Automated Process Discovery

Briefing & Discussion

Keith D. Swenson
Vice President R&D, Fujitsu America
Oct 14, 2011
Agenda

- Automated Process Discovery Concepts & Overview
- Case Study: How ESI Benefited
Initiate Request
02-Feb-2009 12:02:23
Req #1245

Process
Initiate Request
02-Feb-2009 12:02:23
Req #1245

Evidence
Initiate Request
02-Feb-2009 12:02:23
Req #1245

ERP System
Legacy System
Home Grown System

What
When
Which Case

Copyright 2010 Fujitsu America, Inc.
Getting The Evidence

Event Correlation

ERP System

Legacy System

Home Grown System
Understanding The Evidence

Visualize the process flow
See what happens, what sequence, which way

View process metrics
See information about how things are changing

Event Correlation
Process Generator
Process Visualization & Analysis

Analyze inefficiencies
Look for delays, loopbacks, and repeated steps

Compare with business requirements
Look for waste, cost of routes, opportunities to streamline, go lean

Policy Details
Coverage Check
Thrift Check
Roadside Check
Bodyshop Estimate
Estimate Entry
Fraud Check
Assessment
Claims
Final Check Date
End
Respond And Adapt
APD: Flexible, Non-Invasive Approach

APD is unlike manual approaches:
- It visualizes processes that have taken place, not theoretical workflows
- It works from a simple data extract and does not need permanent links to your IT
Typical Project Challenges

Here are some typical challenges we encounter on projects:

1. A lack of end-to-end process view does not allow organizations to manage processes efficiently
2. Different areas of the business has different views or understanding of current processes
3. A lack of common process understanding leads to inefficient processes
4. The organization doesn’t have the necessary governance structure, process modeling or organizational change skills in-house
5. Inability to adopt best practices
6. Not sure where to re-invest savings gained from BPI
7. Multiple, different BPM products in-house
8. Tend to solve the problem with technology, before the problem is defined
Case Study:

Opportunity-to-Order Process Improvement at ESI
Leaner Opportunity-to-Order Processes

- Custom Manufacturing
  - Receives an order
  - Instrument is designed
  - Parts are ordered
  - Built and Delivered

- Clues of the Problem:
  - Inventory Problems
  - Schedule Problems
  - “Everyone Knew”
Presumed Process Flow

- Opportunity
- Quote
- Order
- Shipment

Opportunity Change
Quote Change
Order Change

Through interviews

By the book
Analysis

Deliverable:

- Identify factual current Opportunity to Order process

- Reviewed all details from 2006 to March 2009
- Narrowed focus to Jan 2008 to March 2009
  - Presumed optimal performance due to fully trained staff
- Included Business Unit / Division details
Actual Process Flow

- Total # of flows: 11548
- # of Unique Flows 1330
Repeated Steps

- Significant repetition in the changing of orders
  - Eg: an order changed 120 times
  - Order change is an expected, but not this many!
Loopbacks

- Loopbacks to change quotes result in orders getting created over and over
Bottlenecks and long transition times are highlighted.

Transition Time

- Standard deviation shows inconsistency in task completion times
  - Average 58 days
  - Standard Deviation 68 days
Benefits

- Rapidly visualizes processes
  - drill-down into meaning

- Quick analysis
  - business and IT
  - collaborative assessment

- Multidimensional investigation
  - Like what data warehousing does for raw data, APD does for system level processes
Benefits of APD

- **Quick Discovery and Visualization of processes**
  - Valuable insights for automation and process improvement initiatives
  - Helps the customers’ process improvement teams ask the right questions – focus on “why” are things happening vs “what” is happening
  - Minimal disruption to customer’s business; non-invasive approach
  - Fraction of the time compared to “interview” method for discovery
  - Comparison of ‘As-Is’ and ‘Really-Is’ processes
  - Diagnosis based on metrics

- **Responding and improving processes**
  - Improve and optimize high-visibility/ high-impact processes
  - Converge business processes to best-of-breed processes

- **Ensuring compliance**
  - Determine unauthorized actions/fraud – reduce risk from non-compliance

- **Jump-starts process improvement projects**
  - Process mapping in standards-based modeling environment
For More Information

John David Kendrick, MBA, MAS, MESM, CSSMBB
Principal, Fujitsu
Email: john.kendrick@us.fujitsu.com

Keith D. Swenson
Vice President, Fujitsu
Email: kswenson@us.fujitsu.com
Questions?