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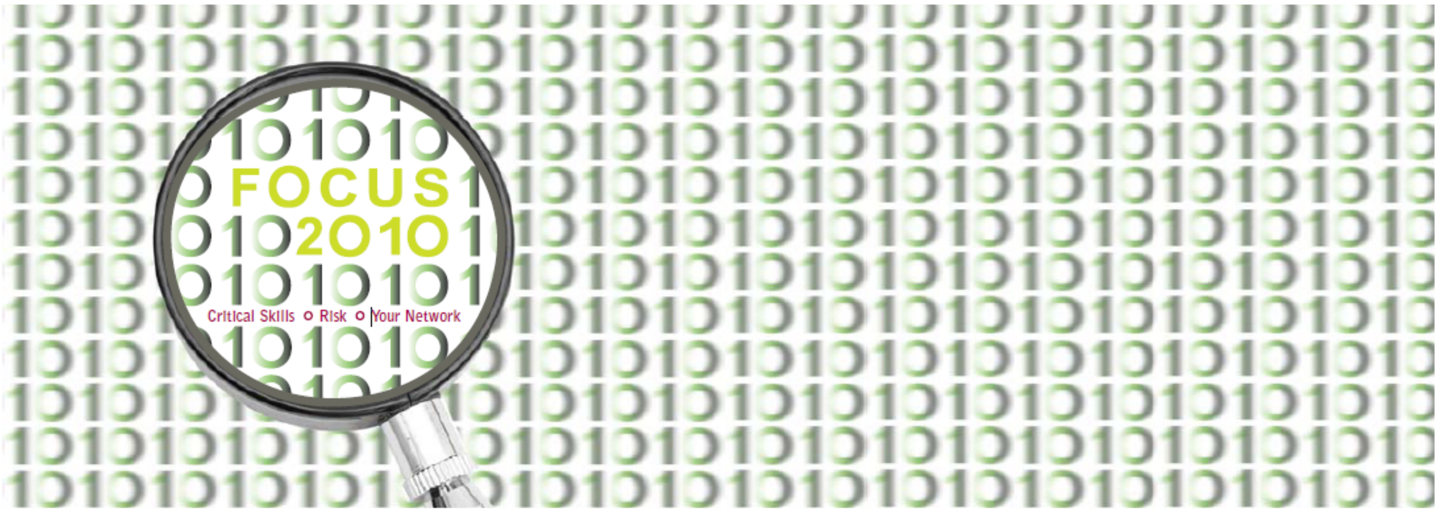

C31: Introduction to Application Controls: SAP and JD Edwards

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Introduction to Application Controls

SAP and JD Edwards

Presentation Overview

- Introductions
- Application controls overview
- Application control testing techniques
- SAP application controls
- JD Edwards application controls
- Questions

Introductions

- Sarah Thompson – Manager, Risk Assurance Services (RAS), PwC SF, CA
- K. C. Fike – Manager, Forensic Technology Solutions Group, PwC SF, CA

What is an application control?

- Simply put: automated control procedures or manual controls that are dependent on IT.
- More specifically, when IT is used to initiate, authorize, record, process, or report transactions or other financial data for inclusion in the financial statements, the systems/programs may include controls related to the corresponding assertions for significant accounts or disclosures or may be critical to the effective functioning of manual controls that depend on IT. These are **application controls**.

Benefits of application controls

- Increase efficiency of audit and testing process
- Decrease of business risk due to human error
- Increased efficiency within business due to automation

Identification and implementation of application controls

- Identify key risks to your audit/review
- Perform walkthroughs over relevant/significant business processes
  - Understand how information flows through the application
  - Ensure retention of relevant evidence
- Avoid redundant/non-key controls

Application control testing techniques

- "Test of one" to see all aspects of the control operate
- Techniques to perform this:
  - Evidence from walkthrough procedures
  - Executing sample transactions and comparing to expected results
  - Evaluating the logic of the program through the inspection of system configuration or vendor documentation

Impact of IT General controls

- Overall, what accounts have the ability to make changes to application controls?
- How are changes (i.e. change management) made to application controls?
- Have ITGCs been tested and found to be operating effectively?
  - If not, where were exceptions/deficiencies noted and can those be tied to application controls

SAP application controls - Scoping

- Version and modules utilized
  - Version 4.6c, ERP 6.0, etc
  - PP, MM, FICO, etc
- General security environment
- Level of customization and custom developed programs

SAP application Controls – Scoping (cont. additional SAP modules)

Revenue and Receivables
- SD Sales Distribution
- FI Accounts Receivable

Purchasing and Payables
- MM Materials Management
- FI Accounts Payable
- QM Quality Mgmt

Production Costs
- PP Production Planning
- MM Materials Management
- FI Production Costs
- CO Controlling
- PM Plant Maintenance

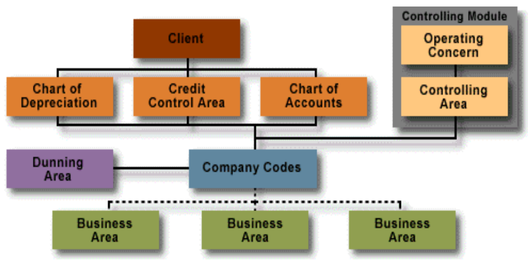
Inventory
- IM Inventory Management
- MM Materials Management
- WM Warehouse Management
- FI Financial Accounting
- QM Quality Mgmt

Fixed Assets
- AM Asset Management
- FI Financial Accounting

Financial Reporting
- FI Financial Accounting
- CO Controlling

SAP application controls - Scoping (cont)

- The SAP organizational structure is an integral part to understanding where to audit:



SAP application controls – Scoping (cont.)

- It is necessary to clarify which company codes are significant to the audit
  - SAP configuration is company code specific
  - The company code is key in SAP data extraction procedures
  - The company code is a key attribute in consolidation mapping

SAP application controls - Evaluation

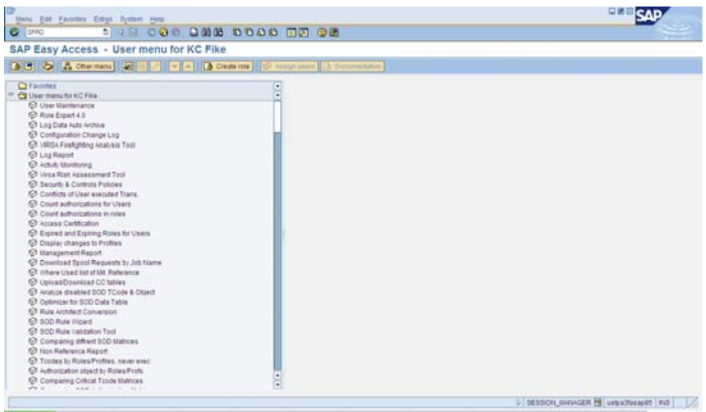
- SAP is a very complex ERP as such, there are multiple ways to view automated controls
  - Through the use of transaction codes (referred to as "t-codes")
  - Digging down into the Implementation Guide (referred to as "the IMG")
  - Viewing data through tables via SE16 – Data browser or SE16N – Table display

SAP application controls - Example

- Invoice tolerance limits
  - Ensure that SAP is configured to check each item for price variances between the purchase order and the invoice
- Focusing on company code 0005 and tolerance key PP – Price variance
- Will utilize the IMG, t-code, and SE16

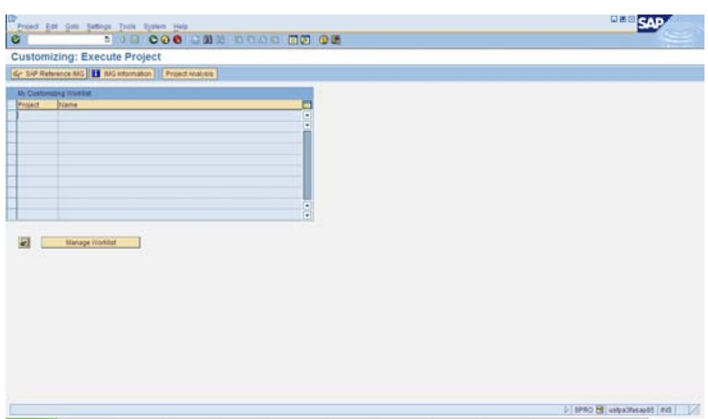
SAP application controls – IMG Example

- SAP start screen – Notice “SPRO”



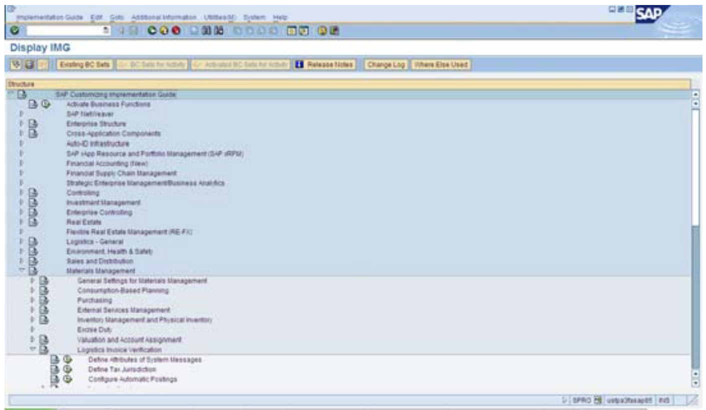
SAP application controls – IMG Example

- Screen is prior to IMG, click “SAP Reference IMG”



SAP application controls – IMG Example

- Now we're in the IMG



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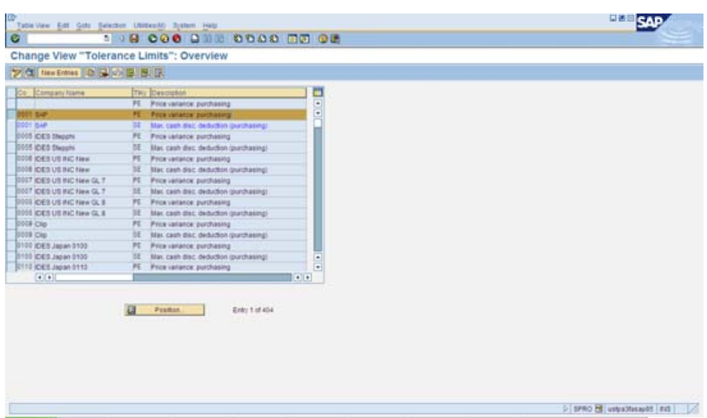
SAP application controls – IMG Example

- Drill down into the invoice tolerance limit



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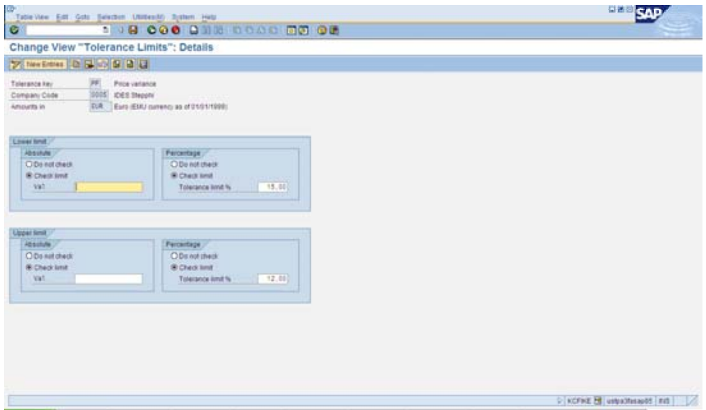
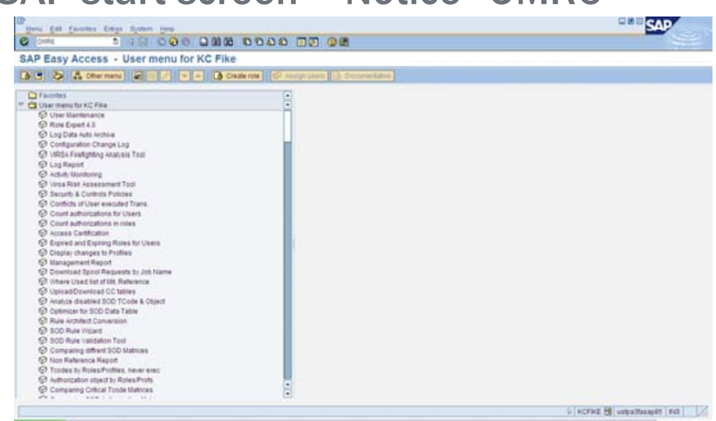
SAP application controls – IMG Example

- Tolerance limits defined



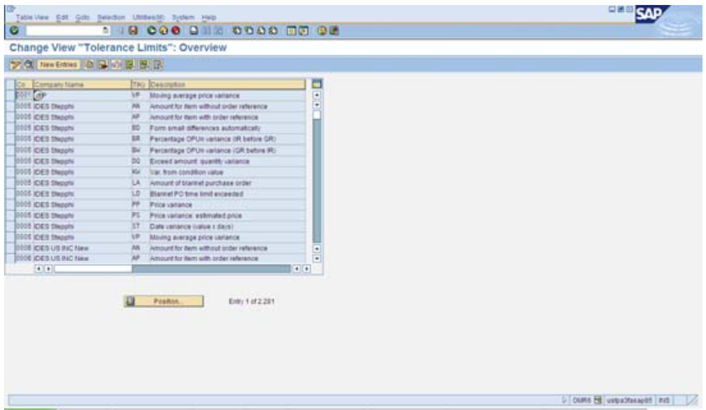
SAP application controls – T-code Example

- SAP start screen – Notice “OMR6”



SAP application controls – T-code Example

- After execution, we're right back to where we were at in the IMG



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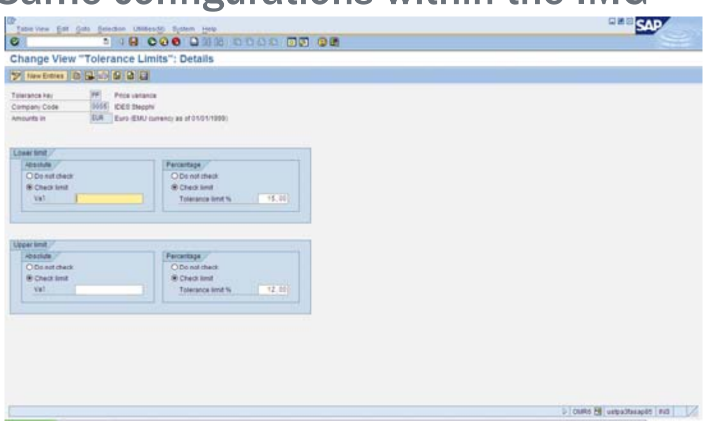
SAP application controls – T-code Example

- Same configurations within the IMG



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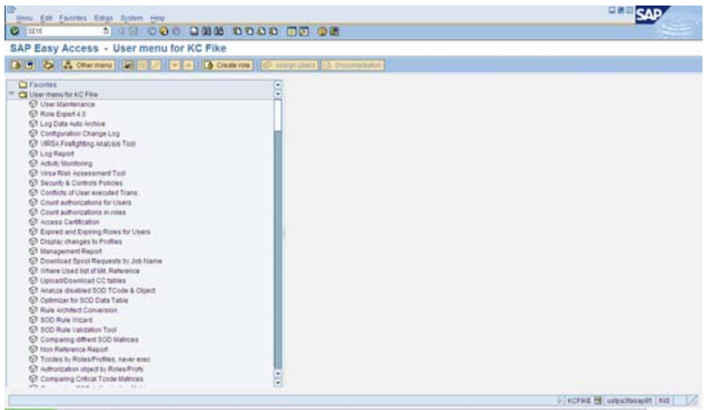
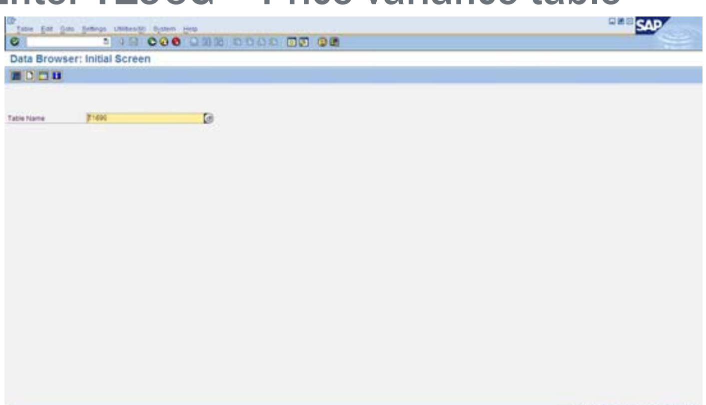
SAP application controls – SE16 Example

- SAP start screen – Notice "SE16"



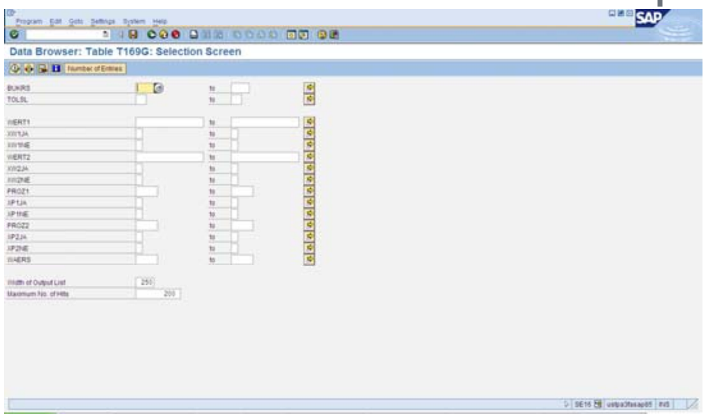
SAP application controls – SE16 Example

- Enter T196G – Price variance table



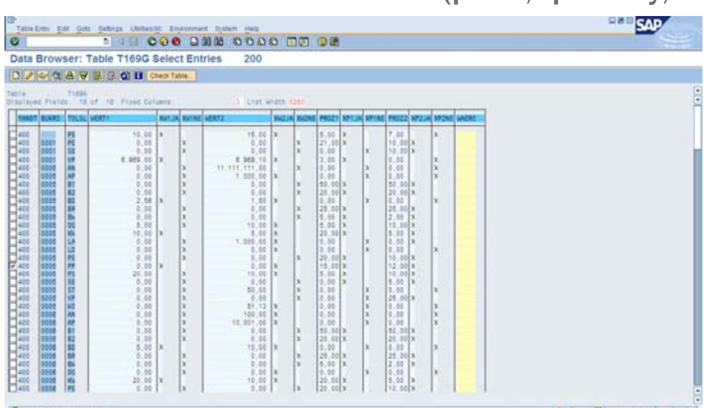
SAP application controls – SE16 Example

- From this screen we can define our query



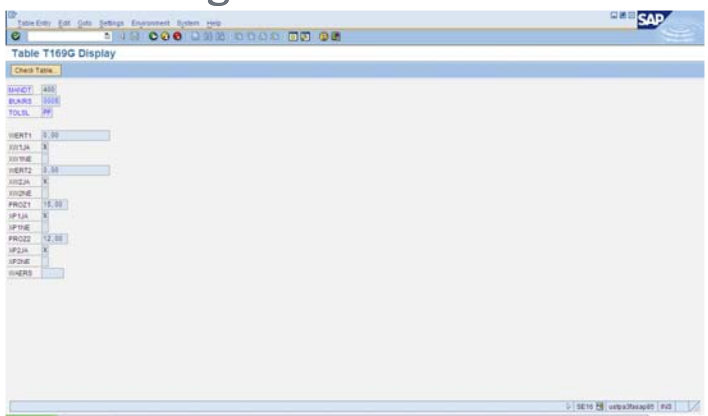
SAP application controls – SE16 Example

- This table defines all variances (price, quantity, etc)



SAP application controls – SE16 Example

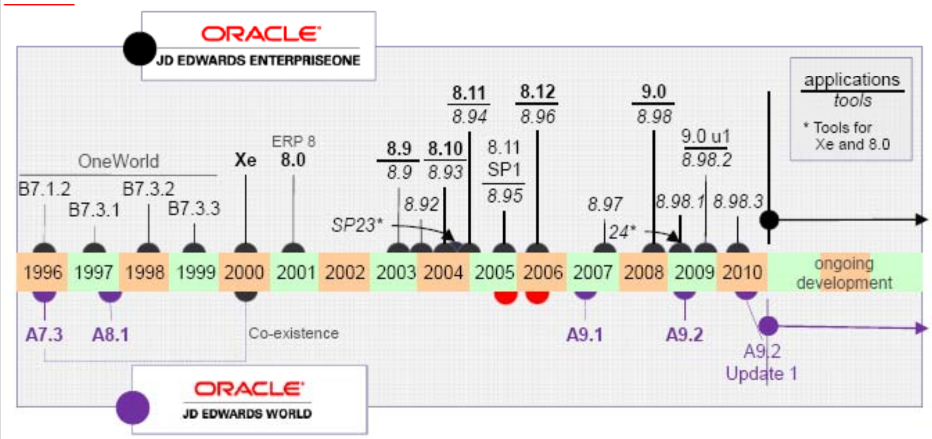
- Same settings from a table view



JD Edwards Application Controls

- JD Edwards Versions – Impact to App Ctls
- Planning for a JDE Audit
- Considering of ITGCs in a JDE Audit
- AAIs
- Integrity Reports
- JD Edwards Example

JD Edwards Versions - Timeline



JD Edwards Versions – Basic Differences

JD Edwards World
- Runs on AS/400
- Leverages DB2 (only one native dB)
- GUI Emulator or Green Screen
- WorldWriter, DreamWriter, FASTR (reporting tools)

JD Edwards OneWorld / EnterpriseOne
- Platform Independent (AS/400, Windows, UNIX, etc)
- Open to multiple DBs (Oracle, SQL, etc)
- GUI-Only
- Online Report Design Tool

JD Edwards Versions – App. Control Differences

JD Edwards World

- Does not support all of the same modules (e.g. Advanced Cost Accounting, Project/Government Contract Accounting, Primavera Integration, or Expense Management)
- Does not support all of the same countries (e.g. CR, Denmark, Finland, Ecuador)

JD Edwards OneWorld / EnterpriseOne

- Application access (SOD) is not integrated into the OS
- Does not support purchase card management module

Planning for a JD Edwards Audit

When planning for a JDE audit, the following should be considered:

- WHO (roles/responsibilities, ownership)
- WHAT (application version, infrastructure, security model, level of customization)
- WHEN (what cycles leverage the ERP and when?)
- WHERE (where are the controls executed / evaluated)
- WHY (risk assessment, impact, alignment to strategic goals)

Planning for a JD Edwards Audit

To answer these questions, consider involving:

- IT Senior Management (roles/responsibilities explanation, risk assessment)
- Security Administrator (security design, version information, restricted access)
- Configurable Network Computing (CNC) Administrator (level of customization, understanding of AAI/configuration changes responsibility)
- Internal Audit / Compliance (risk assessment, integration)

Considering ITGCs in an Audit of JDE Application Controls

- Configuration Change Management
  - Does Management have a formal process?
  - Are you able to test the change management process and validate operating effectiveness for configuration changes?
  - How are you getting comfortable that these controls can't be bypassed?
- Security Model
  - How has management designed security?

AAIs and Integrity Reports

A key difference between JDE and other ERPs is the notion of AAIs and integrity reports. So what are they?

AAIs

Automated Accounting Instructions (AAIs) – used to control all postings to the general ledger.

There are 3 main types of AAIs in JD Edwards:

- Formatting AAIs for your Chart of Accounts
- Automatic Entries
- Speed Entries

AAIs

- Audit Risks Associated with AAIs
- Example Control
- How to Test AAIs

Integrity Reports

Integrity Reports – Integrity reports are a tool in JD Edwards that is used to ensure master data, transactional, and relational integrity within the system.

Three types of integrity reports:

- Reports over master data integrity
- Reports over transactional integrity
- Reports over relational integrity

Integrity Reports

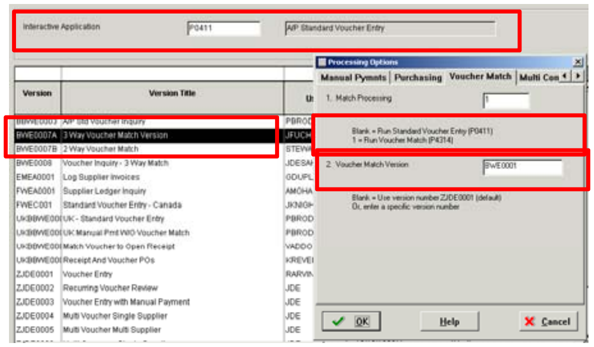
- Audit Risks Associated with Integrity Reports
- Example Control

JD Edwards Automated Application Controls – An Example

CONTROL EXAMPLE: Where a PO has been raised and approved, JDE requires a goods receipt to be recorded prior to invoice payment. If there is no PO, the invoice requires approval.

JD Edwards Automated Application Controls – An Example

Validate voucher matching is activated



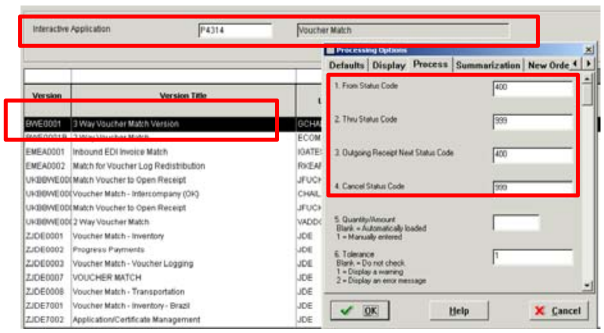
JD Edwards Automated Application Controls – An Example

Confirm tolerances are configured.

Func Type	2nd Item Number	Commodity Class	Co	Quantity Tolerance %	Quantity Tolerance Units	Unit Cost Tolerance %	Unit Price Tolerance $	Extended Amount Tolerance %	Extended Amount Tolerance $
1			00100						1,000.00
1			00805					5.00	100.00
1			00813					5.00	100.00
1			00814					5.00	1,000.00
1			00815					5.00	1,000.00
1			19901						1,000.00
1			19902						1,000.00
1			19904						1,000.00
1			19908						1,000.00
1			19909						1,000.00
1			19914						1,000.00
1			19915						1,000.00
1			19918						1,000.00
2			00100	50.00					
2			00805						
2			00813						
2			00814						
2			00815						
2			19915						
2		CL		5.00					
2		COR		10.00					
2		CRK		10.00					
2		OL		10.00					
2		LB		5.00					

JD Edwards Automated Application Controls – An Example

Review Order Activity Rules



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JD Edwards Automated Application Controls – An Example

- Is Change Control Working?
- Are Configurations Subject to Change Control?
- Is Access to Make Changes Restricted?

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Questions?