precautions

- Requires a degree of skill to use
- Initial set up costs/time can be high
- Adaptation often needed from machine to machine
- Without specified test objectives time can be wasted querying the data
- Inaccurate results may be relied upon

AUDIT EVIDENCE

- The use of any automated tool should be controlled by the auditor to provide reasonable assurance that the audit objectives and the detailed specifications of the test have been met.

THE AUDITOR SHOULD:

- Perform a reconciliation of control totals
- Review output for reasonableness
- Perform a review of the logic, parameters or other characteristics of the tool

RETRIEVAL EXAMPLE:

- SCT Banner
- Currently 7 of 14 Virginia schools have implemented Banner Financials.
- These are uploaded in summary to the statewide system
- Controls and authorizations occur at the source system

RETRIEVAL EXAMPLE

- Chart of Accounts
- Request table dumps
- Re-establish data internally
- Tie control totals (records and \$ to trial balance)
- Run exceptions and trend reports using 100% of the data

Did I mention Documentation?

Ensure a Comprehensive Audit trail:

Document a complete history of your procedures and findings at every step.

DOCUMENTATION

Specifically, the audit workpapers should contain sufficient information to enable an experienced auditor, who has no previous connection with the audit to ascertain from the documentation that the evidence supports the auditors significant judgments and conclusions

PLANNING

Documentation should include:

- Objectives
- Scope
- Applications and/or tools to be used
- Controls to be tested
- Anticipated results

EXECUTION

Documentation should

- Preparation, procedures and controls
- Details of the tests performed
- Details of inputs (e.g., file layouts), transaction process (high-level flowcharts, logic) and outputs (e.g., reports)
- Listing of relevant parameters

CONCLUSION

Documentation should include:

- Output produced
- Description of the audit analysis work performed on the output
- Basis for audit findings
- Basis for audit conclusions
- Basis for audit recommendations

**IT'S IMPORTANT TO
VERIFY YOUR WORK!**

