

Tackling complex finance transaction automation with Winshuttle

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WINSHUTTLE
USER
GROUP CONFERENCE

What is complex?

- Different types of journals
 - Standard Journals, Recurring Journals, Valuation Journals etc.
 - All uploads from a single data source
 - Large Data Volumes
 - Technical limits of the SAP transaction (999 lines)
- Screen behavior of SAP
 - Hidden fields
 - Changing field groups
 - COPA attributes on a journal
- Hierarchy Data
- Finance Analytics



1. Different Types of Journal

Category	Type	Transaction Codes
General Ledger	Simple Post	FB50, FV50, FB01, F-02, FB50L
	COPA	FB50
	Multi Company	FB50, FB01, F-02
Accounts Payable	Simple Post	FB60, FB65
	Simple Post – Park Vendor Invoice	FV60
	Simple Post – Park Vendor Credit Memo	FV65
Accounts Receivable	Simple Post	FB70, FB75
	Simple Post – Park Customer Invoice	FV70
	Simple Post – Park Credit Memo	FV75
Accrual Deferral Recurring Journals, Valuation Journals etc.	Simple Post	FBS1, FBD1
	Multi Company Post	FBS1, FBD1



Technical limits of the SAP transaction (999 lines)

- Journals with line items >999 lines cannot be posted
- Manual splitting of the journal is cumbersome
- Journal Split should be based on Account details, Company code etc.
- Rework of data is time consuming
- Temporary, quick fix, short-term solutions not viable
- Still a problem with S4 HANA Simple Finance



Large Volume Journals – Split document

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW DEVELOPER Winshuttle Analytics Winshuttle for Journal Entry Winshuttle Run Divya Kaiwar

Split Information [X]

Please select an appropriate action

Actions: Simulate, List of Values, Attach Documents, Loop Details, Clear Data, Clear All, Options, Help

Posting Result Cell		Attachment Log Cell	
Balance Output Cell	BALANCED		
Total Credit Cell	7376		
Total Debit Cell	7376		

ACGL_ITEM-HKONT General Ledger Account*	ACGL_ITEM-SHKZG Debit/Credit Indicator*	ACGL_ITEM-WRBTR Amount in document currency*	ACGL_ITEM-BUKRS Company Code*	ACGL_ITEM-MWSKZ Sales Tax Code	ACGL_ITEM-SGTXT Item Text
50000	S	12	1000		line1
51000	H	343	1000		line2
86200	S	123	1000		line3
41000	S	124	1000		line4
50000	S	84	1000		Offset Account
176100	H	3232	1000		line5
176000	H	256	1000		line6
110000	S	120	1000		line7
41000	S	6534	1000		line8
50000	H	3166	1000		Offset Account
176100	H	111	1000		line9
176000	H	256	1000		line10
110000	S	120	1000		line11

Winshuttle for Journal Entry provides an out-of-box document split function



Working example



All from a Single Source?

Winshuttle - Posting Multiple Journals from a Single form - Excel

STYPE	TCODE	BLART	BUKRS	LDGRP	BLDAT	BUDAT	MONAT	WAERS	KURSF	WWERT	XBLNR	BKTXF	STGRD	STODT	NEWBK	NEWBS	NEWKO	NEWUM	WRBTR	DMBTR	DMBE2	DMBE3	ZUONR	
Record Type	Transaction Code	Document Type	Company Code	Ledger Group	Document Date	Posting Date	Posting Period	Currency	Exchange rate	Translation Date	Reference Doc no.	Document Header Te	Reversal Reason	Reverse posting date	New company code	Posting Key	Account	Special G/L ind.	Amount in DC	Summation of Amounts in DOCUMENT Amount in LC	Summation of Amounts in LOCAL currency Amount in 2nd LC	Summation of Amounts in 2nd LOCAL currency Amount in 3rd LC	Summation of Amounts in 3rd LOCAL currency Assignment	
H	FBB1		1000					EUR			Winshuttle	Winshuttle				40	51000		1.10	1.10	5.00	5.00	0.00	0.00
D	FBB1															50	51000		1.10	-1.10	5.00	-5.00	0.00	0.00
D	FBB1															40	425000		1.20	1.20	4.00	4.00	0.00	0.00
D	FBV1															50	51000		1.20	-1.20	4.00	-4.00	0.00	0.00
H	FB01CC		1000					CHF			Winshuttle	Winshuttle				40	51000		100.00	100.00	0.00	0.00	0.00	0.00
D	FBV1CC															50	425000		100.00	-100.00	0.00	0.00	0.00	0.00
H	FB01	SA	1000					CHF			Winshuttle	Winshuttle				40	51000		100.00	100.00	0.00	0.00	0.00	0.00

Example 4 - Posting Multiple Journals from a Single form - Excel

Winshuttle Run

- Linked - All...
- Info
- Write Headers
- Start Row: 5
- End Row: EndOfSheet
- Log Column: BJ
- Backup Data
- Start SAP GUI
- Skip Indicator
- Specified Rows
- Validate
- Simulate
- Debug
- Schedule
- Author Settings

WinshuttleStudioAddin

Tell me more

All in a single excel file – as individual or linked scripts with conditions



Working example



2. Screen behaviors of SAP

- Field groups in SAP - Example- FB01 – G/L Account dependent fields

The image displays three overlapping screenshots of the SAP 'Enter G/L account document: Add G/L account item' screen. Each screenshot shows a different G/L account selected, and the fields visible on the screen change accordingly. Red boxes highlight the specific field groups that are active for each account.

- Left Screenshot:** G/L Account 479000 (Bank Charges). The 'Item 1 / Credit entry / 50' field group is highlighted, showing fields for Amount (1250), GBP, Cost Center (2100), WBS Element, Network, Functional Area, and Special Region.
- Middle Screenshot:** G/L Account 415100. The 'Item 2 / Credit entry / 50' field group is highlighted, showing fields for Amount (1000), Tax code, Cost Center, WBS Element, Network, Functional Area, and Special Region.
- Right Screenshot:** G/L Account 478000 (Marketing/Sales Rep.). The 'Item 3 / Credit entry / 50' field group is highlighted, showing fields for Amount (200), GBP, Tax code (01), Cost Center, WBS Element, Network, Functional Area, and Special Region.

Below the main item fields, the 'Next Line Item' section shows the account number for the next line item, which is highlighted in yellow in each screenshot: 40, 478000, and 403000 respectively.

The rightmost screenshot also shows the 'Item 5 / Credit entry / 50' field group, which includes fields for Amount, GBP, Amount in LC, EUR, Business Area, Trdg part.BA, Cost Center, Profit Center, Functional Area, Value date (29.01.2016), and Assignment. A 'More' button is visible next to the Functional Area field.



Profitability Segment (COPA) attributes on a journal

The screenshot displays the SAP interface for entering a vendor invoice. The main window is titled "Enter Vendor Invoice: Company Code 1200". A dialog box titled "Assignment to a Profitability Segment" is open, showing a list of characteristics and their values. The "Profit. Segment" field is highlighted with a blue circle and an arrow pointing to the right. The right-hand pane of the dialog shows a list of characteristics with their corresponding values, including "Customer", "Product", "Billing Type", "Sales Order", "Sales Ord. Item", "Order", "Plant", "Sales Org.", "Distr. Channel", "Division", "WBS Element", "Cost Object", "Profit Center", "Partner PC", and "Industry". The "Profit Center" is set to "I201" and "Industry" is "HMU-Jakarta".

Use of If Conditions within the script is the solution



Winshuttle tactic for handling multiple screens

– Conditional Logic

The screenshot displays the Winshuttle configuration interface. At the top, a table lists mappings for screen SAPMF05A-0302. Below it, an 'If Condition Properties' dialog box is open, showing 'Start Row' set to 153 and 'End Row' set to 156. The main configuration area shows a detailed view of screen SAPMF05A-0300, with another 'If Condition Properties' dialog box open. This dialog shows 'Start Row' 162 and 'End Row' 164, with the condition 'IF on SAP field' selected. The 'Select Column' is 'AF' and the 'Operator' is '{NOT_BLANK}'. At the bottom, a SAP table is visible with columns A through AG, and rows 1 and 2. Row 2 contains various field codes like STYPE, TCODE, BLART, etc.

Sno.	Enable	Screen	Field Description	Field Name	Field Type	Mapping Type	Value
148	<input checked="" type="checkbox"/>						
149	<input checked="" type="checkbox"/>	SAPMF05A-0302					
150	<input checked="" type="checkbox"/>		Indicates cursor position on the screen	BDC_CURSOR			BSEG-SGTXT
151	<input checked="" type="checkbox"/>		OK Code for this screen	BDC_OKCODE			=AB
152	<input checked="" type="checkbox"/>						T
153	<input checked="" type="checkbox"/>						AB
154	<input checked="" type="checkbox"/>						AF
155	<input checked="" type="checkbox"/>						AC
156	<input checked="" type="checkbox"/>						
157	<input checked="" type="checkbox"/>						
158	<input checked="" type="checkbox"/>	SAPMF05A-0301					
159	<input checked="" type="checkbox"/>		Indicates cursor position on the screen				BSEG-ZLSPR
160	<input checked="" type="checkbox"/>		OK Code for this screen				=AB
161	<input checked="" type="checkbox"/>						T
162	<input checked="" type="checkbox"/>						AF
163	<input checked="" type="checkbox"/>						AB
164	<input checked="" type="checkbox"/>						AC
165	<input checked="" type="checkbox"/>						
166	<input checked="" type="checkbox"/>						
167	<input checked="" type="checkbox"/>						
168	<input checked="" type="checkbox"/>						
169	<input checked="" type="checkbox"/>	SAPMF05A-0300					
170	<input checked="" type="checkbox"/>		OK-Code fr diesen Bildschirm				=COBL_MORE
171	<input checked="" type="checkbox"/>						T
172	<input checked="" type="checkbox"/>						
173	<input checked="" type="checkbox"/>						V
174	<input checked="" type="checkbox"/>						
175	<input checked="" type="checkbox"/>						
176	<input checked="" type="checkbox"/>						AD

Based on Data
Example –
Posting Keys,
Account
Number ranges

Based on User
Knowledge
Skip Field,
Blanks



Script examples



3. Hierarchy Data – KSH1/2/3 as an example

- Cost center groups are represented by a tree hierarchy in SAP
- Challenges include
 - Location of a particular line of data
 - Search options on the screen just finds the data. Does not provide data selection
 - Options to work with the data selected are few
- Standard recording modes do not capture the fields in SAP



SAP Tree Structure

Change Standard Hierarchy (Cost Center Group): Structure

Same Level Lower Level Cost Center Cost Center

K0001_HIER new cost center group

- TEST1
- TEST
- T1

K0001_HIER new cost center group

- TEST1 Level 1 Node1 hierarchy
- TEST Level 1 Node2 hierarchy
- T2
- []
- T1 Level 2

No Delete option allowed if data entry goes wrong



Winshuttle Solution

- GUI Scripting recording mode
 - Foreground run
 - Needs to be enabled on SAP to be able to use this mode
- BAPI
 - A better solution for KSH1, KSH2 , KSH3
 - Not dependent on screen complications
 - BAPI_COSTCENTERGROUP_CREATE
 - BAPI_COSTCENTERGROUP_GETDETAIL
 - BAPI_COSTCENTERGROUP_ADDNODE



Example using BAPI for Create

File Workspace View Map Run

Basic View Expert View

System Fields Fixed Values Mapped Fields Disabled Fields

Data Set Properties Documentation

View Mode Show Items Show Panels

Workspace Basic View Expert View

S.No	Enable	Description	Name	Type & Length	Mapping	Value
1	<input checked="" type="checkbox"/>	RUN LOG	RUN LOG			H
2						
3	<input checked="" type="checkbox"/>	Table - HIERARCHYNODES				
4	<input checked="" type="checkbox"/>	Group name	HIERARCHYNODES - GROU...	CHAR 30	↑	D
5	<input checked="" type="checkbox"/>	Level of entry in hierarchy	HIERARCHYNODES - HIERLE...	INT 4	↑	E
6	<input checked="" type="checkbox"/>	Number of values in a hierarchy node	HIERARCHYNODES - VALC...	INT 4	↑	F
7	<input checked="" type="checkbox"/>	Group short description	HIERARCHYNODES - DESCR...	CHAR 80	↑	G
8						
9	<input checked="" type="checkbox"/>	Input Structure - ExportOthers				
10	<input checked="" type="checkbox"/>		ExportOthers - CONTROLLI...	CHAR 8	✖	1000
11	<input checked="" type="checkbox"/>	Output Structure - ImportOthers				
12	<input checked="" type="checkbox"/>	Group name	ImportOthers - GROUPNAME	CHAR 30	↑	B
13	<input checked="" type="checkbox"/>	Controlling Area	ImportOthers - CONTROLLI...	CHAR 8	↑	C
14	<input checked="" type="checkbox"/>	Input Structure - LANGUAGE				
15	<input checked="" type="checkbox"/>		LANGUAGE - LANGU	CHAR 2	✖	EN

Loop While (Column A = "D")

End loop



Script examples



4. Finance Analytics

- Data extraction needs
 - Large Data Volumes
 - Data held in structures
 - Need for multiple outer joins to get the correct data set
- Data Analysis & reporting needs
 - Meaningful information required from the data in SAP
 - Decision worthy
 - Excel formulae not sufficient for complex business logic
 - Reusable and reportable



Winshuttle Solution

Combined Capabilities of STUDIO and Winshuttle Analytics

- Smaller and modular queries for data extraction
- Read from transactions or BAPIs.
- Linked queries on a single destination file.
- Multiple destination formats
- One time design of super functions using Analytics
- All excel centric



Customer Invoice (Open & Closed) and flag InActive Customers

- KNA1 – KNB1 – BSID – BSAD Tables
- Latest Entry (Date) in BSID & BSAD is required
- Ideally – outer joins required for both BSID &

The screenshot shows the Microsoft Excel interface with the Data Analysis tool open. The tool is configured to create a SuperFunction from an Excel data source. The configuration includes the following settings:

- What would you like to create?** SuperFunction (selected)
- Where is your data?** Excel
- What action would you like to take?** Max
- Which Data Set?** BSADClearedItems
- What information would you like returned** BSAD.BLDAT

The resulting SuperFunction formula is displayed in the bottom section of the tool:

BSAD.BUKRS	=	'KNB1'!	\$B2	0001
BSAD.KUNNR	=	'KNB1'!	\$A2	0000000001

WINSHUTTLE USER G

Solution example



Questions

Thank You!

