



# P24

## Best Practices for Data Access

*Back to Business*

# Agenda

---

- Importance of Data Access
- The Current Data Environment
- Role of Audit Leadership
- Role of Data Analysis Specialist
- Documentation



# The Importance of Data Access

***Back to Business***

# Importance of Data Access

---

## Foundation for success and growth

- Independence
- Confidence in data
- Expansion of scope
- Increased productivity
- Greater timeliness



# The Current Data Environment

***Back to Business***

# Complexity

---

- Diversity of applications
- Vast number of platforms
- Mergers and acquisitions
- Overlaps and gaps
- Massive data volumes

# Opacity

---

- Lack of comprehensive/centralized oversight
- Inconsistent documentation standards
- Strong security requirements
- Lack of portals for data access

# Culture

---

- Not accustomed to audit access
- Not prepared for audit access
- Unaware of power of desktop analytical apps
- Accountability for data security





# The Role of Audit Leadership

*Back to Business*

# To-Do List for the CAE

---

- Embed universal data access in audit charter
- Active, visible support for process owner
- Budget for software, training, servers and security compliance
- Create DA specialist role
- Documented expectations, standards, and timelines for specialist

# Audit Charter: Universal Data Access

---

“The Internal Audit team is authorized by the Audit Committee to:

- Have *unrestricted access* to all premises, corporate records, information and personnel;
- Require any officer of the company to supply such information and explanations as may be needed; ...”

# Active and Visible Support

---

- Introduce DA specialist to key data owners
- Reinforce DA specialist's message when challenged
- Acknowledge contributions of data owners

# Budget

---

- Basic software and support
- Software add-ons
- Training
- Dedicated server(s)
- Connectivity
- Physical security
- Logical security

# Create DA Specialist Role

---

- Primary focus on data analysis
- Clear and unique accountability
- Employee preferable
- Knowledgeable
- Experienced

# Documented Deliverables

---

- Priorities
  - Derived from audit plan/risk assessment
  - Review with audit team
- Standards
  - Documentation
  - Repository
- Maintenance
  - Regular review



# The Role of the Data Analysis Specialist



# DA Specialist Role

---

- Relationships with data owners
- Data access procedures
- Documentation
- Train the IA team
- Develop analytics

# Managing Your Data Owner Relationships

---

- Know the person/role
- Know the data
- Articulate your objectives
- Be prepared to address challenges

# Know the Person/Role

---

- Length of time in current position
- Career history
- Previous audit encounters
- Major achievements
- Accountabilities
- People on his/her team

# Know the Data

---

- Production/warehouse
- Database
- Key tables and fields
- Unusual data types
- PCI/PII/Confidential/Restricted data

# Articulate Your Objectives

---

- Access to the data
- READ and SELECT access
- Sufficient spooler capacity
- Metadata
- Added to distribution list

# Your First Contact

---

- E-mail allows recipient time to consider
- Identify yourself and your mission
- Identify what data you need
- Explain how you will access/extract data
- Identify supporting features of your DA tool
- Request a meeting

# Your First Meeting

---

- Recap your e-mail
- Address challenges
- Demonstrate DA tool access method
- Present name of technical contact at tool HQ
- Explain audit data retention policy
- Ask for name of key contact

# Typical Challenges and Your Response (1)

---

## The Challenges

“We’re concerned about the integrity of our data.”

“We’re worried that the data may be vulnerable in your server.”

“Why don’t you just ask us for the reports you need?”

## Your Responses

“Our application is read-only, and we cannot write to the source database.”

“Here are the security precautions we will be following.”

“We want to minimize the impact on your department’s resources.”



# Typical Challenges and Your Response (2)

---

## The Challenges

“This is going to add to network traffic.”

“This is going to add to network traffic.”

“This is going to add to network traffic.”

## Your Responses

“Let us know the best days/times for extracting the data.”

“How about monitoring our use and placing it in a low priority?”

“We’ll be filtering the data and pulling only the fields we need.”



# Documentation

# What To Include

---

- Corporate data matrix
- Technical documentation
- User documentation
- Data source guide

# Corporate Data Matrix

---

- Basic information by BU and process
- Working document basis for data source documents
- Good document for IA team to learn data geography

# Corporate Data Matrix Example

	Item	Org 1	Org 2	Org 3
<i>Business Area</i>	<b><u>Accounts Payable</u></b>			
	<b>System Name</b>	Oracle Financials	Teradata	SAP
	<b>Resource(s)</b>	Diana Delphi	Vishal Gupta	Hans Datameister
	<b>Database</b>	OrcFin1	TD_A100	SAP_AP_057
	<b>Data Dictionary</b>	<a href="http://www.corpdata.com/OracleFin.pdf">www.corpdata.com/OracleFin.pdf</a>	None	None
	<b>Access Method</b>	ODBC-ACL/Arbutus	Teradata SQL Assistant	Direct Link-ACL
	<b>Analytic Application</b>	Arbutus/ACL	Arbutus/ACL	Arbutus/ACL
	<b>Key Tables</b>	AP_AE_Lines_All AP_AE_Headers_All	dim_payables dim_vendors	BSEG, BKPF, LFA1
	<b>Notes</b>	Headers contain dates, lines do not.	Use SQL Joins with filters; extract to .txt for ACL import.	Column titles are truncated when exported from ACL; use alternate names.

# DA Application Documentation

---

- User documentation
  - User guide
  - Sample projects/data
  - Best practices guide
- Technical documentation
  - Specifications
  - Requirements

# Data Source Guide

---

- Expands on basic information in matrix
- Step-by-step data access guide
- Key table layouts
- Create in Word with change date embedded
- Save as PDF for library

# Data Source Guide: Key Information

---

- System name
- Organization
- Key databases
- Data content
- Owner
- Server
- Network access
- Information resources
- Training
- User guide
- Data dictionary
- Key tables and fields
- Table relationships
- Data access methods



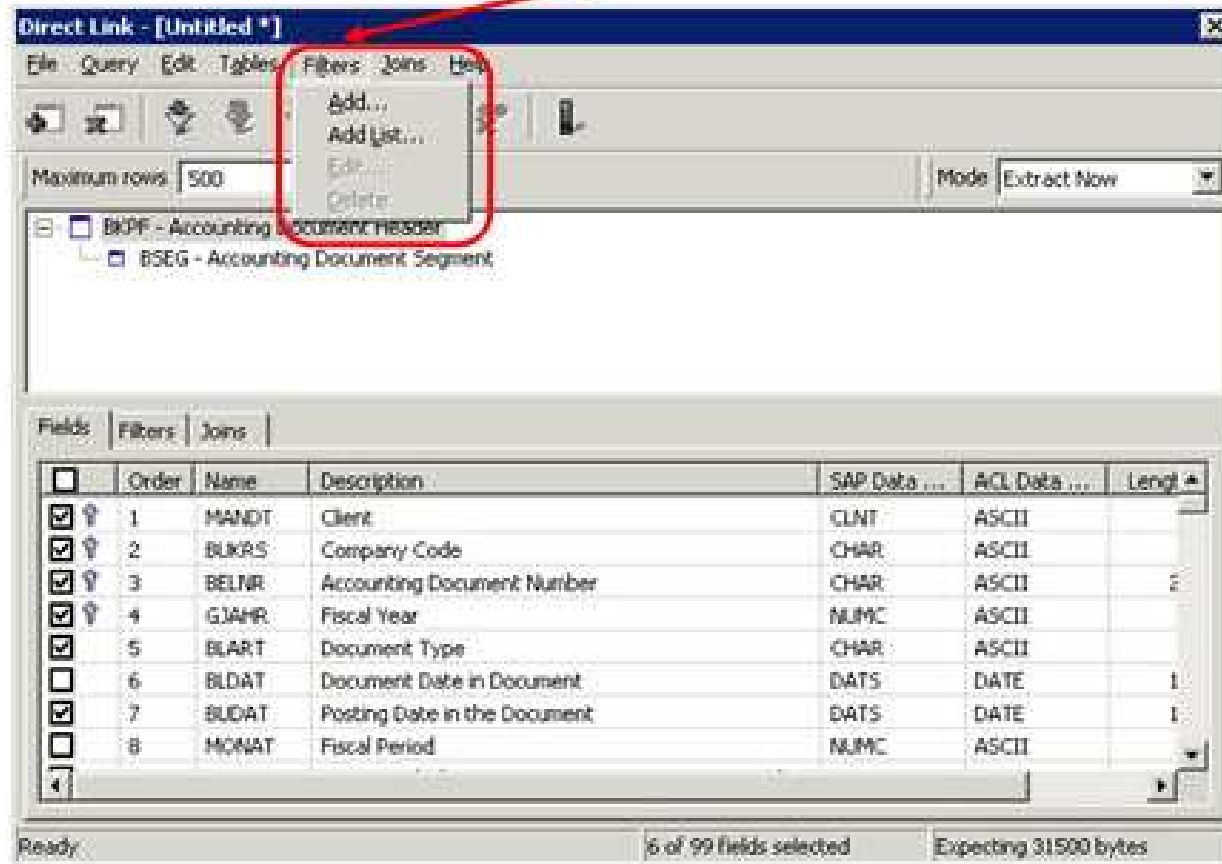
# Step-by-Step Data Access

---

- Screen shot for every step
- Use red arrows, boxes to direct user
- Detailed text explaining process step

# Step-by-Step Data Access

To add filters to the query, go to Filters >> Add:



The screenshot shows the SAP Direct Link interface. The 'Filters' menu is open, and the 'Add...' option is highlighted with a red box and a red arrow pointing to it. The main window displays a tree view of data sources: 'BSPF - Accounting Document Header' and 'BSEG - Accounting Document Segment'. Below this, the 'Fields' tab is active, showing a list of fields with their descriptions and data types. The status bar at the bottom indicates '6 of 99 fields selected' and 'Expecting 31500 bytes'.

Order	Name	Description	SAP Data ...	ACL Data ...	Length
1	MANDT	Client	CLNT	ASCII	
2	BUKRS	Company Code	CHAR	ASCII	
3	BELNR	Accounting Document Number	CHAR	ASCII	
4	GJAHR	Fiscal Year	NUMC	ASCII	
5	BLART	Document Type	CHAR	ASCII	
6	BLDAT	Document Date in Document	DATS	DATE	1
7	BUDAT	Posting Date in the Document	DATS	DATE	1
8	MONAT	Fiscal Period	NUMC	ASCII	

# Import Scripts

---

- Arbutus/ACL syntax with comments
- Preserves best practices for data imports

# Import Scripts

## SCRIPTED IMPORTS: ACL Import Syntax for Delimited Files

Line	Syntax	Explanation
1	<pre>IMPORT DELIMITED TO &lt;destination table name&gt; "&lt;destination file name (.fil)&gt;" FROM "&lt;source file name and address&gt;" 0 SEPARATOR "&lt;field separator/delimiter&gt;" QUALIFIER "&lt;text qualifier&gt;" CONSECUTIVE STARTLINE &lt;line number&gt; KEPTITLE FIELD "&lt;field name&gt;" &lt;field type&gt; AT &lt;starting position&gt; DEC &lt;number of decimals&gt; WID &lt;field length&gt; PIC "&lt;format&gt;" AS ""</pre>	<p>SEPARATOR: Recommended field delimiter is pipe " "</p> <p>STARTLINE: The line on which the data begins. If field/column names are imported, this parameter is usually 2, as the first line is reserved for the column names.</p> <p>KEPTITLE: Use the original database's field names for the ACL field names.</p> <p>&lt;field type&gt;: Usually C, N, or D (character, numeric, or date)</p> <p>PIC "&lt;format&gt;" is important for date fields. The format should reflect the source database's date format, e.g., "MM/DD/YYYY"</p>

# Key Table Layouts

---

- Use DISPLAY on Arbutus/ACL command line
- Copy + Paste from Command Log to Word/Excel
- Add comments where needed

# Key Table Layouts

## File

'EXTR01.FIL' (format 'EXTR01') is your PRIMARY file.

The record length is 43

## Fields

Name	Type	Start	Length	Decimals	Field explanation
LFA1_XZEMP	ASCII	1	1		AS "Vendor Master (General Section);Indicator: Alternative payee in document allowed ?"
LFA1_XLFZA	ASCII	2	1		AS "Vendor Master (General Section);Indicator: Alternative payee using account number"
LFA1_XCPDK	ASCII	3	1		AS "Vendor Master (General Section);Indicator: Is the account a one-time account?"
LFA1_WERKS	ASCII	4	4		AS "Vendor Master (General Section);Plant (Own or External)"
LFA1_WERKR	ASCII	8	1		AS "Vendor Master (General Section);Indicator: plant level relevant"
LFA1_VBUND	ASCII	9	6		AS "Vendor Master (General Section);Company ID of Trading Partner"
LFA1_UPTIM	ASCII	15	6		AS "Vendor Master (General Section);Time of Last Change Confirmation"
LFA1_UPDAT	DATE	21	8		PICTURE "YYYYMMDD" AS "Vendor Master (General Section);Date on Which the Changes Were Confirmed"
LFA1_TXJCD	ASCII	29	15		AS "Vendor Master (General Section);Tax Jurisdiction"

# Final Notes

---

- Maintain relationships with data owners and resources
- Get on distribution lists
- Update documentation regularly
- Proactively seek out data sources for future audits
- Remember: You're investing in the future!

# QUESTIONS?

---

Michael Kano

Audit Tools and Automation Specialist

[mkano@ebay.com](mailto:mkano@ebay.com)

(408) 967-3681