

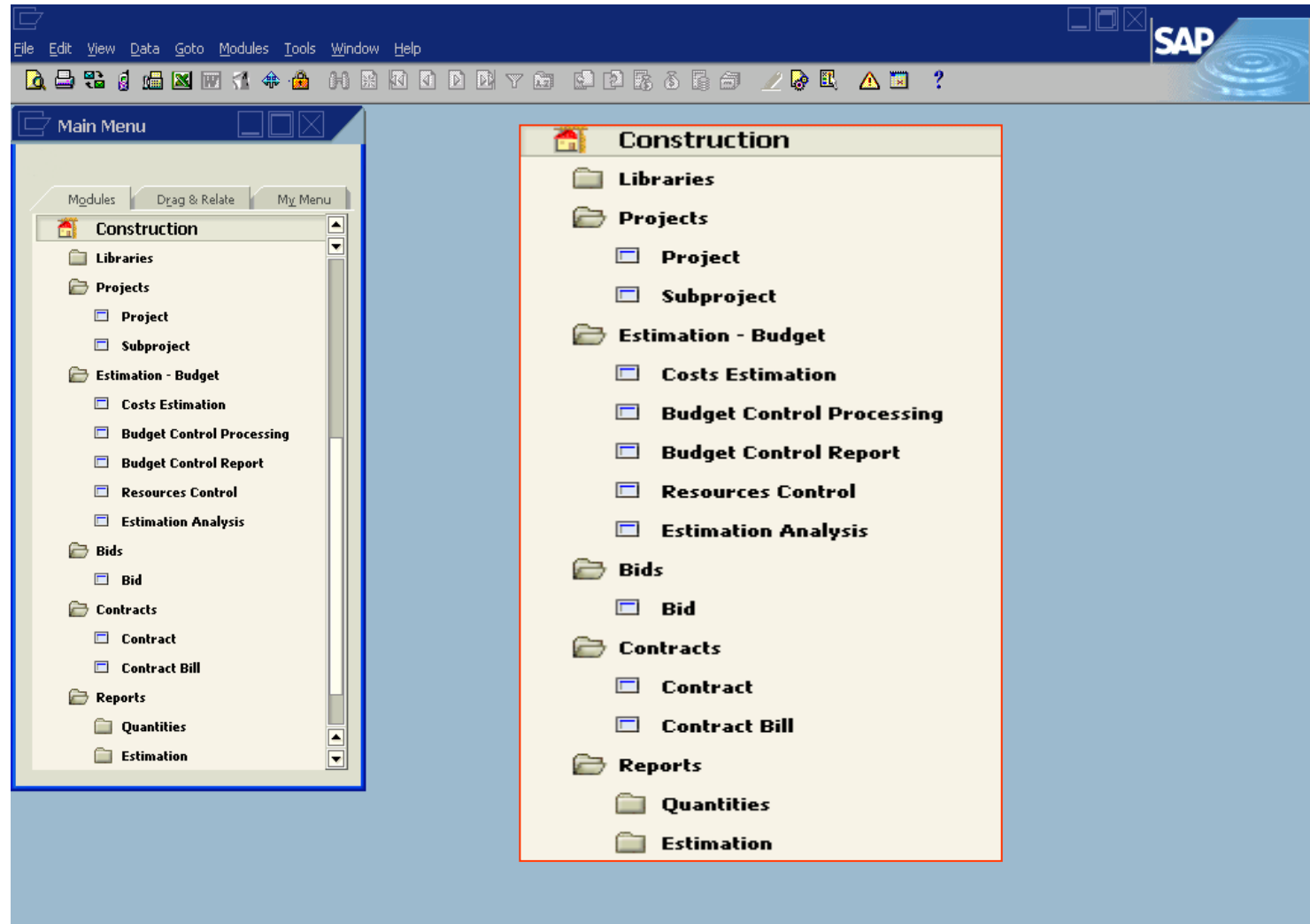


Construction Management on SAP Business One

Construction management folders



The Construction management system is fully implemented onto SAP Business One for user interface consistence and integration with the ERP modules



Library



A complete library divided into various subprojects and contains all the items needed to form the project's bill of material

The screenshot displays the SAP Library hierarchy for a project named 'FOREST HEART'. The hierarchy is as follows:

- Library:** Code 01, Name FOREST HEART. It contains three chapters:
 - Chapter 01: INFRASTRUCTURE
 - Chapter 02: PLUMBING
 - Chapter 03: ELECTRICITY
- Library Chapter (02):** Name PLUMBING, Description PLUMBING WORKS. It contains three subchapters:
 - Subchapter 01: SEWAGE
 - Subchapter 02: WARM AND COLD WATER
 - Subchapter 03: RAINWATER DRAINAGE
- Library Subchapter (02):** Name WARM AND COLD WATER, Description WARM AND COLD WATER. It contains three secondary subchapters:
 - Secondary Subchapter 01: CHANNELS
 - Secondary Subchapter 02: PIPES
 - Secondary Subchapter 03: VALVES
- Library Secondary Subchapter (02):** Name WARM AND COLD WATER, Description WARM AND COLD WATER. It contains three items:
 - Item 001: Double walled pi Double walled pipe 1.5 " in diameter
 - Item 002: Ductile iron pipe Ductile iron pipe 4"
 - Item 003: Plastic pipe 7" in Plastic pipe 7" in diameter

Project & subproject card



The project is divided into subprojects, chapters and subchapters relevant to the various locations

The screenshot displays the SAP Project and Subproject configuration screens. The Project card shows details for project 07, 'FOREST HEART', located at 'EILAT'. The Subproject card shows details for subproject 07, 'PLUMBING', which is active and includes VAT. A Bill of Materials (BOM) table is visible, listing various pipe items with their locations, chapters, subchapters, and descriptions.

#	Loc...	Cha...	Sub...	Sec...	Item	Item Code	Description	Unit	Distri...
04	07	07	07	001	07.07.07.001	07.07.07.001	Double walled pipe 1.5" in diameter	Sqm	
04	07	07	07	002	07.07.07.002	07.07.07.002	Cast iron pipe 3" in diameter	Sqm	
03	07	07	07	003	07.07.07.003	07.07.07.003	Plastic pipe 7" in diameter	Sqm	
04	07	07	07	004	07.07.07.004	07.07.07.004	Double walled pipe 1" in diameter	Sqm	
04	07	07	07	005	07.07.07.005	07.07.07.005	Double walled pipe 2" in diameter	Sqm	
03	07	07	07	006	07.07.07.006	07.07.07.006	Double walled pipe 3" in diameter	Sqm	
04	07	07	07	007	07.07.07.007	07.07.07.007	Ductile iron pipe 1"	Sqm	
04	07	07	07	008	07.07.07.008	07.07.07.008	Ductile iron pipe 2"	Sqm	

Bill of material items



Prices of the subproject's bill of materials can be entered by hand or linked to the relevant library pricelist

Subproject

Project: 07 FOREST HEART
Code: 07
Name: PLUMBING
Type: PLUMBING
Price List: [dropdown]
Price List Date: [dropdown]

Description: PLUMBING
Status: ACTIVE
 Income
 Include VAT
 Participant In Budget Control

Linkage
Index: CPI
Base: February 2017
Value: 150.000
Currency: DOLLAR
Currency Minimal Value: [field]

Dates
Planned Start: 01/08/07
Planned Finish: 01/06/08
Actual Start: 01/08/07
Actual Finish: 01/06/08

Bill Of Quantity Items | Activities | Files

#	Item Code	Description	Unit	Distrib.	Quantity	Unit Price	Sum	S
	07.07.07.001	Double walled pipe 1.5 " in diameter	Sqm		30.0	41.28	1,238.40	Dc
	07.07.07.002	Cast iron pipe 3" in diameter	Sqm		10.0	139.56	1,395.60	3 I
	07.07.07.003	Plastic pipe 7" in diameter	Sqm		70.0	31.45	2,201.50	Pl
	07.07.07.004	Double walled pipe 1" in diameter	Sqm		30.0	72.73	2,181.90	Dc
	07.07.07.005	Double walled pipe 2" in diameter	Sqm		20.0	93.36	1,867.20	Dc
	07.07.07.006	Double walled pipe 3" in diameter	Sqm		200.0	150.37	30,074.00	Dc
	07.07.07.007	Ductile iron pipe 1"	Sqm		30.0	66.81	2,004.30	Du
	07.07.07.008	Ductile iron pipe 2"	Sqm		10.0	91.36	913.60	Du

Tree... Import / Export New

OK Cancel Distribution Amount Bid



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Bill of Material validation chart



The bill of material can be displayed in a chart, validated by the different locations

The screenshot shows the 'Bill of Quantity Items' window. The top section contains project information: Project 07 FOREST HEART and Subproject 07 PLUMBING. Below this is a 'Display' dropdown menu set to 'Location, Chapter, Subchapter, Secondary Sub'. The main area is a table with columns: #, Location, Chapter, Subchapter, Secondary Subchapter, Item, Item Code, Description, Unit, Quantity, and U. Two rows are highlighted with a red border. The first row is #003, Location 03, Chapter 07, Subchapter 07, Secondary Subchapter 07, Item 003, Item Code 07.07.07.003, Description 'Plastic pipe 7" in diameter', Unit 'Sqm', Quantity 70.0, and U 31. The second row is #006, Location 03, Chapter 07, Subchapter 07, Secondary Subchapter 07, Item 006, Item Code 07.07.07.006, Description 'Double walled pipe 3" in diameter', Unit 'Sqm', Quantity 200.0, and U 150. To the left of the table is a 'Description' tree with a dropdown menu set to 'All'. It shows a tree structure with '03 - GROUP03' selected and '04 - GROUP04' below it. At the bottom of the window are buttons for 'OK', 'Cancel', 'New', and 'Hide Items'.

#	Location	Chapter	Subchapter	Secondary Subchapter	Item	Item Code	Description	Unit	Quantity	U
003	03	07	07	07	003	07.07.07.003	Plastic pipe 7" in diameter	Sqm	70.0	31
006	03	07	07	07	006	07.07.07.006	Double walled pipe 3" in diameter	Sqm	200.0	150

Distribution amount



Payments that are based on milestones set in the project can be modified by relevant distribution amounts

Subproject

Project: 07 FOREST HEART
Code: 07
Name: PLUMBING
Type: PLUMBING
Price List: [empty]
Price List Date: [empty]

Description: PLUMBING
Status: ACTIVE

Linkage
Index: CPI
Base: February 2017
Value: 150.000
Currency: DOLLAR

Distribution Amount

Project: [empty]
Subproject: [empty]
Location: [empty]
Amount: 0.00

Bill of Quantity Items

#	Loc...	Cha...	Sub...	Sec...	Item	Item Code	Description	Unit	Distri...
04	07	07	07	07	001	07.07.07.001	Double walled pipe 1.5 " in diameter	Sqm	
04	07	07	07	07	002	07.07.07.002	Cast iron pipe 3" in diameter	Sqm	
03	07	07	07	07	003	07.07.07.003	Plastic pipe 7" in diameter	Sqm	
04	07	07	07	07	004	07.07.07.004	Double walled pipe 1" in diameter	Sqm	
04	07	07	07	07	005	07.07.07.005	Double walled pipe 2" in diameter	Sqm	
03	07	07	07	07	006	07.07.07.006	Double walled pipe 3" in diameter	Sqm	
04	07	07	07	07	007	07.07.07.007	Ductile iron pipe 1"	Sqm	
04	07	07	07	07	008	07.07.07.008	Ductile iron pipe 2"	Sqm	
04	07	07	07	07	009	07.07.07.009	Ductile iron pipe 4"	Sqm	
04	07	03	05	05	010	07.03.05.010	20 cm diameter channel	Sqm	
04	01	04	06	06	011	01.04.06.011	Acrylic bath Pergamon 2 m	Sqm	
04	01	04	06	06	012	01.04.06.012	2 m White bath	Sqm	
04	01	04	07	07	013	01.04.07.013	Low Pergamon sink 50 cm	Sqm	
04	01	04	07	07	014	01.04.07.014	Deep Pergamon sink 60 cm	Sqm	

Tenders & bid offers



Tenders can be sent to subcontractors in a standard PDF format, entitling to fill only the price column

Bid Offer

Project: 07 FOREST HEART
Bid: PLUMBING
Supplier: [dropdown]
Participation Status: 1

Winner
Contract No.: 1
File Sending Date: [dropdown]
File Input Date: [dropdown]

Tabbed interface: Bid Offer Items, Guarantees, Bid Offer Quality Grade, Activities, Files

#	Location	Cha...	Sub...	Sec...	Item	Ite...	Desc...	Unit	Qua...	Unit ...	Sum	Not ...	Loca...	Ch...
04	07	07	07	07	001	07.07.0	Double v	Sqm	30.0	40.30	1,209.00	<input type="checkbox"/>	GROUPC	PLUMI
04	07	07	07	07	002	07.07.0	Cast iron	Sqm	10.0	145.26	1,452.60	<input type="checkbox"/>	GROUPC	PLUMI
03	07	07	07	07	003	07.07.0	Plastic pi	Sqm	70.0	31.45	2,201.50	<input type="checkbox"/>	GROUPC	PLUMI
04	07	07	07	07	004	07.07.0	Double v	Sqm	30.0	52.80	1,584.00	<input type="checkbox"/>	GROUPC	PLUMI
04	07	07	07	07	005	07.07.0	Double v	Sqm	20.0	46.43	928.60	<input type="checkbox"/>	GROUPC	PLUMI
04	07	07	07	07	006	07.07.0	Double v	Sqm	200.0	46.12	9,224.00	<input type="checkbox"/>	GROUPC	PLUMI
03	07	07	07	07	007	07.07.0	Ductile ir	Sqm	30.0	67.35	2,020.50	<input type="checkbox"/>	GROUPC	PLUMI
04	07	07	07	07	008	07.07.0	Ductile ir	Sqm	10.0	116.20	1,162.00	<input type="checkbox"/>	GROUPC	PLUMI
04	07	07	07	07	009	07.07.0	Ductile ir	Sqm	60.0	76.46	4,587.60	<input type="checkbox"/>	GROUPC	PLUMI
04	07	03	05	05	010	07.03.0	20 cm di	Sqm	100.0	46.30	4,630.00	<input type="checkbox"/>	GROUPC	PLUMI

Buttons: OK, Cancel, Clear prices, Tree...

Reporting methods



The reporting method can be set either monthly or cumulatively

Contract

Project: 07 FOREST HEART
Subproject: 07 PLUMBING
Code: 1
Name: PLUMBING
Description: Plumbing infrastructure work
 Income
Supplier:
Purchase Order:
Contract Type: Work Order
Reporting Type: **Cumulative**
Work Type: 1 - Cumulative
Supervisor: 2 - Monthly

Include VAT
Currency: DOLLAR
Contract Sum:
Payment Terms: CASH
Contract Date: 12/08/08
Confirmed/Delivered Date: 12/08/08
Planned Start Date: 20/01/07
Planned Finish Date: 20/01/08
Actual Start Date: 20/01/07
Actual Finish Date: 20/01/08
Remarks:
Status:

Items | Reductions | Modifications | Additional Items | Guarantees | Contract Quality Grade | Bills | Activities | Files

#	Loca...	Cha...	Sub...	Sec...	Item	Item Code	Description	Unit	Distri...	Accu...	Quantity
02	07	07	07	07	001	07.07.07.001	Double walled pipe 2" in diameter	Sqm		0	30.0
02	07	07	07	07	002	07.07.07.002	Cast iron pipe 3" in diameter	00000002		0	10.0
02	07	01	03	03	003	07.01.03.003	Acrylic bath Pergamon 2 m	00000002		0	5.0
04	07	01	01	01	004	07.01.01.004	2 m White bath	Sqm		0	7.0
04	01	04	01	01	005	01.04.01.005	Low Pergamon sink 50 cm	Sqm		0	8.0
02	07	07	07	07	006	07.07.07.006	Ductile iron pipe 4"	Sqm		0	10.0

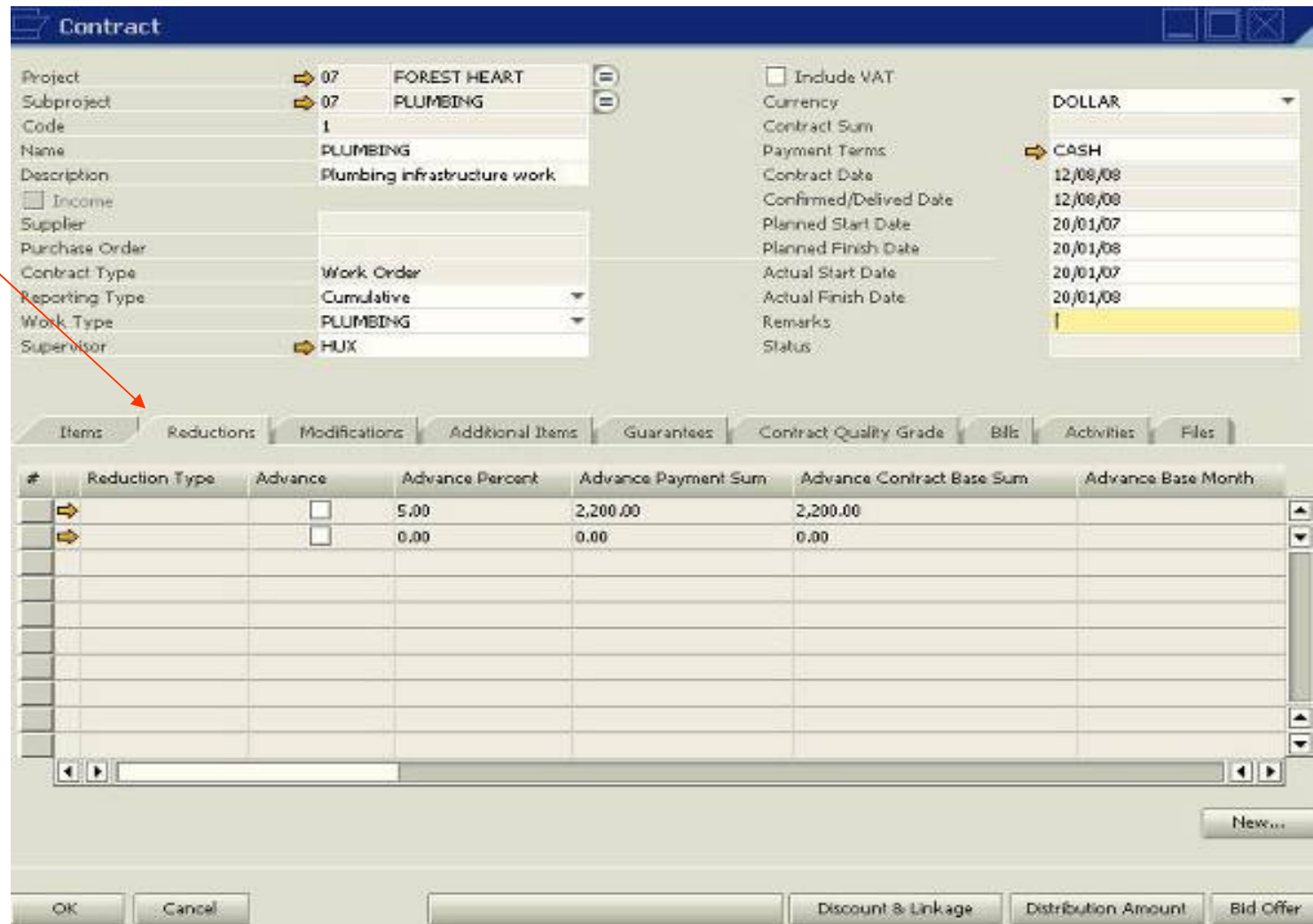
Items from Framework | Tree... | Approval

OK | Cancel | Discount & Linkage | Distribution Amount | Bid Offer

Contract reductions



Contract reductions can be set as advance payments, liens, guarantees etc.



The screenshot shows the SAP Contract Reductions interface. The top section contains contract details such as Project (07 FOREST HEART), Subproject (07 PLUMBING), Name (PLUMBING), and Description (Plumbing infrastructure work). The bottom section is a table with columns for Reduction Type, Advance, Advance Percent, Advance Payment Sum, Advance Contract Base Sum, and Advance Base Month. A red arrow points to the 'Reductions' tab.

#	Reduction Type	Advance	Advance Percent	Advance Payment Sum	Advance Contract Base Sum	Advance Base Month
		<input type="checkbox"/>	5.00	2,200.00	2,200.00	
		<input type="checkbox"/>	0.00	0.00	0.00	

Subcontractor quality grading



Quality grading serves as an efficient tool for future project tenders

Contract

Project	07	FOREST HEART	<input type="checkbox"/> Include VAT	Currency	DOLLAR
Subproject	07	PLUMBING	Contract Sum	Payment Terms	CASH
Code	1		Contract Date	Confirmed/Delivered Date	12/08/08
Name	PLUMBING		Planned Start Date	Planned Finish Date	20/01/07
Description	Plumbing infrastructure work		Actual Start Date	Actual Finish Date	20/01/07
<input type="checkbox"/> Income			Remarks	Status	
Supplier					
Purchase Order					
Contract Type	Work Order				
Reporting Type	Cumulative				
Work Type	PLUMBING				
Supervisor	HUX				

Items Reductions Modifications Additional Items Guarantees **Contract Quality Grade** Bills Activities Files

#	Quality Indexes Code	Quality Indexes Name	Index Weight	GRADE_ZI...	Grade Sum
111	RIGHT ON SCHEDULE	60.00	20.00	12.00	
2	QUALITY	40.00	50.00	20.00	
Total Grade					32.00

OK Cancel Discount & Linkage Distribution Amount Bid Offer



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Cumulative reports & partial accounts



Partial accounts based on cumulative reports can be imported and exported as Excel files as each bill undergoes a round of approval

The screenshot shows the SAP 'Contract' window. The 'Reporting Type' is set to 'Cumulative'. Below the contract details is a table with the following data:

#	Purchase Delivery Note	Number	Date	Performance Month	Linkage Date	Cumulative Total Items	Deal Bill Derived
		1	01/06/08	6	01/06/08	3,450.00	<input checked="" type="checkbox"/>
	2000	2	01/07/08	7	01/07/08	6,900.00	<input checked="" type="checkbox"/>
		3	01/08/08	8	01/08/08	9,500.00	<input checked="" type="checkbox"/>

At the bottom of the window, there is an 'Import / Export' button, which is highlighted by a red arrow from the text on the left. Other buttons include 'Approval', 'New...', 'OK', 'Cancel', 'Discount & Linkage', 'Distribution Amount', and 'Bid Offer'.

Discounts & linkages



Discounts and linkages can be assigned to every chapter / subchapter / secondary subchapter in the contract's bill of material

The screenshot shows the 'Discounts & Linkages' dialog box in SAP. At the top, it displays the following data:

Project	07	FOREST HEART
Subproject	07	PLUMBING
Contract	1	PLUMBING

Below this is a tree view under the heading 'Description':

- ▼ All
- ▼ 02 - GROUP02
 - ▶ 07 - PLUMBING WORKS
 - ▶ 04 - GROUP04

Two red arrows point from the '07 - PLUMBING WORKS' entry in the tree view to the 'Linkage' field in the right-hand pane. The right-hand pane contains the following fields:

Linkage	
Base Date	
Base	
Entered Base Value	0.00
Minimal Value	0.00
Maximal Value	0.00
Minimal Percent for Price Increase	0.00
Discount	0.00
Account	

At the bottom of the dialog box are 'OK' and 'Cancel' buttons.

Purchase orders



Request orders are fully integrated with SAP Business One purchase orders

Purchase Order

Vendor: _____ No. **Manual** 0 - 0
Name: _____ Status **Open**
Contact Person: _____ Posting Date **17/02/10**
Vendor Ref. No.: _____ Delivery Date _____
Local Currency: _____ Document Date **17/02/10**

Contents | Logistics | Accounting

Item/Service Type: **Item** Summary Type: **No Summary**

#	Item No.	Quantity	Unit Price	Discount %	Total (LC)	Project/Site	Expiry Date	Starting Date	Project	Chapter	Subchapter	Secondary Subchapter	Bill of Material Compo...
1					0.00								

Buyer: **No Salesman** Owner: _____ Remarks: _____

Total Before Discount: _____
Discount: _____ %
Tax: **15.50** %
Total Payment Due: **0.00**

Add Cancel Copy To



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Indirect Costs



The indirect costs contain all the articles that are not derived from the bill of materials itself, however, do need to be taken into consideration while building the project's budget

Project: 07 FOREST HEART Version: 01/01/2009 00:00:00

Costs Indirect (Load) Indirect (Percent)

#	SystemItem Code	SystemItem Name	Quantity	Unit Price	Coefficient	Sum	Acc...
07-001	Double walled pipe 1.5 " in diameter	30.0	41.28	1.000	1,238.40	670	
07-002	Cast iron pipe 3" in diameter	10.0	139.56	1.000	1,395.60	670	
100-001	Labour	100.0	50.00	1.000	5,000.00	670	

Buttons: Update default account, OK, Cancel, Direct Costs, Loading Costs



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Budgetary Reports



Total subproject's budget.

Total contract amount.

Reports can be customized based on the clients requirements using the SAP Business One XL Reports and Crystal Reports

Description	Total Budget	Total Estim...	Total Contr...	Total Repo...	Total Items...	Total Expe...
▼ 07 - PLUMBING	0	153453.3	3278	0	0	0
001 - Double walled pipe 2" in diameter	0	0	1238.4	0	0	0
002 - Cast iron pipe 3" in diameter	0	0	1395.6	0	0	0
003 - Acrylic bath Pergamon 2 m	0	0	100	0	0	0
004 - 2 m White bath	0	0	84	0	0	0
005 - Low Pergamon sink 50 cm	0	0	360	0	0	0
006 - Ductile iron pipe 4"	0	0	100	0	0	0
	0	0	0	0	0	0
	0	1238.4	0	0	0	0
	0	1395.6	0	0	0	0
	0	2201.5	0	0	0	0
	0	2181.9	0	0	0	0
	0	1867.2	0	0	0	0
	0	30074	0	0	0	0
	0	2004.3	0	0	0	0
	0	913.6	0	0	0	0
	0	6166.8	0	0	0	0
	0	7625	0	0	0	0
011 - Acrylic bath Pergamon 2 m	0	19575	0	0	0	0
012 - 2 m White bath	0	14000	0	0	0	0
013 - Low Pergamon sink 50 cm	0	29880	0	0	0	0
014 - Deep Pergamon sink 60 cm	0	11250	0	0	0	0

Budget Control

General

First Level: Project

Second Level: Subproject

Third Level: Bill Of Quantity Item

Fourth Level: []

Fifth Level: []

Sixth Level: []

OK Cancel



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