



SAP Joint Venture Accounting

POWERED BY SAP HANA



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INTRODUCTION

This book provides system architects, technical consultants, and IT management the tools to design system architectures to deploy SAP applications on SAP HANA. Explore production and non-production systems, deployment options, backup and recovery, data replication, high-availability, and virtualization in detail. Dive into on-premise deployment options and data provisioning scenarios. Walk through scale-up and scale-out options and data partitioning considerations. Review the advantages and disadvantages of storage and system replication options and when to use each. Clarify how to leverage HANA for single node and distributed systems. Dive into a discussion on software and hardware virtualization.

35 Joint Venture Accounting

35.1 Activate JVA in a Client

Use

Use this IMG activity to establish basic table entries necessary to run Joint Venture Accounting (JVA) in a client, and deliver a result list of all created table entries.

The program creates JV-related entries in pure JV tables, and also in basic steering tables for other applications such as FI, GL and CO.

The program does not delete any entries.

Activities

Only run this program if you are sure that you want to run JVA in this client. Run the program before you do any other JVA-related configuration in this client.

To activate JVA in this client, click **Yes** in response to the system messages:

- Do you really want to activate Joint Venture Accounting in this client?
- New table entries may be created. Do you want to execute the function?

Note

Do not run the program again if the first run is successful and without errors. Multiple program runs are not harmful but they are unnecessary.

35.2 Environment

The first step in configuring Joint Venture Accounting (JVA), which is also called IS Oil Upstream, for a company is to define the environment (that is, the broadest boundaries of the module) for the company. Defining the JVA environment for a company involves specifying information for the following major items:

- Company global, corporate, and detail data
- JVA ledgers
- Basic EDI settings

In this same environment area, you can perform the following global tasks with regard to JVA:

- Activate or deactivate the company for JVA
- Copy configuration from an existing JVA company Copy JVA-related tables from an existing client

35.2.1 JVA Company Configuration

35.2.1.1 Global Data

Use

Use this IMG activity to configure global data for a company in JVA.

Requirements

A valid creditor exists (or you have created a new one) in FI, for entry in the Operator field.

Activities

Enter the required data in the the following categories:

- Processing
- Operator Information
- Field Status Information

Note

Use F1 Help to display information on the data to be entered in each field.

You must enter a valid creditor in the *Operator* field.

35.2.1.2 Corporate Data

To configure JVA for the company, enter the following information for the company's corporate data:

Requirements

Before you can enter the required information on the corporate data screen for the company, you must set up the following prerequisites:

- Recovery indicator with the billable indicator not selected (See Recovery indicators)
- Equity Type to be used to connect the corporate equity group to ownership of the corporate joint venture (See Equity Types)
- Equity group with the operator share set at 100% for an equity group that is wholly owned by the company
- Joint venture to which the corporate equity group has been assigned owner
- Default tax codes (including input and output codes and a tax jurisdiction) for the company

Standard settings

Expense postings for which joint venture and equity group assignment cannot be derived are assigned to the corporate venture and equity group with the corporate recovery indicator.

Activities

On the **JV Company Code Corporate Data** screen, you should enter information about the following JVA structures for the company:

In the corporate **joint venture** field, enter the code for the venture that is wholly owned by the JVA company to which expenses that lack joint venture information will be booked.

In the corporate **equity group** field, enter the code for the equity group that is wholly owned by the JVA company and is assigned to ownership of the corporate venture.

In the **Corp.Rec.Ind. 1** field, enter the code for the non-billable recovery indicator that will be assigned to expenses that lack joint venture information

In the **Corp.Rec.Ind.** field, enter the non-billable recovery indicator that will be assigned to expenses if venture bank accounts are being used and the expenses are to be funded by a venture funding group (International region only).

In the Corporate Cost Center field, enter the code for the cost center to which expenses will

be assigned when no cost center is assigned to the expenses in the JVA ledger but when the corporate joint venture and equity group identified on this screen are designated.

This assignment is relevant only to international region companies because it is used in venture bank account switching and realized and unrealized currency exchange difference processing for both open and non-open items.

In the **0% Input tax code** field, enter the tax code input tax to be applied to expenses for joint ventures in which the JVA company holds a non-operating interest (always required).

In the **0% Output tax code** field, enter the tax code output tax to be applied to expenses for joint ventures in which the JVA company holds an operating interest (always required).

In the **Tax jurisdiction cde** field, enter the tax code for the jurisdiction whose tax rates will be applied to expenses (required for US region companies).

Further notes

Both the secondary corporate recovery indicator and the corporate cost center are relevant solely for international region companies.

The secondary corporate recovery indicator is inserted in posting lines to bank accounts when venture bank accounts and funding groups are used.

The corporate cost center is used for postings involving currency exchange differences and bank account switching.

35.2.1.3 Detailed Data

To configure detailed data for the company in JVA, enter information for the following categories:

- Processing expense postings
- JVA processes Cutback and Billing
- Asset and material management for JVA
- JVA Cost Calculations process

Requirements

Billing

Before you specify the billing structure on the company detailed data screen, you should set it up in JVA Billing configuration.

Asset and Material Management

Before specifying the asset settings for the company detailed data, you must set up the following:

- Chart of depreciation in Asset Accounting
- Depreciation areas for book, billable, and non-billable in Asset Accounting
- Recovery indicators to be assigned to asset postings in JVA configuration
- Transaction types for transactions involving JVA assets in JVA configuration

Cost Calculations

Before you can specify the exclusion sets containing accounts to be excluded from certain cost calculations, you must set up the exclusion sets in JVA configuration.

Before international region companies can specify the cost object (cost center, WBS element, or order) to receive the expense postings from parent company overhead processing, this object must be defined in CO

Standard settings

Cost Calculations

Expenses booked to the sets of accounts that you specify in the exclusion set fields will be excluded from JVA cost calculation processing.

Activities

Processing Expense Postings

You may specify the maximum number of equity groups allowed to be active (i.e., expenses can be posted to it) at one time for a combination of equity type and joint venture for the company by entering a number in the **Max. Activ E. Grps.** field.

The bank account settings are relevant to international region companies. If you select **Venture Bank Acc.**, you should specify a funding group for each venture, and JVA documents posted in your company will be updated with the bank account number for each venture.

You may flag the **Bank Acct.Switch on** field, to indicate that a Venture Bank Account is to be used. If this flag is marked, the JV integration manager will check each document to ascertain whether the document is relevant for the switch. The program will not overwrite existing entries, so it is re-runnable and period independent.

You may choose to post corporate documents as well as joint venture documents in JVA by selecting **Post corp docs in JV**. Posting corporate documents in JVA could significantly increase the size of the JVA ledgers.

You may choose to treat recovery indicator determination differently than the usual handling for non-clearing bank lines by selecting **RI Switch for Banks**. This indicator allows the recovery indicator of the cost object to which the posting was originally made to be stored with the non-clearing line. When this indicator is selected, the corporate recovery indicator (specified on the **JV Company Code:**Corporate Data screen) will be assigned to the non-clearing line, with the recovery indicator of the cost object stored on the line as the original recovery indicator.

Settings for JVA Processes Cutback and Billing

To configure the JVA processes Cutback and Billing, you should specify settings for the following elements:

For Billing, you must specify a **Billing Structure** and indicate whether taxes should be included in expenditure detail reporting in the **Tax on exp. detail** field.

International region companies should indicate how the exchange rate for foreign currency exchanges should be determined by an entry in the **Exchange rate type** field and whether Cutback postings should be made in the transaction currency, or as on default, in the funding currency.

If **Post tax to next per** is selected, Cutback will post taxes in the following period rather than in the current period (default).

For companies using Carried Interest and Net Profit Interest (CI/NPI) functionality, you should indicate whether CI/NPI postings should be made to FI and whether gross expense postings to the venture should be applied to determine payout for a CI partner within the venture. Normally, CI/NPI postings are made

only in JVA, and net expense postings to the CI partner (i.e., post-Cutback expenses) are applied against the CI partner to determine when payout is reached. If you select **CI posting in FI**, then an FB01 will be generated for CI postings to the partner. On default, the partner's CI expenses are posted as a GB01.

If you select **Gross CI postings**, the gross expenses for the venture plus the penalty will be applied against the revenues for the partner's share to determine payout. When the partner reaches payout, no posting of residual revenues is made, but the partner is converted to working interest.

Settings for Asset and Material Management for JVA

To configure functionality based in the standard AM and MM modules for special use by JVA, you should enter settings for the following:

In the **Chart of dep.** field, you should specify the chart of depreciation for the JVA company. This must be set up in Asset Management configuration.

In the **Assign asset to vent** field, you should specify the type of the CO cost object that should be used to determine the venture that owns an asset. Joint ventures are set for each cost object when it is defined.

To track billable and non-billable postings to assets, AM links recovery indicators for these two types of postings to specific depreciation areas. The following three fields are used to identify the depreciation areas or sets of asset books that will be maintained for the JVA company. These fields indicate whether the costs booked in each area are billable or non-billable.

Net book postings will be stored in the depreciation area specified in the **Book depreciation** field. Standard asset accounting in SAP designates depreciation area 01 as the book depreciation area.

Gross billable costs will be stored in the depreciation area specified in the **Billable Cost Area** field. Gross non-billable costs will be stored in the depreciation area specified in the **Non-billable cost** field.

You can indicate whether the current replacement price (CRP) for materials and assets should be calculated by the system in the **CRP calculation** field.

In the **Index series** field, you can enter the name of a series of values to be used to provide an annualized update of CRP for assets. This series can be used to adjust prices for a variety of reasons (e.g., inflation).

In the **MM Method** field, you should enter the code for the method of handling MM postings for the company. Different methods are available for the three different JVA regions.

In the **Mess.for Budg.impact** field, enter the code for the type of message to be delivered if a budget impact CO element is missing for an asset being transferred.

In the **CRP Tax Code** field, enter the code for the tax to be applied to CRP postings.

In the **Corporate RI for AM** field, specify the corporate recovery indicator (specified on the **JV Company Code:Corporate Data** screen) to be used to book non-billable asset sales. The recovery indicator specified in this field will be substituted for the recovery indicator derived from the CO object.

35.2.1.4 General Ledger Integration

Use

In this Customizing activity you define the settings for the integration of Joint Venture Accounting (JVA) and the General Ledger (New) (FI-GL (New)) components. You need to define various settings which define how the integration functions. For example, you can select options for how Materials Management (MM) documents are processed. You make these settings for each company code.

To create a new entry, you first need to enter the company code. There are various other settings which you can make. For more information about each of these settings, see the following:

- # Use NewGL splitter for JVA
- # Display warning when NewGL doc differs from old JV-IM doc
- # Enrich NewGL document with JV data
- # Treatment of MM documents
- # GL account for FI/CO reconciliation

35.2.1.5 EDI Parameters

EDI is currently available for US and Canadian region companies.

You can configure EDI to process incoming billing information for ventures in which the company using JVA holds a non-operating share. This is referred to as inbound EDI.

You can also configure EDI to process outgoing billing information to be sent to non-operating partners of ventures in which the company using JVA holds the operating share. This is referred to as outbound EDI.

JVA EDI Interface

JVA supports both inbound and outbound EDI transmissions with interchange partners with whom an EDI interface has been established. This interface complies with the JIBE standards defined by the PIDX (Petroleum Industry Data Exchange) committee. It also adheres to ANSI X12 protocol.

EDI Documents

Currently, JVA supports the receipt and transmission of the following two types of transaction set IDOCs (intermediate documents):

- Invoice (transaction set 810)
- Operating expenditure statement (transaction set 819)

The invoice transaction set consists of a summary statement of charges. It uses the JV_INV01 IDOC type.

The operating expenditure statement transaction set contains detailed information, and uses the JV EXP01 IDOC type.

35.2.1.5.1 Company Configuration for Inbound EDI

You can configure EDI to process incoming billing information for ventures in which the company using JVA holds a non-operating interest. To configure your company for inbound EDI, you must at a minimum specify the following settings for the FB01 posting that will be created with the inbound EDI information:

- Method for determining the posting date of the FB01
- Level of detail or aggregation at which data will be posted in the FB01

You can also specify settings for the following types of data to filter incoming EDI data:

- Disposition of memo AFEs
- Treatment of working interests that exceed those stated in the transmitted operating statement
- Handling of monetary amounts that represent discrepancies in transmitted totals

Requirements

Before performing any customization, you should run the RGJVEDII program to install basic EDI inbound configuration.

Standard settings

Usually the date on which the FB01 is posted is selected as the date type for determining the posting date of the FB01.

Also, you can aggregate data on the FB01 at the cost object and account level, but usually detailed posting at the service code level is selected.

Activities

For AFEs, working interest shares, and monetary amounts that deviate from the controls specified in the EDI transmission, there are two alternative treatments. If you so choose, the FB01 containing the data will be parked. On default, an IDOC (intermediate document) is created with the data and a status of error.

If you choose to park the FB01 containing anomalous data, you must also specify thresholds for memo AFEs, working interest shares, or monetary amounts that will trigger parking of the FB01.

You may also specify a particular posting period and year for the FB01 posting.

35.2.1.5.2 Assigning JIBE/PASC Numbers to the Company

By assigning the JIBE or PASC number to the company using JVA, you identify the company receiving inbound EDI transmissions of invoices for non-operated ventures.

The JIBE or PASC number identifies the receiver of an EDI transmission. JIBE numbers are used in the United States, and PASC numbers are used in Canada.

The JIBE number consists of the COPAS (Council of Petroleum Accountants Societies) identification code for the receiver (i.e., non-operating partner in a venture) of an invoice.

The PASC number consists of the company code for the receiver of an invoice. When companies join the Central Clearinghouse, they become members of the PASC JIB users' group, and their company codes are recognizable as PASC numbers.

Activities

Enter the JIBE or PASC number in the appropriate field, and enter the code for the company receiving inbound EDI in the CC field.

35.2.1.5.3 Company Configuration for Outbound EDI

You can configure EDI to process outgoing billing information to non-operating partners in ventures in which the company using JVA holds the operating interest. In configuring your company for outbound EDI, you can specify the following types of settings:

- Thresholds for out of balance conditions between the 810 and 819 transaction sets that should result in an error condition
- Default settings for material and contact information

Requirements

The program RGJVEDIX should be run to install basic EDI outbound configuration before any customization is performed.

Standard settings

Threshold Settings

In configuring JVA for outbound EDI, you can specify the following threshold settings.

810 IT1-819

The partner share amount for the property in the IT1 segment of the 810 transaction set should be equal to the total amount for the partner's share of the property on the 819.

When an out of balance condition between the IT1 segment of the 810 and the total for the 819 for a partner and property exceeds the threshold set in this field, the IDOC for the 819 transaction set will be placed in an error status.

JIL-JIDs

JID segments of 819 transaction sets provide additional detail data on the equipment charged in the preceding line item detail (JIL) segment. A JID is required when controllable equipment is involved.

In JVA, JIDs are created in accord with the configuration settings of billing supplemental detail.

The total for all the JIDs related to a JIL must equal the gross amount for the preceding JIL. When an out of balance condition between the 810 and 819 exceeds the threshold set in this field, the IDOC for the 819 transaction set will be placed in an error status.

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AFE ID in JIL

If you set this indicator on, the cost object type of the AFE (CC for cost center, PRJ for WBS element, or ORD for internal order) will be displayed along with the AFE identification number.

Default Settings

In addition to thresholds for triggering error conditions for the 819, you can also define default settings for certain outbound EDI fields, chiefly those on the 819.

Default Settings for Materials

Supplemental detail information at the lowest level may not always be provided by the billing extract. In the absence of this data, the entries made in these default fields will be used in outbound EDI transaction sets

The entry in the **Default UOM** field determines the default unit of measure qualifier for materials included in the JID04 field of the 819 if none is received from the billing extract.

The entry in the **Def JIBE Cond** field determines the default JIBE condition code included in the JID05 field of the 819 if none is received from the billing extract.

For US region companies, the entry in the **Def Mat. Desc** field determines the default material description included in the PID05 field of the 819 if none is received from the billing extract.

For Canadian region companies, the entry in the **Def Mat. SubAcc** field determines the default material PASC subaccount number for non-tubular material that will be included in the JID02 field of the 819 if none is received from the billing extract.

Default Settings for the Contact

The entry in the **Def Contac Code** field determines the default function code (e.g., AD = Accounting Department, AP = Accounts Payable, AR = Accounts Receivable) for the contact that will be included in the PER01 field of both the 810 and 819 when no entry is received from the billing extract.

The entry in the **Def Comms Code** field determines the default communication mode code (e.g., FX = Fax, TE = Telephone, TL = Teletype) that will be included in the PER03 field of both the 810 and 819 when no entry is received from the billing extract.

Long Text

The entry in the **Long Text ID** field will determine the text object used for text descriptions for JVA outbound EDI.

Recommendation

Configuration of JVA Billing has a major impact on JVA outbound EDI.

The outbound EDI transactions 810 and 819 derive their input from the billing extract.

In addition supplemental detail, though not a separate transaction, is incorporated into the PID, DTM, and JID segments of the 810 and 819. These segments are dynamically generated based on the billing levels defined in SDS configuration. The billing levels determine which segments and segment fields are selected from the supplemental segment driver table and how those fields will be populated.

Associated components in the supplemental segment component table determine how the segment fields in the 810 and 819 are populated. Field values may be derived from a literal, from another field, or by calling a program form routine.

By using the tables cited above in conjunction with standard and custom form routines defined in the user exit LGJEOFZZ, you can change the level of detail without altering standard code. This functionality enables you to add or delete individual fields or entire segments from either the 810 or the 819.

Further notes

JVA EDI outbound processing is dependent on the successful execution of the billing extract which itself is dependent on Cutback.

35.2.1.6 Activate Joint Venture Accounting

When you have set up the company in JVA, you can proceed to activate the company.

Requirements

Before you activate the company in JVA, you should specify all configuration information for the company in FI and in JVA, including defining any additional ledgers.

Activities

To activate only the standard ledgers (4A the summary ledger and 4B the billing ledger) required for JVA processing, select "Activate standard 4A, 4B".

Further notes

When you activate the JVA ledgers for the company, the **Activated** indicator on the **JVA Company Global Parameters** screen (JVA Company Global Data) will be updated to active.

35.2.1.7 Deactivate Joint Venture Accounting

You can deactavite a company and its additional ledgers for JVA.

Example

If you set up a JVA company to be used purely for test purposes, before converting to production, you would want to delete this test company and all its related data. Before you can delete the company, you must first deactivated the JVA ledgers for the company.

Activities

To deactivate the company for JVA, select "Deactivate from Joint Venture" and then select execute.

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To deactivate additional JVA ledgers for the company, enter the ledger or range of ledgers and then select execute.

Further notes

When you activate the JVA ledgers for the company, the **Activated** indicator on the **JVA Company Global Parameters** screen (JVA Company Global Data) will be updated to inactive.

35.2.1.8 Copy Configuration from Company

It is possible to copy JVA configuration from one company to another.

Activities

You may choose to allow existing configuration in the target company to be overwritten by data from the sending company, or you may preserve that configuration and add the sending company's data to it.

Alternatively, you may choose to replace the target company's existing configuration with the sending company's by deleting the target company's configuration during the copy.

35.2.1.9 Copy Tables from Client

You may copy JVA tables from an existing client to a new one that is being configured.

Activities

To copy the tables included in a transport from one client to another, you should specify the source client and the transport request before executing.

35.2.2 Ledgers

JVA ledgers are fixed, so it is not possible to directly influence their structure. There are, however, two possible methods of restructuring JVA ledger data: - Creating additional ledgers from the standard JVA ledgers

- Defining validations or substitutions to control input to the standard JVA single item ledger (JVSO1)

35.2.2.1 Additional Ledgers

You may set up extra ledgers in addition to those delivered for JVA by defining the characteristics of the new ledgers during company configuration.

Standard settings

JVA is delivered with ledger 4A as the summary ledger (JVTO1) and 4B as the billing ledger (JVTO2). 4A contains expense postings to joint venture/ equity groups, and 4B contains the postings to partners that result from cutback processing or direct posting.

Two additional ledgers are also delivered with additional currencies. 4C is based on JVTO1 and includes hard and index currency. 4D is based on JVTO2 and also includes hard and index currency.

Activities

You may add ledgers as necessary to support your company's currency processing needs.

Further notes

You can only add ledgers before you activate the company for JVA (See Activate Joint Venture Accounting).

35.2.3 Versions

35.2.3.1 Plan Version

Requirements

You can use different plan versions within the Special Purpose Ledger. Version numbers are used to manage different plans. The plan integration from CO into JVA is only possible, if the fiscal year variant in CO is identical to the fiscal year variant in JV.

Standard settings

Two prerequisites exist before the CO plan integration into Joint Venture Accounting can be used. You must:

- Activate the plan integration in CO
- Activate the plan version in JV

35.2.4 EDI Port Definition

As part of configuring JVA for EDI, you must define the IDOC Basis interface by defining the EDI port. The port definition specifies the technical characteristics of the connection between the SAP system and the EDI subsystem.

The port definition for JVA EDI consists of the following port types:

- Remote function call (RFC)
- File interface for outbound and inbound EDI

Requirements

Before you can define an RFC for the EDI port, a number range must be specified for the object EDIPORT.

Activities

Define the Remote Function Call (RFC)

To specify the port definition for EDI in JVA, you must define an asynchronous RFC. IDOCs are exchanged with partners' systems by means of RFCs. During transmission the two systems in the interchange determine when responsibility for the transmitted data passes from one partner to the other via the RFC.

In defining an RFC for an EDI port, you must provide a logical destination for the RFC. The system will assign a number to the logical description of the EDI subsystem or port internally.

Define the File Interface

You must also define a file interface for outbound and inbound EDI.

For both outbound and inbound EDI, you should define the following:

- Command file
- Status file

In the command file parameters, you should specify the logical destination of the RFC used in EDI, and you should specify the directory and the file name of the shell script file that controls communication with the EDI subsystem.

In the status file parameters, you should specify the directory and the file name of the file from which status records will be read.

In addition to the command and status file parameters, you should also define either the outbound or inbound file parameters, depending on which applies. In the outbound file parameters, you should specify the directory and file name of the file to which outbound IDOCs will be written. In the inbound file parameters, you should specify the directory and file name of the file from which inbound IDOCs will be read.

35.2.5 Maintain Messages

Standard settings

To prevent an invoice from being entered more than once, you can configure an **invoice check for non-operated billing** into the system to perform duplicate checking and to issue either a warning or an error message when a duplicate is found.

AP Settings

To perform duplicate invoice checking, activate the **Chk double inv.** field located in AP in Master Records, under Company Code data, Payment transactions.

FI Settings

You can set up your system to give an error message to all users, with the exception of users permitted to post non-operated billing transactions. This selected user group will receive a warning. To specify whether a user will receive a warning or error message in standard FI triggered by a duplicate FB01 posting:

- Access transaction SM31
- Enter table T100C
- Choose Maintain
- Press ENTER
- Enter F5 in the **Applictn area** field
- Choose New Entries
- Enter 117 in the **MsgNo** field
- Enter the user's name only if the user is selected to receive a warning
- Enter message type W or E in the **Online** and **BatchI** field

JVA Settings

To specify whether a user will receive a warning (W) or an error message (E) in JVA triggered by a duplicate JVA Non-operated billing posting:

- JV>Environment>Configuration menu>Environment>Maintain messages

- Enter G4 in the **Applictn area** field
- Choose New Entries
- Enter 035 in the **MsgNo** field
- Enter the user's name only if the user is selected to receive a warning Enter message type W or E in the **Online** and **BatchI** field

35.2.6 Validation and Substitution

You can control input of data to the JVA single item ledger JVSO1 by defining validations or substitutions. As postings are made in the standard modules (FI, AM, MM, CO), these validations and substitutions will be applied to test the entries to determine whether they should be entered in the ledger or altered before entry.

35.2.6.1 Validation

You can define validations that will be applied during data entry to postings with JVA-related data. These validations can be used to control data that is entered in the JVA single item ledger JVSO1 via the special ledger table JVAP.

Validations can be applied to any of the fields stored in the special ledger table JVAP that are significant to JVA. JVAP populates the JVA single item ledger JVSO1.

Example

Validation can be applied to exclude postings to selected cost objects.

Activities

Defining a validation in JVA is a three-step process:

- 1. Identify the JVA company and call-up point (only 2 document item is allowed)
- 2. Define the validation name, description, and specific logic
- 3. Assign the validation to the company and call-up point combination

1. Identify Company and Call-up Point

On the Change Validations for JVA Documents: Overview screen, select New Entries and enter the code for the JVA company in the CC field and the call-up point 2 in the CallPnt field.

Select Environment > Validation.

2. Define Name, Description, and Logic

On the Change Validation: Initial screen, enter the name for the new validation in the Validation field and select Validation > Create.

On the Create Validation: screen, enter the long text for the new validation and select Insert entry to define the logic.

On the Create Validation screen for validation step one, enter the description for the text and any prerequisites and checks for the validation in boolean terms.

3. Assign Validation to Company

Return to the first validations screen and assign the new validation to the company and call-up point combination

To activate the validation for the company, you must assign an active code of 1 to the

validation.

Further notes

There is a separate JVA authority for validations and susbstitutions.

35.2.6.2 Substitution

You can define substitutions that will be applied to postings to the JVA single item ledger JVSO1. These substitutions are used to change specific parts of entries to the JVA ledger.

These susbstitutions are actually applied to JVA documents; original documents in the standard modules (FI, MM, AM, CO) from which the JVA documents are derived are unaffected by JVA substitutions.

JVA substitutions can be applied to JVA postings to the following CO cost objects:

- Cost centers
- Orders
- WBS elements

Example

For example, multiple postings with different order numbers can be consolidated into one entry to a single order with a substitution.

Activities

Defining a substitution in JVA is a three-step process:

- 1. Identify the JVA company and call-up point (only 2 document line is allowed)
- 2. Define the substitution name, description, and specific logic
- 3. Assign the substitution to the company and call-up point combination

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1. Identify Company and Call-up Point

On the Change Substitutions for JVA Documents screen, select New Entries and enter the code for the JVA company in the CC field and the call-up point 2 in the CallPnt field.

Select Environment > Substitution.

2. Define Name, Description, and Logic

On the Change Substitution: Initial screen, enter the name of the new substitution in the Substitution field and select Substitution > Create.

On the Create Substitution: screen, enter the long text for the new substitution and select Insert entry.

This will display a pop-up with the cost objects from table JVAP (which populates JVS01) that can be used in JVA substitutions. Making a selection will display the Create Substitution: screen on which you can specify prerequisites and substitution values.

3. Assign Substitution to Company

When you have specified the logic for the substitution, return to the first substitution screen and assign the new substitution to the company and call-up point combination.

You must also assign an active code of 1 to the substitution to activate it for JVA postings within the company.

Further notes

There is a separate JVA authority for JVA validations and substitutions.

35.2.7 Archiving

35.2.7.1 JV Data

35.2.7.1.1 Define Report Groups and Read Programs

Define Report Groups and Read Programs

In this activity, you decide which of the report groups and/or read programs you created will be available in archive evaluation so that you and display reports using archived data and/or the database.

Report groups and read programs for archive evaluation are client- specific. If you transport a report group between clients, the entered data is transported as well.

On the other hand, you must make entries for, as well as transport, customer-defined read programs manually under "Table view -> Transport.

Activities

- To enter a report group or program, choose "New entries." Enter JV_OBJECT as the archiving object.
- If you are entering a new report group, enter RW as the report type. This field stays blank if you are working with an ABAP program.
- Enter the name of the report group or program.
- If you want the "Archive selection" pushbutton to appear on the read program screen in archiving, place an X in the "Activate archive selection" field. Leave this field blank for Report Writer and Report Painter reports.
- To save your entries, choose "Table view -> Save."

35.2.7.2 JV Billing

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35.2.7.2.1 Define Report Groups and Read Programs

35.3 Master Data

JVA Configuration Master Data

As part of configuring JVA, the following types of objects and settings must be defined to enable processing of expenses in JVA:

- Number ranges for master data objects (i.e., joint operating agreements and joint ventures) as well as for JVA documents
- Equity types to be used to connect an equity group to ownership of a joint venture as of a point in time
- Penalty categories for carried interest and net profits interest (CI/NPI) processing
- Cost object types that carry JVA-related information to be assigned to different types of CO cost objects (cost centers, orders, WBS elements)
- Indicators for whether charges are billable to partners (recovery indicator) and what types of charges they represent (billing indicators)
- Partner groups to be used in CI/NPI and cash call reclassification processing
- Objects and settings that determine foreign currency exchange difference processing for international region companies
- JIB/JIBE and EDI codes for US and Canadian region companies

35.3.1 Number Range Maintenance

Number Ranges

In configuring JVA, you must specify the following three types of number ranges:

- Number ranges for JVA documents created by the JVA process Cutback and for documents created by the other JVA processes
- Number ranges for the processing master data objects (joint operating agreement (JOA) and joint venture (JV))
- Number range for the billing record number index

Standard settings

JVA Document Number Ranges

During JVA configuration, you must define a number range for JVA documents produced by the periodend process Cutback, which takes amounts booked gross to the venture and equity group and rebooks them as net amounts to the non-operating partners and the operator.

JVA also produces some additional automatic postings related to such processes as cost calculations, CI/NPI processing, and non-operated billing. You must define a number range to be used in assigning numbers to these documents as well.

For both Cutback and other JVA documents, the number range object number must be set to 01.

JOA and JV Number Ranges

Two of the key objects used in assigning expenses to joint ventures are joint operating agreements (JOA's) and joint ventures (JV's). You will set up these objects themselves in JVA processing, but you must define number ranges for them and indicate whether the numbers for the objects will be determined by the system (internal) or the user (external) in JVA configuration.

Billing Record Number Range

The first time a JVA billing extract is run it generates an index record for the billing record in table T8JIX. This index is assigned a number based on the number range assigned here for billing record numbers.

On subsequent runs of the JVA billing extract in later months, the index entry in T8JIX is checked against the new extract to identify changes. If the new record differs from the previously indexed record, a new index entry is generated in T8JIX.

The indexed record in T8JIX is also used in billing follow-on processes, such as to support supplemental billing, drilldown reporting, and generation of the JADE (Joint Interest Auditing Extract) report.

Activities

These number ranges are used within JVA, but the format and procedure for specifying them conforms to that used for number ranges in standard SAP. That is, you assign a unique numerical identifier to the number range. You then specify the beginning and ending numbers in the range and indicate whether the numbers in the range should be assigned internally by the system or externally by the user.

35.3.2 JOA Class

The joint operating agreement (JOA) is the highest level object used in expense processing in JVA. The other processing master data objects (JV and equity group) used to capture joint venture expenses are assigned within the JOA.

Example

A company might have two classes of joint operating agreements: one for regular standard agreements and one for special agreements.

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The first step in setting up JOA classes for these two types of agreement classes is to define a number range for each class. In this example, the first number range (01) consists of a sequence of numbers, which will be assigned by the system as each agreement is created (Ext. indicator is blank) in JVA processing. The second number range (02) consists of a combination of letters, which indicate the special nature of agreements set up with this class, and numbers. For JOAs in this class, the alphanumeric identifiers will be assigned by the user as the JOAs are created (Ext. indicator is selected). The following number range example demonstrates how the two types of number ranges could be set up:

No	From Numb	er	To Number	Current Number	Ext.
01	000001	999999 0			
02	SJA001	SJA999 0	X		

The second step of defining two JOA classes for the company is to assign the number ranges

to the two JOA classes as the classes are created. The example below demonstrates that number range 01 is assigned to JOA class JC, the JOA class that will be used to set up standard JOAs for the company. Number range 02 is assigned to JOA class SC, the JOA class that will be used to set up special JOAs for the company.

AR	NR	Joint Operating Agreem. Class Text
JC	01	Standard Company Joint Operating Agreement Class
SC	02	Special Joint Operating Agreement Class

As each of the companys JOAs is created on the JVA processing menu, one of these classes must be assigned to it. The JOA class will determine the number range that is available to be used to assign an identifier to the JOA.

Requirements

The number range for object JV_JOA, joint operating agreements, must be defined before you can set up a JOA class.

Requirements

The number range for object JV_JOA, joint operating agreements, must be defined before you can set up a JOA class.

Standard settings

When you set up a JOA in JVA processing, you must assign a JOA class to the new JOA. The JOA class determines the number range that is used to assign a number to the JOA.

Activities

Define a JOA class and assign the unique identifier for a JOA number range to it.

Further notes

You may choose to define as many or as few JOAs as necessary to meet your business requirements. Cost calculation formulas and exclusion sets as well as CI/NPI penalty percentages are also assigned on the JOA. Regardless of the number of JOAs you define, you may be able to use a single JOA class.

35.3.3 Venture Class

The joint venture (JV) is the property level object within JVA. JVs are defined within JOAs, and equity groups (groups of owners with partner shares specified) within the same JOA are assigned to ownership of these JVs.

Example

A JVA company might have two classes of joint ventures: one for regular standard ventures and a different class for the corporate venture. Expenses charged to ventures wholly owned by the company will be charged to the corporate venture. There is no requirement to set up a separate venture class for the corporate venture.

The first step in setting up classes for these two types of ventures is to define a number range for each class. In this example, the first number range (01) consists of a sequence of numbers, which will be assigned by the system as each regular venture is created (Ext. indicator is blank) in JVA processing.

The second number range (02) consists of a combination of letters, which indicate that the venture to which this range is to be assigned is the corporate venture, and a single number, since there is only one corporate venture. The single alphanumeric identifier for this venture class will be assigned by the user to the corporate venture when it is created (Ext. indicator is selected). The following number range example demonstrates how the two types of number ranges could be set up:

No	From Number	To Number		Current Number	Ext.
01	000001	999999	0		
02	CORP1	CORP1	0		X

The second step of defining two venture classes for the company is to assign the number ranges to the venture classes as the classes are created. The example below demonstrates that number range 01 is assigned to venture class JV, the class that will be used to set up standard ventures for the company. Number range 02 is assigned to venture class CV, the venture class that will be used to set up the single corporate venture for the company.

VC	NR	Joint Venture Class Text
JV	01	Standard Company Joint Venture Class
CV	02	Corporate Venture Class

As each of the companys joint ventures is created on the JVA processing menu, venture class JV will be assigned to it, and it will determine the numeric identifier to be assigned to the venture. Venture class CV will be assigned to the single corporate venture.

Requirements

The number range for object JV_MASTER, joint venture master data, must be defined before you can set up a venture class.

Standard settings

When you set up a JV in JVA processing, you must assign a venture class to the new JV. The venture class determines the number range that is used to assign a number to the JV.

Activities

Define a venture class, and assign the unique identifier for a JV_MASTER number range to it.

35.3.4 Equity Types

Equity types are JVA objects that are used to connect equity groups, which are set up on the joint operating agreement (JOA), to ownership of joint ventures (JV), which are also connected to the same JOA as the equity group, as of a particular point in time. Essentially the equity type hooks a start date for ownership to an equity group and a JV.

The equity type can also be used to identify the equity group that is responsible for the expenses incurred during a particular phase or stage in the life of a venture. It is possible to assign two equity groups, each with a different equity type, as owners of the same venture for the same period.

Example

A JVA company might maintain three different equity types, each of which represents a specific phase in the life of its joint ventures. For example, an equity type might be set up for the following phases: design, development, production. This would result in the following entries on the JV Equity Types screen:

ET Description

ETD Design

ETC Construction ETP

Production

As equity groups are assigned to ownership of JVs in JVA processing, the equity type that represents the appropriate phase of the JV would be selected to connect the equity group to the JV. In this way, the equity type could be used to denote the phase of the venture during which a particular equity group owned the JV.

Standard settings

You must define at least one equity type for your JVA company. You may only need one equity type for your company.

Activities

Define a code for the equity type in the ET field and a description of the equity type in the appropriate field.

Further notes

JVs and equity types are assigned to the cost objects to which JV expenses are booked. The combination of the JV and the equity type identifies the responsible equity group. There may be more than one change of ownership over time (one equity group replacing another as ownership changes), but equity type remains intact even when different equity groups come into ownership of JVs.

35.3.5 CI Penalty Categories

Penalty categories are used in carried interest (CI) processing. Penalty categories identify categories of expenses (e.g., drilling, subsurface equipment).

Percentages are assigned to these categories on the JOA. These percentages will be applied to the CI partner's share of the JV's expenses. Expenses are associated with a penalty category via the cost objects to which the expenses are booked. This calculation constitutes a surcharge that compensates the partners who are carrying the CI partner's expenses for the risk of the activity that the penalty category represents.

Standard settings

When a partner in an equity group within a JOA enters CI status, either by failing to sign the JOA or by declining to fund JV expenses, the partner is placed in the appropriate CI status in the equity group on the JV. One or more of the other partners in the equity group are assigned responsibility to carry the CI partner's share of the JV's expenses.

Before this can happen, the following actions must be taken:

- Penalty categories must be defined for the company in JVA configuration
- These penalty categories must be assigned to the cost object types that will be used to set up the cost objects (cost centers, internal orders, WBS elements) for the JV (See **Cost Object Types**)
- Penalty percentages must be defined for the CI status and penalty categories on the JOA Activities

Enter the code for the penalty category in the P field and a description of the type of expense it represents in the Description field

35.3.6 Overhead Rate Types

Standard settings

The overhead burden expense total is calculated by multiplying the total billable expense by the burden rate type percentage. A percentage rate must be defined for each rate type.

Rate types will be activated at the Company Code level. Once they have been activated, they are available for use on the Venture or JOA.

Override percentages for rate types can be defined on the Venture.

You can access the burden rate type on the processing menu by following these menu paths:

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Master data>Joint operating agmt>Change>Cost calculations>Burden rate%

Master data>Joint venture>Change>Basic screen>Go To>Burden rate%

35.3.7 Cost Object Types

JVA expenses are booked to cost objects in the standard SAP modules (FI, CO, MM, AM, SD), and these cost objects connect those expenses to JVs and equity groups. Cost objects are also used to indicate whether expenses are recoverable (that is, billable to partners).

These same cost objects also provide the following types of additional JVA relevant information:

- Cost calculation types that identify formulas used to compute various types of overhead costs
- CI penalty categories used to calculate penalty costs for CI partners (See CI Penalty Categories)
- Additional information depending on the type of cost object

This additional information is provided via the JVA cost object types that you must define in JVA configuration master data.

JVA Cost Object Types

You should maintain cost object types in JVA configuration for all the types of cost objects that your company will be using to capture venture expenditures. JVA supports the following cost object types:

- Cost centers
- Internal orders
- Project WBS elements

There is a JVA cost object type for each of these types of cost objects. In JVA configuration, you assign various JVA relevant settings to the cost object types as you set them up. You may define multiple JVA cost object types for each type of cost object, each type with a different combination of settings.

When you define a cost object, you assign one of these JVA cost object types to the cost object, thereby associating the JVA relevant settings defined for the cost object type with the new cost object.

35.3.7.1 Projects/WBS Elements

Work breakdown structures (WBSs) are cost objects that represent separate tasks within a project. When you define a joint venture related project along with its component tasks (WBSs) in CO, you should assign a JVA cost object type to each WBS. The JVA cost object types for WBSs are defined in this step of JVA configuration.

Recommendation

The cost calculation and CI penalty category information provided by the WBS cost object type is only relevant to US and Canadian region companies.

For companies in which JVA is active and the field status setting for the cost object type is set to mandatory on the JVA Company Global Data screen, assigning a JVA cost object type to all cost objects when you set them up in CO is required. If documents that are unrelated to JVA are also posted to cost objects in the company, you may choose to make JV field selection optional or suppress it for cost object types that will be assigned to cost objects that will receive non-JVA postings.

Activities

In defining a WBS element JVA cost object type, you should fill in the following fields:

In the **Control Capital** field, enter an indicator if the cost object type will be assigned to cost objects used to capture capitalized costs. During execution of the JVA billing data extract process, this indicator is used to derive additional detail information (i.e., capital expense type) for expenses provided by the JVA ledger.

The level of detail that is provided on the expenditure detail is defined on the company's billing structure as part of JVA configuration (See Billing Structure).

In the **Control Drilling** field, enter an indicator if the cost object type will be assigned to cost objects related to drilling. This field is used by JVA payroll burden processing to determine whether the percentage specified for drilling on either the JOA or the JV should be applied to costs booked to WBS's that are assigned this cost object type.

In the **Control MR-Override allowed** field, enter an indicator if the recovery indicator provided by the manipulation rule defined for CO allocations should override the recovery indicator assigned to the cost object that is assigned this cost object type when costs are transferred from one to another WBS. (See RI Manipulation Rules)

In the **Control AFE indicator** field, enter an indicator for either the AFE being at the project or WBS level or for no AFE being involved. During execution of the JVA billing data extract process, this indicator is used to derive additional detail information (i.e., AFE identification) for expenses provided by the JVA ledger.

Because of the hierarchical relationships of WBSs within projects, it is possible to use this indicator to consolidate expenses booked to multiple WBSs at the AFE level for display on the billing expenditure detail.

In the **Control JV field selection** field, enter an indicator for suppressed, optional, or manadatory. This setting will determine whether entering the JVA information JV, equity type, and recovery indicator will be prevented, allowed, or required on the WBSs to which this cost object type is assigned.

In the **Cost Calculations JV OH Type** field, enter the code for the cost calculations type for the overhead calculation to be applied to expenses booked to cost objects that are assigned this cost object type. Overhead types that are appropriate for both Canadian and US region companies are supported (See **Cost Calculations**).

In the **Carried Interest Control Penalty Category** field, enter the code for the penalty category that should be assigned to costs booked to an equity group with a CI partner via a WBS that is assigned this cost object type. (See CI Penalty Categories)

35.3.7.2 Cost Centers

Cost centers are separate cost objects to which expenses can be booked. When you define a cost center to which joint venture expenses will be posted, you must assign a JVA cost center object type to that cost center. These cost object types carry settings that are relevant to JVA processing of the expenses. The cost object types for cost centers are defined in this step of JVA configuration.

Recommendation

The cost calculation and CI penalty category information provided by JVA cost object types is relevant only to US and Canadian region companies.

For companies in which JVA is active and the field status setting for the cost object type is set to mandatory on the JVA Company Global Data screen, assigning a JVA cost object type to all cost objects when you set them up in CO is required. If documents that are unrelated to JVA are also posted to cost objects in the company, you may choose to make JV field selection optional or suppress it for cost object types that will be assigned to cost objects that will receive non-JVA postings.

Activities

In defining a JVA cost object type for cost centers, you should fill in the following fields:

In the **Control Drilling** field, enter an indicator if the cost object type will be assigned to cost centers that are used to capture drilling costs. This field is used by JVA payroll burden processing to determine whether the percentage specified for drilling on either the JOA or the JV should be applied to costs booked to cost centers that are assigned this cost object type.

In the **Control JV field selection** field, enter an indicator for suppressed, optional, or mandatory. This setting will determine whether entering the JVA information JV, equity type, and recovery indicator will be prevented, allowed, or required on the cost centers to which the cost object type is assigned.

In the **Cost Calculations JV OH Type** field, enter the code for the cost calculations type for the overhead calculation to be applied to expenses booked to cost centers that are assigned this cost object type. Overhead types that are appropriate for both Canadian and US region companies are supported (See **Cost Calculations**).

In the **Carried Interest Control Penalty Categoy** field, enter the code for the penalty category that should be assigned to costs booked to an equity group with a CI partner via a cost center that is assigned this cost object type (See CI Penalty Categories).

35.3.7.3 Internal Orders

Internal orders are cost objects that are used to capture the costs of individual tasks. When you define a joint venture related internal order in CO, you should assign a JVA cost object type to it. The JVA cost object types for internal orders are defined in this step of JVA configuration.

Recommendation

The cost calculations and CI penalty category information provided by JVA internal order cost object types is only relevant to US and Canadian

For companies in which JVA is active and the field status setting for the cost object type is set to mandatory on the JVA Company Global Data screen, assigning a JVA cost object type to all cost objects when you set them up in CO is required.. If documents that are unrelated to JVA are also posted to cost objects in the company, you may choose to make JV field selection optional or suppress it for cost object types that will be assigned to cost objects that will receive non-JVA postings.region companies.

Activities

In defining a JVA internal order cost object type, you should fill in the following fields:

In the **Control Capital** field, enter an indicator if the cost object type will be assigned to cost objects used to capture capitalized costs. During execution of the JVA billing data extract process, this indicator is used to derive additional detail information (i.e., capital expense type) for expenses provided by the JVA ledger.

The level of detail that is provided on the expenditure detail is defined on the company's billing structure as part of JVA configuration (See Billing Structure).

In the **Control AFE** field, enter an indicator if the internal orders to which this cost object type will be assigned will represent an authorization for expenditure. During execution of the JVA billing extract process, this indicator is used to derive additional detail information (i.e., AFE identification) for expenses provided by the JVA ledger.

In the **Control Drilling** file, enter an indicator if the cost object type will be assigned to cost objects that will be used to capture expenses related to drilling activities. This field is used by JVA payroll burden processing to determine whether the percentage specified for drilling on either the JOA or the JV should be applied to costs booked to internal orders that are assigned this cost object type.

As part of configuring CO allocations, a manipulation rule (RI Manipulation Rule) is defined to determine recovery indicators assigned to the sending and receiving cost objects of allocations.

When you set up an internal order, you can assign a settlement rule that includes a manipulation rule specific to that order. On default for JVA-related orders, the manipulation rule field on the order settlement rule is not open for entry. In this case, the recovery indicator manipulation rule for the settlement rule is derived from the settlement structure. (A settlement recovery indicator manipulation rule is actually assigned to the cost element that is assigned to the settlement assignment, which in turn is assigned to the settlement structure.)

In the **Control JV field selection** field, enter an indicator for suppressed, optional, or mandatory. This setting will determine whether entering the JVA information JV, equity type, and recovery indicator will be prevented, allowed, or required on the internal order to which this cost object type is assigned.

In the **Cost Calculations** field, enter the code for the cost calculations type for the overhead calculation to be applied to expenses booked to cost objects that are assigned this cost object type. Overhead types that are appropriate for both Candadian and US region companies are supported (See **Cost Calculations**).

In the **Carried Interest Penalty Category** field, enter the code for the penalty category that should be assigned to costs booked to an equity group with a CI partner via an internal order that is assigned this cost object type (See CI Penalty Categories).

35.3.8 Recovery Indicators

JVA recovery indicators (RI) are assigned to posting lines. The particular recovery indicator assigned to a posting line determines whether the expense is billable to partners.

The JVA process Cutback uses billable recovery indicators to select those expenses that will be assigned to partners based on their equity shares in ventures.

When recovery indicators have been defined for the JVA company in this step of configuration, they can be specified at the following levels of postings:

- Document type
- Account
- Cost object
- Manual override during posting
- JVA integration manager

Settings listed later in this list take precedence over those provided by items listed earlier. That is, a recovery indicator entered manually during posting will override the recovery indicator provided by the cost object.

If a recovery indicator is not provided by any of the preceding sources, the JVA intergration manager will determine the recovery indicator for the posting line based on a set of rules that reflect choices made during company configuration. If the integration manager cannot derive joint venture and equity group designations, the expense will be assigned to the corporate venture and equity group defined on the Corporate Data screen for the JVA company.

Standard settings

Normally, JVA companies define a recovery indicator for each of the following conditions that affect whether an expense is billable to partners:

- Billable expense
- Billable adjustment
- Non-billable expense
- Suspense expense
- Suspense adjustment
- Posting to partner resulting from Cutback processing
- Non-billable expense funded by the JVA company (Corporate RI)

Corporate Recovery Indicators

If the JVA integration manager cannot identify venture information for a document line, it will assign the corporate recovery indicator to the line. The corporate recovery indicator must be specified on the JVA

company's corporate data screen in JVA configuration (See Corporate Data). The Billable indicator cannot be selected for the corporate recovery indicator.

The corporate recovery indicator is also usually assigned to bank lines.

Second Corporate Recovery Indicator

If an international region company uses venture bank accounts and the original recovery indicator of a bank line indicates that the expenditure should be funded by a venture specific funding group, however, then the second recovery indicator specified on the JVA company's Corporate Data screen will be assigned to the expenditure.

Activities

In defining a recovery indicator, you should fill in the following fields when appropriate:

In the **RI** field, enter the code for the recovery indicator.

In the **Billable** field, enter an indicator if the recovery indicator being defined will be assigned to expenses that are billable to JVA partners.

In the **Susp.RI** field, enter the code for the recovery indicator that will be assigned to expenses carrying the recovery indicatory being defined if the partner or equity group is placed in suspense.

In the **Corp.pay** field, enter an indicator if the recovery indicator being defined will be assigned to expenses that should be funded entirely by the company being configured in JVA.

This indicator is relevant for international region companies. If this indicator is set on, the bank account switching program will not reassign the expenses posted with the recovery indicator being defined from the corporate to a venture specific funding group.

Further notes

If international region companies define a corporate recovery indicator with the corporate pay indicator set on, it may be necessary to create a second corporate recovery indicator with corporate pay not selected. Entries with this second corporate recovery indicator will be processed by bank account switching.

35.3.9 Billing Indicator

JVA billing indicator information applies to postings to JVA partner customer accounts. The following objects provide JVA billing indicator information:

- Billing indicators
- JVA clearing procedures that assign billing indicators

35.3.9.1 Master Data

Billing indicators are assigned to postings to partners in JVA. They are used to identify specific types of billable expenses (e.g., cash call requests, normal expenditure, suspense posting), and they can be used to identify revenue postings to partners as well.

Billing indicators are used to organize different types of expenses on the partner's bill (invoice). That is, they are used to selectively access data from the JVA billing ledger (4B) to generate the invoice.

Standard settings

JVA is pre-configured with the standard billing indicators that are necessary to execute normal processing. This includes a complete set of indicators for the following processes:

- Cash call processing
- CI/NPI processing
- Suspense processing

It also includes billing indicators for audit and equity adjustments, tax postings, netting, and revenue postings as well as for regular expense postings and expense postings directly to partners.

You may choose to add your own billing indicators to represent different expenses, and you may want to add indicators for various CI penalty categories (See the discussion below under **ExpT** field).

Activities

In defining billing indicators, enter information in the following fields when appropriate:

In the **Taxable** field, enter an indicator if expenses posted with the billing indicator being defined will be subject to tax calculations.

In the **Taxline** field, enter an indicator if the billing indicator being defined will be used to post tax lines to partners.

In the **RevId** field, enter an indicator if the billing indicator being defined will be used to post revenues to partners.

In the **CCPay** field, enter an indicator if the billing indicator being defined will be used to post cash call payments from partners.

Generally, you will only require one billing indicator to post cash call payments, but you should consider the entire context of configuring your company for cash calls. The billing indicator clearing settings that you define in the next step of configuration and the setting for billing and operational month for the JVA company will also impact how cash call processing is executed for your company.

In the **CNET** field, enter an indicator if postings with the billing indicator being defined will be selected for inclusion in convenience netting processing (i.e., netting of all expense and revenue postings to a partner into one credit posting if there is a positive outstanding balance).

If you set Taxline or RevId on for the billing indicator, document lines with the billing indicator will be selected when convenience netting is executed. But you may add lines with other billing indicators as well (i.e., lines with expense billing indicators) to convenience netting selection by setting the CNET field on for the billing indicator.

In the **ExpT** field, enter the second character of the billing indicator if the billing indicator being defined will be used to post CI costs.

Billing indicators that will be assigned to CI postings have a special structure. The first character of the billing indicator must be a "P", and the second character must be the code for the CI penalty category defined previously for the company during JVA configuration (See CI Penalty Categories).

The CI billing indicator defined in this step will be used in the posting rule details for its corresponding function item of the JVA cutback function (See Posting Rules). This function item of cutback has the same code as its corresponding billing indicator, and the posting rule details for this function item assign the billing indicator for the penalty type to the posting resulting from Cutback processing.

Further notes

Revenues can be posted net to partners in JVA. Revenue billing indicators are pre-defined for this purpose. In addition, revenues are posted to CI partners in CI/NPI netting.

To have postings to a partner included in convenience netting (CNET) processing, the partner's JVA partner record must have CNET (i.e., C) active.

35.3.9.2 Clearing Procedures

JVA billing indicator clearing procedures are used to assign billing indicators to JVA clearing postings from FI.

These clearing procedures are used to select postings with a particular billing indicator (i.e., postings a certain type of expense) and substitute another billing indicator during clearing.

Determining which billing indicators should be subject to this translation and which indicators should be substituted during clearing requires a thorough consideration of the specific business requirements of the company, particularly with regard to which expenses should appear on the partner's billing documents.

It is necessary to customize billing indicator clearing procedures to meet the special needs of different companies.

Example

If you have activated billing and operational month for cash call processing for the company and you have accepted the standard billing indicators (i.e., Cash Call Request = 1 and Cash Call Payment = 2), you would want cash call requests to be cleared against payments with a billing indicator for cash call payments, so you would configure the billing indicator clearing procedures as follows:

BI Clearing Procedure Clear BI

1 2

When the cash call payment is received and cleared against the request in FI (transaction FB05), the request (which was assigned a billing indicator of "1" in the JV document) will be matched against the payment and a credit will be booked to the partner with a billing indicator of "2".

Requirements

The clearing procedures define which posting keys can be used for clearings to customer, vendor, and GL accounts. They are defined as part of standard FI configuration. The following clearing procedures are delivered pre-configured for JVA:

Description

JVACLEAR Regular Clearing JVACLPMT Convenience Netting JVAPAYIN Incoming Payment JVAPAYMT Outgoing Payment

You may wish to review the posting key assignments of these clearing procedures to ensure that they meet your company's business requirements.

Of course, you must have also defined the billing indicators cited here in these JVA billing indicator clearing instructions.

Activities

Clearing Procedure

In defining billing indicator clearing procedures, enter information in the following fields when appropriate:

In the **BI** field, enter the code for the billing indicator for postings that will be subjected to billing indicator sustitution during clearing.

In the **Clearing procedure** field, enter the code for the clearing procedure to be used along with the billing indicator entered in the BI field to select entries for clearing billing indicator substitution.

In the ClearBI field, enter the code for the billing indicator to be assigned to clearing posting.

35.3.10 Partner Groups

Grouping is used in the following periodic JVA processes:

- Cash call reclassification
- CI/NPI netting

Setting up groups to use in executing these periodic processes is a two-step process:

- 1. In this step of JVA configuration, define the groups
- 2. In setting up processing master data, for cash call reclassification, assign the JVA partner to a group and, for CI/NPI processing groups, assign the equity groups (NPI) or partners (CI) to the groups

When the periodic JVA process is executed for the group, the groups will be used in processing.

There are significant differences between how three types of groups are used during processing which impact how they should be configured. These differences are discussed in the following individual chapters on the groups.

35.3.10.1 NPI Groups

Under a net profit interest (NPI) agreement, an equity group partner in a venture yields equity in the venture to the operator in exchange for a percentage of the venture's future revenues.

In this step of JVA configuration as you set up NPI groups, you will specify the percentage of revenue for a venture and equity group that an NPI partner belonging to that group will be assigned when the NPI netting process is executed for a period.

Standard settings

To designate a partner of a venture and equity group as an NPI partner, you must perform the following additional steps in JVA processing after setting up the NPI group in configuration:

- 1. Assign the NPI group to the equity group (**NPIG** field) to which the partner to be subject to NPI processing belongs on the JOA
- 2. Assign an interest type (**T** field) of **2** for **Net Profit Interest** to the partner's interest for the equity group on the JV

As a result of the partner being designated an NPI partner, the expenses and revenues that would normally accrue to the partner's share in the JV and equity group will be assigned to the operating partner.

When the CI/NPI netting process is executed for the accounting period, the partner will be accorded the percentage of revenue specified here in configuration for the NPI group to which the partner is assigned on the JV from the operating partner's share.

Activities

To define an NPI group in this step of JVA configuration, enter the following information in these fields:

In the **NPIG** field, enter the name of the NPI group.

In the **NPI Pay** % field, enter the percentage of revenue for a venture that partners assigned to this group will receive.

In the JV Net Profit Int Text field, enter a description for NPI group.

35.3.10.2 CI Groups

A carried interest (CI) condition may occur when a venture partner either fails to sign the agreement or declines to fund a venture activity. The partner is placed in CI status, and his expenses and revenues are carried by the other venture partners, who can be assigned different shares of the carried interest. The partner remains in CI status until, the revenues for the CI share exceed expenses by a specified percentage, at which time the CI partner reverts to a full working interest partner.

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In this step of JVA configuration, you can define groups that will be used to select the CI partners assigned to them for period-end CI/NPI netting.

Standard settings

To set up standard CI processing, you should have previously performed these steps as part of configuration:

- 1. Defined penalty categories for CI
- 2. Assigned the penalty categories to **JVA cost object types** (These cost object types will themselves be assigned to cost objects to which expenses will be posted.)
- 3. Defined billing indicators for the CI penalty categories (with **P** as the first character and the number of the penalty category as the second character)

Activities

To define a CI group in this step of JVA configuration, enter the following information:

In the **CGrp** field, enter the code for the carried interest processing group being defined.

In the **Carried Interest Group Name** field, enter a description for the carried interest processing group being defined.

Further notes

If a CI group is defined for the company here in configuration and assigned to one venture within the company, during processing you must execute CI/NPI netting for groups, even if the partners for whom you wish to run CI netting are not assigned to CI groups.

35.3.10.3 Cash Call Reclassification Groups

If your company's business requirements include matching cash call requests, payments, and expenditures that occur in different months, then as part of period-end processing, you will be running the cash call reclassification process.

The reclassification process reactivates the cash call payment in the month that the expenditure for which the cash call was issued is incurred, so the payment can offset the expenditure posting.

Requirements

If you will be using cash call reclassification, you should have selected **Op. & Bill. M. Act** for operations and billing month active on the company global data screen during company configuration.

Standard settings

If a partner's cash call payments are to be included in the execution of the reclassification process for a particular group, the group's name must be entered in the **Partner Proc. Group** field on the JVA partner record for the partner.

Activities

To define a partner processing group for cash call reclassification during this step in JVA configuration, enter the following information:

In the **PP group** (partner processing) field, enter the code for the group being defined.

In the **Description** field, enter a description of the group being defined.

35.3.11 Banks, Exchanges, Currencies

Overview

In order for international region companies to manage ventures from dedicated bank accounts and process currency exchange differences, the following master data objects must be configured in JVA:

- Funding groups
- Bank accounts for funding groups
- House banks for funding groups
- Bank accounts for specific types of currency exchange difference postings
- Balance sheet accounts to which postings of splitting of taxes, discounts, and automatic lines will be posted

35.3.11.1 Funding Groups

Funding groups of international region companies in JVA consist of groups of bank accounts. Ventures are assigned to funding groups, so a funding group indicates that the ventures assigned to it will be funded from the accounts that are also assigned to the funding group.

Requirements

There are no prerequisites for setting up the funding group itself, but bank accounts and house banks must be configured in FI before they can be assigned to the funding group.

Standard settings

When a venture is created, a funding group is assigned to it, and as a result, the venture's expenses are funded by the bank account assigned to the funding group.

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Activities

To define a funding group on the JV Funding Group screen, enter the following information:

In the **FundGrp** field, enter the code for the funding group.

In the **Layout set** field, enter the code for the SAPscript layout set that contains the formatting and content for a letter requesting funds transfers between bank accounts.

In the **Alt. Layout set** field, enter the code for the SAPscript layout set that contains the formatting and content for an alternative letter requesting funds transfers between bank accounts.

In the **Funding Group text** field, enter a description of the funding group.

35.3.11.2 Bank Accounts

To enable foreign currency exchange difference processing for international region companies, company bank accounts must be assigned to JVA funding groups.

Requirements

Company bank accounts must be defined in FI before they can be assigned to a JVA funding group.

You must set up the funding group before you can assign bank accounts to it.

Activities

To assign a bank account to a funding group on the **JV Bank Accounts** screen, enter the following information:

In the **BankAcc** field, enter the code for the bank account.

In the FundGrp field, enter the code for the funding group to which the bank account will be assigned.

35.3.11.3 Bank accounts for cash call print

Use

Use this IMG activity to define bank account details in cases where it is not required that cash called funds are remitted to a dedicated venture bank account.

Requirements

You have defined bank accounts in FI. This must be done before they can be assigned as bank accounts for cash call print.

Note

It is not always a requirement that cash called funds are remitted to a dedicated venture bank account. Some funds may be remitted to a central, corporate-managed bank account under a separate company code (not listed in the venture bank account configuration).

35.3.11.4 Funding Group Assignment

For international region companies that process foreign currency exchange differences, a house bank along with its account ID must be assigned for each JVA funding group and funding currency combination. The house bank and its account ID provide the details for automatic payments.

At the same time a bank account (either a central corporate account or a venture bank account) must be assigned for the funding group and currency combination.

Also, a non-cash GL transfer account should be assigned to be used for non-cash transfers (such as allocations) between ventures. An interest rate to be applied to bank switching transfers may also be specified for the funding group and currency.

Requirements

The house bank and the bank's account identifier must be set up in FI configuration.

The bank account and the non-cash GL transfer account must also be set up in FI.

Activities

In the **FundGrp** field, enter the code for the funding group for which a house bank, sets of accounts, and an interest rate for transfers will be assigned.

In the **FCurr** field, enter the code for the funding currency of the funding group. The subsequent assignments of house bank, accounts, and transfer interest rates are contingent on the funding group and currency combination.

In the **House bk.** field, enter the code for the house bank to be used to make automatic payments for the funding group.

In the **Acct ID** field, enter the code for the house bank account from which automatic payments will be made.

In the **BankAcc** field, enter the code for the bank account to be assigned to the invoices for a particular venture.

In the **NonCash** field, enter the code for the bank account to be used in making non-cash switches between accounts in the funding group.

In the IntRate field, enter the rate of interest to be applied to transfers between venture bank accounts.

35.3.11.5 Exchange Difference Accounts

As part of peridic processing in JVA, international region companies re-valuate the following types of foreign currency exchange differences:

- Realized exchange differences (JVA function: RXD)
- Unrealized exchange differences (JVA function: UXD)
- Non-open item unrealized exchange differences

The results of these valuations must be transferred to CO to keep CO records consistent with FI and JVA.

Requirements

The account to which foreign currency exchange differences are initially posted must be set up in FI.

If a shadow account is to receive the result of JVA foreign currency exchange processing, this account must also be defined in FI.

The cost element to be used to transfer the results of JVA foreign currency exchange processing must be set up as a primary cost element in CO.

Standard settings

JVA provides a function for each major process that produces postings to the standard modules (FI, AM, MM, CO). These functions enable users to configure posting rules (posting keys, SEIs, recovery indicators) for postings that result from execution of the processes within JVA.

With regard to the foreign currency exchange processes in JVA, RXD is the function for

realized exchange differences, and UXD is the function for unrealized exchange differences.

Activities

As part of configuring foreign currency exchange difference processing, you must specify the cost element to be used to transfer the results of each of the foreign currency exchange difference processes in JVA (RXD and UXD) to CO. You first identify the JVA process by function, then the account to which exchange differences were posted, and finally the CO cost element to be used to update records in CO.

You may also specify a shadow account to receive the posting resulting from exchange difference processing in JVA. Normally, the resulting entries are posted to the original exchange difference account.

In the **Func** field, enter the code for the JVA function for which the account, cost element, and shadow account used to post currency exchange differences to CO will be specified.

In the **Orig. XD** field, enter the code for the account to which the currency exchange differences to be posted to CO were originally posted in FI.

In the **Trans. CE** field, enter the code for primary cost element to be used to post the results of currency exchange difference processing to CO.

In the **Shadow Acc** field, enter the code for the account to which the results of currency exchange difference processing will be posted.

Further notes

You must also specify posting rules for the JVA functions (RXD, UXD, COAC) for the foreign currency exchange processes.

35.3.11.6 Balance Sheet Account for Splitting

All expense lines posted in FI must be associated with a venture and an equity group in JVA; therefore, the JVA integration manager executes a splitting of posting lines received from FI (typically automatic posting lines like discounts, taxes, and bank charges) that lack venture and equity group information.

This splitting is executed on the basis of the expense lines of the original posting. For example, if expense postings to two ventures are included in a single invoice for a vendor, the automatic posting lines (taxes or discounts) would be split in JVA according to the portion of the total amount for the invoice charged to each venture.

Venture and equity group information is derived from the cost object cited in the expense lines.

Example

The following types of balance sheet accounts might be included in splitting depending on business needs:

- Accrual accounts
- Tax accounts
- Bank accounts whose balances should not be included in bank account switching

Requirements

The balance sheet account to be included in splitting must be set up in FI.

As with automatic posting lines, the expense postings that are the basis for the splitting of the amounts in the balance sheet account must include venture/equity group designation provided via the cost object.

Standard settings

Normally, balance sheet accounts are excluded from splitting. But the accounts specified on this screen will be included in the JVA splitting process.

Activities

You should enter the numbers of the balance sheet accounts to be included in JVA splitting in the **Account** field on this screen.

35.3.12 JIB/JIBE

In this step of configuring JVA for your company, you should define the JIB/JIBE codes that will be used in processing EDI billing documents, specifically the invoice transaction set (810) and the operating statement transaction set (819).

JIB/JIBE Defined

JIB/JIBE is an acronym for Joint Interest Billing/Joint Interest Billing Exchange. JIB/JIBE codes constitute a standard system of codes for various types of expenses. The JIB/JIBE system of codes provides a company-independent set of codes for expenses. Each JIB/JIBE code provides a means to identify the same type of expense in separate companies regardless of the differences between charts of accounts.

EDI Inbound and Outbound

JVA EDI inbound passes the codes defined here through during generation of the FB01 from the IDOC, but the codes are not used for processing.

JVA EDI outbound uses the codes defined here to filter and organize data from the JVA billing extract, which results from the billing process (See the **Billing** section of this IMG) to produce the outgoing IDOC.

Region Differences

EDI is currently available for US and Canadian region companies. Canadian region companies will specify more settings than US companies. For example, Canadian companies should specify a billing code for the JIB/JIBE class, and they should configure codes for tubular and non-tubular materials. Differences between EDI configuration settings for JIB/JIBE codes in these regions are noted on the relevant screens.

35.3.12.1 Invoice Service Codes

In this step of configuring JVA EDI for your company, you should define the JIB/JIBE service codes that will be used to identify specific types of expenses on the Invoice Transaction Set (810).

Example

The following is a typical set of JIB/JIBE service codes for a US region company:

<u>SC</u>	Service Code Description
IB	Cash Advances
IC	Ownership Services
ID	Contract Issues
IE	Prior Balance
Activities	

To define service codes that will be used in processing the invoice transaction set (810), enter the following information:

In the SC field, enter the code for the service code.

In the **Service Code Description** field, enter a description of the service code.

35.3.12.2 Expense Service Codes

In this step of configuring JVA EDI for your company, you should define the JIB/JIBE service codes to be used in processing the operating statement transaction set (819). The JIB/JIBE service codes used on the 819 have the following component parts:

- Class
- Subclass A
- Subclass B

You can assign a JIB/JIBE class and subclass A to JVA cost objects (cost centers, WBS elements, orders). Expenses posted to these cost objects will be associated with the expense type identified by the JIB/JIBE codes.

35.3.12.2.1 Class

In this step of defining JIB/JIBE service codes for the operating statement transaction set (819), you should define the highest level component: class.

The JIB/JIBE class represents a logical grouping of expenses of a similar type that will receive the same accounting treatment. Line item detail (JIL segment) is presented on the 819 by JIB/JIBE class.

Example

The following is a typical set of JIB/JIBE classes for a US region company:

Class	BCode	Capital	Text
A			Operating Expense
В			Repair & Maintenance
C			Miscellaneous Revenue
D			Recompletion/Recondition

US region companies do not use the BCode and Capital fields.

The following is a typical set of JIB/JIBE classes for a Canadian region company:

Class	BCode	Capital	Text
C10	10	X	Geological & Geophysical
C20	20	X	Well Drilling Costs
C30 O25	30 25	X	Well Completion Costs Well Costs & Unit Costs
O45	45		Battery Facilities
O50	50		Gas Plant & Facilities

Standard settings

Canadian region companies use the BCode for billing code and Capital fields.

The **BCode** or billing code is the JIB/JIBE code associated with the expense on the JVA billing extract, which is the source for the billing data processed by EDI. Expenses in the billing extract with the billing code specified in the BCode field will be mapped to the JIB/JIBE class being defined. The billing code should always be defined; it will not default to the second and third character of the class.

The expenses connected to the JIB/JIBE class being defined can be either capital or non-capital. If the indicator **General Capital der. fr. JIBE** (capital derived from JIBE) is selected on the JVA billing structure for your company, then this capital indicator on the JIB/JIBE class determines whether expenses associated with the JIB/JIBE class are capital.

If the indicator on the billing structure is not selected, then the cost object to which the expenses associated with the JIB/JIBE class were originally booked is used to determine whether those expenses are capital. Specifically, if the **Control Capital** indicator on the JVA cost object type (See the **JVA Cost Object Types** section of this IMG) for the cost object is selected (only available for WBSs and orders), then the expenses associated with the JIB/JIBE class are capital.

Activities

To define a JIB/JIBE class for JVA EDI, enter the following information:

In the Class field, enter the code for the JIB/JIBE class being defined.

For Canadian region companies, in the **BCode** field, enter the code for JIB/JIBE in the JVA billing extract to which the class being defined is to be mapped.

For Canadian region companies, select the **Capital** indicator if the expenses associated with the JIB/JIBE class being defined are capital.

In the **Text** field, enter a description of the JIB/JIBE class being defined.

35.3.12.2.2 Subclass A

In this step of defining JIB/JIBE service codes for the operating statement transaction set (819), you should define the second level component: subclass A. The subclass A provides a further breakdown of the group of expenses defined by the JIB/JIBE class.

Example

The following is a typical set of JIB/JIBE classes and subclass A's for a US region company:

Class SCL A Text

- A 00001 Operating Expense/Other
- A 00002 Utilities
- A 00003 Chemicals
- B 00001 Repair & Maintenance
- B 00002 R&M Wellhead

- B 00003 R&M Storage Facility
- C 00001 Miscellaneous Revenues
- C 00002 Products Purchased for Resale

Class	Description
A	Operating Expense
В	Repair & Maintenance
C	Miscellaneous Revenue

Activities

To define a subclass A for a JIB/JIBE class for the 819 transaction set, enter the following information:

In the **Class** field, enter the code for the JIB/JIBE class to which the subclass A will be subordinate (See Class).

In the **SCI** field, enter the code for the subclass A being defined.

In the **Text** field, enter a description of the subclass A being defined.

35.3.12.2.3 Subclass B

In this step of defining JIB/JIBE service codes for the operating statement transaction set (819), you can define the third level component: subclass B. The subclass B provides a further breakdown of the expense identified by the combination of the JIB/JIBE class and sublcass A.

Subclass B detail is usually used only by international region companies.

Example

Class	SCL A	JIB/JIBE Subclass B	<u>Text</u>
A	00001	111	Operating Expense/Other Miscellaneous
A	00001	222	Operating Expense/Other Exceptional Expenses
A	00002	111	Utilities-Natural Gas
A Activitie	00002	222	Utilities-Electricity

To define a subclass B for a JIB/JIBE class for the 819 transaction set, enter the following information:

In the Class field, enter the code for the JIB/JIBE class to which the subclass B will be subordinate.

In the **SCl A** field, enter the code for the JIB/JIBE subclass A to which the subclass B will be subordinate.

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In the JIB/JIBE Subclass B field, enter the code for the JIB/JIBE subclass B that you are defining.

In the **Text** field, enter a description of the subclass B.

35.3.12.3 Material Service Codes

Canadian region companies use PASC codes for tubular and non-tubular to designate subaccounts for different types of tangible material goods.

35.3.12.3.1 Tubular

Canadian region companies identify the following types of materials with PASC codes for tubular materials:

- Tubing
- Casing
- Line pipe

Example

Tubular

The following is an example of a set of PASC codes for various types of tubular goods. The first two characters of the code for the tubular goods indicates whether the goods are tubing (01), casing (02), or line pipe (03). The remaining characters of the code indicate the diameter of the tubular goods in millimeters (with one implied decimal).

01000508 Tubing - 50.8mm (2in) O.D. 01000603 Tubing - 60.3mm (2-3/8in) O.D. 01000730 Tubing - 73.0mm (2-7/8in) O.D. 02000889 Casing - 88.9mm (3-1/2in) O.D. 02001937 Casing - 193.7mm (7-5/8in) O.D. 03000603 Line Pipe - 60.3mm (2-3/8in) O.D. 03000730 Line Pipe - 73.0mm (2-7/8in) O.D. Activities to define a PASC code for tubular goods, enter the following

information:

In the **Tubular** field, enter the code for the tubular material.

Tubular description

In the **Tubular description** field, enter a description of the the code for the tubular material.

35.3.12.3.2 Non-Tubular

Canadian region companies use

PASC subaccount codes for non-tubular materials to identify any materials (including machinery such as pumps) used in petroleum production that are not tubing, line pipe, or casing.

Example

The following is an example of a typical set of PASC codes for non-tubular materials:

NTB	Non-Tubular descrip
003	Pumping Unit
004	Tanks
007	Electric Motors
800	Gas Engines
009	Wellhead Equipment

Activities

To define PASC codes for non-tubular materials, enter the following information:

In the NTB field, enter the three character code for the non-tubular item being defined.

In the Non-Tubular descrip, field, enter a description of the non-tubular item being defined.

35.3.12.4 EDI Inbound

The codes defined here are used in processing inbound EDI invoices for joint venture partnerships in which the company configuring JVA holds non-operating interests.

Global inbound EDI master data for JVA consists of the following types of codes:

- Mapping qualifiers
- Withhold codes

These codes will later be used to configure non-operated billing for JVA (See the appropriate section of this IMG).

35.3.12.4.1 Mapping Qualifiers

As part of defining JVA configuration master data for your company, you should set up mapping qualifiers for inbound EDI processing. You should define a mapping qualifier for each type of expense that is identified for EDI that should receive a specific type of accounting treatment. You can specify mapping qualifiers for both 810 and 819 transaction set expenses. **Example**

The following is a simple example of a typical set of mapping qualifiers to be used for EDI inbound and non-operated billing:

Qual Qualifier Description

001	Qualifier for GL Postings
002	Qualifier for Asset Postings
003	Qualifer for Cash Call Postings

Standard settings

After you initially define the mapping qualifiers, you will use them in configuring non-operated billing for JVA (See Non-operated). You will identify the accounting treatment to be accorded the expenses associated with a particular qualifier by connecting the qualifier to a JVA process (function and function item combination). The JVA process carries a set of posting rules which will determine how the accounting entries resulting from execution of the process will be posted.

During JVA processing in mapping inbound EDI as part of master data set-up, you will associate these mapping qualifiers with JV/properties and JVA cost objects.

Activities

To define a mapping qualifier for JVA EDI inbound, enter the following information:

In the Qual field, enter the code for the mapping qualifier being defined.

In the Qualifier Description field, enter a description of the qualifier being defined.

35.3.12.4.2 Withhold Codes

For a number of reasons (unapproved AFE, dispute with the operator on costs), the receiving company (that is, the company configuring JVA) may wish to flag incoming EDI expenses for specific properties or cost objects to be parked after processing. As part of configuring inbound EDI for JVA, you can define withhold codes. When a withhold code is associated with an incoming expense posting, it will flag that posting to be parked.

Standard settings

During JVA processing in mapping inbound EDI as part of master data set-up, you will associate these withhold codes with joint venture properties.

Activities

To define a withhold code for EDI inbound processing, enter the following information:

In the **Withhold CD** field, enter the code for the withhold code being defined.

In the Withhold Description field, enter a description of the code.

35.3.12.5 EDI Outbound

35.3.12.5.1 Payment Terms

Terms of payment specify the cash discount terms and payment periods that constitute the terms of payment for invoices that will be sent to non-operating JV partners via EDI.

Requirements

Before they can be specified for use by outbound EDI in JVA, payment terms must first be defined in FI configuration as part of setting up business transactions for Accounts Receivable and Accounts Payable.

Standard settings

In standard SAP, the payment terms are based on the baseline date, but JVA EDI payment terms are based on the invoice date of the expenses.

Activities

To specify payment terms for outbound EDI in JVA, enter the following information: In the **Pay T** field, enter the code for the payment term being specified for EDI outbound.

in the **Terms day** field, enter the number of days from the date when the EDI invoice is posted within which payment is due.

35.4 Processing

After you have selected basic configuration settings for the company and defined the master data objects for JVA, you can proceed to configure the JVA processes for your company. Configuring JVA processes involves defining settings for the following tasks:

- 1. Specifying posting rules and related objects (functions and function items) to control posting of the results of execution of major JVA processes
- 2. Defining the CO objects that control execution of cost allocations (distribution, assessment, settlement) from one to another cost object
- Specifying account assignments for automatic JVA postings as well as for overhead and payroll burden cost calculations

- 4. Establishing settings for key elements (current replacement price, depreciation areas, transaction types) used in AM and MM postings
- 5. Defining stepped rate cost calculation rules and statistical key figures for producing and developing (used by Canadian and US region companies)
- Specifying cost objects to receive the postings resulting from execution of the JVA process Cutback
 JVA Processes

JVA processes produce postings to the JVA ledgers and the standard SAP modules (FI, CO, MM, AM).

Some JVA processes, like cash call issuing, initiate postings from JVA, and the results of these postings are rolled through to documents in the standard modules, in the case of cash calls in FI A/R.

Other JVA processes derive their source data from postings in the standard modules. For example, Cutback takes expense postings, posted chiefly in FI but also in AM and CO.

These processes reprocess the data provided from the postings in the standard modules, and then they post new entries back to the standard modules that reflect the results of executing the process. Cutback takes expenses that were originally posted gross to ventures and equity groups, and as part of period-end processing in preparation for producing partners' bills, cuts back these expenses net to the partners of the ventures.

35.4.1 Processes

Each JVA process consists of a function and its dependent set of function items. The function and its function items control execution of the JVA process. A set of posting rules is contingent upon each function item. This set of posting rules determines the characteristics of the posting lines that result from execution of the process (See Posting Rules).

Requirements

Execution of a specific JVA process for a company is affected by the settings in JVA company configuration. The following company global data settings affect these functions (See Company Global Data):

Company Global Data	JVA Function	Description
<u>Field</u>		
	CCOP	Cash call
Operations & Billing operated		
Month Active Non-operated	CCNP	Cash call
	BNKS	Bank switching
Balanced Ventures postings		
Inception to Date	CUTB	Cutback
	CUTI	Cutback
intercompany		

The Default Tax Codes fields on the Company Corporate Data screen affect execution of the Tax functions.

The following settings on the Company Detailed Data screen affect execution of these functions:

Company Detailed Data Field	JVA Function	Description
AM/MM Settings Tax on Expense Detail Period	AMMM TAXC,E,I	Asset postings Post Tax to Next
CI/NPI Posting in FI	NETT	CI/NPI netting
Cost Calculations calculations Standard settings	OVER	Overhead

A complete set of functions for all JVA processes (along with their dependent function items) is preconfigured in JVA as a group of company independent objects.

Some JVA processes represent essential functionality that will be used by every company that runs JVA. This is especially true of the period-end processes. These essential period-end processes consist of:

- Applying overhead and payroll burden to venture expenses
- Cutting back expenditures that are posted gross to ventures and equity groups to net postings to partners

International region companies use only payroll burden calculations.

The functions that control these essential period-end processes are:

Function	<u>Description</u>
OVER	Calculation of overhead expenses
PAYB	Calculation of payroll burden
CUTB	Cutback
CUTI	Cutback for intercompany ventures

Other JVA processes represent functionality that is necessary to most companies using JVA whatever their region. The set of functions that control these processes includes:

Function	<u>Description</u>
CCOP CCNP AMMM	Posting cash calls for operated ventures Posting cash calls for non-operated ventures Posting asset acquisitions, transfers, and retirements
EQAD	Postings to account for equity changes during the period
SUSP	Postings to equity groups or ventures that are in suspense
NBIL	Non-operated billing

Companies in some regions do not generally use the functionality provided by certain processes. Because they deal almost exclusively with single currencies, Canadian and US region companies do not use the

functions related to accounting for gains and losses from currency exchanges. Similarly, they do not use the bank account switching process (function: BNK) because they do not practice balancing by venture.

The functions related to accounting for currency exchange differences are:

Function Description

RXD Realized Exchange Differences
UXD Unrealized Exchange Differences

Automatic posting lines that lack venture and equity group information (discounts, taxes, bank charges) are received in JVA from FI. The JVA integration manager splits these lines among ventures and equity groups in accord with the proportion of the total amount of the original invoice assigned to each venture and equity group. It is then necessary to update the record in CO to assign these costs to the ventures' cost objects. This is executed by the function COAC.

On the other hand, international region companies do not usually have joint operating agreements that include special provisions for carrying non-operating partners' interests under certain circumstances. The functions related to carried interest and net profit interest netting are:

<u>Function</u> <u>Description</u>

NETT CI/NPI netting process

REVI Revenue postings to be included in netting

Use of some processes and the functions that enact them is determined by the business practices of the company using JVA rather than by the provisions of specific joint operating agreements. Some companies that issue cash calls (function: CCOP) do not match the cash call payment to the expenditure in the month in which it is incurred (assuming this is a different period from when the payment is booked). As a result, these companies do not use cash call reclassification (function: CASH).

Some companies do not execute the JVA netting processes, which are controlled by the following functions:

<u>Function</u> <u>Description</u>	
PNET	
Netting all expense postings to a partner to	
one posting	
CNET Netting all expense and credit prostings	
to a partner to one posting if there is a credit balance	

Companies that do not calculate taxes on venture expenses will not use the following tax-related functions:

<u>Function</u>	<u>Description</u>
TAXC	Tax on A/R postings to JVA partners
TAXE	Tax on G/L postings
TAXI	Tax on intercompany postings

Recommendation

The pre-configured set of functions is intended to provide the full functionality any company would need from JVA. You can make some changes to these functions and the dependent function items, but it is strongly recommended that you use the standard set-up.

You may add your own functions and function items to the delivered pre-configured set. If you choose to do so, you should be extremely careful that these objects control JVA processes as required by your company's business needs and that the resulting postings are properly produced.

Activities

For some of the pre-configured set of functions and functions items, certain selection criteria have been pre-set. When the function is executed, these selection criteria will be used to select postings for inclusion in execution of the process. These criteria consist of the following:

If the **PostM** indicator is selected, posting method will be used to select postings for inclusion in execution of the function.

If the **RecId** indicator is selected, recovery indicator will be used to select postings for inclusion in execution of the function.

If the **FI post** indicator is selected, postings from FI will be selected for inclusion in execution of the function.

If the **GLX post** indicator is selected, postings from GLX will be selected for inclusion in execution of the function.

For some functions, you can change the pre-set criteria. For some, you can choose to add criteria to those that are preset. Some preset criteria cannot be altered. For example, whenever posting method is preset as a selection criterion for a function, you cannot change this setting. This ensures that posting method is available to be used to screen expenses to selected ventures for inclusion in execution of the process.

35.4.2 Posting

The following two types of JVA configuration objects influence postings from JVA:

- Posting method
- Posting rules

Posting method

The posting method is defined in JVA configuration and assigned to joint ventures as they are set up in JVA processing. It controls whether cash calls are allowed for ventures, and it can also be used to exclude postings to selected ventures from inclusion in execution of certain JVA processes.

Posting rules

Each JVA process has a corresponding object in JVA configuration: a function. Depending on the nature of the process it represents, a function may have one or more dependent function items. The function items represent the different types of postings that may result from execution of a JVA process via the function.

A set of posting rules is connected to each function item for every function. These posting rules determine the characteristics of the postings that result from execution of the JVA process controlled by the function and function item. These posting rules are configurable.

35.4.2.1 Posting Methods

The posting method is a JVA configuration object that can be used to:

- Enable cash calls for joint ventures
- Exclude postings to specific ventures from inclusion in the execution of certain JVA processes.

As part of defining a posting method, you must select whether cash calls are allowed under the posting method.

When you set up a JV in JVA processing, you must assign a posting method to the JV. At a minimum this posting method will indicate whether cash calls are allowed for the JV.

Posting method is also used as a criterion to select postings for inclusion in execution of the following additional JVA processes:

- Cutback
- Equity Adjustments
- Non-operated billing
- Tax postings

As part of cash call processing, you may choose to use posting method as a selection criterion for reclassification (function: CASH) as well.

Standard settings

Since assigning a posting method to a JV is required when you define the JV, you must set up at least one posting method for your company during configuration.

If cash calls are not allowed under the terms of some agreements, you may need to define one posting method for which cash calls are allowed and another for which the cash call indicator is not selected.

If posting method is to be used to selectively exclude postings to certain ventures from inclusion in the execution of certain other JVA processes, you may need to define additional posting methods.

Activities

To define a posting method for your company, enter the following information:

In the **PMeth** field, enter the code for the posting method being defined.

Select the ${\bf CashCall}$ indicator field if the posting method being defined allows cash calls.

In the **Posting Method Text** field, enter a description of the posting method being defined.

35.4.2.2 Posting Rules

Posting rules are contingent on JVA functions and function items. JVA functions represent specific JVA processes that produce postings, such as cash calls and cutback.

Function items are dependent on functions, and each function item represents a specific type of posting that may result from execution of the process controlled by the function.

For example, the function Cutback (CUTB) includes a function item (CU) that controls the posting rules for the net posting of expenses to the JV partners, and it also includes a function item (EX) that controls the posting rules for offset postings to clear the original postings to cost objects and venture/equity groups.

The posting rules that specify in detail the characteristics of the postings resulting from execution of the process controlled by the function are contingent on the function item.

Requirements

Before posting rules are configured for JVA functions, FI should be fully configured because the following FI elements are used in defining JVA posting rules:

- Document types
- Posting keys
- Special G/L entry indicators (SEI's)

Posting rules are contingent on functions and function items, so the function and function item must be configured before posting rules are specified.

Standard settings

Whereas the JVA functions and function items are pre-configured and should usually be used as delivered, the posting rules that are contingent on the function and function item combinations are intended to be configured by the user. This ensures that the postings resulting from execution of JVA processes satisfy the company's particular business needs.

Activities

There are three tasks involved in accessing function and function item combinations and specifying the posting rules for them:

- Select the function and specify settings for postings to be included in execution of the function
- 2. Select the function item dependent on the function for which posting rules will be defined
- 3. Enter the specific posting rules for the function item

Selecting the Function and Settings for Included Postings

The first screen you encounter when specifying posting rules for a function item is the **JV Posting Rules: Overview** screen. This screen lists all the functions available for the company. It also lists additional information related to selecting postings for inclusion in execution of the function and preparing the postings resulting from execution of the function.

In configuration of the JVA functions, posting method may be specified as a selection criterion for including postings in execution of the JVA process controlled by the function. If posting method has been specified as a selection criterion for the function, the specific posting method to be used to select postings for inclusion in execution of the function should be specified in the **PMet** field.

The document type of standard (FI, CO) postings that result from execution of the function may be specified in the **DB** field.

The document type of GL/X postings to the operator that result from execution of the function may be specified in the **DT** field.

The JVA clearing procedure to be applied during execution of the function may be specified in the **ClerPrc** field.

SEI's (Special G/L entry indicators) may be specified in the **ClerSEI** field. Entries to the SEI's listed will be included in the clearing initiated by execution of the JVA function.

If entries without SEI's are to be included in the clearing initiated by execution of the function, the **ClerBID** should be selected for the function.

Selecting the Function Item and Accessing the Posting Rules

When you have entered all relevant posting rule related settings for the function, you can access the function items for the function by selecting the function and then selecting **Posting rule details**. This will display the **JV Posting Rule Detail: Overview** screen with all of the function items belonging to the function listed.

Recovery indicator can be used as a selection criterion for inclusion of postings in execution of the posting rules that are contingent on a particular function item. If a particular recovery indicator is to be used as a selection criterion for a function item and its posting rules, enter the recovery indicator code in the **RI** field.

Entering the Posting Rules for the Function Item

To access the posting rules for a specific function item from the **JV Posting Rule Detail: Overview** screen, select the function item and **Goto** > **Details**. This will display the **JV Posting Rule Detail: Details** screen for the function item with the posting rule details listed.

Posting rules are specified for both debit and credit entries that may be generated by execution of the function and function item combination.

To specify posting rules for a function item, enter the following information that is relevant:

In the **Deb Post Key** and the **CrePostKey** fields, enter posting keys for the debit and credit postings that may be generated by the function item (always necessary).

In the **Deb SE Ind** and the **Cre SE Ind** fields, enter the codes for the SEI for the debit and credit posting that may be generated by the function item. This is necessary when the posting will be cleared by a later posting (as with cash call requests that will be cleared by later cash call payments) and there is a need to match both postings.

In the **Deb Bill Ind** and the **Cre Bill Ind** fields, enter the code for the billing indicator to be assigned to the debit and credit postings that may be generated by the function item. This is important for postings, such as cash calls and the results of netting processing, that will be noted separately on venture partners' billing documents.

In the **Deb Pay Block** and the **Cre Pay Block**, enter the codes for the payment blocking indicators to be assigned to the debit and credit postings that may be generated by the function item. This is important for postings that involve suspense processing, such as CI/NPI (function: NETT).

In the **Deb Recovery Ind** and the **Cre Recovery Ind**, enter codes for the recovery indicators to be assigned to the debit and credit postings that may be generated by the function item. This is important for postings that have a different status with reference to billing partners than the original postings which form the source data for the function and function item.

For example, cutback takes billable entries (recovery indicator indicates they are billable) as input and produces final postings to customers. If cutback is re-run during the period these final postings should not be picked up for processing again, so cutback postings are assigned a recovery indicator of CB. This prevents them from being picked up in a subsequent cutback run.

At the same time, the postings from cutback are assigned a billing indicator, which denotes the type of billing to the partner that they represent.

35.4.3 CO Processing

JVA provides functionality for allocating costs originally booked to CO cost objects to other cost objects in accord with user-specified rules. The following types of allocations are available in JVA:

- Assessments
- Distributions
- Settlements

In this step of configuring JVA for your company, you will set up the rules for assigning costs for these three types of allocation.

Standard Versus JVA Allocations

The configuration and processing functionality provided in JVA for allocations is specialized to meet the requirements of joint venture accounting. You can use standard CO functionality to configure and execute allocations, but if you intend to execute allocations in JVA, you should define the objects that are used in allocations (i.e., cycles, segments, tracing factors) in JVA. This will ensure that processing will occur properly when you execute allocations.

Also, configuration of non-joint venture allocations in the JVA company must conform to the requirements of JVA allocations. For example, recovery indicators must be specified for all cost objects to be included in execution of allocations.

35.4.3.1 RI Manipulation Rules

The first step in defining allocations for your company in JVA is to define the rules that will control how recovery indicators will be assigned to the records of sending and receiving cost objects during allocations.

After you define the recovery indicator manipulation rules for allocations, you can assign these rules to the various allocations (assessments, distributions, and settlements) as you set them up. The rule you assign to a particular allocation will control determination of the recovery indicators for the postings that result from execution of the allocation.

Requirements

Before creating recovery indicator manipulation rules for allocations in JVA, you should configure the controlling area for your company. You should also create the cost objects (including assigning JVA information to them) that will be involved in allocations.

JVA recovery indicators must be defined for your company.

Activities

Defining a manipulation rule for recovery indicators to be used in allocations is a two-step process:

- 1. Create the manipulation rule and assign global parameters to it
- 2. Assign specific manipulation rules for individual recovery indicators

Create the Manipulation Rule

You can create a recovery indicator manipulation rule for allocations by entering the following information on the **Joint Venture: Manipulation Rules for Recovery Indicator** screen:

In the **MRul** field, enter the code for the new manipulation rule.

In the Manipulation Rule Description field, enter a description of the new manipulation rule.

In the **Message type** field, enter the code for the type of message to be issued if the rule cannot be applied properly during an allocation. An error message will preclude posting results of the allocation.

In the **MDerivation** field, enter the code for the method of deriving the recovery indicator that should be assigned to postings resulting from execution of the allocation.

Assign Rules for Individual Recovery Indicators

When you have defined a recovery indicator manipulation rule, you can access the **Manipulation Rule Detail** screen to define detailed rules for individual recovery indicators. To define specific rules recovery indicators, enter the following information:

In the **SRI** (sending debit recovery indicator) field, enter the code for the recovery indicator of the debit record of the sending cost object that will be the source data for the allocation.

In the **SCRI** (sending credit recovery indicator) field, enter the code for the recovery indicator to be assigned to the credit posting to the sending cost object that results from the allocation.

In the **RRI** (Receiver debit recovery indicator) field, enter the code for the recovery indicator to be assigned to the debit posting to the receiving cost object that results from the allocation.

In the **MDer** (recovery indicator derivation) field, enter the code for the method to be used to derive the recovery indicator to be assigned to the debit posting to the receiving cost object that results from the allocation. This is an alternative to specifying a recovery indicator in the RRI field.

35.4.3.2 Assessment

Assessments consist of transfers of costs that were initially booked using primary or secondary cost elements from sending cost centers to receiving cost objects (cost centers, orders, WBS elements) using a specialized assessment cost element (type: 42).

The relationships between sending cost centers and receiving cost objects are defined in cycles and their dependent segments. This step of JVA configuration involves defining the cycles and segments that will be used to transfer costs from senders to receivers when the assessments transaction is executed in JVA processing.

Cycles essentially consist of groups of segments. Segments consist of groups of sending cost centers and receiving cost objects and the rules that govern the transfers of costs. A new segment should be defined when the transfer rules change.

Requirements

Before creating assessment cycles in JVA, you should configure the controlling area for your company. You should also create the cost objects (including assigning JVA information to them) that will be involved in assessments.

You must define a secondary cost element of type 42 to be assigned to each segment of the assessment cycle. This cost element will be used to post the credit entry to the sending cost center(s) and the debit entry to the receiving cost object(s) during the assessment.

You must also define the manipulation rule that will be used to determine the recovery

indicators to be assigned to the postings to the sending and receiving cost objects produced by an assessment.

Activities

The process of defining an assessment cycle consists of the following steps:

- 1. Create the cycle
- 2. Enter information about the cycle
- 3. Create the segment
- 4. Assign the secondary cost element to the segment
- 5. Assign senders and receivers to the segment
- 6. Define receiver tracing factors for the segment

Create the cycle

To create a new assessment cycle, on the **Create JV Assessments Cycle- Actual: Initial** screen enter the code for the cycle in the **Cycle** and the starting date for the cycle in the **Starting Date** field. Postings to sending cost centers for segments in the cycle that are entered on or after this date will be processed for assessments in this cycle.

Enter Information about the Cycle

For new cycles, enter the following information on the **Create JV Assessments Cycle-Actual: Header Data** screen:

Enter a description of the cycle in the **Text** field.

Enter an indicator in the **Scale neg.trac.fact.** field if negative tracing factors for receiving cost objects are to be scaled. If tracing factors are not scaled, receivers with negative tracing factors will be credited along with the sending cost centers, and receivers with positive tracing factors will receive an additional assessment.

Enter an indicator in the **iterative** field if assessments for this cycle should be executed iteratively, which is necessary if there is a reciprocal relationship between receiving and sending cost centers.

Enter an indicator in the **Object currency** field if the currency assigned to the cost object should be included in calculations. This may be desired if the controlling area currency differs from the company currency, which will be assigned to cost objects as they are set up.

Enter an indicator in the **Transaction currency** field if the debit posting to the receiver that results from the assessment should be made in the currency of the original posting.

Create the Segment

To create a new segment for an assessment cycle, on the **Create JV Assessments CycleActual: Segment** screen enter the following information:

Enter the name of the segment in the **Segment** field and a description of the segment in the **Text** field.

Assign the Secondary Cost Element to the Segment

Assign the seconday cost element (type: 42) to be used in booking the assessment by entering it in the **Assess. CElem** field.

Specify the method for determining sender values for the assessment. Indicate the type of values to be included (posted or fixed amounts or fixed rates) in the **Rule** field. In the **Portion in %** field, indicate the percentage of amounts posted to the sender that will be included in the assessment. Indicate whether planned or actual values are to be included.

Specify the method for determining receiver tracing factors for the assessment. In the **Rule** field, specify the type of tracing factors to be used in the assessment (variable portions or fixed portions, amounts, or percentages). In the **Manip Rule** field, enter the code for the manipulation rule that will determine the recovery indicators for the sending and receiving records that will be produced by the assessment. You should have defined recovery indicator manipulation rules in the previous step of JVA configuration.

Assign Senders and Receivers to the Segment

You can identify the source of sender values for the assessment by entering the sending cost centers in the **Sender Cost Center** fields and the cost elements whose values are to be included in the **Cost element** fields. You can identify the cost objects to receive the results of the assessment by entering the codes for the cost objects in the receiving **order**, **Cost center**, **Cost object**, **WBS element**, and **Cost object** fields.

Define Receiver Tracing Factors

On the **JV** Assessment Cycle - Actual: Tracing Factors screen, enter the information about tracing factors for the segment. The fields that are available for entry on this screen are determined by the selection of the tracing factors rule on the segment. This screen is used to determine the method by which sending records will be allocated among receiving cost objects.

Further notes

Running an assessment using fixed values through CO produces multiple entries depending on the number of recovery indicators configured in the system.

Current functionality is:

- Option one -
 - You can enter the amount at sender level for all or some · specified RI's.
- Option two -
 - If you enter the amount on receiver level (RI independent), this amount will be allocated for each specified RI on sender level.
 - If you don't want to specify any RI in the sender select criteria of a cycle segment, you need to delete the sender flags for the field usage for fields RECID, RECIND and RECIDOBJ with transaction KCIF.

35.4.3.3 Distribution

Distributions consist of direct transfers of costs from the cost centers and cost elements to which they were originally booked to receiving cost objects (orders, cost centers, WBS elements, cost objects).

The relationships between sending cost centers and cost elements on the one hand and receiving cost objects on the other are defined in cycles and their dependent segments. This step of JVA configuration involves defining the cycles and segments that will be used to transfer costs from senders to receivers when the distributions transaction is executed in JVA processing.

Cycles essentially consist of groups of segments. Segments consist of groups of sending cost centers and receiving cost objects and the rules that govern the transfer of costs. A new segment should be defined when the transfer rules change.

Requirements

Before creating distribution cycles in JVA, you should configure the controlling area for your company. You should also create the cost objects (including assigning JVA information to them) that will be involved in distributions.

You must define the manipulation rule that will be used to determine the recovery indicators to be assigned to the postings to the sending and receiving cost objects produced by the distribution.

Activities

The process of defining a distribution cycle consists of the following steps:

- 1. Create the cycle
- 2. Enter information about the cycle
- 3. Create the segment
- 4. Assign senders and receivers to the segment
- 5. Define receiver tracing factors for the segment

Create the Cycle

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To create a new distribution cycle, on the **Create JV Distributions Cycle-Actual:Initial** screen enter the code for the cycle in the **Cycle** field and the starting date for the cycle in the **Starting Date** field. Postings to sending cost centers and cost elements for segments in the cycle that are entered on or after this date will be included in processing of the distribution cycle.

Enter Information about the Cycle

For new distribution cycles, enter the following informatin on the Create JV Distributions Cycle-Actual: Header Data screen:

Enter a description of the cycle in the **Text** field.

Enter an indicator in the **Scale neg.trac.fact.** field if negative tracing factors for receiving cost objects are to be scaled. If tracing factors are not scaled, receivers with negative tracing factors will be credited along with the sending cost centers, and receivers with positive tracing factors will received an additional distribution.

Enter an indicator in the **Iterative** field if the distribution for this cycle should be executed iteratively.

Enter an indicator in the Consumption field if quantities are to be included in the distribution.

Enter an indicator in the **Object currency** field if the currency assigned to the cost object should be included in calculations. This may be desired if the controlling area currency differs from the company currency, which is assigned to cost objects when they are set up.

Enter an indicator in the **Transaction currency** field if the debit posting to the receiver that results from the distribution should be made in the currency of the original posting to the sender.

Create the Segment

To create a new segment for a distribution cycle, on the **Create JV Distributions Cycle-Actual: Segment** screen enter the following information:

Enter the name of the segment in the **Segment** field and a description of it in the **Text** field.

Specify the method for determining sender values for the distribution. Indicate the type of values to be included (posted or fixed amounts or fixed rates) in the **Rule** field. In the **Portion in %** field, indicate the percentage of amounts posted to the sender that will be included in the distribution. Indicate whether planned or actual values are to be included.

Specify the method for determining receiver tracing factors for the distribution. In the **Rule** field, specify the type of tracing factors to be used in the distribution (variable portions or fixed amounts, portions, or percentages). In the **Manip Rule** field, enter the code for the manipulation rule that will be used to determine the recovery indicators for the sending and receiving records resulting from the distribution. You should have defined recovery indicator manipulation rules in the previous step of JVA configuration.

Assign Senders and Receivers to the Segment

You can identify the source of sender values for the distribution by entering the sending cost centers and cost elements in the **Sender Cost center** and **Cost element** fields.

You can identify the cost objects to receive the results of the distribution by entering the codes for the cost objects in the receiving **Order**, **Cost center**, **WBS element**, and **Cost object** fields.

Define Receiver Tracing Factors for the Segment

On the **JV Distribution Cycle-Actual: Tracing Factors** screen, enter the information about tracing factors for the segment. The fields that are available for entry on this screen are determined by the

selection of the tracing factors rule on the segment. This screen is used to determine the method by which sending records will be allocated among receiving cost objects.

35.4.3.4 Settlement

Settlements consist of final allocations of costs from orders or WBS elements to cost centers, projects, fixed assets, G/L accounts, networks, materials, sales orders, or cost objects.

To configure JVA settlements for your company, you should define the settlement objects. You can later assign these objects to the settlement rules of the sending cost objects.

Requirements

Before creating settlement structures in JVA, you should configure the controlling area for your company. You should also create the cost objects (including assigning JVA information to them) that will be involved in settlements.

You must create a secondary cost element of type 21 "internal settlement" to be assigned to the settlement structure as the receiver of the settlement.

You must also define the manipulation rule that will be used to determine the recovery indicators to be assigned to the postings to the sending and receiving cost objects produced by a settlement.

Standard settings

The settlement rules that control execution of settlements are assigned to the sending WBS elements and orders. These settlement rules include designation of the following:

- Cost objects that receive the results of the settlement
- Settlement profile
- Settlement structure
- Recievers of the settlement

Other JVA Settlement Structures

You will need to define some additional objects to support settlements as well.

If you wish to perform protitability analysis on settlements, you should define a PA settlement structure and assign it to the WBS element or order as well. A PA settlement structure consists of cost element groups assigned to business segments. Several such assignments can be combined in a single PA settlement structure.

You should define a number range for the documents that will result from execution of settlements.

If your company is assigned to the International region, you can assign an exchange rate type for foreign currency exchanges to your company's controlling area and settlement type (PER for for periodic or FUL for final settlement of all costs).

Activities

As a basis for assigning settlement rules to the WBS elements and orders, you should create the following settlement objects in JVA configuration:

- Origin structures
- Settlement structures
- Settlement profiles

There is no required order in which you must create these objects, but since both the origin and settlement structures are assigned to the settlement profile, it is logical to create these before creating the settlement profile.

Origin structures

The origin sructure defines the sending cost elements to which the costs to be settled were originally posted.

There are three steps in defining a settlement origin structure:

- 1. Define layouts for the origin structure
- 2. Assign multiple assignments to each layout
- 3. Assign the range of sending cost elements whose postings will be settled to each assignment

Settlement structures

The settlement structure defines the secondary cost element that will be used to post the results of the settlement to the receiving objects.

There are three steps in defining a settlement structure:

- 4. Create the settlement structure
- 5. Define the multiple structure assignments of the structure
- 6. Specify the receiving cost element for each structure assignment

For settlements, the cost element used to post results of processing should be a secondary cost element of type 21 for internal settlements. Alternatively, it is possible to settle expenses to the cost elements to which the expenses were originally posted.

In the same step when you specify the cost element to be used to post settlement results, you should specify the following:

- Account assignment categories of the cost objects to be settled using specific settlment cost elements
- manipulation rule to be used in determining the recovery indicators for the postings that result from execution of the settlement.

Settlement Profiles

When you have set up the origin and the settlement structures, you can define the settlement profile and assign these structures to it.

The settlement profile includes the following information:

- Settlement structure
- Identification of the cost object types of valid receivers
- Designation of whether settlement is allowed or required for all receivers for settlments using this profile
- Document type
- Maximum number of distribution rules allowed for the profile Retention period for settlement document

35.4.3.5 CO/FI reconciliation.

Short text

JV - CO intercompany reconciliation postings

Description

Without this special customizing -

- CO cross company postings do not balance by company code and so do not balance by venture which means, that the JV interface generates a single balancing entry to the inter-venture account.
- This results in a balance on the inter-venture account.
- The postings by the CO/FI period end reconciliation process are deliberately not recognized by the JV ledger because that would cause duplicate values.

Achieved functionality when you perform this customizing

- 1. Balance on account level with FI and still have the correct values on cost center level compared with CO.
- 2. The additional records participate in venture balancing postings.

A new menu item was also created in JV customizing menu, path:

Processing -> CO processing -> CO/FI reconciliation

|
+ new menu entry

How to maintain the customizing entries:

On the top level entry screen you determine by company code if CO/FI reconciliation postings (initiated via transaction KALC) should be recognized in the JV ledgers.

Maintenance example:

```
Client S_comp XCP
----- ---
100 JVU1 '' 100
JVU2 X
| |
```

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On the second level you determine for the company on top level, if a cross company balancing record should be created when a certain partner company is involved. You can chose, if the balancing record is written with the current account, or you can specify deviating accounts.

Maintenance example:

Wantenance exa

Client S_comp P_comp XCA CREDIT_ACCOUNT DEBIT_ACCOUNT

Examples

The examples below just show the records created by a single CO line item for a CO object belonging to a company with JV active.

The partner line item (which is not listed here) is treated according to the above customizing settings for the company code of the partner object.

CO-line item:

- Account: 400000
- Costcenter CC1
- Venture V1
- Amount 100,-

Example 1:

CO/FI postings are NOT recorded (XCP flag = blank) and cross company balancing records should NOT be created in the JV ledger (XCA flag = blank or customizing entry doesn't exist).

==>> This is the current system default, like no customizing is done at

```
all
```

```
Created JV ledger entries:
```

```
______ Posted amounts in --- | created by: |account | object |venture | CO | JV | FI | | CO-line item |400000 | CC1 | V1 | 100,- | 100,- | -- |
```

Example 2:

CO/FI postings are NOT recorded (XCP flag = blank) but cross company balancing records should be created in the JV ledger under the original account (XCA flag = 1).

Created JV ledger entries:

Example 3:

CO/FI postings are recorded (XCP flag = 'X') and cross company balancing records should be created in the JV ledger under the original account (XCA flag = 1).

Created JV ledger entries:

Further notes

Activation of CO/JV cross company postings MUST NOT be done in the middle of a period,

but immediately after month end close and before any postings into the new period!

Because there is no technical program relationship between the customizing settings for the JV reconciliation postings - and the runtime options of the CO/FI reconciliation transaction KALC, you have to procedurally make sure, that the customizing settings in JV exactely reflect the runtime filter options of transaction KALC in order to keep JV and FI in sync!

However, you still have the option to customize your system to balance the JV ledger by company code, but still don't let the CO/FI reconciliation flow through when you run transaction KALC. If you choose to use the original accounts for the JV cross company balancing postings, the JV ledger will reconcile with FI on acount level, while taking the accounts out of the customizing table will only reconcile on the set of all participating accounts. Keep also in mind, that balancing on original account level will inflate your JV line item and summary ledgers!

CAUTION

Misconfiguration could lead to duplicate values in the JV ledger e.g when you allow the CO/FI reconciliation postings to flow through to the JV ledger, but no corresponding JV cross company balancing records have been posted!

The new cross company balancing records are written with the following field settings and identifiers in JV single line item table JVSO1:

- Corporate information for:
- venture
- Equity group
- recovery indicator
- original recovery indicator
- The partner company code is stored in the SGTXT field of each record.
- The following fields are set according to venture balancing entries:
- Internal activity JVSO1-ACTIV = 'JVJV'
- Internal ref.activity JVSO1-REFACTIV = 'JVJV'
- Internal ref.Doc.type JVSO1-REFDOCCT = 'J'
- The venture blancing records and the cross company balancing records can be distinguished via their specific accounts. Please consider this in your reporting.

35.4.4 Automatic Postings

Certain JVA processes produce automatic postings when they are executed as part of processing. These postings produce documents in FI as well as in JVA, so you must specify G/L accounts for the processes used by your company. In this step of configuring JVA for your company, you should specify the posting rules, keys, and G/L accounts for these automatic postings.

35.4.4.1 Cost Calculations

When executed as part of periodic processing, JVA cost calculations produce automatic postings of additional overhead and payroll burden costs based on the actual expenses booked to joint ventures.

In this step of configuring JVA, you should specify posting rule, keys, and G/L accounts for the types of overhead cost calculations and payroll burden calculations used by your company. Availability of a specific type of cost calculation is determined by region. These posting rules, keys, and accounts will be applied during the automatic postings produced by cost calculations processing.

Requirements

Before defining posting parameters for the automatic postings that may be produced by JVA cost calculations, you must fully configure FI for your company. In particular, posting keys and G/L accounts must be created in FI for all relevant JVA postings.

Standard settings

Each of the three regions (international, Canada, US) supported in JVA apply different types of overhead and payroll burden cost calculations to joint venture expenses.

International region companies generally apply a single overhead rate to venture expenses.

Depending on the specific provisions of the joint operating agreement governing a joint venture, Canadian and US companies may apply any of an extensive range of different overhead cost calculations to venture expenses.

There are also some differences between Canadian and US cost calculations. Canadian payroll burden calculations include compulsory as well as non-compulsory items.

Activities

To specify posting rules, keys, and G/L accounts for the automatic postings that may be produced by a specific cost calculation type follow this procedure:

On the **Maintain Acctng Configuration: Automatic Postings - Transactions** screen, select the cost calculation type or transaction.

Specify the chart of accounts of your company in the pop-up screen.

On the **Maintain Acctng Configuration: Automatic Postings - Rules** screen, specify whether different accounts will be used to post credit and debit postings produced by the cost calculation type.

Select **Posting Keys** and on the **Maintain Acctng Configuration: Automatic Postings - Posting Keys** screen, enter the debit and credit posting keys to be used to produce automatic postings

for this cost calculation type.

Select **Accounts** and on the **Maintain Acctng Configuration: Automatic Postings - Accounts** screen, enter the G/L account to be used to produce automatic postings for this cost calculation type.

35.4.4.2 Other JV Postings

In addition to cost calculations, certain JVA processes produce automatic postings for the following conditions:

- Goods receipt before invoice receipt
- Interventure transfers when balance books by ventures is used
- Tax postings produced by Cutback
- Net Profit Interest expense and revenue postings
- Splitting of documents for non-operated billing
- Foreign currency exchanges

In this step of configuring JVA for your company, you should specify posting keys and accounts for these processes if they are relevant to your company.

Requirements

Before defining posting parameters for the automatic postings that may be produced by JVA processes, you must fully configure FI for your company. In particular, posting keys and G/L accounts must be created in FI for all relevant JVA postings.

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Standard settings

The relevance of these automatic postings is largely determined by the company's region.

International region companies deal with foreign currency exchanges, manage ventures by balanced books, and maintain separate bank accounts for different ventures. As a result, international region companies will generally need to specify accounts for the following processes:

<u>Process</u>	<u>Description</u>
JV9	Foreign Currency Valuation
JV6	Interventure Account for Balanced Books by Venture
JV7	Interest Charges in JVA Bank Transfers
GNB	Goods Receipt before Invoice Receipt - Delivered but
	not Paid
JV8	Goods Receipt before Invoice Receipt -
	Shadow Account

Companies that make use of Net Profit Interest (NPI) provisions in joint operating agreements should specify G/L accounts for the following JVA processes:

Process	Description
JV3	Miscellaneous Income for NPI
JV4	Net Expense for NPI
JV5	Miscellaneous Income Holding for NPI

Companies that will maintain tax records in JVA and book tax to partners through Cutback should maintain G/L accounts for the following tax-related Cutback processes:

	Process	<u>Description</u>	
	JVA	Cutback Tax Expense Account	
	JVB	Cutback Tax Suspense Gross	
	JV1	Cutback Tax Clearing Account	
c	Companies who will record non-operated venture expenses, including billing, in JVA should maintain		

Process	<u>Description</u>
JV2	Non-operated Billing: Account for Document Splitting

35.4.5 MM Transfers

accounts for the following process:

JVA includes functionality that supports material valuation and transfers between ventures. This functionality includes integrated accounting treatment of all transactions.

Elements from the standard MM (Materials Management) modules have been adapted to address the special requirements of joint venture accounting. In these steps of configuring JVA for your company,

you should define certain key elements that are derived from MM configuration so that they provide support to JVA processing.

Before performing the tasks in JVA configuration documented in this section, you should fully configure the JVA company for MM.

35.4.5.1 Material Valuations

In this step of configuring Materials Management (MM) functionality for your JVA company, you should specify the link between the valuation area and valuation types that you set up during standard MM configuration and the CO-based cost objects (cost centers, WBS elements, orders) that carry JVA-related information. This enables a material to be linked to a specific venture via the cost object.

35.4.5.1.1 Material Condition Codes

In this step of configuring MM functionality for JVA, you should specify the codes that indicate the condition of the material for your company. These codes are used to indicate whether the material to which they are assigned are serviceable or not. These condition codes can be printed on the billing supplemental detail report.

JVA condition codes can be used to specify COPAS standard conditions for materials.

Example

JVA condition codes can represent COPAS standard conditions as follows:

Condition	Text
A	New
B1	Serviceable - 75%
B2	Serviceable - 65%
C	Material for Rework
D	Not Serviceable for its Original Purpose
E	Scrap

Standard settings

In the next step of configuring MM functionality for JVA, you will assign material valuation types to JVA-related CO cost objects. At the same time that you assign valuation types to cost objects, you can assign the condition codes you define in the current step as well.

Activities

To define JVA material condition codes for your company, enter the following information on the JV Condition Code screen:

In the CC field, enter the condition code.

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In the **Text** field, enter a description of the condition code.

Optionally, in the CCAdj field, enter an adjustment condition code.

35.4.5.1.2 Mapping Valuation Types to Cost Objects

As part of configuring MM functionality for JVA, you should assign valuation types for various stocks of materials to the cost objects (cost center, WBS element, order) on which the actual materials will be held. Optionally, you may define the condition type for the material at the cost object level as well.

Requirements

Before proceeding to specify valuation types for material stocks and assign these types for materials held on the JVA-related CO cost objects, you should fully configure standard Logistics and MM for your company. In particular, you must define valuation areas, create plants, and set split valuation categories and types for your company's plants.

If you intend to specify condition codes for the condition type and cost object combinations you specify in this step, you should set up these JVA material condition codes first.

Activities

To configure valuation types for the JVA-related CO cost objects in your company, enter the following information on the **JV Valuation Type: Overview** screen:

In the **ValA** field, enter the code for the valuation area to which the valuation type belongs. Valuation areas are either plants or at the company level and must be configured in Logistics before being used in JVA.

In the **Val.type** field, enter the code for the valuation type to be assigned to a JVA-related CO cost object. Valuation types must be configured in MM before being assigned to cost objects in JVA.

In either the **Cost ctr.**, the **Order**, or the **WBS Element** field, enter the code for the valuation type. Materials of this valuation type will be maintained for this cost object.

In the **CCD** field, enter the condition code for the valuation type. The condition codes you assign here must be set up as part of JVA configuration for MM.

35.4.5.2 Current Replacement Price Calculations

In this step of configuring MM functionality for JVA, you should define a number of objects that support current replacement price (CRP) calculation.

35.4.5.2.1 Condition Tables

JVA makes use of the functionality for calculating current replacement price (CRP). In this step of configuring MM functionality for JVA, you should perform the following tasks:

- Specify entries to the field catalog of items to be included in CRP
- Create a condition table and assign the field catalog items appropriate for your company to the table

35.4.5.2.1.1 Maintain Field Catalogs

Before creating a condition table, you can assign additional fields as entries to the field catalog. These entries will be the available as possible entries in the condition table that you set up in the next step of JVA configuration.

Example

A simple example of additional fields in a field catalog to be selected for a possible entry in a condition table would be:

Field	Description
MATNR	Material
MATKL	Material Group
OICONDCOD	Condition Code

Activities

In this step of configuration, you can select additional entries for the field catalog from those that have already been set up. These entries must already exist in table KOMG, KOMK, or KOMP.

You must assign new entries to a transport as you select them.

35.4.5.2.1.2 Maintain Condition Tables

The condition table used in JVA to support CRP calculation specifies fields from the field catalog.

The fields specified in the condition table are available to be used by access sequences to define search protocols for identifying pricing information. The access sequences are in turn assigned to condition types. During processing of material and asset transfers, the condition types and their access sequences are used to locate pricing information on the material or asset.

Example

In the example for field catalog, material (MATNR), material group (MATKL), and condition code (OICONDCOD) were selected as fields to be included in the field catalog. The fields in the field catalog WHATSAPP +255738656506

are the bases for defining the fields in the condition table. So among the other fields available from the field catalog, material, material group, and condition code are also available to be assigned to the condition table.

In this example the following two condition tables might be defined to provide support to a sequential search for pricing information on a material:

Condition Table: 270

Material

Condition Table: 271

Material Group

Activities

To define a new condition code on the **Condition Table** screen, enter the code for the new table in the **Table** field and select **Create**.

When it is created, the condition table must be assigned to a transport request.

To assign fields from the field catalog to the condition table on the **Condition Table: Field Overview** screen, double click on the fields listed from the field catalog.

When you have selected all the fields to be included in the condition table as search fields for pricing information, you should generate the new table.

35.4.5.2.1.3 Display Condition Tables

You can view the condition tables and access sequences defined for your JVA company by using this transaction.

35.4.5.2.2 Condition Types

In this step of configuring MM functionality for JVA, you should define the following objects that support current replacement price (CRP) calculations:

- Condition type access sequences

- JVA condition types

35.4.5.2.2.1 Maintain Access Sequences

An access sequence is a search protocol that the system applies to determine valid pricing values for a particular condition type.

In defining access sequences for use in JVA CRP processing, you will specify the fields from the transfer input screen that should be searched for pricing records.

Example

In the example for field catalog and condition tables, the fields material and material group were made available in the field catalog. Then condition table 270 was defined identifying the material field, and table 271 was defined identifying material and material group.

Continuing with this example, an access sequence is created. It contains two accesses: one references table 270 and the other 271. The fields for these accesses are derived from the contents of the two condition tables, so the access sequence would look like this:

Access Sequence: MTGP

Accesses

<u>AcSq</u>	Tab	Description
10	270	Material Number
20	271	Material Number & Material Group

Access 10 Fields:

Condition

Material

Access 20 Fields:

Condition

Material

Material Group

This access sequence will subsequently be assigned to a condition type. When the price search is initiated during processing of an asset or material transfer, the material field will first be searched for a pricing record. If this search is unsuccessful, the material and material group field will then be searched.

Standard settings

An access sequence consists of the following contingent elements:

- Access sequence
- Several accesses
- Fields attached to each access

An access sequence contains a number of accesses. Each access identifies one or more key fields that will be searched for pricing records during transfer processing.

Each access is assigned to a condition table, and the fields from the field catalog that are assigned to that condition table are attached as fields of the access.

Activities

To define a new access sequence, select **New Entries** on the **Access Sequences: Overview** screen and enter a code in the **AcSq** field and a description in the appropriate field.

To assign accesses to the new access sequence, select **Accesses** on the **Access Sequences: Overview** screen. On the **Accesses: Overview** screen, enter a number for the first access in the **AcNo** field. This number indicates when in the sequence this search should be performed.

Indicate the code for the condition table from which the fields to be searched for pricing records should be derived in the **Tab** field. You should also select the **Exclusive** field.

You must assign your entries to a transport request.

35.4.5.2.2.2 Maintain Condition Types

Condition types can be defined for every type of catalog price, surcharge, discount, or service that might be applied to a material or asset transfer from one location to another.

In this step of configuring SAP pricing functionality for JVA, you can define condition types for any elements that impact pricing during asset and material transfers within your JVA company.

Standard settings

JVA is preconfigured with condition types for materials, transportation, preparation, loading, and hauling in accord with COPAS (Council of Petroleum Accountants Societies) standards.

Activities

You can define condition types on the **Condition Types: Details** screen. The screen offers a great deal of flexibility in defining condition types.

You must assign an access sequence to each condition type as you define it.

In the **Control Data1** section, you can define the nature of the condition type: that is, whether it is a discount, a tax, or a price, and whether the price is determined by quantity, weight, or volume.

You can define whether this condition should be part of the document header (**Header condit.**) and therefore be applied to all line items. Alternatively, the condition can be entered in the document and thereby be applied selectively to individual items (**Item condition**).

In the Changes which can be made section, you can define what changes can be made for the condition type to the rates or values returned by the pricing function.

35.4.5.2.3 Calculation Schema

In this step of configuring CRP for your JVA company, you should create the calculation schemas that will control calculation of prices during asset and material transfers.

Essentially, a CRP calculation schema consists of a sequence of condition types. When a transfer transaction occurs, these condition types are executed in sequence to determine the appropriate price for the material or asset.

The first step in this process is to create a calculation schema. The second step is to assign condition types to the schema in the sequence in which they should be applied during a transfer to determine the price of the asset or material.

In the last step of configuring CRP calculation schemas for your JVA company, you should assign a schema for each of the following conditions:

- Regular CRP for material transfers
- New replacement price to determine estimated book cost of a depreciated asset
- CRP for transfers between facilities that are wholly owned by the JVA company

35.4.5.2.3.1 Maintain CRP Procedures

The first step in defining CRP calculation schemas for your JVA company is to create the schema itself.

Three schemas will be necessary: one to calculate CRP, one for new replacement price, and one for pricing in transfers between facilities that are wholly owned by the JVA company.

Example

The following three schemas could be defined for each of the three conditions that require CRP calculation schemas:

<u>Schema</u>	<u>Description</u>
CRP001	Calculate standard CRP
CRP002	Calculate new replacement price
CRPWHO	Calculate wholly owned CRP

A simple example of a price calculation schema that could be used to calculate regular CRP follows:

Schema: CRP001 Controls: Level CTyp Description Fro

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10	CRPBP	CRBP Base Price

20 CRST State Sales Tax 10

30 Price Including Tax

40 CRFR Freight

50 Price Including Freight

60 CRCCCondition Code Adjust.

70 CRCW Coating & Wrapping

80 Tangible Costs

999 Replacement Price

A simple example of a price calculation schema that could be used to calculate estimated book cost for a depreciated asset follows:

Schema: CRP002 Controls:

Level CTyp Description Fro

10 CRPBP CRP Base Price

20 CRST State Sales Tax 10

30 Price Including Tax

40 CRFR Freight

50 Price Including Freight

999 Replacement Price

A simple example of a price calculation schema that could be used to calculate replacement price for transfers of assets or materials between facilities that are wholly owned by the JVA company follows:

Schema: CRPWHO Controls:

Level CTyp Description Fro

10 CRPBP CRP Base Price

Requirements

Before you create a calculation schema, you should have performed all the previous steps of CRP configuration up to and including creating condition types.

Activities

To create a CRP calculation schema, enter the following information on the **Procedures (Pricing CRP Calculation): Overview** screen:

Select New Entries and enter the code for the new calculation schema in the Proc. field.

Enter a description of the new schema in the **Description** field.

When you have created the schema, select it and then select **Control**. On the control screen, enter the sequence of condition types in the order in which they should be executed to calculate the price of an asset or material.

The entry in the **Level** field determines the place in the sequence at which the condition type will be referenced. You should enter the appropriate condition type in the **CTyp** field. You can use the **Cntr** field to specify sub-steps within a single level of the sequence.

A schema may consist of a series of condition types, each of which provides data that contributes to the final calculation of price. Some condition types in the sequence will provide data (taxes, discount, freight, handling charges) that is contingent on data provided by other condition types. Condition types that provide contingent data should occur later in the sequence than the condition types upon which they are based. For example if a particular condition type is defined to calculate a discount based on a percentage of the base price, it must be placed later in the sequence than the condition type that provides the base price.

You should indicate the level number of the condition type used as a basis for calculation in a subsequent step in the **Fro** field of that subsequent step.

Subtotals and totals that are part of the calculation sequence must be defined with a **Level** and a title in the **Description** field. Subtotals of portions of the sequence must be marked with a **Y** in the **SubTo** field.

35.4.5.2.3.2 Maintain Schema Determination

The final step of configuring JVA price calculation schemas is to assign a schema for each type of pricing condition within your JVA company.

The following three conditions require different price condition schemas:

- CRP for regular transfers involving joint venture ownership
- Current new price to establish estimated book cost for a depreciated asset
- CRP for transfers between facilities that are wholly owned by the JVA company

Example

The following is an example of the assignment of price calculation schemas for the three different types of calculations:

CRP Current New Price Wholly Owned CRP
CRP001 CRP002 CRPWHO

Activities

To specify price calculation schemas for the three conditions that require them within your JVA company, enter the codes for the appropriate schemas in the fields provided on the **JV CRP Pricing schema determination:** Overview screen.

35.4.5.2.4 Condition Data

After you create access sequences and assign them to condition types, you can proceed to define a condition rate for each material for a specific condition type and access sequence. This condition rate will be applied in calculating the base price for the material.

35.4.5.2.4.1 Create Base Price Conditions

In this step of configuring CRP calculations for your JVA company, you should create condition rates for each combination of material, condition type, and access sequence. These rates will determine the percentage of calculated price that will be applied in establishing the base price for the material.

Requirements

You must have created the materials to which condition rates will be assigned in MM processing.

Activities

To create a condition rate for a material, enter the condition type for which the rate will apply for the material in the **Condition Type** field of the **Create Condition** screen. To select the access sequence for which the condition rate for the material will apply, select **Key combination** and then the appropriate access sequence.

On the **Create Base Price Condition (CRBP)** screen, enter the code for the material for which a rate will be assigned in the **Material** field and the amount or percentage to be used to determine how base price will be calculated in the **Rate** field.

The **unit** field indicates the unit of measurement. If the **unit** is a currency, the rate will be an amount. If the **unit** is a percentage, the rate will be a percentage.

The **by** field indicates the number of units of the material to which the rate applies.

The **UoM** field indicates the quantity to which the rate will be applied.

35.4.5.2.4.2 Create Base Price Conditions with Reference

In this step of configuring CRP calculations for your JVA company, you should create condition rates for each combination of material, condition type, and access sequence. These rates will determine the percentage of calculated price that will be applied in establishing the base price for the material.

Requirements

You must have created the materials to which condition rates will be assigned in MM processing.

Activities

To create a condition rate for a material, enter the condition type for which the rate will apply for the material in the **Condition Type** field of the **Create Condition** screen. To select the access sequence for which the condition rate for the material will apply, select **Key combination** and then the appropriate access sequence.

On the **Create Base Price Condition** (**CRBP**) screen, enter the code for the material or material group for which a rate will be assigned in the **Material** field and the amount or percentage to be used to determine how the base price will be calculated in the **Rate** field.

The **unit** field indicates the unit of measurement. If the **unit** is a currency, the rate will be an amount. If the **unit** is a percentage, the rate will be a percentage.

The **by** field indicates the number of units of the material to which the rate applies.

The **UoM** field indicates the quantity to which the rate will be applied.

35.4.5.2.4.3 Change Base Price Conditions

Using this transaction, you can change the condition rates used to calculate price for materials for a condition type and access sequence.

35.4.5.2.4.4 Display Base Price Conditions

Using this transaction, you can display the condition rate used to calculate price for materials for a specific condition type and access sequence.

35.4.5.2.5 Account and Recovery Indicator Determination

JVA supports the following types of goods movements:

- Goods issues to and returns from projects
- Goods isssues to and returns from plants
- Goods issues to and returns from assets

To support postings for these types of goods movements, JVA is preconfigured with posting rules that indicate how the recovery indicator should be derived for the line items of the FI and JVA documents produced by the postings.

These posting rules consist of the following **value strings** and their dependent recovery indicator settings:

Value

String Description

WA01 Goods issues to and returns from projects

WA04 Goods issues to and returns from plants WA15

Goods issues to and returns from assets

Requirements

Before configuring the JVA elements that support CRP processing for material and asset transfers, you should fully configure MM and AM for the JVA company.

This includes specifying accounts in MM configuration for the following automatic postings:

Inventory Postings (process: BSX)

With regard to inventory postings, you should specify a G/L inventory account for every valuation group and valuation class combination in the JVA company.

Offsets to Inventory Postings (process: GBB)

Three types of inventory offset postings are possible. Each is identified by an **account** modifier. The possible posting types and their respective account modifiers follow:

Account Types of Modifier Offset Postings

Blank CRP - MAP (Moving Average Price) calculation for the

receiving location

IDC Intangible Development Costs

VBR Expense

To support goods movement offset postings, you should specify cost elements for every account modifier and material valuation class in every valuation group code associated with the JVA company.

These account assignments will be sufficient for MM goods movement postings.

To support AM postings of asset movements, you should specify accounts for the appropriate asset classes in AM configuration.

Activities

Generally, these posting rules should not be altered. The one exception is that if your company uses a recovery indicator other than **NB** to identify non-billable entries, you will want to change the NB settings to one that is appropriate for your company.

35.4.5.3 Replacement Price Indexes

Material transfers may involve assets for which historical values have not been maintained. In this case, an index series of values is used to establish the value of the asset in the acquisition year and the replacement value of the item in the current year. These index series values are applied against the current replacement price to establish the estimated book cost (EBC) of the asset. The EBC is used to process the transfer.

The process of defining the EBC index series is as follows:

- Define the series
- Enter the values in the series for each year

Finally, the EBC index series must be assigned to the company on the JVA Company Detail Data screen.

35.4.5.3.1 Estimated Book Cost indices

The EBC (estimated book cost) index series is used to value assets for which no historical values have been maintained. The first step in defining the EBC index series for your company is to name the series itself.

Activities

To define an EBC index series for your JVA company, enter the following information on the **Definition of Index Classes: Details** screen:

After selection **New entries**, enter a number for the series in the **Class** field and a description of the index series in the following field.

35.4.6 Asset Management for JVA

In the following steps of configuring JVA, you should define the following elements that are required to support the use of AM functionality:

35.4.6.1 Depreciation Area Updates

In this step of configuring JVA to enable AM functionality, you should specify the type of JVA expense information that should be stored in your company's various depreciation areas. Depreciation areas are essentially sets of depreciation books that are maintained for different purposes (e.g., book, tax).

You can specify the JVA expense data that should be included in a depreciation area by recovery indicator.

Example

An example of a set-up of depreciation areas that will support JVA processing of AM functionality follows:

Depreciation Description	Recovery
Area	Indicator

- 01 Book
- 02 Gross Billabl Costs BI
- 03 Non-billable Costs CB, CP
- 04 Derived Gross Value Derived from 02 + 03
- 10 Tax

This example assumes that the following recovery indicators have been defined in the JVA company:

Recovery	<u>Description</u>
Indicator	
BI	Billable
NB	Non-billable
CP	Non-billable expenses for ventures wholly owned by the JVA
	company

The depreciation area numbers in this example are not required. Any available numbers may be used for JVA depreciation areas.

Requirements

Before configuring JVA for AM functionality, you should fully configure AM, including defining the following depreciation areas, which are required for JVA processing:

- Gross billable costs
- Non-billable costs

Gross Value

The gross value depreciation area should be defined as an area derived from the comination of the gross billable and non-billable costs areas.

By default, depreciation area 01 is set as the book depreciation area.

In addition to the book depreciation area and the areas noted above that are required for JVA processing of AM functionality, you will also want to define tax depreciation areas and additional areas to address your company's accounting requirements.

Activities

The recovery indicator is used as the basis for selecting data on assets from the JVA ledgers to be included in depreciation areas. Configuring recovery indicators for depreciation areas involves indicating which recovery indicators should **not** be included in a depreciation area. On the JVA **Update Depreciation Areas** screen, you should specify the recovery indicators for expense data that should **not** be included in a particular depreciation area.

If depreciation area 02 is set up in AM to include gross billable costs, as shown in the example above, it should be configured in JVA to include data with a billable recovery indicator (BI in the example). To accomplish this assignment of billable data to this depreciation area, you should specify all non-billable recovery indicators (NB and CP in the example) for the area, which will exclude data with these non-billable recovery indicators from depreciation area 02 so that the data with non-billable recovery indicators will not be included in the area.

To specify the recovery indicators for expenses that should be excluded from a depreciation area for the JVA company, enter the following information:

In the **Recovery Indicator** field, enter the code for the recovery indicator for expenses that should be excluded from the depreciation area.

In the **Depreciation Area** field, enter the code for the depreciation area from which expenses with the recovery indicator will be excluded.

35.4.6.2 Equity Change Asset Transaction Types

The equity change management functionality of JVA does not automatically recalculate partner shares for AM transfers when there is an ownership change. The transaction types of transfers that will be represented on the report generated by the execution of JVA equity change are preconfigured in the table shown on the **Asset Ownership Transaction Types** screen.

Standard settings

The table containing AM transfer transaction types that are affected by equity change management processing is preconfigured with the following entries:

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Transaction	<u>Description</u>	
Type		
200	Retirements	
29A	Retirements	
300	Transfers	
310	Transfers	
Activities		

Because this table is preconfigured with all the AM transaction types that may be affected by execution of equity change management, there should be no need to maintain this table. But equity change management does not automatically recalculate the partner shares for asset transfers. The report containing the listing of the transactions affected by equity change management should be used as a basis for making appropriate changes manually.

35.4.7 Cost Calculations

As part of month-end processing, the JVA Cost Calculations process is executed to apply different types of overhead costs as well as payroll burden costs to expenses booked to the JVA company's joint ventures during the period.

The availability of cost calculation types is determined by the JVA company's region, which is defined on the JVA Company Global Data screen. International region companies apply only parent company overhead to expenses, but US and Canadian region companies apply various types of overhead calculations, each involving a different formula or rate. It is only necessary to configure the cost calculations objects that will be used in your JVA company.

Since the types of overheads that can be applied to joint venture expenses are defined in the joint operating agreement contract, JVA cost calculations rules and rates are assigned on the JOA.

In this step of configuring your JVA company, you should define the following elements that will be used by cost calculation processing:

- Cost elements to which Drilling payroll burden expenses will be applied (US region)
- Rules for stepped rate cost calculations (all regions)
- Key figures for drilling and producing (US region)
- Sets that define the range of accounts to be excluded from cost calculations (all regions)

35.4.7.1 Risk Labor Cost Elements

For US region companies, payroll burden overhead is divided into Drilling and Non-drilling costs. Different percentages can be assigned to each type of payroll burden on the JOA. The rate for drilling payroll burden defined on the JOA will be applied to expenses that meet the following two criteria:

- The drilling indicator is active for the JVA cost object type assigned to the cost object.
- The cost element that corresponds to the account to which the expenses are booked is defined as a risk labor cost element for the JVA company.

Essentially, the drilling payroll burden rate defined on the JOA will be applied to expenses booked to the cost elements entered on the JV Special Cost Elements - Payroll Burden screen.

Requirements

Before identifying the risk labor cost elements for the JVA company in this step of configuring cost calculations, you should define the **cost object types** (project/WBS elements, cost centers, internal orders) for the JVA company. If the drilling indicator is set on for a JVA cost object type, expenses booked to cost objects to which that cost object type is assigned will be considered drilling-related costs.

Before processing payroll burden cost calculations, you must define the G/L accounts for the following automatic posting processes that govern payroll burden processing:

Process	<u>Description</u>
JPE	Payroll Burden Clearing Expense Account
JPO	Payroll Burden Clearing Offset Account

Recommendation

Payroll burden costs are applied to expenses booked to accounts encompassed by the **inclusion** set assigned on the JOA for payroll burden clearing. For drilling payroll burden expenses to be applied, the accounts to which the cost elements defined as risk labor cost elements correspond must be included in the inclusion set assigned to the JOA. You should consider this requirement when defining the inclusion sets for the JVA company.

Activities

To identify the cost elements to which the drilling payroll burden rate defined on the JOA will be applied, enter the cost element code in the appropriate field of the **JV Special Cost Elements - Payroll Burden** screen.

35.4.7.2 Stepped Rate Rules

Companies in different regions use stepped rate rules to calculate costs for several different types of overhead.

International region companies use stepped rate rules to apply parent company overhead costs.

Canadian region companies define stepped rate rules for the following types of overhead costs:

- Exploration
- Construction

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- Drilling

US region companies define stepped rate rules for the following types of overhead costs:

- Major construction overhead (MCO)
- Catastrophe overhead

These stepped rate rules for various types of overheads are applied to expenses booked to WBS elements. The type of overhead rule that applies to expenses booked to a WBS is determined by the JV overhead type assigned to the JVA cost object type that is in turn assigned to the WBS.

The specific rule for a particular overhead type is assigned on the JOA. The rule will be applied to expenses booked to WBS's with an appropriate JVA cost object/overhead type designation that belong to JV's in the JOA.

The stepped rate rules for the JVA company are defined on the **JV Stepped Rate Rules** screen. These rules can then be assigned for a particular overhead type on JOA's in the company.

Requirements

Before defining the stepped rate cost calculation rules for the JVA company, you should define the **cost object types** (project/WBS elements, cost centers, and internal orders) for the company. If the JV overhead type assigned to the cost object type indicates a type of overhead to which stepped rate rules are applied, expenses booked to WBS elements to which the cost object type is assigned will be subjected to the stepped rate rule designated on the JOA.

Before processing cost calculations, you must define the G/L accounts for the following automatic posting processes that govern cost calculation processing for stepped rate overheads.

For international region companies these processes consist of:

Process Description JIE International Overhead Expense Account JIO International Overhead Offset Account

For US region companies these processes consist of:

<u>Process</u> <u>Description</u>

J6E	Construction Overhead (MCO) Expense Account	
J6O	Construction Overhead (MCO) Offset Account	
J9E	Catastrophe Overhead Expense Account J9O	
	Catastrophe Overhead Offset Account	

For Canadian region companies, these processes consist of:

Process	Description
J7E	Exploration Overhead Expense Account
J7O	Exploration Overhead Offset Account
J6E	Construction Overhead (MCO) Expense Account
J6O	Construction Overhead (MCO) Offset Account

J8E Capital Drilling Overhead Expense - Canada J8O Capital Drilling Overhead Offset -Canada

Standard settings

For stepped rate rules, the initial threshold functions differently from subsequent thresholds. When actual expenses exceed the first threshold set for a rule, the rate set for that threshold is applied to the **entire amount** of the actual expenses. An example follows:

Objective: Apply 10% overhead to entire amount when expenses

exceed \$25,000

No Threshold Rate

1 25000 10

Actual Expenses: \$26,000

Cost Calculation Overhead: 10% of \$26,000 or \$2600

For subsequent thresholds, the rate defined for each threshold applies to the **amount that exceeds** the current threshold but falls short of the next threshold, if there is one.

If you wish to apply a single threshold with a stepped rate rule and want the rate to apply only to the expense amount that exceeds the threshold, you must set two thresholds. The first threshold should be set just short of the threshold that should trigger the rate and itself have a rate of 0. The second threshold should be set at the amount that should trigger the rate. An example follows:

Objective: Apply 10% overhead only to the amount that exceeds \$25,000

	No	Thresh	old	Rate
1		24999	0	
2		25000	10	

Actual Expenses: \$26,000

Cost Calculation Overhead: 10% of (\$26,000-\$25000)= \$100

Activities

Defining stepped rate cost calculation rules for the JVA company is a two-step process:

- 1. Assign a name, time frame, and description to the new rule
- 2. Define a series of thresholds and rates that are triggered by them

Setting up Stepped Rate Rules

You can perform the first task involved in defining stepped rate cost calculation rules by selecting **New entries** and then entering the following information on the **JV Stepped Rate Rules** screen:

In the StpRl field, enter the name of the new rule.

In the **TFrame** field, enter the time frame (current period, year to date, inception to date) for selecting expense data to which the new rule will be applied.

In the **Description** field, enter a description of the new rule.

Assigning Thresholds and Rates

To assign a series of thresholds and the rates to be triggered by those thresholds for the new rule, select the new rule on the **JV Stepped Rate Rules** screen and then select **Stepped rate thresholds**.

On the JV Stepped Rate Thresholds screen, select New entries and enter the following information:

In the **No** field, enter a number that represents the place in the series of thresholds in which the threshold will be applied.

In the **Threshold Amount** field, enter the amount of the threshold. The rate defined for the threshold will be applied to all amounts that exceed the threshold and fall short of the next threshold.

In the **Rate** field, enter the percentage rate to be applied to the total expenses that meet the selection criteria for the rule and threshold.

35.4.7.3 Drilling Key Figures

As part of month-end cost calculation processing, US region companies apply a combined fixed rate (CFR) overhead cost for drilling.

JVA makes use of CO-based statistical key figures in combination with other JVA cost calculation-related objects (JVA cost object types) to address this need.

In this step of configuring JVA cost calculations for your company, you should designate the statistical figures that will be used to apply CFR drilling overhead costs to expenses booked to your company's JV's.

CFR Drilling overheads can be applied to WBS elements, cost centers, or internal orders to which a JVA cost object type with a JV overhead type of "4" has been assigned.

Requirements

Before you designate the statistical key figures that will be used to apply CFR Drilling overheads for your company, you should create the statistical key figures in CO.

Before designating the statistical key figures to be used to apply CFR Drilling overhead costs in your company, you should define the JVA cost object types (WBS elements, cost centers, or internal orders) for the company. The cost object type is assigned to the CO-based cost object when it is created. The cost object type carries with it an indication of which cost calculation overhead type should be applied to the expenses booked to the cost object.

Standard settings

After the statistical key figures that will be used to apply CFR Drilling overhead costs for your company have been designated in JVA configuration, the figures must be assigned on the JOA along with rates and from and to depths. Actuals are then posted in days for the period in CO.

Before processing cost calculations, you must define the G/L accounts for the following automatic posting processes that govern cost calculation processing for CFR Drilling:

Process Description

J4E	CFR Drilling (U.S.) Overhead Expense
J4O	CFR Drilling (U.S.) Overhead Offset

Activities

To designate a drilling statistical key figure for use in applying CFR Drilling overhead costs for the JVA company, enter the following information on the **JV Drilling statistical ratios** screen:

In the **DrStat** field, enter the code for the statistical ratio.

35.4.7.4 Producing Key Figures

As part of month-end cost calculation processing, US region companies apply a combined fixed rate (CFR) overhead cost for producing.

JVA makes use of CO-based statistical figures in combination with JVA cost calculation-related objects (JVA cost object types) to address this need.

In this step of configuring JVA cost calculations for your company, you should define the statistical figures that will be used to apply CFR producing overhead costs to expenses booked to your company's JV's.

CFR Producing overheads can be applied to WBS elements, cost centers, or internal orders to which a JVA cost object type with a JV overhead type of "3" has been assigned.

Requirements

Before you designate the statistical key figures that will be used to apply CFR Producing overhead costs, you should create the statistical key figures in CO.

Before designating the statistical key figures to be used to apply CFR Producing overhead costs in your company, you should define the JVA cost object types (WBS element, cost center, internal order) for the company. The cost object type is assigned to the CO-based cost object when it is created. The cost object type carries with it an indication of which cost calculation overhead type should be applied to the expenses booked to the cost object.

Standard settings

Process Description

After the statistical key figures that will be used to apply CFR Producing overhead costs for your company have been designated in JVA configuration, the figures must be assigned on the JOA along with rates and from and to depths. Actuals are then posted in CO for the period as numbers of wells.

Before processing cost calculations, you must define the G/L accounts for the following automatic posting processes that govern cost calculation processing for CFR Producing:

110005	Description
J3E	Combined Fixed Rate (CFR) Producing Expense
J3O	Combined Fixed Rate (CFR) Producing Offset

Activities

To designate a drilling statistical key figure for use in applying CFR Producing overhead costs for the JVA company, enter the following information on the **JV Drilling statistical ratios** screen:

In the **DrStat** field, enter the code for the statistical ratio.

35.4.7.5 Account Sets

In this step of configuring JVA cost calculations for your company, you should define exclusion sets that list accounts that can be excluded from selected types of cost calculations.

For Canadian and US region companies, you should also specify a set to be used to include accounts in payroll burden overhead calculations.

35.4.7.5.1 Create

In this step of configuring cost calculations for your company, you should create two types of account sets:

- Sets of accounts to be excluded from certain types of overhead calculations
- Sets of accounts to be included in payroll burden overhead calculations (US and Canadian region)

Standard settings

Just as different regions apply different types of rules to calculate various types of overhead costs, so different exclusion sets are appropriate for the different regions. Depending on your company's region and the structure of its chart of accounts, you may need to create exclusion sets of accounts for the following types of overheads:

Region Type of Rule Type of Overhead

International Stepped Rate Rules Parent Company Overhead

US Stepped Rate Rules Construction (MCO)

Catastrophe

Percent1 Percentage Producing
Percent2 Percentage Development

Canadian Stepped Rate Rules Capital

Construction
Drilling

Percent1 Regular Operations and

Maintenance

Percent2 Special Operations and

Maintenance

For Canadian and US region companies, the inclusion sets used to include accounts in payroll burden cost calculations are specified on the JOA Cost Calculations screen after they are defined here in JVA configuration.

Recommendation

For all three regions, exclusion sets can be specified at the company level via the Company Detailed Data screen and on the JOA on the **Cost Calculations** screen. Even more specific exclusion sets can be applied to individual WBS elements on the JOA **project parameters** screen, which is accessed from the JOA Cost Calculations screen.

Care should be taken to define the account exclusion sets so that they are appropriate to the level at which they will be specified. The broadest range of accounts should be defined for the company level to cover as many cases as possible, thus minimizing the need for defining additional sets for use at the JOA level.

Sets with narrower ranges of accounts can be defined for assignment at the JOA level. These sets too should be designed to address the exclusion needs as fully as possible to minimize the need for defining additional sets for assignment to individual WBS elements.

Finally, only if necessary, sets with the narrowest range of accounts should be created for assignment to individual WBS elements.

Activities

You can create sets of accounts to be excluded from certain types of overhead calculations or included in payroll burden overhead calculations (US and Canadian region). On the selection screen, you should enter the code for the new set in the **Set ID** field. The account sets defined for JVA must be basic or single dimensional, and they must be assigned to dimension RACCT and table JVTO1.

On the Create Set: Header screen, enter a Description for the account set and select Basic Entries.

On the **Create Set: Basic Entries** screen, enter the first account in the series of accounts to be excluded from calculation of costs for a particular overhead type in the **From** field and the last account in the series in the **To** field.

Alternatively, you can enter individual accounts in successive From fields.

35.4.7.5.2 Change

You can change the account assignments for any of the payroll burden inclusion or stepped rate and Percent1 and 2 exclusion account sets defined for your company using this screen.

35.4.7.5.3 Display

You can display the account sets that are set up for cost calculations for the JVA company.

35.4.8 Cutback Control

The JVA period-end process Cutback calculates partner shares of the gross expenses booked to ventures during the period and posts documents with these shares of venture expenses to the partners' accounts receivable accounts.

Balancing offset entries are also posted as part of Cutback processing. On default, these offset postings are assigned to the same accounts and cost objects (cost centers, WBS elements, networks, and internal orders) to which the original expenditures were booked. Alternatively, in this step of JVA configuration, you can define different accounts and cost objects to which the offset postings produced by Cutback will be posted.

Also, as part of configuring JVA Cutback to process AM transactions, you should map certain AM transactions that cannot reverse postings as required by Cutback to appropriate AM transactions that can reverse postings.

35.4.8.1 Accounts

You can define alternative accounts to receive the offset postings produced by cutback.

Activities

To specify an alternative account to receive the offset postings produced by cutback, in Customizing for *Joint Venture Accounting* (JVA) choose *Processing --> Cutback Control --> Accounts*, choose *New Entries* and enter the following information:

- In the **Acct from** field, enter the code for the first account in the range for which cutback offset postings will be sent to the alternative account.
- In the **Acct to** field, enter the code for the last account in the range.
- In the **Acct Cut** field, enter the code for the alternative account to which cutback offset postings will be sent.

Note: When you have activated Business Function JVA_INFS_VALIDREP, the additional column *KeepOrgAc* is visible. It contains a checkbox for each entry. If you check this flag, the system creates a new document line for each original account during cutback, with the original account number, preceded by Identifier 'C\$O\$A', stored in the text field of each new line. This increases the number of document lines by a multiple of the number of original accounts.

35.4.8.2 Cost Centers

You can define alternative cost centers to receive the offset postings produced by Cutback for a range of cost centers to which original expense postings processed by Cutback were posted.

Activities

To define an alternative cost center to receive the offset postings produced by Cutback for a range of cost centers, select **New Entries** on the **Cutback Rules/cost centers** screen and enter the following information:

In the **CCntr from** field, enter the code for the first cost center in the range of cost centers for which Cutback offset postings will be booked to the alternative cost center.

In the CCntr to field, enter the code for the last cost center in the range.

In the **CCntr Cut** field, enter the the code for the alternative cost center to which Cutback offset postings for expenses posted to the range of cost centers will be posted.

35.4.8.3 Projects/WBS Elements

You can define alternative WBS elements to receive the offset postings produced by Cutback for a range of WBS elements to which original expense postings processed by Cutback were posted.

Activities

To define an alternative WBS element to receive the offset postings produced by Cutback for a range of WBS elements, select **New Entries** on the **JV Project Cutback Rule** screen and enter the following information:

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In the **Project from** field, enter the code for the first WBS element in the range of WBS elements for which Cutback offset postings will be booked to the alternative WBS element.

In the **Project to** field, enter the code for the last WBS element in the range.

In the **Project cut** field, enter the code for the alternative WBS element to which Cutback offset postings for expenses posted to the range of WBS elements will be posted.

35.4.8.4 Networks

You can define alternative networks to receive the offset postings produced by Cutback for a range of networkts to which original expense postings processed by Cutback were posted.

Activities

To define an alternative network to receive the offset postings produced by Cutback for a range of networks, select **New Entries** on the **Cutback Rules: Networks** screen and enter the following information:

In the **Network from** field, enter the code for the first network in the range of networks for which Cutback offset postings will be booked to the alternative network.

In the **Op. from** field, enter the code for the first operation in the first network.

In the **Network to** field, enter the code for the last network in the range.

In the **Op. to** field, enter the code for the last operation in the last network in the range.

If WBS elements are to be used to book the offset postings to the alternative network, select the **Use WBS** indicator.

In the **Netw. Cutb** field, enter the the code for the alternative network to which Cutback offset postings for expenses posted to the range of networkts will be posted.

In the **Cutb. Op** field, enter the code for the operation in the alternative network to which Cutback offset postings will be booked.

35.4.8.5 Internal Orders

You can define alternative internal orders to receive the offset postings produced by Cutback for a range of internal orders to which original expense postings processed by Cutback were posted.

Activities

To define an alternative internal order to receive the offset postings produced by Cutback for a range of internal orders, select **New Entries** on the **Cutback Rules/Orders** screen and enter the following information:

In the **Order from** field, enter the code for the first internal order in the range of internal orders for which Cutback offset postings will be booked to the alternative internal order.

In the **Order to** field, enter the code for the last internal order in the range.

In the **Cutb Order** field, enter the code for the alternative internal order to which Cutback offset postings for expenses posted to the range of internal order will be posted.

35.4.8.6 Transaction Type Modification

Cutback processes AM postings along with all other expense postings during month-end processing. As part of Cutback processing, the original gross expense posting to the joint venture is reversed, and portions of the original expense are booked to the venture partners based on their share of ownership.

A limited number of AM transaction types are capable of working in conjunction with Cutback to reverse expense postings. As a result, it is necessary to substitute those transaction types that can work with Cutback for those that cannot. The **Transaction Type Substitution JV-AM** screen maps AM transactions types to which expenses may have been posted during the period to the transaction types that can work with Cutback. These "Cutback-friendly" transaction types will be substituted for the original transaction types in reversing the original gross postings.

Standard settings

Transaction

The following lists the preconfigured entries that map AM transaction types to substitute transaction types to be used with Cutback:

Transaction

Type From	Type To
200 Retirement w/out Revenue	20A Retirement
210 Retirement with Revenue	20A Retirement
290 Retirement Transfer	29Z Retirement
	Transfer

The transaction types listed on the right will substitute for the transaction types listed on the left during execution of Cutback. For example, postings during the period booked with transaction 200 will be reversed via Cutback using transaction 20A.

Activities

Since this table is delivered preconfigured with the entries required to support Cutback processing of AM transfer postings, it is not necessary to make any changes or additions. If company reporting requirements necessitate changes, these changes should be made using copy, and care should be taken to preserve transaction 20A exactly as it is delivered.

Even if changes are made, transaction 290 should be preserved exactly as delivered because it is used to post the depreciation portion of asset transfers.

35.4.8.7 Payment Term Schema

Payment Term Schema

Example

The payment term schema offers the flexibility to define different cutback payment terms based on ceratin conditions.

Standard settings

There are three levels in the maintenance of payment term schemas.

Level 1: Payment Term Schema

On the first level the payment term schema itself and a description of the schema is defined.

Level 2: Cutback Payment Terms per Recovery Indicator

On the second level it is possible to define cutback payment terms for each billable recovery indicator, as well as a user exit that can be called for the derivation of the payment terms. In detail, the following fields can be maintained on this level:

- Recovery Indicator

Cutback processes each billable recovery indicator separately. Here we define what billable recovery indicator this configuration is being made.

- Cutback Payment Term

This payment term is used for all cutback postings that are created based on the billable items posted with the corresponding recovery indicator.

If no payment term is defined on this level, the next level is checked to determine the cutback payment terms.

- User Exit Function

A function can be entered here that will be called as a user exit where the cutback payment terms derived by the standard process can be modified. See below for more information on the user exit.

- Single Item Information Required

For performance reasons, the cutback process only reads line item information when the cutback payment terms are derived on the third level. However, if the user exit is used and if it requires line item information, this flag should be turned on. This will force the cutback process to read the line item information.

Level 3: Cutback Payment Terms per RI and Original Payment Term

On the third level it is possible to define cutback payment terms for each billable recovery indicator and payment term assigned to the original posting. See alse the related note for more information on the assignment of payment terms to expense lines. In detail, the following fields can be maintained on this level:

- Original Payment Term

Each JVA document with a customer or vendor line has payment terms assigned to each line item of this document. Here we define what payment term of the original document this configuration is being made for.

- Cutback Payment Term

This payment term is used for all cutback postings that are created based on the billable items posted with the corresponding recovery indicator and original payment term.

User Exit Function

On the second level it is possible to enter a function that will be called as a user exit during the cutback process. This function expects the following input parameters

- I BUKRS

The company code that is valid for this call of the user exit.

- I WAERS

The currency that is valid for this call of the user exit.

- I VNAME

The venture that is valid for this call of the user exit.

- I EGRUP

The equity group that is valid for this call of the user exit.

- I T8JV ITEM

This table contains the JVA line item information that is relevant for the cutback process of this venture and equity group.

- I CB RESULT

This table contains the partner lines of the cutback document as it has been calculated by the cutback process.

The function returns a table **E_CB_RESULT** that contains the modified partner lines of the cutback document. It is possible to add or delete lines and assign new payment terms as long as the total amount charged to the partners has not been changed and as long as no new partners are added to the cutback document.

See also function JV CUTBACK EXIT TEMPLATE as a sample function for this user exit.

Further notes

Check also release note about payment term schema for more information.

35.5 Billing

35.5.1 JIB/JIBE Mapping

35.5.1.1 Mapping Billing Indicators to Service Codes

In this step of configuring JVA billing, you should map types of expenses for your company to the standard invoice service codes recognized by all companies. You can accomplish this by mapping the JVA billing indicators for your company to the invoice service codes and JIB/JIBE classes and subclass A's that are used to classify billing lines by type.

Billing indicators and JIB/JIBE codes are defined in JVA configuration master data.

Example

The following example shows how a company might map billing indicators for cash call requests and regular expenditures to service codes and JIB/JIBE classes and subclass A's:

BI	SC	DB	Cla	SCL A
1	PP	X	G	00001
6	PP			

Billing indicator 1 is used for cash call requests. Billing indicator 6 is used for normal expenditures. Service code PP indicates expenditure detail. JIB/JIBE class G indicates cash advances. JIB/JIBE subclass 00001 of class G also indicates cash advance. The DB or direct bill indicator indicates that an 819 (operating statement detail) transaction set must be created for a line coded with this service code; that is, a JIB/JIBE class and subclass A must be specified.

Activities

To map a billing indicator to a service code, enter the following information on the **JV EDI BI to Invoice Service Codes** screen:

In the **BI** field, enter the name of the billing indicator to be mapped to the service code. In the **SC** field, enter the service code to be mapped to the billing indicator.

Select the **DB** (direct bill) indicator if the expense represented by the billing indicator and service code is a direct bill to the partner.

In the **Cla** field, enter the JIB/JIBE class used in the 819 Operating Statement transaction set that corresponds to the service code.

In the SCl A field, enter the subclass A used in the 819 Operating Statement transaction set to further define the nature of the expense initially defined by the class.

35.5.1.2 Mapping Accounts to JIB Classes for AFE's

In this step of configuring JVA billing, you can map types of asset transactions for specific account ranges for AFEs (authorizations for expenditure) in your company to the standard invoice JIB/JIBE codes recognized by all companies.

Requirements

You should fully configure AM for your company before configuring JVA for asset transfers. WHATSAPP +255738656506

You should define the JIB/JIBE class, subclass A, and subclass B in JVA configuration master data before mapping them to asset transactions in this step.

Activities

To map an asset transaction type for a range of accounts to a JIB/JIBE class, subclass A, and subclass B combination, enter the following information on the **JV JIB Account Mapping for AFE** screen:

In the **Ttype** field, enter the code for the asset transaction type to be mapped to the JIB/JIBE codes.

In the Acct from> field, enter the code for the first account in the range.

In the Acct to> field, enter the code for the last account in the range.

In the Class> field, enter the code for the JIB/JIBE class to be mapped to the asset transaction type.

In the SCl A field, enter the JIB/JIBE subclass A to be mapped to the asset transaction type.

In the **JIB/JIBE Subclass B** field, enter the JIB/JIBE subclass B to be mapped to the asset transaction type.

35.5.1.3 Mapping Accounts to JIB Classes for Non-AFEs

In this step of configuring JVA billing, you can map types of asset transactions for specific account ranges for non-AFEs in your company to the standard invoice JIB/JIBE codes recognized by all companies.

Requirements

You should fully configure AM for your company before configuring JVA for asset transfers.

You should define the JIB/JIBE class, subclass A, and subclass B in JVA configuration master data before mapping them to asset transactions in this step.

Activities

To map an asset transaction type for a range of accounts to a JIB/JIBE class, subclass A, and subclass B combination, enter the following information on the JV JIB Account Mapping for non-AFE screen:

In the **Ttype** field, enter the code for the asset transaction type to be mapped to the JIB/JIBE codes.

In the Acct from> field, enter the code for the first account in the range.

In the Acct to> field, enter the code for the last account in the range.

In the Class> field, enter the code for the JIB/JIBE class to be mapped to the asset transaction type.

In the SCl A field, enter the JIB/JIBE subclass A to be mapped to the asset transaction type.

In the **JIB/JIBE Subclass B** field, enter the JIB/JIBE subclass B to be mapped to the asset transaction type.

35.5.1.4 Mapping JIB Classes and Accounts to Overwrite Classes

In this step of configuring JVA billing, you can map JIB classes and types of asset transactions for specific account ranges in your company to the standard invoice JIB/JIBE codes recognized by all companies. The class, subclass A, and subclass B you define for these transaction types will overwrite the class associated with the original transaction for billing.

Requirements

You should fully configure AM for your company before configuring JVA for asset transfers.

You should define the JIB/JIBE class, subclass A, and subclass B in JVA configuration master data before mapping them to asset transactions in this step.

Activities

To map a class and an asset transaction type for a range of accounts to a overriding JIB/JIBE class, subclass A, and subclass B combination, enter the following information on the **JV JIB Account Mapping and Class** screen:

In the **Class** field, enter the code for the class.

In the **Ttype** field, enter the code for the asset transaction type to be mapped to the JIB/JIBE codes.

In the Acct from> field, enter the code for the first account in the range.

In the Acct to> field, enter the code for the last account in the range.

In the Class> field, enter the code for the JIB/JIBE class to be mapped to override the original class and transaction type.

In the SCI A field, enter the JIB/JIBE subclass A to override the original class and asset transaction type.

In the **JIB/JIBE Subclass B** field, enter the JIB/JIBE subclass B to override the original class and transaction type.

35.5.1.5 Mapping JIB Subclasses to Accounts

In this step of configuring JVA billing, international region companies can specify JIB/JIBE subclass B's for specific combinations of JIB classes, subclass A's and account ranges in your company.

Requirements

You should fully configure AM for your company before configuring JVA for asset transfers.

You should define the JIB/JIBE class, subclass A, and subclass B in JVA configuration master data before mapping them to asset transactions in this step.

Activities

To map a class and subclass A combination for a range of accounts to a JIB/JIBE subclass B, enter the following information on the JV JIB Class and Account Mapping screen:

In the Class> field, enter the code for the JIB/JIBE class to be mapped to the subclass B.

In the SCI A field, enter the JIB/JIBE subclass A to be mapped to the subclass B.

In the Acct from> field, enter the code for the first account in the range.

In the Acct to> field, enter the code for the last account in the range.

In the **JIB/JIBE Subclass B** field, enter the JIB/JIBE subclass B to be mapped to the JIB/JIBE class and subclass A for the range of accounts.

35.5.1.6 Mapping Materials to Service Codes

Tubular and non-tubular coding for materials is specific to Canadian region companies. These codes specify the characteristics (such as diameter and length) of various types of tubular and non-tubular materials.

In this step of configuring JVA billing, you should map materials in your company to tubular or non-tubular codes.

Requirements

Before performing the task in JVA configuration documented in this step, you should fully configure the JVA company for MM.

Before proceeding with this step in assigning JIB/JIBE service codes to materials in your company, you should define the tubular and non-tubular codes in JVA configuration master data.

Activities

To map materials to tubular or non-tubular service codes, enter the following information on the **JV Mapping Material - Service code** screen:

In the **Material** field, enter the code for the first material in a series of materials to be mapped to a tubular or non-tubular service code.

In the second **Material** field, enter the code for the last material in a series of materials to be mapped to a tubular or non-tubular service code.

Tubular and non-tubular are mutually exclusive alternatives. You can map the material to a tubular of non-tubular service code.

In the **Tubular** field, enter the code for the type of tubular goods to be mapped to the material.

In the NTB field, enter the service code for the type of non-tubular goods to be mapped to material

35.5.2 Operated

Configuring the JVA billing process to produce billing documents (invoice, statement, expenditure detail) for company operated ventures involves the following tasks:

- 1. Creating a billing structure for the company
- 2. Defining layout sets consisting of text elements that themselves define the contents that can be assigned to billing documents
- Assigning the billing layout sets to the various billing documents (invoice, statement, expenditure
 detail) within the company's billing structure and connecting text elements within the layout sets to
 events or billing levels that occur when the document is produced.
- 4. Creating billing formats within the company's billing structure and assigning layout sets to billing documents within the billing formats

35.5.2.1 Billing Structure

A single billing structure should be defined for each JVA company. The billing structure can be viewed as a billing variant used by the company.

Billing structures are defined by JVA region, which controls the way billing functionality operates. The billing structure determines which billing documents will be generated for the company's operated ventures or non-operating partners .

Requirements

If your company will issue EDI billing documents to its partners, before defining the billing structure for the JVA company, you should define the EDI component identifier for supplemental detail.

Standard settings

When you have defined the billing structure for the JVA company, this billing structure must be assigned to the company on the JVA Company Detail Data screen.

Activities

The first step in defining a billing structure for the JVA company is to create the billing structure itself by selecting **New Entries** on the **Billing Structures: Overview** screen and entering the following information on the **Billing Structures: New Entries** screen:

In the **Billing Structure** field, enter the name of the billing structure.

In the **Billing Structure Text** field next to the **Billing Structure** field, enter a description of the billing structure.

There are two possible bases for determining capital expenditures. The JVA cost object type assigned to the WBS's or internal orders to which expenses are booked can carry a capital indicator. The JIB/JIBE code can determine whether the expense is capitalized. Only one of these methods can be specified for a company's billing structure. If the indicator **Capital der. fr. JIBE** is selected capital expenditures will be determined by the JIBE code. If you leave the indicator unselected, capital expenses will be determined by the JVA cost object type assigned to the CO cost objects to which the expenses are posted.

For each JVA company, billing documents are issued by partner or by venture. This selection is made on the billing structure. You should set the **Invoice Level** field to **V** if billing documents are to be generated for each venture. You should set the level to **P** if billing documents are to be generated for each partner including expenses for all the ventures in the company in which the partner holds a share.

Depending on which selection you make, you should assign a billing format, which customizes billing documents further, either to each partner or to each venture.

The various settings for **Expenditure detail** determine the levels of detail of information to be included in the paper expenditure detail document.

The settings for **EDI** determine the level of detail of information to be included in the supplemental detail generated for EDI.

When you have defined the billing structure for the JVA company, you should return to the **Billing Structures: Overview** screen and select the entry for the new billing structure and then **Form routine assignment**. This will enable you to specify the documents to be generated for the billing structure and the form routines within the billing program that will be used to generate billing documents on the **Form Routines Used for Billing** screen.

The possible entries in the fields on this screen are largely fixed. When there is a choice, you should rely on the IMG, help, and pick lists to make selections.

In the **FT** or form type field, you should enter a code for the type of billing document to be generated. Only the following form types are relevant to this screen:

Form Description Type

IV Invoice

IN Invoice (Norway)

EX Expenditure detail ST

Statement

You should always select the + field. Norwegian billing is an exception; this field should not be selected for Norwegian billing.

The entry in the **Program** field should always be RGJVBR15, the JVA program used to generate paper billing documents.

The contents of the **FORM routine** field depends on the document type selected in the **FT** or form type field. The following is a list of the form routines in the RGJVBR15 program and the form types to which they correspond.

Form	<u>Form</u>
Type	Routine
IV	CREATE_INVOICE
IN	CREATE_INVOICE
ST	CREATE_STATEMENT

35.5.2.2 Layout Sets

SAPscript layout sets are used to define the contents to be included in the JVA billing documents for operated ventures. There are two major tasks involved in defining the contents of JVA billing documents:

- 1. Create layout sets for the billing documents and define text elements to be referenced to derive the content of the documents when billing is executed
- 2. Assign the layout sets to the company's billing structure for a specific billing document (i.e., invoice, statement, expenditure detail) and define the billing levels or events for text elements in the layout sets

35.5.2.2.1 Layout Set Maintenance

The first step in defining the contents of your company's billing documents is to create SAPscript layout sets for the various billing documents your company will issue.

The layout sets consist of windows that represent sections of the layout set (e.g., header, main area). Within the windows, you can define the contents as text elements. The text elements provide contents for JVA billing documents. They may include literals such as titles. But most important, these text elements include designations of the JVA billing structures or tables and the fields within those tables from which the data to be displayed in the billing document is to be derived.

Example

An example of a partial header for an invoice layout set, including the SAPscript codes for formatting, will clarify how the JVA billing structures are used to designate the contents of billing documents:

```
IH Joint Venture Standard Invoice
IH &t8jvb12-compname&
IH Year:&t8jvb12-year& Period:&t8jvb12-month&

/
I1 Operator Details:,,,,,,,Partner Details:
/
I1 Operator:,,&t8jvb12-opern&,,,,,Account:,,&t8jvb12-kunnr&
I1 ,,&t8jvb12-opertxt&,,,,,,&t8jvb12-anred&
I1 Address:,,&t8jvb12-opSTRAS&,,,,,Address:,,&t8jvb12-STRAS&
I1 ,,&t8jvb12-oport01&,,,,,,,&t8jvb12-ort01&
I1 Invoice No.,,,&t8jvb12-invnum&,,,Invoice Date I1 ,,,,&t8jvb12-invdat&
```

This set of specifications along with the SAPscript codes attached to them would result in the following output:

Joint Venture Standard Invoice Standard Operating Company, Inc. Year:1997 Period:01

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Operator Details: Partner Details:

Operator: SOP01 Account: CU1

Address: 4232 Fillmore St. Address: 8989 Maple St. San

Francisco St. Louis

Invoice No. 011997CU1 Invoice Date 01301997

The fields of the various JVA billing structures or tables contain data produced by the JVA billing extract. This data can be selectively referenced in the layout set text elements to produce output for the billing documents. For example, the field "opern" of structure "t8jvb12", referenced above in the first line of the invoice header, contains the operating company's number.

The body of the layout set is the MAIN window, which also consists of text elements. Each text element in the MAIN window is introduced with a title. This title will be used to reference the text element and access its contents for display in the JVA billing document. A simple example of a main window of a layout set for a JVA invoice follows:

/E EGROUP DETAIL

I6 "Venture: &t8jvb05-vname& - &t8jvb05-vntxt& I6 "Equity Group: &t8jvb05-egrup& - &t8jvb05-egtxt&

/E GROSS EXPND

I4 ,,,,Expenditures:,,,,,&t8jvb05-total04&

/E PARTNER_DIRECT

I4 ,,,,Partner Direct &t8jvb05-total08&

/E NET EXPENDITURE

I4 ,,,, Net Expenditure:,,,,,&t8jvb05-total06&

The formatting and content specification in this example of a main window for a JVA invoice layout set could produce the following output if the data exists in the billing extract:

Venture: V18 - Operated JV

Equity Group: EG9 - Equity Group 9

Expenditures 2,500.00

Partner Direct 4,812.00 Net Expenditures: 7,312.00

In order to produce this output for both the header and the main window, the text elements defined in the layout must also be assigned to the appropriate billing document for the company's billing structure. This is the next step in defining the billing documents for the company. This example will be carried on in the next step of configuring billing.

Standard settings

TX7 A D 111

You should define the text elements of layout sets for billing documents using the following JVA structures or tables to reference billing data:

Structure Structure	Invoice	Detail	Data Level	
T8JVB05 T8JVB06	X X	Equity Gr Joint Ven	1	
T8JVB07	X	Partner		

T8JVB11	X		Line Item Info.
T8JVB12	X	X	Header Info.
		(Name	Address)

35.5.2.2.2 Layout Set Assignment

When you have created SAPscript layout sets for the various billing documents (i.e., invoice, statement, expenditure detail) that your JVA company will issue to its non-operating joint venture partners, you can proceed to the following tasks:

- 1. Assign the layout sets to a document type and to the company's billing structure
- 2. For invoices and statements, define the billing indicator mapping for line items on the document
- 3. Assign the text elements defined in the layout set to JVA billing levels or events to control where data will appear on the billing document

Example

The following example shows how the layout set, created in the previous step of configuration (Layout Set Maintenance), can be assigned to a billing document type and the company billing structure:

Layout Set FT	Billing Type Text	BStr
IVA INVOICE IV	Ioint Venture Invoice	CORS

Since this layout set is assigned to a document type that indicates it is an invoice, it is necessary to map billing indicators to line items in the billing document. An example follows:

FT	No	PT	BI
1 4	1 1		7
6	1		7
6	2		6
8	1		6

The **FT** or form type is a number which should correspond to the number of a total field entered in the billing level field of the **JV Billing Events** screen (see below). The **No** field is a sequence number field that allows multiple entries to be combined in one output field. Here the amounts for billing indicators **6** - **Regular expenditure** and **7** - **partner direct charges** are combined in the final total line. The **PT** field can be used to recall a previously generated sub-total. The **BI** field is used to select types of expenses for display on the document based on billing indicator.

The **JV Billing Events** screen that corresponds to the billing indicator mapping example above follows:

BiLev No Window Element + FT

EGR01	1	MAINEGROUP_DETAIL	3	
EGR04	1	MAINGROSS_EXPND	3	
EGR08	1	MAINPARTNER_DIRECT		3
VEN06	1	MAINNET EXPENDITURE		3

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The combination of billing indicator mapping definitions and assignment of text elements of the layout set to billing levels would result in the following formatting of output:

Venture: V18 - Operated JV Equity Group: EG9 - Equity Group 9

Expenditures 2,500.00
Partner Direct 4,812.00

Net Expenditures: 7,312.00

Requirements

You must create the billing structure for the company before you can assign billing layout sets to it. You must also assign the billing structure to the company before you can execute the periodic billing process.

You must create the SAPscript layout sets for JVA billing documents before you can assign them to a document type and a company billing structure.

Activities

Assigning formatting and content to your company's billing documents requires performing the following tasks:

- 4. Assign layout sets to documents and to the billing structure
- 5. Define billing indicator mapping for line items
- 6. Assign layout set text elements to JVA billing levels

Assign Layout Sets to Documents and to the Billing Structure

On the **JV Layout Sets: Overview** screen, you can assign a layout set to one of the following billing document types (**FT** field) by entering one of these codes:

FT	Type of
Code	Document
IV	Invoice
ST	Statement
EX	Expenditure Detail

At the same time, you should assign the layout set for the type of document to the company's billing structure (**BStr** field)

Define Billing Indicator Mapping for Line Items

Data for all the JVA billing documents except the invoice (expenditure detail and supplemental detail for both invoices and expenditure details) is derived from the JVA summary ledger. There is no need to map expenditures by billing indicators because billing indicators have not yet been assigned to expense entries in this ledger.

The data used to generate invoices and statements is derived from the JVA billing ledger. Since billing indicators have been assigned to the expenses contained in this ledger, it is possible to map expenses by billing indicator.

As a result, it is necessary to map lines on the invoice or statement to specific billing indicators. The billing indicator mapping must be compatible with the billing levels specified on the **JV Billing Events** screen. Specifically, a form total number specified in the **FT** field of the **Billing Indicator Mapping** screen must correspond to the number of the billing level entered in the **BiLev** field on the **JV Billing Events** screen.

Assign Layout Set Text Elements to JVA Billing Levels

By assigning billing levels to text elements from the billing layout set, you determine what data will be printed on the document and where it will appear.

The available billing levels for invoices, statements, and expenditure details are fixed. You can select which of the available billing levels will appear in the output, but you cannot specify the order in which they will appear.

The billing level assigned in the **BiLev** field should correspond to the billing structure and field within the structure referenced in the text element specified in the **Element** field.

For example, billing level **EGR04** references the **Total04** field at the equity group level. On the second line of the example above, this billing level is assigned to the text element entitled **GROSS_EXPND**. This text element references the contents of the following billing structure and field: t8jvb05-total04. T8jvb05 is the equity group level billing structure and field total04 corresponds to EGR04.

With reference to billing level specification, the **No** should always be set to **1**, the **Window** should always be **MAIN**, and the even type (+ field) should always be set to **3** for **current**.

35.5.2.3 Billing Formats

The billing format can be viewed as a further division of the billing variant (i.e., the billing structure) for the company. Billing formats determine what documents will be printed for the partner or venture:

- Invoice
- Statement
- Expenditure detail

The billing format is essentially a list of the types of documents to be generated for a venture or partner with the format for each type specified as well. The billing format makes it possible to assign different layout sets for the various billing documents to different partners or ventures. Thus, different formats can be used in printing these documents.

Depending on whether billing is done for the company at the partner or venture level, billing formats are customized formats for partners or ventures. The selection of whether billing is performed for partners or ventures is made on the billing structure.

Billing formats are assigned to the billing structure for the company. Multiple billing formats can be assigned to the single company billing structure.

Requirements

To be able to assign layout sets to the documents assigned to the billing formats created in this step of JVA configuration, you must first define layout sets and assign them to both a form type or type of billing document (e.g., invoice, expenditure) and to the company's billing structure.

Standard settings

When you have defined the billing formats for the JVA company, you must assign the formats on the joint venture basic screen, if billing is being executed by venture for the company, or on the JVA partner record, if billing is being executed by partner for the company.

Activities

The first step in defining a billing format for a venture or a partner is to create the billing format itself and assign it to the company billing structure by selecting **New Entries** on the **Billing Formats:**Overview screen and entering the following information on the **Billing Formats: New Entries** screen:

In the **BFor** field, enter the name of the billing format.

In the **Billing Format Text** field, enter a description of the billing format.

In the **BStr** field, enter the name of the company's billing structure.

When you have defined the billing format, you should return to the **Billing Formats: Overview** screen and select the entry for the new billing format and then **Format Type assignment**. This will enable you to specify the SAPscript layout sets that will control the layout of the various billing documents (i.e., invoice, expenditure detail) assigned to the billing format on the **Billing Format Definition** screen.

The possible entries in the fields on this screen are largely fixed. When there is a choice, you should rely on the IMG, help, and pick lists to make selections.

In the **FT** or form type field, you should enter a code for the type of billing document to be generated. The following form types can be assigned to a billing format:

Form Description Type

IV	Invoice
IN	Invoice (Norway)
EX	Expenditure Detail
ST	Statement
SI	Supplemental Detail (Invoice)
SU	Supplemental Detail (Expenditure Detail)
CI	CI Partner Statement
NI	NPI Partner Statement

The entry in the **No** field indicates the order in the sequence of documents assigned to the billing format in which the current document will be generated.

In the **Layout set** field, you should enter the code for the layout set that will control the formatting of the current document in the billing format.

35.5.2.4 Supplement Detail

Supplemental detail is available for both the invoice and the expenditure detail report. Supplemental detail is produced by the same process that produces the invoice and the expenditure detail report. It can be printed inline with the report which it supports, or it can be printed on a separate sheet.

The decision to produce supplemental detail for the invoice, statement, or expenditure detail report is based on whether items in those report require detailed supporting data.

JVA Supplemental Detail illing Structures

In specifying text elements as part of the invoice, statement, or expenditure detail layout sets, you should reference the following structures for supplemental detail:

Structure	Levei
T8JVB41	Header Information
T8JVB42	Document Line Data
T8JVB43	General Information

35.5.2.4.1 Supplemental Detail Sets

A supplemental detail set (SDS) links the billing extract for the invoice or expenditure detail to the corresponding supplemental detail extract.

The SDS designates whether the supplemental detail will be printed inline with the billing document or produced on a separate sheet. Most important, the SDS defines the level of aggregation at which supplemental detail will be presented.

Requirements

You must create the billing structure for the company before you can assign billing layout sets to it. You must also assign the billing structure to the company before you can execute the periodic billing process.

Activities

Defining SDS's for the JVA company is a four-step process:

- 1. Select the JVA company's billing structure
- 2. Define billing levels for supplemental detail for billing documents 3.

Define the SDS's for the billing documents

4. Assign the billing levels to the SDS's and specify the print order

You can begin defining SDS's for the JVA company by selecting the company's billing structure on the **Billing Structures in Supplemental Detail: Overview** screen and then selecting **Billing Level**.

Unlike the fixed billing levels for invoices and expenditure detail reports, supplemental detail billing levels are user-defined.

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To define a supplemental detail billing level, enter the following information on the **JV Billing Levels** screen:

In the **BiLev** field, enter the name of the billing level.

In the **FT** field, enter a code to indicate the type of billing document to which this level of supplemental detail will be applied:

FT Type of Billing Document SI Invoice supplemental detail SU Expenditure detail supplemental detail

When you have defined the billing levels for the billing document types, you can proceed to assign these levels to SDS's. When you assign a supplemental detail billing level to an SDS on the **SDS for JV Billing: Details** screen, you specify an occurrence for it. These occurrences are fixed and cannot be changed.

You should also specify the print order of the SDS and whether it should be printed inline with the document for which it provides additional details or on a separate sheet.

35.5.2.4.2 Supplemental Driver

Specific objects included in the billing extract may require additional information. These objects are called supplemental detail drivers.

For the invoice, the billing indicator can be a driver for supplemental detail. For the expenditure detail, the supplemental detail driver may be one of the following:

- Account
- Recovery indicator
- JVA cost object type (cost center, project/WBS, internal order)

The following chapters detail how supplemental detail drivers for the invoice and the expenditure detail can be assigned to SDS's. When the SDS is encountered during generation of the billing document, it will access the expense data booked to the drivers assigned to the SDS.

35.5.2.4.2.1 Billing Indicators

Specific objects included in the billing extract for the invoice may require additional information. For the invoice, the supplemental detail drivers for these objects are billing indicators.

In this step of configuring JVA billing supplemental detail, you can assign billing indicators to specific SDS's. When the SDS is encountered during generation of the invoice, the expense data booked to the billing indicator assigned to the SDS will be displayed.

Requirements

Before assigning billing indicators to SDS's for the invoice supplemental detail, you should define the SDS's for the invoice.

Activities

To assign billing indicators to SDS's for invoice supplemental detail, enter the following information on the **Billing Indicator with Supplemental Detail** screen:

In the **BI** field, enter the code for the billing indicator whose detailed expenses should be accessed when the SDS is encountered during generation of the invoice.

In the **SDS** field, enter the code for the SDS that will trigger display of detailed data for the billing indicator.

35.5.2.4.2.2 Accounts

Specific objects included in the billing extract for the expenditure detail may require additional information. For the expenditure detail, accounts may be supplemental detail drivers.

In this step of configuring JVA supplemental detail, you can assign a range of accounts to specific SDS's. When the SDS is encountered during generation of the expenditure detail, the expense data booked to the range of accounts will be displayed.

Requirements

Before assigning account ranges to SDS's for expenditure detail supplemental detail, you should define the SDS's for the expenditure detail.

Activities

To assign account ranges to SDS's for expenditure detail supplemental detail, enter the following information on the **Accounts for Supplemental Billing** screen:

In the **Acct from** field, enter the first account in the range whose detailed expenses should be accessed when the SDS is encountered during generation of the expenditure detail.

In the **Acct to** field, enter the last account in the range whose detailed expenses should be accessed when the SDS is encountered during generation of the expenditure detail.

In the **SDS** field, enter the code for the SDS that will trigger display of detailed data for the range of accounts.

35.5.2.4.2.3 Recovery Indicators

Specific objects included in the billing extract for the expenditure detail may require additional information. For the expenditure detail, recovery indicators may be supplemental detail drivers.

In this step of configuring JVA supplemental detail, you can assign recovery indicators to specific SDS's. When the SDS is encountered during generation of the expenditure detail, the expense data booked to the recovery indicator will be displayed.

Requirements

Before assigning recovery indicators to SDS's for expenditure detail supplemental detail, you should define the SDS's for the expenditure detail.

Activities

To assign recovery indicators to SDS's for expenditure detail supplemental detail, enter the following information on the **Recovery Indicator for Supplemental Billing** screen:

In the **RI** field, enter the recovery indicator whose detailed expenses should be accessed when the SDS is encountered during generation of the expenditure detail.

In the **SDS** field, enter the code for the SDS that will trigger display of detailed data for the recovery indicator.

35.5.2.4.2.4 JVA Project Types

Specific objects included in the billing extract for the expenditure detail may require additional information. For the expenditure detail, the JVA cost object types that are assigned to CO cost objects may be supplemental detail drivers.

In this step of configuring JVA supplemental detail, you can assign JVA project types to specific SDS's. When the SDS is encountered during generation of the expenditure detail, the expense data booked to projects with the assigned JVA project type will be displayed.

Requirements

Before assigning JVA project types to SDS's for expenditure detail supplemental detail, you should define the SDS's for the expenditure detail.

Activities

To assign a JVA project type to an SDS for expenditure detail supplemental detail, enter the following information on the **Project Types for Supplemental Detail** screen:

In the **Type** field, enter the JVA project type whose detailed expenses should be accessed when the SDS is encountered during generation of the expenditure detail.

In the **SDS** field, enter the code for the SDS that will trigger display of detailed expense data for the projects to which the JVA project type is assigned.

35.5.2.4.2.5 JVA Cost Center Types

Specific objects included in the billing extract for the expenditure detail may require additional information. For the expenditure detail, the JVA cost object types that are assigned to CO cost objects may be supplemental detail drivers.

In this step of configuring JVA supplemental detail, you can assign a JVA cost center types to specific SDS's. When the SDS is encountered during generation of the expenditure detail, the expense data booked to cost centers with the assigned JVA cost center type will be displayed.

Requirements

Before assigning JVA cost center types to SDS's for expenditure detail supplemental detail, you should define the SDS's for the expenditure detail.

Activities

To assign a JVA cost center type to an SDS for expenditure detail supplemental detail, enter the following information on the **Cost Center for Supplemental Detail** screen:

In the **Type** field, enter the JVA cost center type whose detailed expenses should be accessed when the SDS is encountered during generation of the expenditure detail.

In the **SDS** field, enter the code for the SDS that will trigger display of detailed expense data for the cost centers to which the JVA cost center type is assigned.

35.5.2.4.2.6 JVA Internal Order Types

Specific objects included in the billing extract for the expenditure detail may require additional information. For the expenditure detail, the JVA cost object types that are assigned to CO cost objects may be supplemental detail drivers.

In this step of configuring JVA supplemental detail, you can assign a JVA internal order types to specific SDS's. When the SDS is encountered during generation of the expenditure detail, the expense data booked to internal orders with the assigned JVA internal order type will be displayed.

Requirements

Before assigning JVA internal order types to SDS's for expenditure detail supplemental detail, you should define the SDS's for the expenditure detail.

Activities

To assign a JVA internal order type to an SDS for expenditure detail supplemental detail, enter the following information on the **Order for Supplemental Detail** screen:

In the **Type** field, enter the JVA internal order type whose detailed expenses should be accessed when the SDS is encountered during generation of the expenditure detail.

In the **SDS** field, enter the code for the SDS that will trigger display of detailed expense data for the internal order to which the JVA internal order type is assigned.

35.5.2.4.2.7 Driver Protocols

The supplemental detail set (SDS) links the billing extract for the invoice or expenditure detail to the corresponding supplemental detail extract. For any one line in the billing extract, only one SDS can be specified. For the expenditure detail, it is possible for more than one object on a line to require additional information. In this case, fixed rules are applied to determine which SDS is used.

If a line of the expenditure detail requires supplemental detail for more than one driver (account, cost object, or recovery indicator), a conflict exists. The driver protocol resolves this conflict. In the absence of a driver protocol, the fixed rules are applied. The fixed rules apply the following order:

- 1. Account
- 2. Recovery indicator
- 3. Cost object

You can override these fixed rules by specifying a supplemental driver protocol as part of configuring JVA billing.

Activities

To specify an SDS protocol for the JVA company, enter the following information on the **SDS Protocol** screen:

In the **Cost**, **Acct.**, or **RInd.** fields, enter the combination of SDS's that may appear for a single line in the billing extract.

Then in the **Result** field, enter the SDS that should be used when this conflicting combination is encountered during processing.

35.5.3 EDI Outbound Mapping

35.5.3.1 Supplemental Components

EDI segment components should be defined as part of configuring JVA EDI. An EDI component contains elements that define the output fields to be included in EDI transmissions. Defining an EDI component for outbound EDI for your company is essentially a two-step task:

- 1. Name and describe the component
- 2. Assign elements to the component that will populate output fields

Example

The following component is defined to contain identifiers for the property for every venture and equity group. It is first given a name on the **JV EDI Segment Components** screen:

Component ID Segment Component Description

PROP_VENT_EGRUP Property Id using Venture and Equity Group

The following segments or fields are then assigned to the component on the **JV EDI Segment Component Fields** screen:

PN	T	OFF	LEN	Input Field Variable
				•
1	Е			EC DRODEDTY VIVANCE
1	F		6	FS_PROPERTY-VNAME
2	F	6	3	FS_PROPERTY-EGRUP
3	F	9	1	FS_PROPERTY-DIRECT
Standard settings				

When you have defined the basic component identifier for your company, you should assign it to the billing structure for your company.

Activities

After naming and describing the component on the **JV EDI Segment Components** screen, select **EDI segment component fields** and enter the following information in the fields for the component on the **JV EDI Segment Component Fields** screen:

In the **PN** field, enter the sequence number for this component part. The sequence number controls the order in which the output field is populated; improper sequencing can result in incorrect data. The example above populates the output field of the EDI transmission with venture, equity group, and property identifier information.

In the **T** field, enter the code for the type of this field (L for literal, F for field name, P for perform routine).

The next field defines the number of characters by which the current field should be **offset** from the preceding field. In the example above, equity group (**FS_PROPERTY-EGRUP**) is offset by six characters because the contents of the element that precedes it, **FS_PROPERTY-VNAME**, will consist of 6 characters.

In the **Len** field, enter the number of characters in the current field. For example, an equity group name consists of three characters, so in the example above the **Len** field for **FS_PROPERTY-EGRUP** is set at 3.

Finally, in the **Input Field Variable** field, enter the title of the input field variable to be accessed for this component part. The entry in this field may be a literal, or it may be a field name or executable form routine derived from the JVA EDI program SAPLGJEO. Form routines for outbond JVA EDI are contained in the program LGJEOF01. User-defined form routines entered in program LGJEOFZZ may also be specified in this field.

35.5.3.2 Supplemental Segment Drivers

When you have defined the component identifiers that define the contents of supplemental detail fields for EDI outbound, you can then assign these identifiers to specific fields within supplemental detail segments for the invoice (810) or expenditure detail (819) transaction sets.

This is accomplished by mapping the existing JVA company billing structure and billing levels to EDI IDOC segments that have been defined in configuration and to JVA EDI component identifiers. Essentially, the **JV EDI Supplmental Segment Drivers: Overview** screen maps data sources (component identifiers) to EDI billing documents (segments of IDOCs) for supplemental detail, formatting EDI billing supplemental detail documents line by line.

Requirements

Before configuring the supplemental drivers for EDI Outbound, you should define the following:

- EDI IDOCs and segments for the company
- Billing structure for the JVA company
- Billing levels for supplemental detail
- EDI Outbound component identifiers

Activities

The **JV EDI Supplmental Segment Drivers: Overview** screen is complex with numerous fields, but it really consists of only three major pieces:

- 1. JVA billing structure and billing levels
- 2. EDI IDOC segments and fields
- 3. JVA supplemental detail component identifiers

Each of these pieces provides a different part of the information required to generate an outbound EDI supplmental detail billing document. The billing structure and billing levels connects the IDOC segment to a JVA company and defines the data from the company's data extract that will be included in generating the IDOC. The EDI IDOC segments provide the formatting structure for the EDI document. The component identifiers actually populate the segment fields with data.

Each supplemental segment for outbound EDI is assigned to a JVA billing structure and a billing level. These are entered in the **BStr** and **Bl-Lvl** fields respectively.

As you create each supplemental segment, you should assign a reference qualifier to it in the

 \mathbf{RQ} field and a sequence number in the \mathbf{SQ} field. The reference qualifier indicates what type of information will be supplied by the supplemental segment, such as whether segment will contain AFE, internal non-AFE, or well number data. The sequence number defines the order in which supplemental segments will be generated.

Segments of JVA EDI IDOC's are provided data via the component identifiers assigned to them. In the **SuppSeg** field, you can designate the segment of the IDOC to be filled with data from a specific

component identifier. The IDOC and the segments must be defined in standard EDI configuration before you can map them to a billing structure, billing level, and component identifier in JVA.

In the **Fld** field, you can assign a number that indicates the place in the sequence of the segment at which the data generated by the component identifier defined on this line will be placed.

In the **Field name** field, you can define the name of the field in the segment of the IDOC in which the data provided by the component identifier defined on this line will be displayed.

In the **Component Id** field, you can designate the component identifier that will provide data for the field in the segment of the IDOC referenced on this line.

35.5.3.3 Material Condition Codes

In this step of configuring JVA outbound EDI for your company, you should map your company's alphanumeric condition codes for materials to the numeric JIBE condition codes used in EDI.

Example

The following are examples of how a company's alphanumeric material condition codes could be mapped to numeric JIBE condition codes used by EDI:

CCD	JCD	Material Condition Description
A	04	New material
B1	05	Suitable for reuse without reconditioning
B2	05	Suitable for reuse without reconditioning
C	06	Suitable for reuse after reconditioning
D	07	Not useful for original purpose but still of use
E	08	Junk material
_		

Requirements

Before performing the task in JVA configuration documented in this step, you should fully configure the JVA company for MM.

Before proceeding with this step in mapping your company's condition codes to JIBE condition codes, you should define the material condition codes for the JVA company in JVA configuration master data.

Activities

To map your company's material condition codes to numeric JIBE condition codes used in EDI, enter the following information:

In the **CCD** field, enter a condition code used by your company.

In the **JCD** field, enter an equivalent numeric JIBE condition code used in EDI.

In the Condition Codes and Description field, enter the description of the condition code.

35.5.3.4 Contact Function Codes

In this step of configuring JVA outbound EDI for your company, you should define the department in your company that recipients of EDI billing documents issued should contact with billing questions.

Example

The following are examples of the types of codes for departments in your company that might be specified as contacts for the non-operating partners who receive EDI billing documents from your company:

Cont. Code Contact function code description

AD	Accounting department
AP	Accounts payable
AR	Accounts receivable
CW	Confirmed with
IC	Information contact
WH	Warehouse
ZZ	Mutually defined

Activities

To specify the department in your company that recipients of EDI billing documents should contact, enter the following information:

In the **Cont. Code** field, enter the code for the department that recipients of your company's EDI billing documents should use to contact.

In the Contact function code description field, enter the description of the contact code.

35.5.3.5 Communication Codes

In this step of configuring JVA outbound EDI for your company, you should define the mode of communication recipients of EDI billing documents issued by your company should use to contact your company.

Example

The following are examples of the types of communications that may be specified for your company:

Comm. Qual Communications code description

EM	Electronic Mail
FX	Fax
IT	International Telephone
PS	Packet Switching
TE	Telephone
TI	Telev

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TM Telemail TX TWX

Activities

To specify the communications mode for your company, enter the following information:

In the **Comm. Qual** field, enter the code for the mode of communication recipients of your company's EDI billing documents should use to contact your company.

In the Communications code description field, enter the description of the communications code.

35.5.4 Dunning

You can specify the summary level at which dunning should be applied as part of JVA configuration.

Requirements

Before configuring dunning for JVA, you should complete configuration in FI, including specifying dunning settings.

Activities

To specify the aggregation level at which dunning should be applied for the JVA company, you should enter the following information on the **Dunning Customizing: Overview** screen:

In the **Sum. Field** field, enter one of the following settings to indicate the level at which dunning should be applied:

<u>Level</u>	Description		
VNAME	Joint Venture		
EGROUP	Equity Group		
BTYPE	Billing Indicator		
XREF1	Operations Month		
XREF2	Billing Month		

Select the Summarize indicator if information should be summarized at this level for dunning.

Select the Subtotal indicator if information should be subtotaled at this level for dunning.

35.6 Non-operated

As part of configuring JVA for your company, you can define the method of handling incoming billing information from the operators of ventures in which your company is a non-operating partner. Incoming billing information on non-operating ventures can be entered in the system via manual input or EDI. In this step of configuration, you can define the manual entry form or specify the mapping of incoming EDI coding to JVA process functions and G/L accounts.

35.6.1 Manual Input Form

If incoming billing information from the operators of ventures in which the company holds a nonoperating share is to be entered in JVA via manual input, you should define the input form in this step of configuration. This is essentially a two-step process:

- Name the input form
- Define the fields and characteristics of the fields to be included on the input form

35.6.1.1 JV Non-Operated Billing Form

The first step in defining an input form template is to name the billing form template. You may specify multiple billing form templates and link them to different ventures.

Standard settings

When you have fully defined the non-operated billing form, you must assign it to the non-operated ventures for which it will be used on the Joint Venture Master: Basic screen.

Activities

To define a new non-operated billing input form, enter the following information:

In the **NBFM** or non-operated billing form field, enter the code for the new input form.

In the JV Non-operated Billing Form Text field, enter a description of the new billing form.

35.6.1.2 JV Non-Operated Billing Form Line Item Details

When you have defined the name for a manual non-operated billing form, you can define line items for the form.

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Example

The following is a simple example of a billing information input form for non-operated ventures: NBFM LineIdNon-billing Line Text SummId JV Account

NBL1 *	Non-Op Billing Form 1		
NBL1 100000	Subtotal - Cost Centers	*	404000
NBL1 200000	Cost Centers		100000
NBL1 300000	Subtotal - Projects	*	403000
NBL1 400000	Projects		300000
NBL1 500000	Subtotal - Asset Add.	*	405000
NBL1 600000	Asset Additions		500000
NBL1 700000	Asset Retirements		500000

Each line item in a non-operated billing form references the billing form in the first field. The second field is the line number of the line item in the form, which may not be the same as its position on the input screen in processing. For example, the subtotal line for cost centers is specified on the form before the line item for cost centers, but this order will be reversed in processing because the subtotal line is the summary line for cost centers, as indicated by the entry of the cost center subtotal line number in the **SummId** field. Aggregations that represent totals that should be posted include a designation for the G/L account to receive the posting.

Additional information such as cost objects can also be designated on the detailed screen.

Requirements

Before you can enter data during processing on the input form defined in this step, you must create the cost objects referenced by the line items defined in the input form.

Standard settings

When you have fully defined the non-operated billing form, you must assign it to the non-operated ventures for which it will be used on the Joint Venture Master: Basic screen.

Activities

In addition to the fields for line items in the non-operated billing form documented in the example above, there are other settings that allow more extensive formatting control and limitation of the cost objects referenced by the line item. Each characteristic can be customized for the particular line item.

Further notes

For overview on configuration required for Non-Operated Billing as a whole, refer to Non-Operated Billing Configuration Document.

35.6.2 EDI Invoice Account Mapping

In this step of configuring non-operated billing, you can specify the accounting treatment to be accorded to specific types of expenses received via incoming EDI for joint ventures in which the company running JVA holds a non-operated interest.

In this section, you can accomplish two tasks in mapping expenses for the 810 invoice transaction set:

- Mapping qualifiers associated with expenses to JVA processes or transactions represented by function and function item combinations
- Mapping qualifiers and service codes to JVA processes

35.6.2.1 Mapping Inbound EDI Qualifiers to JVA Processes

You can use the mapping qualifiers set up in master data to configure JVA non-operated billing for incoming EDI. In this step of configuring incoming EDI, you can identify the accounting treatment to be accorded the expenses associated with a particular qualifier used for the invoice 810 transaction set.

In this step of configuration, you can associate certain qualifiers, which represent specific types of expenses, with certain JVA processes (identified by the function and function item combination specified on this screen).

The JVA process carries a set of posting rules which will determine how the accounting entries resulting from execution of the process will be posted. For inbound EDI transmissions, the posting rules for a function-function item combination will be applied to the expenses associated with the mapping qualifier connected with the function and function item on this configuration table. In addition, an account to which the expense will be booked must also be specified on the same line on which the mapping qualifier is connected to the function-function item combination.

Requirements

As part of configuring JVA processes, you should specify posting rule details for all non-operated JVA function and function item combinations. These posting rule details should be configured for the JVA company before you assign mapping qualifiers to the function and function item.

As part of defining JVA configuration master data for your company, you should have set up mapping qualifiers for inbound EDI processing. A mapping qualifier should be set up for each type of expense that is to receive a specific type of accounting treatment. Mapping qualifiers can be specified for both 810 and 819 transaction set expenses.

Standard settings

During JVA processing in mapping inbound EDI as part of master data set-up, you will associate these mapping qualifiers with JV/properties and JVA cost objects.

Activities

To associate the type of expenses identified by a specific mapping qualifier on the 810 transaction set with a JVA process and with a specific G/L account, enter the following information on the **JV EDI Inbound: Account Transaction Mapping Table**:

In the **Qual** field, enter the code for the mapping qualifier for a particular type of expense that is to be handled by a specific JVA process and assigned to the G/L account entered on this line.

In the **Func** field, enter the code for a JVA function for non-operated JV expense processing.

In the **Item** field, enter the code for a JVA function item for a particular line item posting controlled by the function specified on this line.

In the **Account** field, enter the code for the G/L account to which the expense associated with the mapping qualifier and posted by the JVA process identified by the function-function item combination will be booked.

35.6.2.2 Mapping Inbound EDI Service Codes to JVA Processes

You can use the mapping qualifiers and JIB/JIBE invoice service codes set up in master data to configure JVA non-operated billing for incoming EDI. In this step of configuring incoming EDI, You can identify the accounting treatment to be accorded the expenses associated with a particular qualifier and service code.

In this step of configuration, you can associate certain qualifiers and service codes, which represent specific types of expenses, with certain JVA processes (identified by the function and function item combination specified on this screen).

The JVA process carries a set of posting rules which will determine how the accounting entries resulting from execution of the process will be posted. For inbound EDI transmissions, the posting rules for a function-function item combination will be applied to the expenses associated with the mapping qualifier and service code connected with the function and function item in this configuration table. In addition, an account to which the expense will be booked must also be specified on the same line on which the mapping qualifier and service code is connected to the function-function item combination.

Requirements

As part of configuring JVA processes, you should specify posting rule details for all non-operated JVA function and function item combinations. These posting rule details should be configured for the JVA company before you assign mapping qualifiers to the function and function item.

As part of defining JVA configuration master data for your company, you should have set up mapping qualifiers for inbound EDI processing. A mapping qualifier should be set up for each type of expense that is to receive a specific type of accounting treatment. Mapping qualifiers can be specified for both 810 and 819 transaction set expenses.

As part of defining JVA configuration master data for your company, you should have defined the JIB/JIBE service codes that will be used to identify specific types of expenses on the Invoice Transaction Set (810).

Standard settings

During JVA processing in mapping inbound EDI as part of master data set-up, you will associate these mapping qualifiers and service codes with JV/properties and JVA cost objects.

Activities

To associate the type of expenses identified by a specific mapping qualifier and service code on the 810 transaction set with a JVA process and with a specific G/L account, enter the following information on the JV EDI Inbound: Account Transaction Mapping Table:

In the **Qual** field, enter the code for the mapping qualifier for a particular type of expense that is to be handled by a specific JVA process and assigned to the G/L account entered on this line.

In the **SC** field, enter the invoice service code for a particular type of expense.

In the **Func** field, enter the code for a JVA function for non-operated JV expense processing.

In the **Item** field, enter the code for a JVA function item for a particular line item posting controlled by the function specified on this line.

In the **Account** field, enter the code for the G/L account to which the expense associated with the mapping qualifier and posted by the JVA process identified by the function-function item combination will be booked.

35.6.3 EDI Expense Account Mapping

In this step of configuring non-operated billing, you can specify the accounting treatment to be accorded to specific types of expenses received via incoming EDI for joint ventures in which the company running JVA holds a non-operated interest.

In this section, you can accomplish two tasks in mapping expenses for the 819 expenditure detail transaction set:

- Mapping qualifiers associated with expenses to JVA processes or transactions represented by function and function item combinations
- Mapping qualifiers and classes to JVA processes
- Mapping qualifiers, classes, and subclasses to JVA processes

35.6.3.1 Mapping Inbound EDI Qualifiers to JVA Processes

You can use the mapping qualifiers set up in master data to configure JVA non-operated billing for incoming EDI. In this step of configuring incoming EDI, You can identify the accounting treatment to be accorded the expenses associated with a particular qualifier used for the expenditure detail 819 transaction set.

In this step of configuration, you can associate certain qualifiers, which represent specific types of expenses, with certain JVA processes (identified by the function and function item combination specified on this screen).

The JVA process carries a set of posting rules which will determine how the accounting entries resulting from execution of the process will be posted. For inbound EDI transmissions, the posting rules for a function-function item combination will be applied to the expenses associated with the mapping qualifier connected with the function and function item on this configuration table. In addition, an account to which the expense will be booked must also be specified on the same line on which the mapping qualifier is connected to the function-function item combination.

Requirements

As part of configuring JVA processes, you should specify posting rule details for all non-operated JVA function and function item combinations. These posting rule details should be configured for the JVA company before you assign mapping qualifiers to the function and function item.

As part of defining JVA configuration master data for your company, you should have set up mapping qualifiers for inbound EDI processing. A mapping qualifier should be set up for each type of expense that is to receive a specific type of accounting treatment. Mapping qualifiers can be specified for both 810 and 819 transaction set expenses.

Standard settings

During JVA processing in mapping inbound EDI as part of master data set-up, you will associate these mapping qualifiers with JV/properties and JVA cost objects.

Activities

To associate the type of expenses identified by a specific mapping qualifier used on the 819 transaction set with a JVA process and with a specific G/L account, enter the following information on the JV EDI Inbound: Account Transaction Mapping Table:

In the **Qual** field, enter the code for the mapping qualifier for a particular type of expense that is to be handled by a specific JVA process and assigned to the G/L account entered on this line.

In the **Func** field, enter the code for a JVA function for non-operated JV expense processing.

In the **Item** field, enter the code for a JVA function item for a particular line item posting controlled by the function specified on this line.

In the **Account** field, enter the code for the G/L account to which the expense associated with the mapping qualifier and posted by the JVA process identified by the function-function item combination will be booked.

35.6.3.2 Mapping EDI Qualifiers and Classes to JVA Processes

You can use the mapping qualifiers and JIB/JIBE expense service code classes set up in master data to configure JVA non-operated billing for incoming EDI. In this step of configuring incoming EDI, You can identify the accounting treatment to be accorded the expenses associated with a particular qualifier and service code class used for the expenditure detail 819 transaction set.

In this step of configuration, you can associate certain qualifiers and service code classes, which represent specific types of expenses, with certain JVA processes (identified by the function and function item combination specified on this screen).

The JVA process carries a set of posting rules which will determine how the accounting entries resulting from execution of the process will be posted. For inbound EDI transmissions, the posting rules for a function-function item combination will be applied to the expenses associated with the mapping qualifier and service code class connected with the function and function item on this configuration table. In addition, an account to which the expense will be booked must also be specified on the same line on which the mapping qualifier and service code class are connected to the function-function item combination.

Requirements

As part of configuring JVA processes, you should specify posting rule details for all non-operated JVA function and function item combinations. These posting rule details should be configured for the JVA company before you assign mapping qualifiers to the function and function item.

As part of defining JVA configuration master data for your company, you should have set up mapping qualifiers for inbound EDI processing. A mapping qualifier should be set up for each type of expense that is to receive a specific type of accounting treatment. Mapping qualifiers can be specified for both 810 and 819 transaction set expenses.

As part of defining JVA configuration master data for your company, you should have set up JIB/JIBE expense service code classes for inbound EDI processing. An expense service code class should be set up for each type of expense that is to receive a specific type of accounting treatment.

Standard settings

During JVA processing in mapping inbound EDI as part of master data set-up, you will associate these mapping qualifiers and JIB/JIBE expense service code classes with JV/properties and JVA cost objects.

Activities

To associate the type of expenses identified by a specific mapping qualifier and service code class combination used on the 819 transaction set with a JVA process and with a specific G/L account, enter the following information on the **JV EDI Inbound: 819 Account Transaction Mapping (Class)**:

In the **Qual** field, enter the code for the mapping qualifier for a particular type of expense that is to be handled by a specific JVA process and assigned to the G/L account entered on this line.

In the **Class** field, enter the code for the JIB/JIBE expense service code class for a particular type of expense that is to be handled by a specific JVA process and assigned to the G/L account entered on this line.

In the **Func** field, enter the code for a JVA function for non-operated JV expense processing.

In the **Item** field, enter the code for a JVA function item for a particular line item posting controlled by the function specified on this line.

In the **Account** field, enter the code for the G/L account to which the expense associated with the mapping qualifier and expense service code class posted by the JVA process identified by the function-function item combination will be booked.

35.6.3.3 Mapping EDI Qualifiers, Classes, and Subclasses to JVA

You can use the mapping qualifiers and JIB/JIBE expense service code classes and subclass A's set up in master data to configure JVA non-operated billing for incoming EDI. In this step of configuring incoming EDI, You can identify the accounting treatment to be accorded the expenses associated with a particular qualifier and service code class and subclass A combination used for the expenditure detail 819 transaction set.

In this step of configuration, you can associate certain qualifiers and service code classes and subclass A's, which represent specific types of expenses, with certain JVA processes (identified by the function and function item combination specified on this screen).

The JVA process carries a set of posting rules which will determine how the accounting entries resulting from execution of the process will be posted. For inbound EDI transmissions, the posting rules for a function-function item combination will be applied to the expenses associated with the mapping qualifier, service code class, and subclass A connected with the function and function item on this configuration table. In addition, an account to which the expense will be booked must also be specified on the same line on which the mapping qualifier, service code class, and subclass A are connected to the function-function item combination.

Requirements

As part of configuring JVA processes, you should specify posting rule details for all non-operated JVA function and function item combinations. These posting rule details should be configured for the JVA company before you assign mapping qualifiers to the function and function item.

As part of defining JVA configuration master data for your company, you should have set up the following objects to be used in inbound EDI processing for each type of expense that is to receive a specific type of accountingtreatment:

- mapping qualifiers
- JIB/JIBE expense service code classes
- JIB/JIBE expense service code subclass A's

Standard settings

During JVA processing in mapping inbound EDI as part of master data set-up, you will associate these combinations of mapping qualifiers, JIB/JIBE expense service code classes, and subclass A's with JV/properties and JVA cost objects.

Activities

To associate the type of expenses identified by a specific mapping qualifier, service code class, and subclass A combination used on the 819 transaction set with a JVA process and with a specific G/L account, enter the following information on the JV EDI Inbound: 819 Account Transaction Mapping (Class+Subclass A):

In the **Qual** field, enter the code for the mapping qualifier for a particular type of expense that is to be handled by a specific JVA process and assigned to the G/L account entered on this line.

In the **Class** field, enter the code for the JIB/JIBE expense service code class for a particular type of expense that is to be handled by a specific JVA process and assigned to the G/L account entered on this line.

In the **SCl A** field, enter the code for the JIB/JIBE expense service code subclass A for a particular type of expense that is to be handled by a specific JVA process and assigned to the G/L account entered on this line.

In the Func field, enter the code for a JVA function for non-operated JV expense processing.

In the **Item** field, enter the code for a JVA function item for a particular line item posting controlled by the function specified on this line.

In the **Account** field, enter the code for the G/L account to which the expense associated with the combination of mapping qualifier, expense service code class, and subclass A posted by the JVA process identified by the function-function item combination will be booked.

35.7 Tools

35.7.1 Reports

35.7.1.1 Installing Standard Reports

This activity copies the JVA standard reports into the active client.

35.7.1.2 Line Item Report List Variants

You can use the SAP variants list capability to define a variant on the standard reports for the JVA summary (JVSO1) and billing (JVSO2) line item ledgers. To begin the process of defining a variant report, enter the code for either the summary (JVSO1) or the billing (JVSO2) ledger in the **Line item table** field of the **Determine Work Area: Entry** pop-up screen accessed from the **Line Item Report List Variants** screen.

This will display the **Line item report list variants: Overview** screen on which all existing variants for the selected ledger report will be listed. As delivered, the standard variant is set as the default for both ledgers.

Activities

To define a new variant for the report based on the standard variant, select the variant you want to copy and then select **Edit** > **Copy as...** and enter the name of the new variant in the **Variant** field of the screen that is displayed. Alternatively, you can add an entirely new variant by selecting **New entries** rather than **Edit** > **Copy**.

To change the fields that are assigned to this new variant, select the new variant and then select **Fields** on the **Line item report list variants: Overview** screen. On the **Line item report variant definition: Overview** screen that is displayed, you should enter the following information for the new variant:

In the in the **field name** field, enter the name of the field. In addition to the fields that are available in standard JVSO1, the following fields are also available to be assigned to your JVSO1 report variant:

<u>Field</u>	<u>Contents</u>		
%OBJ	Cost Object		
%PER1	Overhead Percentage 1		

In the **Usage** field, enter a code indicating where on the report the data contained in the specified field should be displayed

Usage	Description
Code	
C	Characteristic printed in column
Н	Characteristic printed in the report header
K	Key figure printed in column

In the **Nr.** field, enter the number for the column on which the data associated with the specified field should be displayed on the report variant

35.7.1.3 Using JVA Libraries in Reports

Libraries containing sample reports are delivered for the major ledgers and tables that are relevant to JVA functionality. Using the Report Writer/Report Painter, you can copy these libraries and then copy and modify the reports they contain. The following is a listing of the delivered JVA libraries:

Description Reporting JVA

Table Report Writer

Library

JVA Summary Ledger JVTO1 5J1

JVA Billing Ledger JVTO2 5J2

JVA Billing Extract T8JVEXTR 5JX

Table

JVA Relevant Fields from CCSS 5JC

CO

These libraries contain sample reports. To create a new library and set of reports based on one of the existing JVA libraries listed above, you must perform the following tasks:

- 1. Access the Report Painter
- 2. Create a new library by copying an existing JVA report library
- 3. Create a new report within the new library by copying an existing report from the JVA library used as the basis for the new library
- 4. Create a new report group and assign the newly created report library to it
- 5. Create a new report tree and node and assign the new report group to it or assign the report group to an existing report tree and node

You may create the new report library and reports from either JVA Configuration or from the JVA processing menu. Libraries and reports created from JVA Configuration are available to all JVA users in your client. Libraries and reports created from the JVA processing menu are available only to the user who creates them.

CO Reporting

JVA reporting on CO-based data is produced using the CO table CCSS, Structures for General CO Fields. In addition to the standard CO fields, the following JVA-related fields can be used to select data for reporting:

Field Data Element Description

Recovery JV_RECIND Indicator whether the expense Indicator is billable to partners

JV_SRECIND Recovery indicator of the sending cost center in an allocation

Billing Extract Report

Two levels of reporting are currently available for billing extracts: overview reports and drill-down detail. Both are user configurable. Currently, overview billing extract reporting offers the option of reporting by account or by JIB/JIBE. Billing extract reporting can be used to drill down to line items. You may also configure drill-down reporting to access other reports (e.g., summary ledger based information).

35.7.1.4 Defining the JADE Report

JVA offers a facility to support audit inquiries by non-operating partners of expenditures for ventures operated by the company running JVA. Audit inquiries are supported through the Joint Audit Data Exchange (JADE) report. This is essentially an extract file from the JVA expenditure ledger from which an Excel file is generated.

Activities

Extraction of the JADE file is executed on the JVA processing menu, but you must first define the fields to be included in the JADE file by performing the following tasks in JVA configuration:

- 1. Define the formatting properties for the fields in the JADE extract file
- 2. Define the JVA-relevant field movement activities and the field movements to be included in generation of the JADE extract file
- 3. Define the detailed fields from the JVA summary ledger based on the field movements that will be included in the JADE extract file

Define Company Code Properties of JADE

The first step in configuring the JADE report is to define the display properties of the fields to be included in the extract file by entering the following information on the **Field Movement for JADE - Header: Overview** screen:

In the CC field, enter the code for the company for which the JADE file will be generated.

In the AmtLn field, enter the number indicating the length of the amount field in the JADE file.

In the **Delimiter** field, enter the character to be used to separate selected fields in the JADE file.

In the **Surround** field, enter the character to be printed at the beginning and end of selected fields in the JADE file.

The amounts included in the JADE file will consist of the number of characters that you specify in the **AmtLn** field on this screen. When you later define the fields to be included in the JADE extract file during the third step of configuring the JADE report, you can choose to invoke the delimiter you enter here in the **Delimiter** field. This will indicate that the field should be separated from adjoining fields on the report by the specified delimiter.

Define Field Movement Activities of JADE

The second step in configuring the JADE report is to define the field movement activities to be included in the extract file by entering the following information on the **Field Movement for JADE - Usage:**Overview screen:

In the **Act.** field, enter the code for the FI or Special Ledger activity whose data is to be included in the JADE extract file.

In the **Ap.** field, enter the code for the SAP application module whose data is to be included in the JADE extract file:

SAP Description Application Module

FI Financial Accounting

CO Controlling

MM Materials Management

In the No. field, enter the sequence number.

In the **M. Name** field, enter the user-defined code for the field movement to be included in the JADE extract file.

The **Act.** or activity field and the **Ap.** or SAP application field are mutually exclusive. You can either select specific activities whose information will be included in the extraction process for the JADE report, or you can specify an entire SAP application all of whose activities will be included in this process.

You may choose to define field movements depending on the activity. For example, if you wish to include certain data for FI postings in the JADE report, you might make the following entries on the **Field Movement for JADE - Usage: Overview** screen:

Act. Ap. No. M Name

RFBU Blank 1 FIPOST

RFBU is the field movement activity for FI postings. The **Ap.** field is left blank because data is being selected for inclusion in the JADE extract file by activity rather than by SAP application module. The sequence number is used to identify the placement on the JADE report of data from this activity. In this example, the user has chosen to define a movement name of FIPOST for information derived from the FI posting activity RFBU.

The next step in configuring the JADE report will be to assign the specific data fields to the movement FIPOST. At execution of the JADE extraction on the JVA processing menu, data contained in the fields associated with FIPOST will be displayed in the extract file report.

Define the Detailed Fields of JADE

The third step in configuring the JADE report is to define the detailed fields to be included in the extract file report. In this step, you will associate all fields to be included in the report with the field movement you defined on the **JADE - Usage** screen. You can connect detailed fields to a field movement by entering the following information on the **Field Movement for JADE - Details: Overview** screen:

In the **No.** field, enter the sequence number determining the order of display of the field in the JADE extract file.

In the **Send Field** field, enter the name of the sending field from which data to be included in the JADE extract file is to be derived.

Enter an **X** in the **S** field as an indicator that the character specified in the **Surround** field on the **Field**Movement for JADE - Header: Overview screen should print before and after the data for this field in the JADE extract file.

Enter an **X** in the **D** field as an indicator that the character specified in the **Delimiter** field on the **Field Movement for JADE - Header: Overview** screen should print between this field and other data fields in the JADE extract file.

Specifying Sending Fields for JADE

This screen allows you to select fields for inclusion in the JADE extract file for each field movement. You may select any fields in the JVSO1 table, the **Joint Venture Line Item Table with Objects for the JVTO1 Table**, to be included in the JADE extract file. You can also include the following MM information: purchase order (PO), goods receipt (GR), invoice receipt (IR) as well as the JIB/JIBE class and subclass and the cost object number.

Relationship between Field Movement and Sending Fields

To access the sending fields assigned to a field movement or to assign new fields to a movement on the **Field Movement for JADE - Details: Overview** screen, you must select a field movement on the **Field Movement for JADE - Usage: Overview** screen (or enter the selected field movement on a pop-up when prompted).

You should define unique field movements for different activities or SAP applications. If you assign the same movement to two activities on the **JADE - Usage** screen, the sending fields you assign to that movement will apply to both activities.

You may use the pick list through F4 to review the available sending fields for the selected field movement. This will display a complete list of all sending fields in JVSO1 as well as the additional fields described above. Not all these available sending fields will be needed to meet your audit requirements. Before defining the sending fields whose data will be included in the JADE report, you should determine what data is needed to meet your audit requirements.

The intention of the the JADE extract file report is to support COPAS and PASC audit requirements. You may select any field available through F4 to the Send Field on the JADE Details screen to any movement you define.

35.7.2 Productive Start

In preparation for converting to production, you may perform a number of tasks documented in this section, including:

- Deleting test transaction, master, or customizing data
- Balancing the workload for heavy volume JVA processes between servers
- Reviewing the JVA objects that will be included in a new upgrade or installation

35.7.2.1 Deleting JVA Data

In preparation for converting to a productive system, you may delete all existing data for a JVA company. There are three levels of data that may be deleted:

- Transaction data
- Master data
- Customizing data

These options are dependent on one another in the following way: If you choose to delete transaction data, only expense postings to JVA ledgers will be deleted. JVA master data (JOA's, JV's, equity groups) and customizing data (company configuration, configuration master data, posting rules for JVA processes) for the company will be preserved.

Postings in standard SAP modules that feed data to JVA will not be affected by the deletion of transaction data from the JVA ledgers (see below under **Requirements**).

If you choose to delete JVA master data, you must also delete transaction data, or have previously done so. This option will also delete references to JVA master data in CO cost objects.

If you choose to delete customizing data for the JVA company, you must also delete both transaction and master data, or have previously done so.

Requirements

Before deleting transaction, master, and customizing data in JVA, you should first execute the appropriate corresponding tasks for a productive start in feeder systems (i.e., FI, CO, AM). For example, before deleting transaction data from the JVA ledgers, you should first delete the documents in FI that were the source for JVA postings.

Deleting customizing data for a JVA company essentially means deleting the JVA company; therefore, before you can delete JVA customizing data for the company, you must deactivated the JVA ledgers for the company.

35.7.2.2 Load Balancing Configuration

As part of configuring JVA for production runs of the following high volume JVA processes, you can specify how the processing load should be split between different servers. The high volume JVA processes are:

- Cutback
- Payroll Burden calculations
- Overhead calculations

Standard settings

When **Load Balancing for JVA Processes** is executed from JVA processing, a report is produced. Based on the load limits entered in configuration, this report will suggest the following types of ranges for the JVA processes Cutback, payroll burden calculation, and overhead calculation:

JVAStart/EndProcessRanges for

Cutback Joint Ventures

Payroll Burden Joint Operating Agreements
Overhead Joint Operating Agreements

These ranges can be used to balance the workload on different servers. If this report program is run in update mode, it will create the relevant variants with the appropriate ranges and create the background jobs with these newly created variants.

Activities

On this load balancing configuration table, for each of these processes (**JOB A Proc.** field) you can specify the number of background jobs (**No. Jobs** field) and the size or percentage of each background job (**Percent** field) for each server (**Target system for batch job** field).

Based on these load balancing settings, the **Load Balancing for JVA Processes** program can then be used in processing to select all the data which will be processed by Cutback, Payroll Burden, or Overhead respectively. The data is then divided according to the redefined settings from this load balancing configuration table.

35.7.2.3 Delete a Joint Venture

It is possible to delete a joint venture using this transaction.

You cannot use this transaction to delete the JV if any of the following conditions are true:

- The JV is the corporate JV
- CO-based cost objects have been created for the JV
- Transaction data exists for the JV
- EDI JIBE/PASC numbers have been associated with the JV
- Batch cash call has been created for the JV
- Non-operated billing records exist for the JV

Activities

if there is no existing transaction data for the JV and no other objects in JVA configuration or CO have been associated with the JV, you can delete the JV on the **Delete Joint Venture Master** screen by entering following information before execution:

In the Company Code field, enter the code for the JVA company.

In the **Joint Venture** field, enter the code for the venture to be deleted.

Execute the deletion.

35.7.2.4 Delete a JOA

Use

Use this report to delete Joint Operating Agreement Master Data which is superfluous and not used with any specific company code - this includes **all** dependent objects such as ventures and equity groups.

For example, the JOA was created in error, or the client was built using client copy and you only need a subset of the created JOAs.

Requirements

The JOA does not have:

- any dependent JV with posted documents.
- any dependent JV assigned to a cost object.
- any dependent JV used in any posting-relevant process (for example, is still contained in the cash call batch table).

Activities

Before executing:

In the Company Code field, enter the code for the JVA company.

In the *Joint operating agreement* field, enter the code for the JOA.

When you run the program in active mode, all JOA-dependent objects which fulfill the deletion requirements are deleted, all others are displayed in the result list.

When you have resolved the issues which prevented the deletion of those objects, you can re-run the program.

Note

To obtain a list of all activities which would be executed and any errors which would prevent the system from deleting objects, you can run the program in test mode before carrying out an active run.

35.8 Project Risk Management for Contractors

35.8.1 Master Data for Joint Venture Processing

35.8.1.1 Activate CA-JVA-PRC for Company Code

Use

In this activity, you can activate the specific functions for the *Project Controlling and Risk Management* for *Plant Engineering and Construction (CA-JVA-PRC)* component for a company code.

Requirements

If you want to set the indicator, you must have activated the *CA-JVA* component in Customizing for *Joint-Venture-Accounting*, by choosing *Activate JVA* in a Client.

35.8.1.2 Define Joint Venture Master Data Profile

In this IMG activity you define JV master data profiles for the *Joint Venture Accounting* component.

A profile contains general information on a joint venture, such as venture class, JOA class, equity type, posting method and venture type. It is multi-usage.

You define JV master data profile depending on the company code.

JV master data profiles are used for creating joint ventures using transaction Create Joint Venture.

The advantage of this is that the user does not have to enter more data. Instead the system reads the data from the profile and automatically creates the JOA and the equity group for the new joint venture.

35.8.1.3 Define Partner Role

In this IMG activity you define the partner role.

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You can use partner roles:

- To define which roles a partner has in the joint venture. This is only for information.
- To support the workflow determination. Use function module /SAPPCE/ORG_WFM_RELATE and configure customer-specific programming.

35.8.1.4 Change Message Control

Use

In this IMG activity you define whether the system should display system message 031 for

message class /SAPPCE/JVAM1 in case of error as an information, warning, or error message, or if no message should be displayed.

You can also make this setting for individual users.

You can control the following system messages:

- System message /SAPPCE/DPCM1 031 is displayed if you want to define an internal partner as operator for an equity group with the *non--operated venture* venture type. Only external partners are valid as operators for this venture type.
- System message 062 is displayed if the operator in the other equity groups, which are assigned to the joint venture, is not the operator of the equity group.
- System message 063 is displayed if you used an internal operator in the previous equity group and in this equity group, you want to enter an external partener as operator. Or, if you used an external operator in the previous equity group and in this equity group, you want to enter an internal partner as operator.

35.8.1.5 BAdI: Simplified JVA Master Data Maintenance

This Business Add-In (BAdI) is used in the *Joint Venture Accounting* component (CA-JVA) with the *Projekt-Oriented Enterprise Structure* component.

With this BAdI you can enhance the check for the input data of transactions for simplified processing of joint venture master data.

Standard settings

The Business Add-In is

- non active
- not filter dependent
- multi-usage

Activities

After calling up the IMG activity, a dialog box appears, in which you can enter a name for the implementation.

If you have already made other implementations for this BAdI, another dialog box appears, in

which the existing implementations are displayed. In this case, choose *Create*, and proceed as follows:

- 1. In the dialog box, enter a name for the BAdI implementation in the *Implementation* field, and choose *Create*.
 - The screen for creating BAdI implementations is now displayed.
- 2. Enter a short text for the implementation in the Short text for implementation field.
- From the tab index, choose *Interface*.
 The *Name of implemented class* field is already filled on the tab page, as a class name was automatically assigned to the implementation when you named it.
- 4. Save your entries, and assign the implementation to a development class.
- 5. Place the cursor on the method, and double-click to enter method processing.
- 6. Enter the code for the implementation between the statements method <Interface name> ~ <Name of method> and endmethod.
- 7. Save and implement your code. Return to the *Edit Implementation* screen.
- Save the entries on the *Edit Implementation* screen.
 Note: You can also create an implementation, and then activate it at a later time. In such a case, end the processing stage at this point.
- 9. Choose Activate

The code you stored in the method will be run when the application program is executed.

Further notes

In the documentation on BAdI methods you find further information:

Check input data.

35.8.2 Project-Oriented Enterprise Structure

In this section you configure settings for project-oriented enterprise structures.

Further notes

For project-oriented enterprise structures, you need further settings that you configure in Customizing for *Joint Venture Accounting* and in Customizing for *Personnel Management* under *Organizational management* -> Hierarchy Framework.

35.8.2.1 Additional Attributes for Organizational Units

35.8.2.1.1 Define Category 1

Use

In this IMG activity you define the possible attributes of category 1.

You can use this as an additional attribute for organizational units to define customer-specific information.

35.8.2.1.2 Define Category 2

Use

In this IMG activity you define the possible attributes of category 2.

You can use this as an additional attribute for organizational units to define customer-specific information.