SAP Joint Venture Accounting S/4HANA On-Premise Edition

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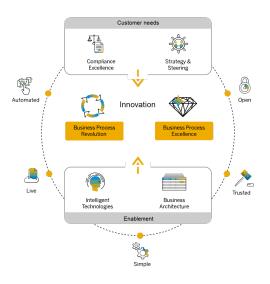
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Agenda

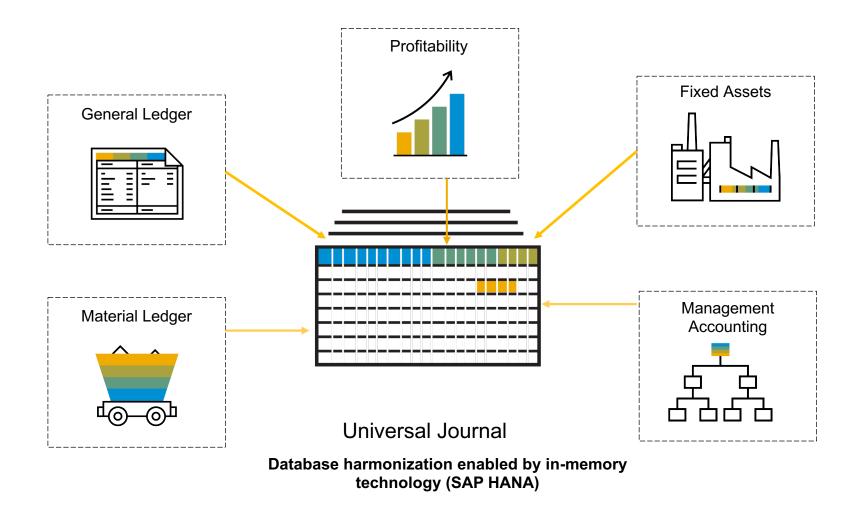
- 1. S/4HANA Finance Overview
- 2. SAP S/4HANA JVA On-Premise Edition Roadmap
- 3. S/4HANA JVA On-Premise Edition 1909 Innovations JVA on ACDOCA Solution
- 4. SAP S/4HANA JVA-Central Finance Integration Overview

S/4HANA Finance



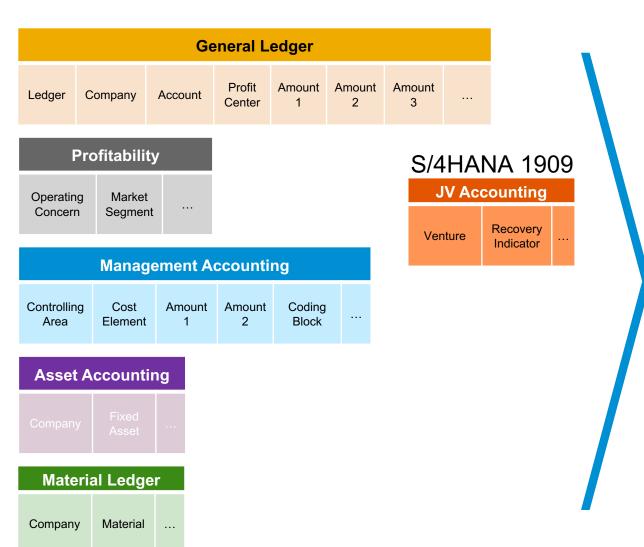
S/4HANA Finance On-Premise Edition

Business Architecture: Fundamental simplification in the architecture of accounting



S/4HANA Finance On-Premise Edition

S/4HANA: Universal Journal



Universal Journal ACDOCA

Universal Journal Single Line Item Table ACDOCA with JVA Fields

Adding JVA Fields in ACDOCA to replace the JVA Special Ledger tables

	Universal Journal – JVA Fields													
•	Venture	EG	RI	Prod Month	Billing Month	Operations Month	Partner Venture	Partner Equity Group	Cutback Run ID	JVIND	Sender RI	Orig Account	Orig Cost Object	

New Data Model Adaption

Billing Indicator is a field in ACDOCA now

- Actual (i.e. Cash Call, JV Funding)
- Month End (i.e. Cutback, Equity Change, Equity Adjustment, Farm In/Out)
- Billing (Invoice and Expenditure Detail Extract and Hardcopy Billing)
- Reporting (i.e. CDS View based JVA line item reporting Fiori app)

^{*} This is the current state of planning and may be changed by SAP at any time without notice.

Universal Journal Single Line Item Table ACDOCA with JVA Fields

Universal Journal (incl. Summary and Billing Ledger Fields)					
Field	Data Element	D.Type	Length	Description	
VNAME	JV_NAME	CHAR	6	Joint Venture	
EGRUP	JV_EGROUP	CHAR	3	Equity Group	
RECID	JV_RECIND	CHAR	2	Recovery Indicator	
VPTNR	JV_PART	CHAR	10	Partner Account Number	
BTYPE	JV_BILIND	CHAR	2	Billing Indicator	
ETYPE	JV_ETYPE	CHAR	3	Equity Type	
PRODPER	JV_PRODPER	DATS	8	Production Month (Date to find period and year)	
BILLM	JV_BILLM	DATS	8	Billing Month	
POM	JV_POM	DATS	8	Processing operational month	
CBRUNID	JV_CBRUNID	DEC	21	Cutback Run ID (Joint Venture Accounting)	
JVACTIVITY	JV_ACTIVITY	CHAR	2	JVA Activity (Joint Venture Accounting)	
PVNAME	JV_PVNAME	CHAR	6	Partner Venture (Joint Venture Accounting)	
PEGRUP	JV_PEGRUP	CHAR	3	Partner Equity Group (Joint Venture Accounting)	
S_RECIND	JV_SRECIND	CHAR	2	Allocation: Sender Credit Recovery Indicator	
CBRACCT	JV_CBRACCT	CHAR	10	Cutback Account (Joint Venture Accounting)	
CBOBJNR	JV_CBOBJNR	CHAR	22	Cutback Cost Object (Joint Venture Accounting)	

S/4HANA JVA On-Premise Edition Roadmap

Joint Venture Accounting

Key Business Processes

Operator's View

Venture Sourcing

- Accounts Payable
- GR/IR
- Open Item & Clearing

Venture Funding

- Accounts Receivable
- Treasury & Banking
- Project Budgeting
- AFE Process

Master Data Management

- JVA MD
- FI, CO, PS MD

Accounting Approach Configuration

- **■** Billing Basis
- Operator as Partner
- Operator Oriented

1. Venture Cost Capturing

2. Pre-Cutback Activities and Cutback - Allocation of Venture Costs

3. Venture Partner Billing

Actual Processes

- Activity Allocation
- Asset / Material Transfers
- Cash Calls
- Non-Operator Invoice Processing

Period Processes

- FXD (RXD, UXD)
- Cost Allocation
 - Assessment
 - Distribution
 - Settlement
- Overhead
- JV Funding

- Suspense
- **■** Equity Adjustment
- Cutback
- CI/NPI Processing
- Netting
- Billing (Invoice, Expenditure Detail, SOE and Billing Hardcopy)
- Government Reporting PSC (Royalty, Recoverable Costs, Profit, Income Tax)

Finance Month End Process (FI /CO and JVA)

Cost Transfers Foreign Currency Valuation

Cost Allocations

Overhead Calculations (PCO)

Equity Adjustments

Cutback

Settlement
AuC
Own Share

Partner Netting

Final Settlement

Billing

Corporate Close

10



Product road map overview – Key innovations

1809 - Recent innovations¹

UI Visual Harmonization (JVA Fiori VH tiles)

1909 - Recent innovations¹

- Move to new JVA data model based on Universal Journal
- JV Funding
 - New Venture Bank Switching Function
 - Interest Calculation
- Improved JVA process handling
 - Cutback Invoice per partner posting
 - Cutback –Reversal
 - Cash Call
 - Farm In & Farm Out
 - Equity Change
 - Suspense MD Display
- Fiori Venture MD object page app
- Fiori JOA MD object page app

2020 - Product Direction^{1,2}

- JVA on ACDOCA Migration support (FPS1)
- JVA PCO Overhead enhancement
- JVA-cFIN Integration (FPS1)

2021 – and Future Releases^{1,2}

- PSA Rollup Rule ACDOCA adaption
- JVA Finance Overview Fiori app
- Plan Data Processing (first version)

^{1.} This is the current state of planning and may be changed by SAP at any time without notice, 2. Since release 2020 the release numbering schema has been changed and consists now only the year. Release is planned in Q3

SAP S/4HANA JVA On-Premise edition – JVA on Special Ledger (classic)



Product road map overview

1809 - Recent innovations¹

1909 - Recent innovations¹

2020 – Product Direction^{1,2}

2021 – and Future Releases^{1,2}

UI Visual Harmonization (JVA Fiori VH tiles)

Maintenance

Maintenance

Maintenance

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S/4HANA JVA On-Premise Edition Processes & Innovations for JVA on ACDOCA

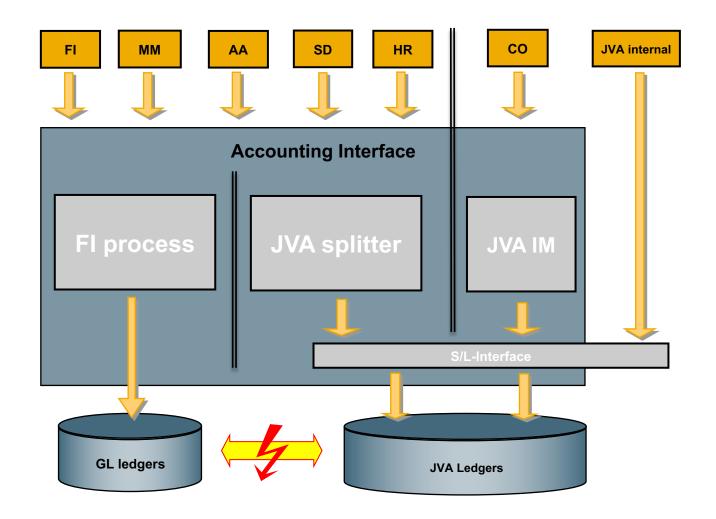
S/4HANA JVA On-Premise edition 1809 and prior releases (e.g. ECC6 etc..)

Classic JVA data workflow in ERP based on Special Ledgers without Finance integration

Document Split in JVA (Integration Manager)

2 sources of true for reporting

- Finance
- JVA

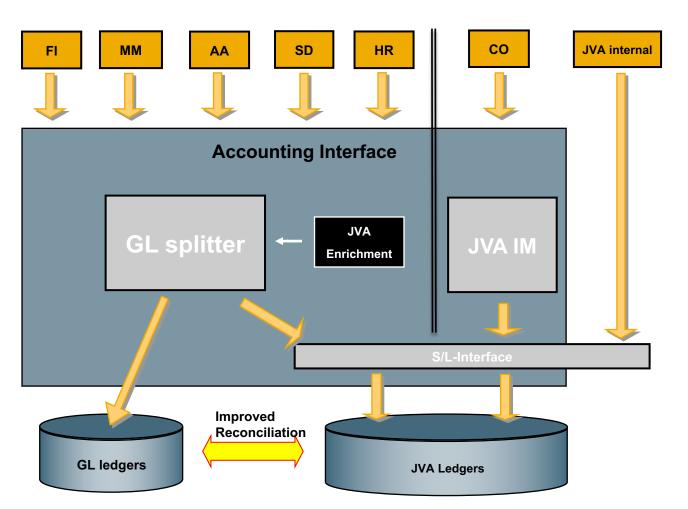


S/4HANA JVA On-Premise edition 1809 and prior releases (e.g. ECC6 EhP6 etc..)

JVA data in ERP with NewGL-JVA integration based on Special Ledger data model

Document Split in FI-GL 2 sources of true for reporting

- Finance
- JVA



Switchframework:

- JVA BF
- JVA-NewGL BF

Improvement:

- FI document for JVA internal documents
- GJ90 for RXD is replaced by CO-FI reconciliation
- GJ91 for UXD and GJNO for B/S valuation are replaced by FAGL FC VAL

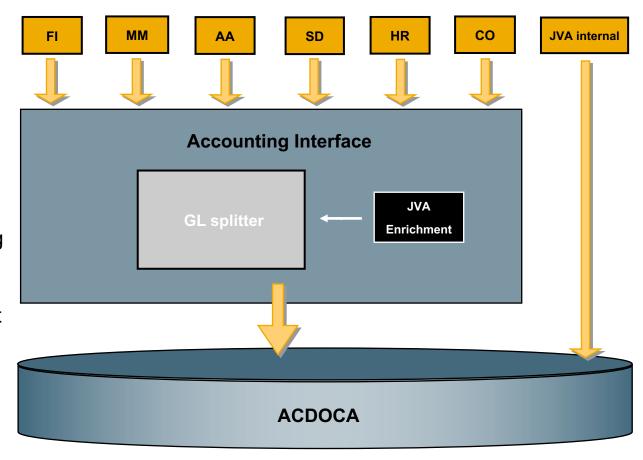
JVA on ACDOCA data flow

Document Split in Finance

1 single source of true for Finance and JVA reporting

Result:

1 single finance document split by Venture and EG



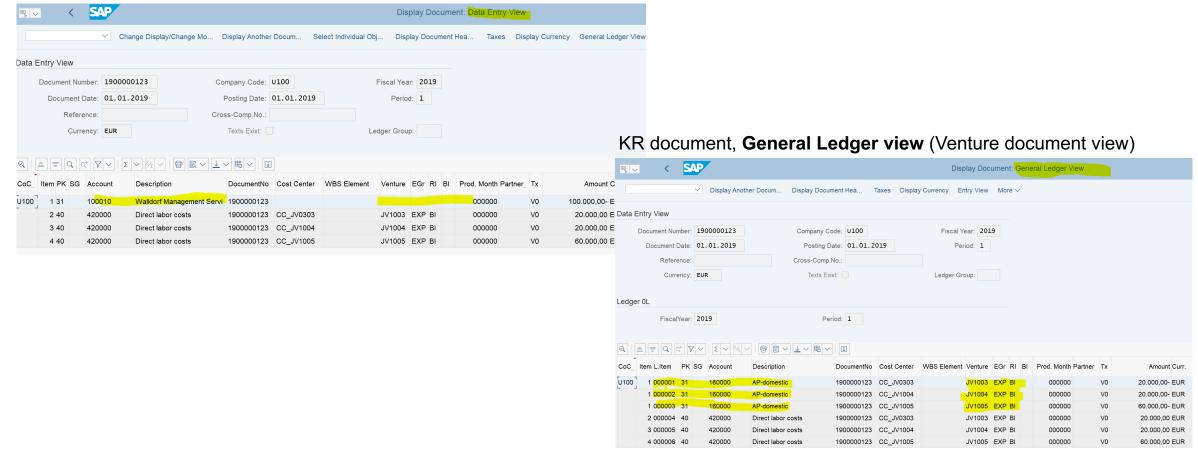
Note: SL data model will be still supported with release 1909 if customers does not use JVA on ACDOCA (JVA UJE Business Function).

The FI-GL document split is mandatory for the JVA UJE Business Function in 1909.

FI General Ledger Document Split According JVA Splitting & Derivation Rules

Example, KR Document with 3 ventures, Operator Oriented and cash based billing

KR document, entry view (BSEG view)



Changed JVA Processes

- JVA Special Ledger fields are replaced by the Universal Journal ACDOCA table
 - Thus the JVA Reporting and Partner billing are done out of the ACDOCA table (except for JVA plan data).
 - 100% reconciliation between CO, FI and JVA
- JVA Document Split (JVA Integration Manager)
 - is replaced by Finance document split (Venture and EG are becoming a mandatory split characteristic)
- thus the venture document is replaced by finance document with split line item by Venture and EG
- JVA internal postings are updating Finance and generates Finance documents
- FXD
 - RXD replaced by FI-CO integration and Venture document split (by Venture and EG) in Finance
 - UXD and B/S Item Valuation replaced by standard Finance UXD program
- JVA Bank Switching
 - replaced by JV Funding
 - enhanced by Interest calculation for interventure liabilities

Changed JVA Processes

- JVA Advance Tax Return (GJVA) replaced by standard Finance ATR solution
- JVA JADE Audit Report is replaced by SAP ACR (Audit & Compliance Report) solution
- JVA Special Ledger Reports are replaced by Fiori Design Studio Reports
- New Billing Extract tables (transparent tables)
- IMG Cutback Mapping is replaced by MD program / VH tiles
- IMG MM-Valuation Area Integration is replaced by MD program / VH tiles

Deployment Options:

With S/4HANA 1909 customers have several deployment options:

Option 1 JVA classic with SL (document split in JVA and recorded in JVA SL)

Option 2JVA classic with SL and JVA-NewGL integration (document split in Finance but venture document is recorded in JVA SL)

Option 3 JVA on ACDOCA (document split in Finance and Finance document is recorded in ACDOCA - split by VENTURE and Equity Group)

Option 2 and 3 may require document migration for historical data!

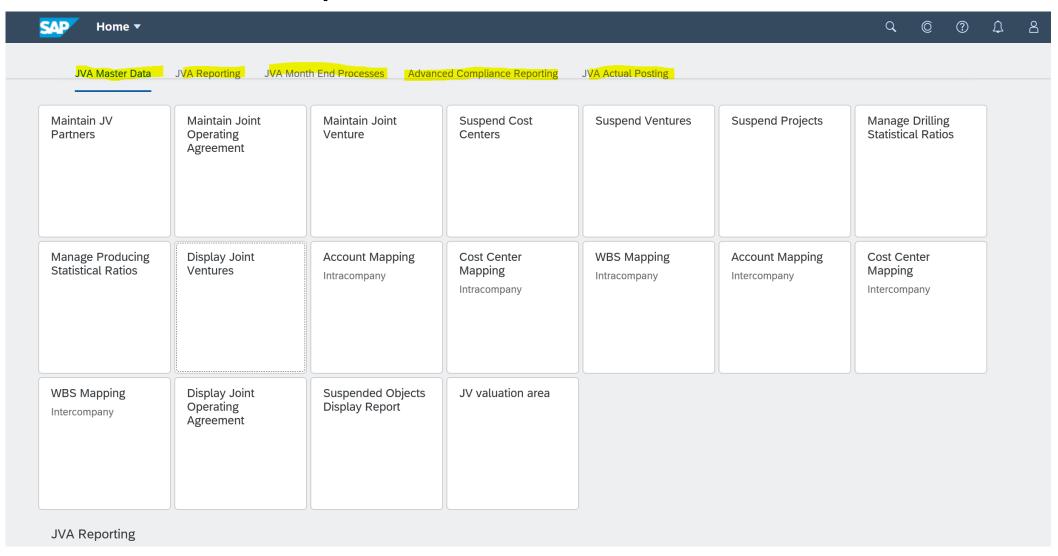
Simplification & Innovation for Joint Venture Accounting on Universal Journal*

Attachment Service for Venture and JOA MD



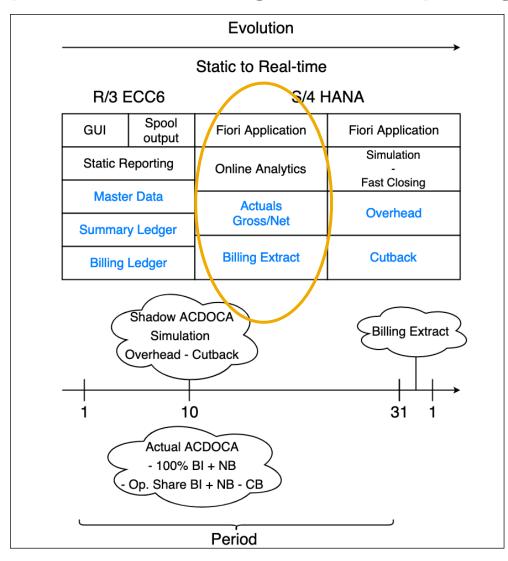
S/4HANA JVA Fiori Launchpad - Overview

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SAP S/4HANA JVA On-Premise Edition 1909 and future releases *

Upstream Accounting – Online Reporting and Analytics for JVA on ACDOCA



SAP Fiori Design Studio Apps & Object Page App JVA Reporting by Period, Year to Date and ITD 1909

Master Data**

- Venture Details
- JOA Details

Transaction** Data

- Venture Gross/Net
- Billing by Venture, **Equity Group** and Partner, BI
- Remaining Cutback

Controlling*

Data

w/o ITD

Actual / Actual

- Cost Centers
- Internal Order
- WBS

Actual / Plan

- Cost Centers
- Internal Order
- WBS

Online Analytics Fiori App*:

Data research, comparison between billing extract and actual data – including drilldown

Example Use Case:

- JIB Partner Dispute Analyse
- Transparency on billing data and not yet invoiced billable data

S/4HANA Fiori Launchpad – Joint Venture Accounting Financial Overview Fiori app (planned for release S/4HANA 2021)

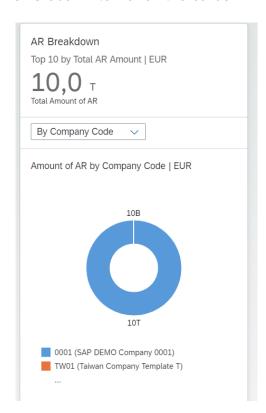
1. Global Filter for all the cards



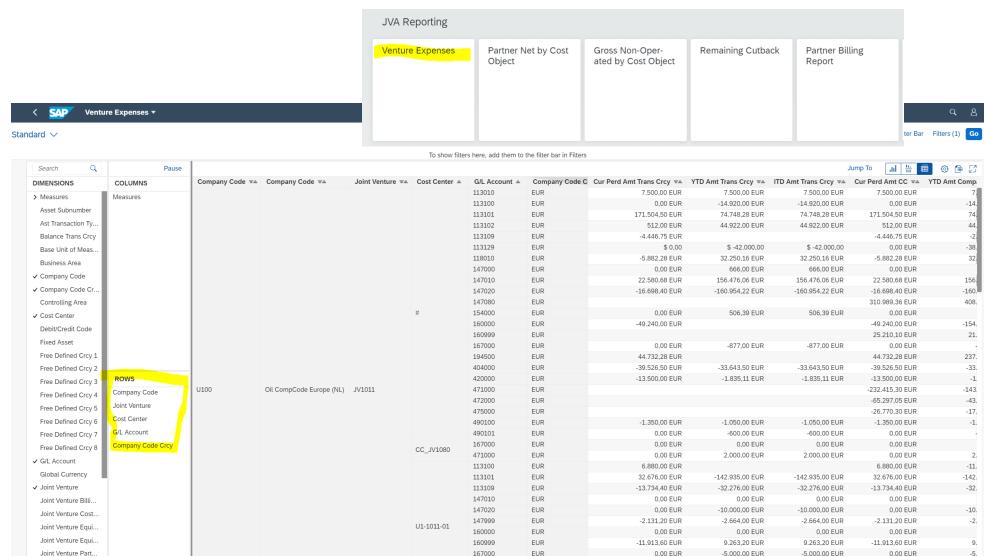
2. Global Filter for all the cards



3. Global Filter for all the cards

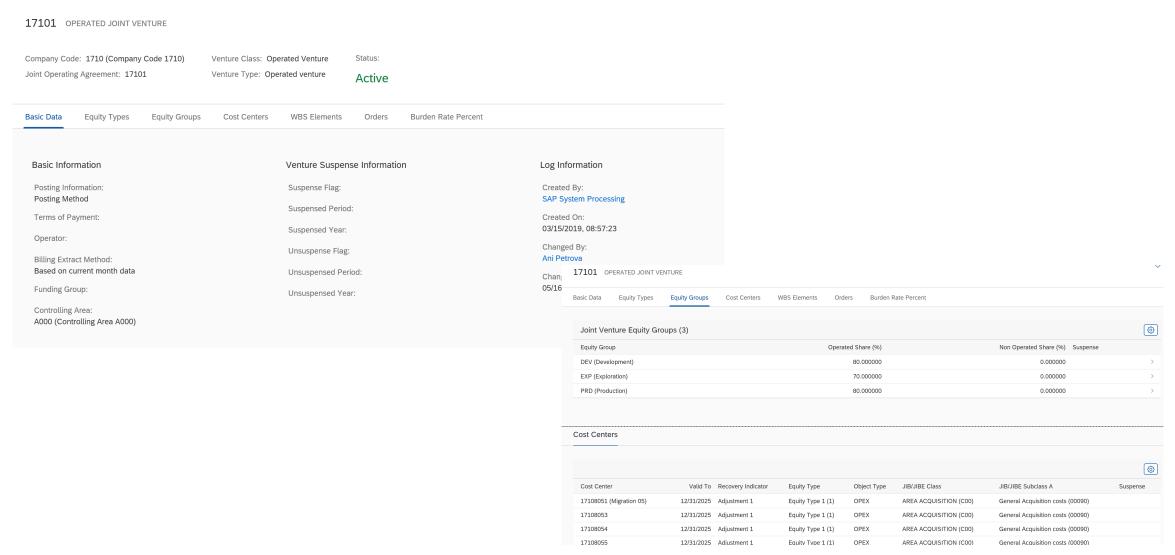


S/4HANA JVA Fiori Tile – Example Reporting - Venture Expenses

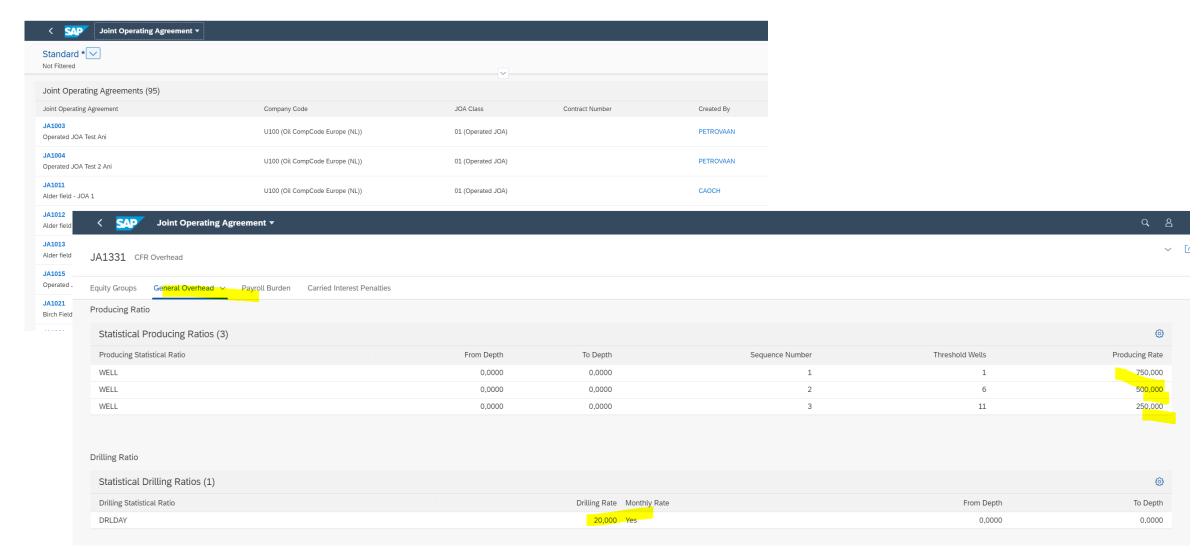


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JVA Fiori Venture MD Display Object Page



JVA Fiori Joint Operating Agreement MD Display Object Page



JV Funding – Inter-Venture Liability is replacing Venture Bank Switching GJ20

The JV Funding program consists of following features:

- Data capture (automated process for the Reimbursement-Select feature)
- 2. Reimbursement
 - 1. Select
 - 2. Post
 - 3. Reverse
 - 4. Reporting
- 3. Interest calculation
 - 1. Post
 - 2. Reverse
 - Reporting

The Reimbursement and Interest Calculation feature is assigned to the S/4HANA Cloud Job Scheduler, for managing your jobs that run either only once, or on recurring schedules. A job is a collection of schedules with an action endpoint.

Venture Funding – Corporate Pay by Corporate Bank- Use Case Norway

Use Case: Corporate Pay

Determine Venture liabilities (Funding Run) and Reimburse Venture liabilities

Example:

- 1. **Vendor Invoice** KR document with RI BI 1000 USD for operated venture on November 8th (FG1)
- Vendor KR Document Payment from corporate bank account on December 6th
- JV Funding–Reimbursement Posting from sending operated venture to receiving Corporate Venture on December 19th
- 4. Reporting

JV Funding – Liability Reimbursement - Use Case

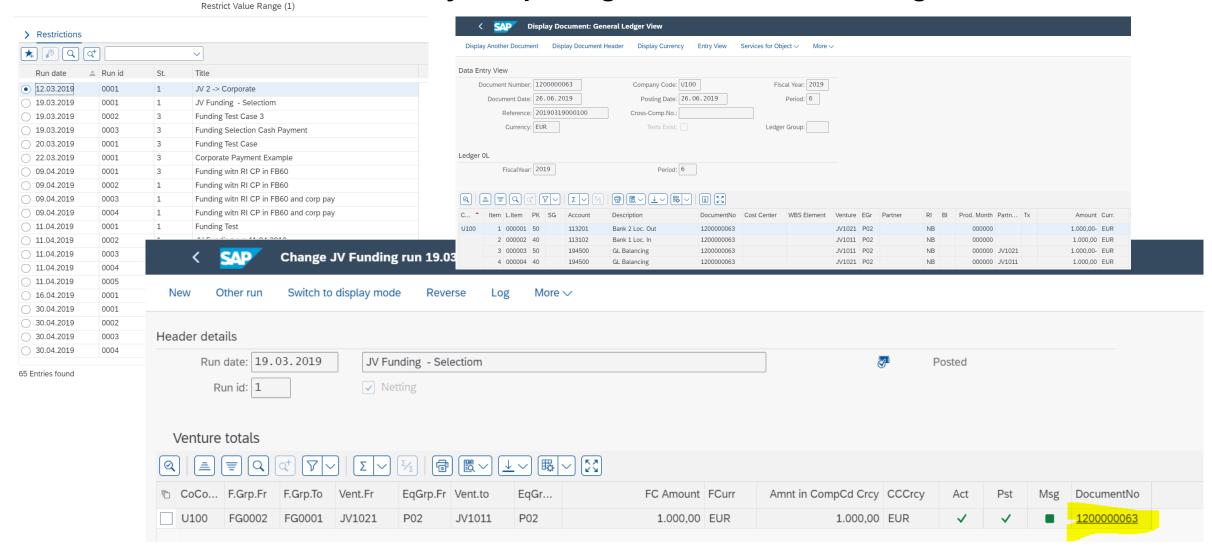
Use Case: Invoice Payment from wrong Venture

Determine Venture liabilities (Funding Run) and Reimburse Venture liabilities

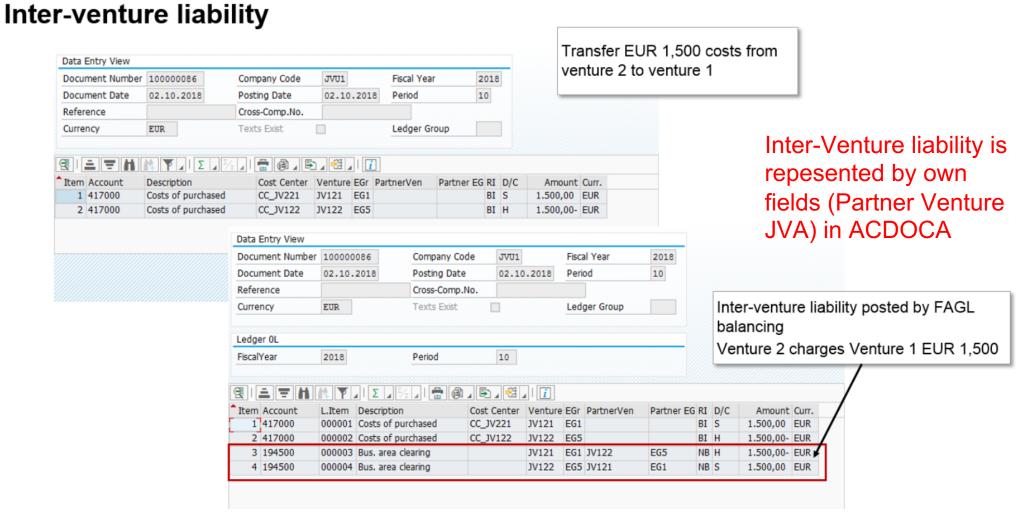
Example:

- Vendor Invoice KR document with RI BI 1000 USD for Venture 1 and Venture 2 on November 8th (FG1 and FG2)
- Vendor KR Document Payment from Venture 2 bank account on December 6th
- JV Funding–Reimbursement Posting from sending venture Venture 1 to receiving Venture 2 on December 19th
- 4. Reporting

JV Funding – Inter-Venture Liability is replacing Venture Bank Switching GJ20

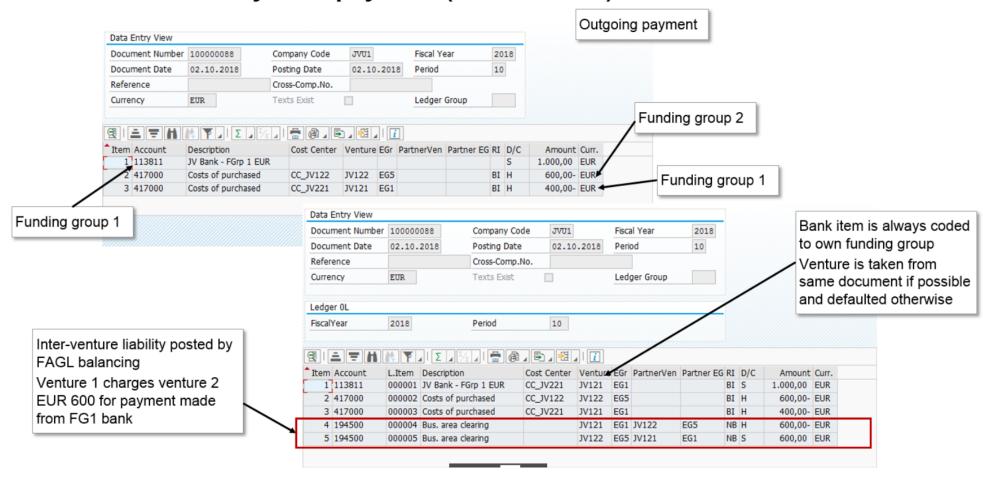


JV Funding – Inter-Venture Liability



JV Funding – Venture Liability from Payment

FAGL JV – Liability from payment (Inter-venture)



JV Funding – Reimbursement - Select

Reimbursement - Select



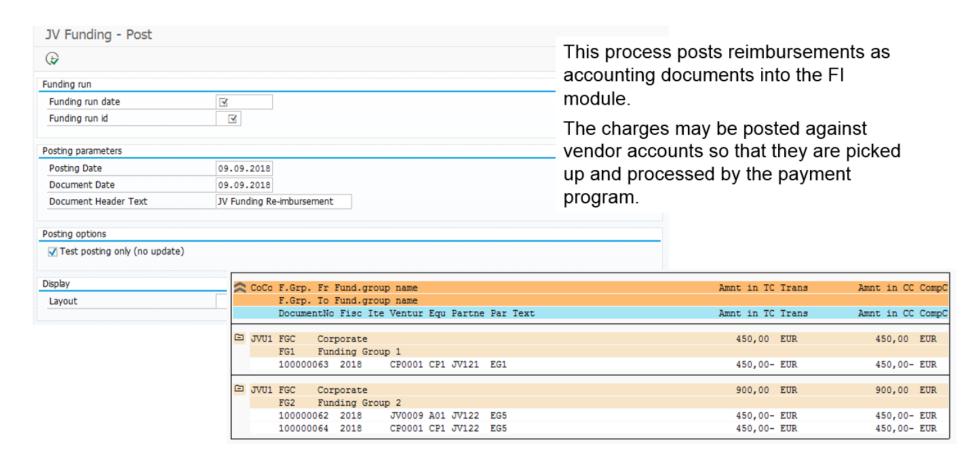
Inter-venture items are selected from the FAGL balancing account and assigned to a Funding Run as a reimbursement proposal.

New funding runs are assigned an identifier made up of 'run date' and a sequential number. When a funding run is saved, this identifier is coded on the field CBRUNID of the selected inter-venture items so that they are not selected for inclusion in other funding runs.

An option is provided to 'post immediately' so that the program may be run as a simulation of the old bank switch program.

JV Funding – Reimbursement - Post

Reimbursement - Post



JV Funding - Interest Calculation

- Calculate interest based on daily balances defined according to value date, document date
- Interest rates are defined using standard configuration tables. Rates are calculated according to threshold values and based on accepted bank rates such as LIBOR and NIBOR (Interest Calculation Group)
- Balances on which interest is calculated are defined using groups of venture, equity group and funding currency, referred to as interest calculation groups
- The program will post interest as billable charges from the corporate venture into the affected joint ventures
 prior to cutback
- A 'cycle' represents a run of the interest calculation program for a particular interest group in a particular period
- Value date can be entered, document date is used if no value date is present.

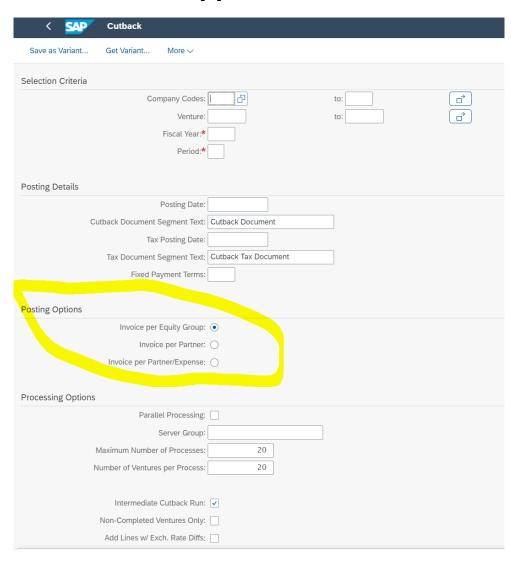
JV Funding – Interest Calculation – Use Case Norway

Calculate interest charges on daily inter-venture balances

Use Case 1.: If a non-operator partner defaulted on the cash call, then interest will be calculated on late payment

Use Case 2.: Over/under call

New Cutback App*



New UI with harmonized selection screen

New Posting Options

- Invoice per Partner
- Invoice per Partner / Expense

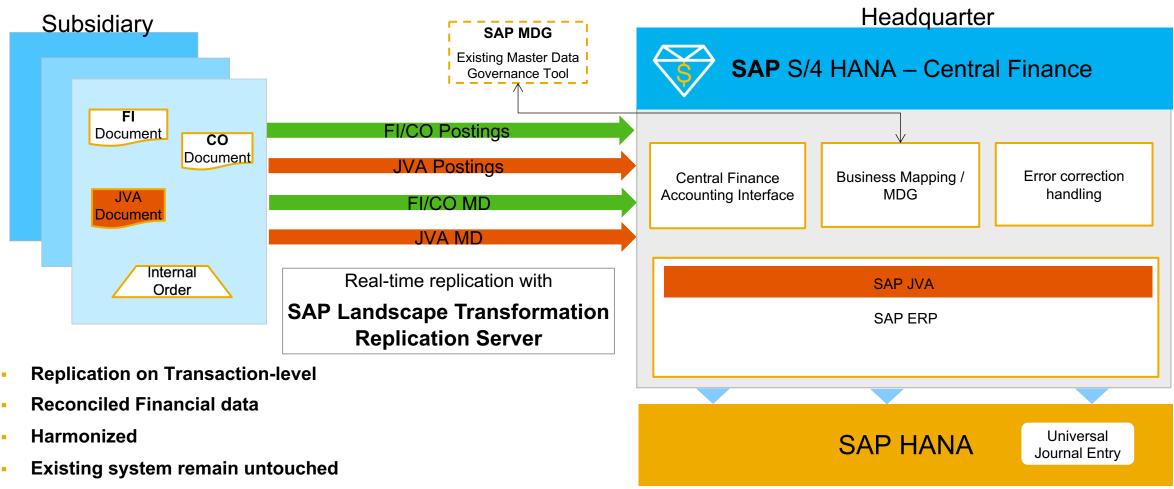
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S/4HANA JVA On-Premise Edition Central Finance Integration

Planned Release S/4HANA On-Premise Edition

JVA-Central Finance Functionalities – Replication of Documents and MD





 Replication of JVA MD and Documents incl. internal JVA internal documents require additional enhancements of existing standard Central Finance solution.

Planned Release S/4HANA On-Premise Edition 2020 FPS1 in Q1 2021

S/4HANA JVA-cFIN Integration - Planned Standard Scope Items*

Scope item	Technical Information
Documents	Basic technology: the existing cFin
	channels are used to transfer all
	document types.
FI documents (enriched by JVA split)	Transfer of split results via the
	additional table CFIN_SPLINFO
CO documents (enriched by venture data)	Enhancement of several structures
	required
Internal JV documents	Uses the same channel as FI
(documents posted by JVA month-end	documents (CFIN_ACCIT)
processes to ledger 4A or 4B only)	

Scope item	Technical Information
Initial Load	Reports to be run in the senders
	systems that transfer data from the
	sender system via RFC call to in
	the cFin system
FI documents (JVA split)	Covered by existing cFin
	functionality (?)
CO documents (JVA data)	Covered by existing cFin
	functionality (?)
Internal JVA documents	Report to transfer all documents
	that were posted to the JVA ledgers
	only (or to ACDOCA only, if JVA is
	running on ACDOCA)
Joint Operating Agreements	Report to transfer all JOAs
(incl. Equity Groups)	
Ventures	Report to transfer all ventures
Venture Partners	Report to transfer all venture
	partners

Scope item	Technical Information
Master Data	Basic technology for all master data: on the sender side the
	DRF is called up via BADI. The DRF, in turn, calls up the AIF
	in the cFin system via RFC call
Joint Operating Agreements	BADI in transaction GJAA (and in master data class?)
(incl. Equity Groups)	
Ventures	BADI in transaction GJVV (and in master data class?)
Venture Partners	BADI in transaction GJ2B (and in master data class?)

Scope item	Technical Information				
Data Verification/Reconciliation	Reports to be run in the cFin system that retrieves data from				
	the sender system via RFC call and compares these data with				
	the data in the cFin system				
FI documents	Report to compare the JVA split in the sender systems				
	(JVSO1/ACDOCA) with the JVA split in the cFin system				
	(JVSO1/ACDOCA)				
CO documents	Report to compare the JVA data in the CO data of the sender				
	systems (JVSO1/ACDOCA) with the JVA split in the cFin				
	system (JVSO1/ACDOCA)				
Internal JVA documents	Report to compare the details of the internal documents in the				
	sender systems (JVSO1/JVSO2/ACDOCA) with the				
	corresponding internal JVA documents in the receiver				
	systems (JVSO1/JVSO2/ACDOCA)				
Joint Operating Agreements	Report to compare the details of the JOA data in the sender				
(incl. Equity Groups)	systems with the corresponding data in the cFin system				
	(taking into account any mapping)				
Ventures	Report to compare the details of the venture data in the				
	sender systems with the corresponding data in the cFin				
	system (taking into account any mapping)				
Venture Partners	Report to compare the details of the venture data in the				
	sender systems with the corresponding data in the cFin				
	system (taking into account any mapping) limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement 45				

Thank you.

Jürgen Newrzella

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