

# Enhanced Auditing or Auditing with Technology



See page 2 for restrictions

# Manager – IBM Internal Audit CCM/EA Team



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- 📌 17 years experience in internal audit
- 📌 CIA and CISA
- 📌 Developed global CCM and EA initiatives for IBM's IA organization

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# AGENDA

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-  Goblins
-  Nightmares
-  Critters
-  Two Lane Road
-  Pipelines and Filters
-  Prospecting
-  Striking Gold
-  Nuggets to Go

# Auditor's Gremlins



**Mismanagement**



**Waste**



**Fraud**





**Reduce resource!**



**Improve efficiency!**



**Identify Substantive Findings!**





# What to Do? if you don't want bats in your belfry

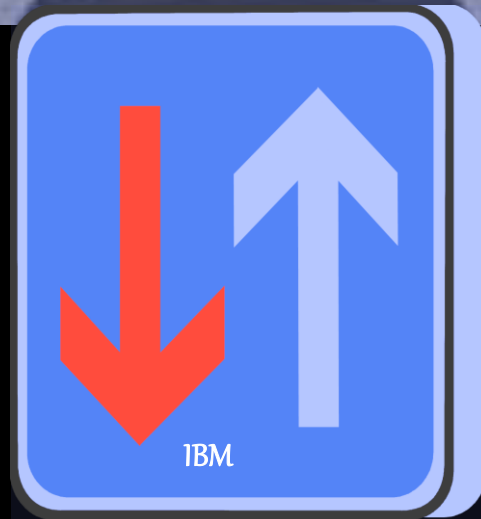




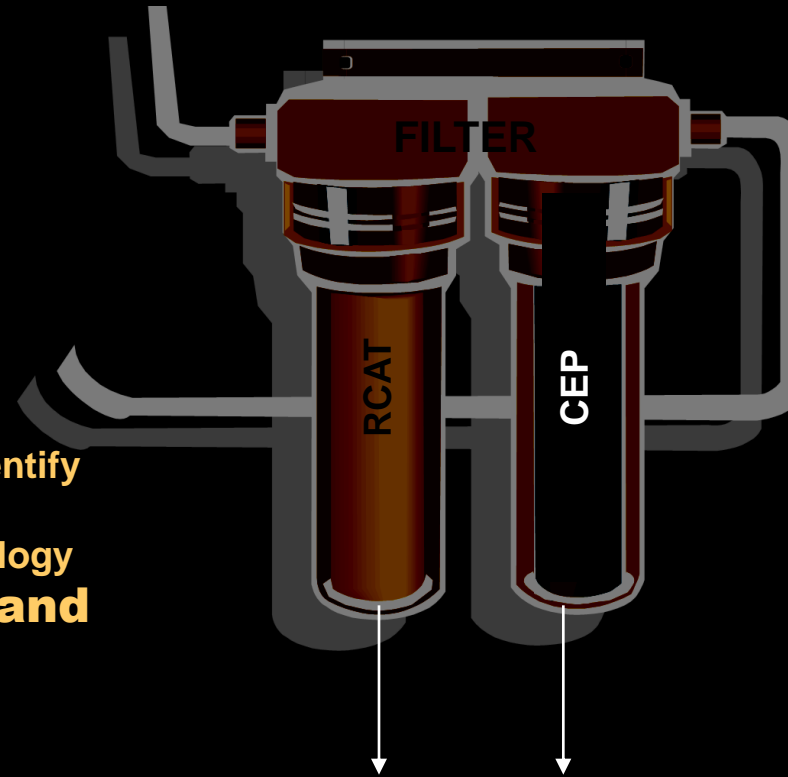
# IBM Two Track Enhanced Audit Model



**Broad (O2C) approach**  
 “using advanced analytic technology to aid in periodically analyzing and identifying high risk in Order 2 Cash space to determine control effectiveness.”



**Specific event process approach**  
 “using CEP rule based technology to monitor in real time predefined activity in target process (ex - netting in AR) indicating potential control deficiencies”



By scoring    By specific event

**Tools can be used together or separately**

## EA

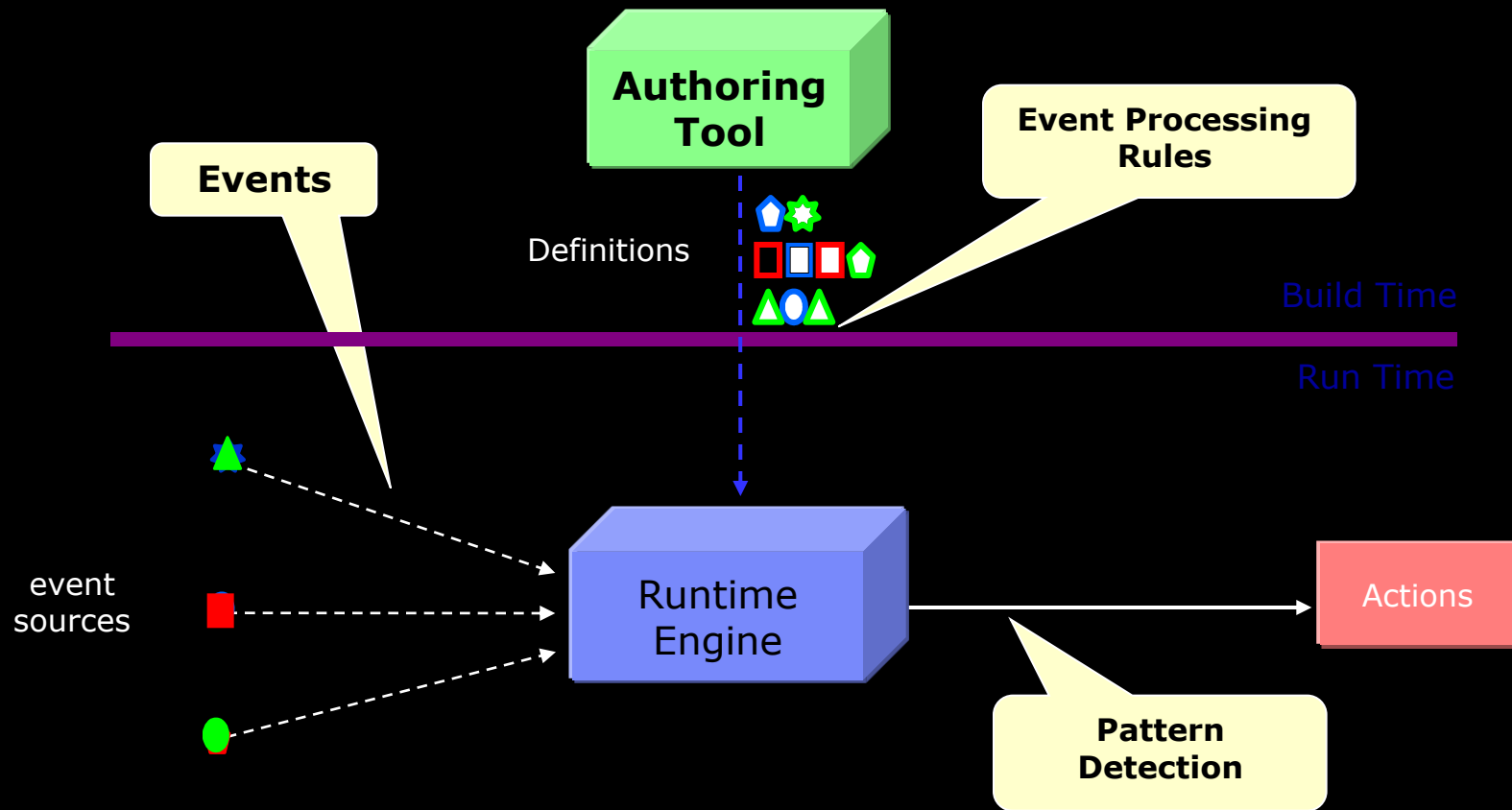
- ↳ Risk and Compliance Analysis Tool
- ↳ Algorithmic and visual data mining combined to identify patterns, relationships
- ↳ Routines utilizing technology developed by Internal Audit **and are not shared**

## CCM

- ↳ Lightweight and agile complex event processing engine
- ↳ Developed proactively for use by line management
  - ↳ Technology managed by Internal Audit
  - ↳ Results provided to line management



# From Single Events to Patterns



1. Unique approach - SME is the Business Process Owner
2. The SME can introduce new\update risks essentially on the fly via collaborative model with Internal Audit and R&D.

# Continuous Controls Monitoring



- 🌐 Deployed in AR process globally
  - 📌 Some countries for Business Partner and Procurement processes
  - 📌 Other processes for consideration include Accounts Payable and Payroll
- 🌐 Monitoring 427 rules (attributes)
  - 📌 291 fraud
  - 📌 136 operational
  - 📌 Results incorporated into IBM's overall framework of controls
- 🌐 Improving line and audit efficiency and effectiveness
  - 📌 Preventing control circumvention
  - 📌 Detecting control deficiencies real-time and reducing time for remediation
  - 📌 Eliminating opportunity for fraud
  - 📌 Confirming controls operating as intended (not sampling – 100% tested)
  - 📌 Significantly improving allocation of resources during audits to areas of greater risk
  - 📌 Input for audit planning, resource allocation for future audits, continuous auditing
  - 📌 Preventing potential damage to IBM's image
  - 📌 Preventing continuation of inappropriate behavior
  - 📌 Avoiding rework cost to reverse unauthorized transactions



# Win-Win Value Proposition



## Audit

## Line

### Results can be used

- ↳ when performing current audits for scope and staff reduction, improved focus
- ↳ for annual planning to extend duration between reviews
- ↳ for coverage claiming
- ↳ to improve resource allocation
- ↳ to reduce audit impact on line units
- ↳ to reduce travel
- ↳ to improve relations with line units

### Results can be used

- ↳ to identify and remediate control deficiencies as they occur
  - ✓ reduces risk of negative image
  - ✓ reduces exposure to rework costs and loss of productive time
  - ✓ reduces bad behavior through continuous oversight
- ↳ provides continuous confirmation of control health
- ↳ reduces need to allocate constrained resource to manual testing
- ↳ for input into control framework
- ↳ reduces impact of audits by extending time between inspections and support during engagements



## Deployed in North America Order-to-Cash

- ↳ Customer Relationship Management
- ↳ Transaction Pricing
- ↳ Fulfillment
- ↳ AR

## Porting to EMEA and AP Currently

## TRADITIONAL AUDIT

### Data

- ↳ Push
- ↳ When requested
- ↳ Single source (Requires reconciliation)
- ↳ Risk Based Analysis

### Coverage

- ↳ Cyclical (generally every 3 years)
- ↳ "Go" Model
- ↳ Audit resource – 13 to 20 person-weeks/review
- ↳ Client impact – Significant

## EA APPROACH

### Data

- ↳ Pull
- ↳ Immediate When Needed
- ↳ Multiple "trusted" sources
- ↳ Total Universe Analysis

### Coverage

- ↳ On demand
- ↳ Remote Model
- ↳ Audit resource – 2 to 5 person-weeks
- ↳ Client impact - Minimal

## VALUE PROPOSITIONS

### Confirmed

- ↳ improved audit efficiency and effectiveness
- ↳ improved executive oversight
- ↳ reduced audit and line cost
- ↳ reduced audit impact on respective line organizations

## 👉 Build the team!!!

### 🌐 Determine the right participants

- 📌 Process owners
- 📌 IT owners
- 📌 Internal Audit
- 📌 Technology Provider

### 🌐 Get the buy-in

- 📌 What is the benefit to the non-audit organizations?
  - ✓ Reduced audit duration?
  - ✓ Less frequent audits?

## 👉 Determine “Specific” Objective

### 🌐 Establish priorities

- 📌 fraud detection
- 📌 mismanagement
- 📌 bad behavior

### 🌐 Determine the scope or focus

- 📌 ex. AR
- 📌 ex. expense management
- 📌 ex. asset

## 👉 Attention! Its All About The Data

### 🌐 Determine Accessibility

- 📌 Data warehouse, not production
- 📌 Connections available and authorized

### 🌐 Determine technology

- 📌 Scalable
- 📌 Adaptable
- 📌 User friendly