vendor master data management at US Sugar.
Robert Jamerson | United States Sugar Corporation
About

• Robert Jamerson
  Application Systems Analyst/Programmer with US Sugar
  • Also Responsible for Winshuttle
    • Installation and configuration, implementation
    • Workflow Administrator, Support, Training, etc.
Topics

Overview of US Sugar and Subsidiaries

US Sugar, Winshuttle Workflow, and FI

Add Vendor Form and Workflow

Questions
Poll

Please indicate what your role is in your company?
1. IT programmer, analyst
2. IT management
3. Line of business analyst
4. Line of business management
5. Other
Go-live ECC 6.0: 2007
(PY separate implementation: 01/2010).

EHP6: July 13

Winshuttle Transaction since ~2011
Winshuttle HCM Workflows in production use July 2012

Winshuttle upgrade to 10.4: 2013
During 2012:
953 vendors were added to SAP, pre-winshuttle via Spreadsheet.

Difficulties:
* [Adhering to] Auditing Requirements*
  • Spreadsheet emailed to recipients
    - Issues with missing, incomplete, incorrect data
  • Supervisor approval routing
  • No access to SAP data (integration) in the spreadsheet (bank details, existing vendors)
  • Data entry consistency, validation issues
Issues with Vendor Consistency

Vendor Issues required painful, slow troubleshooting process with SQVI's. - hard stop in Payment Runs (F110)

Custom report added to SAP for detecting/correcting issues with Vendors
- Incorrect or missing email addresses on ACH Vendors, incorrect Payment methods, missing or incorrect Alternative Payees.
Sugar Objectives

• Relating to Workflow, the goal of US Sugar with Winshuttle Workflow was to streamline business processes thereby driving efficiency and maximizing the benefits of the ERP system

• To:
  • Replace an inefficient process
  • Resolve the issues with a spreadsheet [email/mail] process
  • Auditing Concerns/Requirements
  • Fix issues relating to Master Data Entry
    • Provide SAP Integration
  • Add Process Visibility
  • Speed up the process
  • Provide Monitoring and Metrics
Poll

Please indicate Winshuttle products that interest you most... I will be covering virtually all of them but would like to emphasize if there is a majority of interest – please select all that apply.

1. Winshuttle Studio
2. Transaction
3. Query
4. Direct
5. Workflow/Foundation
6. Central
How US Sugar uses Winshuttle

- Central/Server - Forms & Workflows
- Direct, Query, Transaction

Production Forms/Workflows:

HCM: New hire / Rehire process streamlined through Winshuttle

FI Master Data

User Account Creation in SAP

New hire data feeds into internal applications

Figure 2. Overview of US Sugar Objectives 2007 (ERP Implementation) to Current
Architecture
Installation recommendation:

• Do not separate Winshuttle Server & Workflow.
  *We installed this way to maintain our current architecture: separated Sharepoint farm and SAP gui.

• Architecture: Winshuttle changes on production servers
  • We would like to migrate winshuttle to a separate sharepoint farm.

• Carefully consider database configuration:
  • Developer rights to r/w on Production environments.
Form Overview

• Appx. 85 Form Input Fields and 4 Output fields (SAP Log Fields)

• Direct TXR recording for converting sharepoint login to SAP supervisor user name. *Approval process

Improving User Experience with:
• Rules
• Conditional Formatting
• Data Validation Controls
• Data sources reading Cached SAP data -from SQL Server

Of those 85 fields in the form, aside of name/address, the user inputs about 5 fields. Overhead during the creation, but the result is a very stable [simple and consistent] vendor creation process.
Winshuttle Query

Data sources reading Cached SAP data - from SQL Server:
Cached Data: 36 promoted form fields (for use in workflow)
  6 Data sources linked to SQL db.
  Winshuttle Query (varying schedules for refreshing data nightly, weekly, monthly)

- SQL data refreshed from Winshuttle query
  - Vendors
  - Company Codes
  - Banks
  - Terms of Payment
  - Vendor Account Groups
  - States
Winshuttle Direct

FI workflow
Supervisor determination for approval routing:
(Sharepoint login to SAP [Org chart] Manager)

HCM workflows
Rehire: Load Employee data:
(Infotypes 00,01,02,41,etc)
Complex workflows:
Use loops for simplicity / maintainability

Workflow variables promoted to sharepoint lists are global:
Step 1 inside the workflow: CLEAR These variables
Log fields, pauseID, etc.

Prevent issues on form COPY
Workflow Overview

- **Validation:**
  - Client-side
  - Server-side

- **Approval Process:**
  - Rejection (including concurrent) ends workflow

- **Submission:**
  - WF Log Fields (1 or many >= webservice)
  - Match(LogField, "ERR...Record Created...
  - Timeout and unlimited loop submission protection
Validation

Client & Server side

- **Client-side**
  - Rules, Conditional Formatting
  - Pattern Matching (sharevis controls)
  - Javascript

- **Server-side**
  - SSN
    - Exists in SAP?
      - present to user for correction...
      - or
      - confirm, end new hire workflow & launch rehire.
Dynamic Data - Live vs SQL staging

• Use SQL tables whenever possible. *
  • SAP data access offloading PLUS significant performance benefits. SAP equivalent: buffer.

Data Extraction

• separate dev & prod data for dev and production forms/workflows - multiple queries running from multiple systems; multiple databases.
• [data currency] updates: efficiently or effectively *
  *dependent on data currency requirements
Staging with currency... without additional query executions. (current-esque)

Example: HCM hire/rehire

Position data needs to be current - extracted daily.

However, as soon as a hire is initiated (and during approval) the position should not be returned as OPEN to the next form, despite being open in SAP.

**Workflow Plugin: Export Form Data**

SQL table trigger cleans up positions reservations (1 week max reservation)
Approval Routing

Winshuttle Direct call to SAP
WF View: Approval
- Company code routing from form elections.
- Concurrent user approvals (redundancy)
- Any rejection terminates workflow
- Form Forwarding
  • Any person can forward a vendor request to any participant in a previous step for review/modification/clarification.
  • Suspends approval until recipient processes
SAP Submission

Foreground VS Background

User Vs Workflow
Foreground:
- Allowing the user to submit the data:
- Immediate feedback on the submission
- Faster submissions and therefore shorter running processes, e.g. system resource utilization/overhead.
- Timeouts and Errors do not have to be handled (coded) in the workflow.

Background:
- Less user impact/interaction: no need to route additional tasks to the end-user, no buttons or decision making.
- Error handling and no SAP login required: Bad data can be corrected externally of the ERP system and the workflow will resubmit the remaining data. Truncated view of the form data to simplify non user-friendly SAP error messages.
1. FI01 Create Bank (Additional Approval required)
2. Alternate Payee (if requested)
3. Add Vendor
4. Copy Vendor to additional company codes
5. (TODO) Copy Alternate Payee to additional company codes, if SGC
6. Block Vendor (if requested) & Alternate Payee Vendor (if exists)
Set Column Plugin

Vendor Number from Log Field:

$RegExpExtract([&quot;.*([0-9]{6}).*&quot;,,[ExtendedLogField])
Error Handling

• Protection from:
  • bad-data
  • timeouts / connectivity
    • unlimited submissions
  • locked records
Implementation differences between FI and HCM Modules

• FI approval process took over 3 months due to stringent controls and approval process - with every FI participant requiring sign-off [owners].

• Backup process of all form submissions with approval hierarchy

• Many users create vendor submissions

• Freedom from IT support - redundant approvals on every step (preventing Administrator reassignment)
Winshuttle Prospects

Workflow modules.
HCM > Terminations, job changes.
PM > equipment

Transaction: Over 100 production scripts in use.
Migrate licensing to Central

Features:
email approval, workflow substitution (by user).
Winshuttle Horizon

• Workflows and forms present end-users better interaction while reducing or eliminating many manual activities
• Form Visibility... and history showing bottlenecks
• Workflow reporting:
  • Monitoring and metrics
Live Demo
• Questions and Answers
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US Sugar Corp. FI Use Case

• Robert Jamerson

Southern Florida agricultural operation founded in 1931.
• More than 180,000 acres of farmland in Hendry, Glades, and Palm Beach counties
• Country’s largest producer of cane sugar: 650,000-700,000 tons of raw sugar annually
During the 2010-2011 season, harvested 5.63 million tons of sugarcane. Our 12-story, 300,000-square-foot Clewiston Refinery regularly sets refined sugar production records operating more than 300 days each year.

Like the Clewiston Factory, the refinery is powered by bagasse, the tough fibrous byproduct of sugar cane remaining after the juice is extracted.

Boilers: (1.44 million pounds per hour total steam capacity)
The two milling tandems can grind up to 42,000 tons of cane per day or 1,800 tons per hour.

The raw sugar warehouses have a 360,000 ton capacity.
US Sugar Corp. Subsidiaries:
Southern Gardens Citrus and S.C.F.E. (South Central Florida Express)
- 16,500 grove acres that annually produce 180 million gallons of juice.
Southern Gardens Citrus is one of the country’s largest orange juice producers with 16,500 acres of groves, comprising of 1.8 million orange trees;
- More than 100 million gallons of orange juice annually
- Largest supplier of private label not-from-concentrate orange juice in the United States
SCFE transports everything from grain to lumber.

Broad customer base includes local and national companies.

In 2010, a total of 116,668 carloads were transported.
US Sugar Corp. FI Use Case

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