Profitbase AS

Profitbase Planner

Data Requirements

Profitbase

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1 Planner Data Requirements

This document defines the minimum dimension, report and transaction data that is required to run the Planner solution as well as optional data required depending on the Planner functionality used.

The intended audience of this document is implementation partners configuring the solution initially and establishing integrations with external sources. The reader is expected to be familiar with Planner capabilities and functionality and with basic concepts and configuration using the Profitbase InVision designer in general and configuration of dimensions in particular.

Planner is deployed with initial (demo-only) data that will make Planner functional upon deployment and that may act as examples for data that is required. This applies to all data described in this document.

Planner is self-contained with respect to dimensions and some fact data in the sense that these can be input and maintained in Planner. In practice, however, some of the dimensions and ledger transaction data will typically be imported from external sources.

Planner dimensions and currency exchange rates may be maintained in the "Dimensions and currency exchange rates" workbook:

inge Rate Daily Exchange	Rate Month	ly Legal B	ntity Department	Account	Product Marke	t Supplie	er Employee As	set Group	Dim1_Dim4										0
	_	_																	
Save	P.4	4ish -																	
Departments	Departr	nent																	
Aparoneno		5	lepartment	He	archy level 6	Hie	ranchy level 5	Hiat	archy level 4		egal Entity	Hi	marchy level 3	His	eranchy level 2	He	archy level 1		
All Departments		Departm.	Departm. Name	ID	Name	ID	Name	ID	Name	Legal Entity	Legal Entity Name	ID	Name	ID	Name	ID	Name	Modify Type	
Profitways Holding		001	York	001	York	001	York	US	United States			pro	Profibilitys	pro	Profitways	pħ	Profitways Holding		
> Elimination		002		002	Osio	002	Oslo	NO	Norway			pro	Profibilitys	pro	Profitmays	pfh	Profitways Holding		
		003	London	003	London	003	London	UK	United Kingdom			pro	Profitnays	pro	Profitways	pfh	Profit-ays Holding		
 Profitways 		004	Stavanger	004	Stavanger	004	Stavanger	NO	Norway			bio	Profitways	pro	Profitways	pfh	Profit-ays Holding		
> Germany		005	Houston	005	Houston	005	Houston	US				pro	Profibialys	pro	Profibialys	pfh	Profitways Holding		
> France	6	007	Elimination	007	Elimination	007	Elimination	007	Elimination			pfelim	Elimination	pfelim	Elimination	ph	Profitways Holding		
> Prance			Bergen	2	Bergen	2	Bergen	NO	Norway			pro	Profibuays	pro	Profitways	pfh	Profitways Holding		
 Norway 	8		Paris	3	Paris	3	Paris	FR DE	France Germany			pro pro	Profibuays Profibuays	pro	Profitways Profitways	pfh	Profitways Holding Profitways Holding		
Bergen	10		Trondheim	3	Trondheim		Trondheim	NO	Norway			pro	Profibiais	pro	Profibiaiys	pm	Profitways Holding		
		600	Focus Tech	600	Focus Tech	600	Foous Tech	Tech	Technology		Profeways Focus AS w		Profitiviays Profitiviays Focus AS		Profitmava Focus AS	pm	Profitment Holding		
Oslo		700	Focus Stavanger	700	Focus Stavanger	700	Focus Stavanger	Tech	Technology		Professive Focus AS N		Profitways Focus AS		Profitways Focus AS		Profit-ays Holding		
Stavanger		800	Focus Osio	800	Focus Oslo	800	Focus Oslo	Suc	Services		Profibially Focus AS		Profibways Focus AS		Profibways Focus AS		Profibuays Holding		
Trondheim		900	Focus Bergen	900	Focus Bergen	800	Focus Bergen	Sec.	Services		Profitmana Focus AS M		Profitiways Focus AS		Profitmays Focus AS		Profit-ays Holding		
> United Kingdom	15	910	Focus Kristiansand	910	Focus Kristiansand	910	Focus Kristiansand	Sve	Services	pfo	Profitways Focus AS	pfo	Profibility's Focus AS		Profitways Focus AS		Profitways Holding		
> United States																			

Fact data may be maintained in the "Source fact data" workbook:

Source fact dat Personnell facts Sales forece																
Save Refresh		art - current values. When	nasting		unts	t be in home currency. : are per FTE per month.					Check F	orecast	Check Budget			Update fo
Profitways	Guilary	Departm.	in passing	Employee		Current FTE	Current monthly salary		Bonus		Overtime		Free Car		Training	
1101111033	Departm.			(cy)		=	=	=		=		=		=		
 All Departments 	1	York	~	Jenny (Hourly)	~	1	22,000									
> Profitways	2	Stevanger			~	1	30,000									
	3	Stavanger	~	Cleaners (Hourly)	~	2.10	22,500									
	4	Stavanger	~	Sam (hourly)	~	1	32,600		100		100		10	D	100	
	5	Stavanger	~	Jenny (Hourly)	~	0.25	10,000		500		250		30	D	100	
	6	Stavanger	~	Technicians	~	7.10	32,400									
	7	Stavanger	~	Tim	~	1	28,900									
	8	Trondheim	~	Cleaners (Hourly)	~	2.50	19,000		500		400		30	D	200	

Best practice *during* an implementation- and setup-phase, is to establish dimensional and transactional data *within* Planner while at the same time identifying, developing and testing appropriate integrations in time for production start.

Associated with this document is therefore an excel template that may be used to paste dimensional and transaction data into Planner (Planner Data Requirements - import template).



Please note that dimensions use hierarchies (structures) and that these will vary from solution to solution and may therefore differ from (*add to*) the minimum content described herein.

This applies in particular to the Department dimension that will typically contain a hierarchy that consists of more levels than the default dimension deployed with Planner. Extending a dimensions's hierarchy will involve *adding* columns and attributes to the dimensional tables (schema) and *extending* existing dimensional hierarchies. Such *structural* dimension management is done in Profitbase InVision designer:

Data Connections	Home Page Users and Permi	ssions Themes and Styling	Data Flow Assets	s Localization A	PI Management
Toolbox	• #	lome × 🗈 Test 41 ×	🛱 Access Control 🗙	12. Department	~
Column Templates					
Ċ		This object is currently not che	ecked out for edit. Any	changes you make, w	III not be saved.
	× <u>So</u>	CHEMA ATTRIBUTES HIERA	RCHIES DATA MAR	RKUP PROPERTIES	
🛑 Column Template	s	III Browse Data 🖄 Time D	imension		
		ichema			
		chema			
		🕂 Add Column 👻 🗶 De	lata Column		
				1.12	AU
		ColumnName	Data Type	Is Key	Allow Null
		DepartmentID	nvarchar(50) 🔻		
		DepartmentID_Name	nvarchar(100) 🔻		\checkmark
		LegalEntityID	nvarchar(50) 🔻		
		LegalEntityID_Name	nvarchar(100) 🔻		
		DataSourceID	nvarchar(50) 👻		
Column Templates		ModifyType	varchar(10) -		
Database Resources		DepartmentL1ID	nvarchar(50) -		
	•••	DepartmentL1ID_Name	nvarchar(100) -		\checkmark
Properties	→ # ×	DepartmentL2ID	nvarchar(50) 🔹		
Page Properties User M		DepartmentL2ID_Name	nvarchar(100) -		
Search	<u> </u>	DepartmentL3ID	nvarchar(50) -		
		DepartmentL3ID_Name	nvarchar(100) -		
 Interaction Events 	ے بہ Edit	DepartmentL4ID	nvarchar(50) -		
Common	· cutta	DepartmentL4ID_Name	nvarchar(100) -		
Title	User Management	DepartmentL5ID	nvarchar(50) 🔹		
Title Expression	Localize("UserMi	DepartmentL5ID_Name	nvarchar(100) 🔻		
		D 1 1161D	nvarchar(50) 🔻		
CSS Class		DepartmentL6ID	rivarcitar(50)		×.

2 Minimum data requirements

The following are the *minimum* data requirements and limits the use of *input* modules to the Account, CapEx and Loan modules only. For use of other modules, please refer to <u>Optional data</u> requirements – depending on functionality used

Required (minimum) dimensions are:

• <u>Legal Entity dimension</u> – this is the formal company structure.

This structure also needs to include entities that is used for elimination when intercompany transactions occurr and one want to record intercompany transactions.



The Legal Entity dimension is typically imported from an external source.

• <u>Department dimension</u> – this is the structure within each Legal Entity used for providing forecast and budget input and get actual accounting transactions.

The department structure must contain the Legal Entity level and thus the LegalEntityID column.

All transactions must contain Legal Entity and Department.

The Department dimension is typically imported from an external source.

• <u>Account dimension</u> – this is the structure that is used to determine the type of transactions relative to a finance fiscal regime.

Planner requires a common (corporate) account dimension for all companies in the solution.

The Account dimension is typically imported from an external source.

• <u>Report Setup</u> – setup of one or more reports containing report lines that map to ranges of accounts. The report setup is maintained in Planner.

The Budget and Forecast input models are initiated from a P&L summary workbooks (Budget and Forecast respectively) that make use of a report named INPUT.

This report does exist when Planner is deployed, but must be adapted to each customer's needs and the report lines that the INPUT report comprises of must be mapped to ranges of the customer's account dimension.

In addition to the INPUT report, other reports exist and is used for reporting purposes (Finance Reports workbook). They should also be adapted and mapped to ranges of the customer's account dimension.

• <u>Currency dimension</u> – define the currencies used.

The Currency dimension is typically maintained in the solution.

• <u>Time dimension</u> – contains calendar with days, months and years

The time dimension is generated within the solution.

Required Transaction (fact) data:

• <u>Ledger fact</u> - Actual (and other historic datasets if relevant) finance accounting transaction from general ledger.

Note that ledger fact data is not a pre-requisite per se, as input to forecast and budget account modules can be made without any historical data present simply by adding input rows manually for the relevant departments and accounts.



Ledger fact data may be introduced post production start. In most cases, however, ledger data is included at or before production start.

Ledger fact data is typically imported on a regular basis from an external source.

• <u>Currency Exchange rates</u>.

Exchange rates for historic data should be the same as the ERP system.

2.1 Legal Entity Dimension

The following information content is required:

#	Column name	Description	Mandatory / Optional	Comment
1	LegalEntityID	ID for the Legal entity	М	Primary Key Company Code
2	LegalEntityID_Name	Name of legal entity	М	
4	FunctionalCurrencyID	Home currency for this Legal Entity	М	
5	OperationTypeID	Type of legal entity (Main Elimination)	М	
6	DefaultDepartmentID	Default department used for situations where a department is not normally given, such as opening balances	0	
7	LegalEntityL3ID	ID for hierarchical level 3	M*	See comment on hierarchy below
8	LegalEntityL3ID_Name	Name for hierarchical level 3	M*	See comment on hierarchy below



9	LegalEntityL2ID	ID for hierarchical level 2	M*	See comment on hierarchy below
10	LegalEntityL2ID_Name	Name for hierarchical level 2	M*	See comment on hierarchy below
11	LegalEntityL1ID	ID for hierarchical level 1	M*	See comment on hierarchy below
12	LegalEntityL1ID_Name	Name for hierarchical level 1	M*	See comment on hierarchy below

* Must be filled in, but can be padded as explained in Legal entity dimension hierarchy.

It is important that Legal Entity IDs of the dimensions corresponds to the IDs used for actual general ledger data.

For details on how to switch from the Planner-internal source to an external source, please refer to <u>Legal Entity dimension</u>.

2.1.1 Legal entity dimension hierarchy

The legal entity dimension hiearchy by default consists of 4 levels, including the actual legal entity, in the following order:

- Hierarchy level 1
- Hierarchy level 2
- Hierarchy level 3
- Legal entity

This is reflected in the positioning of the columns from left (lowest level, i.e. Legal entity) to right (highest level, i.e. Hierarchy level 1).

Note that all levels must be filled in, but padding - that is repeating - levels from one level to the next should be used if the actual hiearchy does not contain all levels, as showin in the example below:

Save	Publish										
✓ All Legal Entities	Legal Entity										
			Legal Ent								
		Legal Entity	Legal Ent	ity		H	lierarchy level 3	н	ierarchy level 2	1	Hierarchy level 1
 All Legal Entities Profitways Holding AS 		Legal Entity Legal Entity Name			e Default Departmer		lierarchy level 3 Name	ID ID	ierarchy level 2 Name	ID	Hierarchy level 1 Name
		5 5									Name
 Profitways Holding AS 	Legal Entit	ty Legal Entity Name	Curr.Func.	Operation Typ Elimination	Elimination	t ID	Name	ID pfelim	Name	ID pfh	

In the example, Legal entity Profitways is padded - repeated - to Hierarchy levels 3 and 2. This



means that Planner renders the hierarchy skipping Hiearchy levels 3 and 2 so that when expanding level 1, the legal entity level is displayed as shown in the left margin where Profitways holding (Hierarchy level 1) expands directly to Profitways (Legal entity).

The number of hierarchical level can be changed, but has to be done using the Profitbase InVision designer.

2.2 Department Dimension

The following describes the minimum data required for the Department dimension, representing the Legal Entity and Department levels.

In practice, the Department dimension will typically contain *additional* hierarchical levels and thus additional columns.

#	Column name	Description	Mandatory / Optional	Comment
1	DepartmentID	Department identifier	М	Primary key
2	DepartmentID_Name	Name for department	М	
3	DepartmentL6ID	ID for hierarchical level 6	M*	See comment on hierarchy below
4	DepartmentL6ID_Name	Name for hierarchical level 6	M*	See comment on hierarchy below
5	DepartmentL5ID	ID for hierarchical level 5	M*	See comment on hierarchy below
6	DepartmentL5ID_Name	Name for hierarchical level 5	M*	See comment on hierarchy below
7	DepartmentL4ID	ID for hierarchical level 4	M*	See comment on hierarchy below
8	DepartmentL4ID_Name	Name for hierarchical level 4	M*	See comment on hierarchy below



9	LegalEntityID	ID of the legal entity	М	All departments must be tagged with their legal entity id.
10	LegalEntityID_Name	Name of the legal entity	М	See comment on hierarchy below
11	DepartmentL3ID	ID for hierarchical level 3	M*	See comment on hierarchy below
12	DepartmentL3ID_Name	Name for hierarchical level 3	M*	See comment on hierarchy below
13	DepartmentL2ID	ID for hierarchical level 2	M*	See comment on hierarchy below
14	DepartmentL2ID_Name	Name for hierarchical level 2	M*	See comment on hierarchy below
15	DepartmentL1ID	ID for hierarchical level 1	M*	See comment on hierarchy below
16	DepartmentL1ID_Name	Name for hierarchical level 1	M*	See comment on hierarchy below

* Must be filled in, but can be padded as explained in <u>Department dimension hierarchy</u>.

Please note that the LegalEntityIDs should be different from the DepartmentIDs. If such cases of equality exist, the best practice would be to prefix the source DepartmentIDs with LegalEntityID before making use of them in Planner. For example, if both a LegalEntityID and a DepartmentID equals 'pro', best practice would be to rename the DepartmentID to 'pro.pro' thus making it unique.

It is important that DepartmentIDs of the dimension corresponds to the IDs used for actual general ledger data.

There may be cases where the Department dimension consists of members where a legal entity's functional currency cannot be established, for example a country level or similar.

In order to associate a currency with such members, those may be added to the "CurrencyReportID" setting in the Finance Settings workbook:



≡	Finan	ce Set	tings					
VAT	Payroll	Sales	Expense	Purchase	Fixed Assets	OBDue	Setup /	Accounts Usage
	Save	Re	efresh					
	Time: Sta	rt and rar	nge		Currenc	yReportID ID	Currer	NCW.
	Dataset				1	Finance	NOk	
	Source: m	пар Ассон	unt to Engin	e	2	NO	NOk	(
	System: F	allback A	ccounts					
	Currency	ReportID						

Example (ref. image above): assume that the department dimension contains a member "NO" that is not associated with a legal entity. To associate this member to the reporting currency NOK, this association can be done as shown in row #2 in the above image. When selecting this member in the Budget and Forecast workbooks amounts will be converted to NOK.

For details on how to switch from the Planner-internal source to an external source, please refer to <u>Department dimension</u>.

2.2.1 Department dimension hierarchy

The department dimension hiearchy by default consists of 8 levels, including the actual department and the legal entity, in the following order:

- Hierarchy level 1
- Hierarchy level 2
- Hierarchy level 3
- Legal entity
- Hierarchy level 4
- Hierarchy level 5
- Hierarchy level 6
- Department

This is reflected in the positioning of the columns from left (lowest level, i.e. Department) to right (highest level, i.e. Hierarchy level 1).

Note that all levels must be filled in, but padding - that is repeating - levels from one level to the next level up should be used if the actual hiearchy does not contain all levels, as showin in the example below so long as the department level contains actual departments and the legal entity level contains actual legal entities.



	Departm																		
Profitways	Departir		partment	Hierar	chy level 6	Hierar	chy level 5	Hie	archy level 4	Le	gal Entity		Hierard	ny level 3	Hierar	chy level 2	Hi	erarchy level 1	
 All Departments 		Departm.	Departm. Name	ID	Name	ID	Name	ID	Name	Legal Entity	Legal Entity Nam	ne	ID	Name	ID	Name	ID	Name	Modify Type
 Profitways Holding 	1	001	York	001	York	001	York	US	United States	pro	Profitways	~	pro	Profitways	pro	Profitways	pfh	Profitways Holding	UPDATE
	2	002	Oslo	002	Oslo	002	Oslo	NO	Norway	pro	Profitways	~	pro	Profitways	pro	Profitways	pfh	Profitways Holding	UPDATE
Elimination	3	003	London	003	London	003	London	UK	United Kingdom	pro	Profitways	~	pro	Profitways	pro	Profitways	pfh	Profitways Holding	UPDATE
 Profitways 	4	004	Stavanger	004	Stavanger	004	Stavanger	NO	Norway	pro	Profitways	~	p <mark>ro</mark>	Profitways	pro	Profitways	pfh	Profitways Holding	UPDATE
> Germany	5	005	Houston	005	Houston	005	Houston	US	United States	pro	Profitways	~	pro	Profitways	pro	Profitways	pfh	Profitways Holding	UPDATE
	6	2	Bergen	2	Bergen	2	Bergen	NO	Norway	pro	Profitways	~	pro	Profitways	pro	Profitways	pfh	Profitways Holding	UPDATE
> France	7	3	Paris	3	Paris	3	Paris	FR	France	pro	Profitways	~	pro	Profitways	pro	Profitways	pfh	Profitways Holding	UPDATE
~ Norway	8	5	Berlin	5	Berlin	5	Berlin	DE	Germany	pro	Profitways	~	pro	Profitways	pro	Profitways	pfh	Profitways Holding	UPDATE
Bergen	9	6	Trondheim	6	Trondheim	6	Trondheim	NO	Norway	pro	Profitways	~	pro	Profitways	pro	Profitways	pfh	Profitways Holding	UPDATE
Oslo Stevanger Trondheim > United Kingdom > United States > Profitways Focus AS																			

In the example, department Stavanger is padded - repeated - to Hierarchy levels 6 and 5. This means that Planner renders the hierarchy skipping Hiearchy levels 5 and 6 so that when expandi ng level 4, the department level is displayed as shown in the left margin where Norway (Hierarchy level 4) expands directly to Stavanger (Department).

The same applies to Legal entity that is padded - repeated - to Hierarchy level 3 and 2 so that when expanding Hierarchy level 1 (Profitways holding), the legal entity level is displayed (Profitways).

The number of hierarchical level can be changed, but has to be done using the Profitbase InVision designer. Legal entity does not have to be a level in the hierarchy, but it has to be present in the table and filled in.

#	Column name	Description	Mandatory / Optional	Comment
1	AccountID	ID of the Account	М	
2	AccountID_Name	Description for the Account	М	
3	AccountID_Name_NO	Description for the Account in Norwegian	0	
4	AccountID_Name_EN	Description for the Account in English	0	
6	SignFactor	Tells the sign for the transaction. E.g. expenses recorded as positive	М	

2.3 Account Dimension



		number gives SignFactor 1 while sales recorded as negative numbers gives SignFactor -1		
7	AccTypeID	Grouping account for Profit&Loss and Balance	М	Profit&Loss type = PL Balance type = BAL
8	AllowInput	True/false Marks the accounts that will be allowed for forecast and budget input	М	
9	AccountGroupL1ID	ID for hierarchical level 1 (highest level)	М	See comment on hierarchy below
10	AccountGroupL1ID_Name	Description for hierarchical level 1 (highest level)	м	See comment on hierarchy below
11	AccountGroupL1ID_Name_EN	Description for hierarchical level 1 in English	0	
12	AccountGroupL1ID	Description for hierarchical level 1 in Norwegian	0	
13	AccountGroupL2ID	ID for hierarchical level 2	М	See comment on hierarchy below
14	AccountGroupL2ID_Name	Description for hierarchical level 2	М	See comment on hierarchy below
15	AccountGroupL2ID_Name_EN	Description for hierarchical level 2 in English	0	
16	AccountGroupL2ID_Name_NO	Description for hierarchical level 2 in Norwegian	0	
17	AccountGroupL3ID	ID for hierarchical level 3 (level above account)	м	See comment on hierarchy below

18	AccountGroupL3ID_Name	Description for hierarchical level 3 (level above account)	М	See comment on hierarchy below
19	AccountGroupL3ID_Name_EN	Description for hierarchical level 3 in English	0	
20	AccountGroupL3ID_Name_NO	Description for hierarchical level 3 in Norwegian	0	

It is important that AccountIDs of the dimension corresponds to the IDs used for actual general ledger data.

Planner requires a common (corporate) account dimension for all companies.

For details on how to switch from the Planner-internal source to an external source, please refer to <u>Account dimension</u>.

2.3.1 Account dimension hierarchy

The account dimension hierarchy is used for defining Finance settings and not for reporting (see <u>Report setup</u> for details on reporting dimensions).

When defining settings that relate to account, dimensional levels may be selected using the socalled high level or ranked input selector:

≡	Finance Settings						
VAT	Payroll Sales Expense Purchase Fixed	Assets OBDue	Setup A	Accounts Usage			
	Save Refresh						
~	VAT %	VAT %					
		Legal Entity	Dataset	Account	From Date	Value	Comments
	VAT DueTerm	All Legal entities		(30) - 30	01/01/1990	25.00 %	
		All Legal entities	All Datasets	3015 - Income Accessories	01/01/1990	Ran	nked Input ×
						~	All Accounts > 1 - Assets > 2 - Equity and liabilities > 3 - Operating income > 30 - 30 > 3010 - Income Spareparts > 3010 - Income Spareparts > 3015 - Income Accessories > 3016 - License income 3rd Party B > 3017 - License income Product B > 3018 - License income 3rd Party C. Ok Cancel



This ability to select higher dimensional levels enables fewer settings to be made that cater for all underlying accounts. When designing this hierarchy, the main consideration should therefore be the granularity most suitable for defining finance settings.

The account hierarchy consists by default of 3 levels, L1, L2 and L3 of which L1 is the highest level and L3 is the lowest level, immediately above the account level.

2.4 Report setup

The Reports defined in the report setup are used for reporting in Planner.

Report Setup													
Reports Setup Report View Rep	ort Data Accou	unt											
Save Refresh	Maps	ping	Check	Publish	1								
Report	Setup Re	port Line											
Filter													
Clear		Report ID	Report	Report Line ID	Report Line	Formula	Graph Serie:	Format	Style	NO: Report Line	EN: Report Line	Sign Factor	IncludeAccour
Balance sheet	1	INPUT	Input '	✓ IP010	Sales		51	Number, no decimals V		✓ Salg	Sales	-1	3000-3010.3011-302
balance sheet	2	INPUT		 IP020 	Other Revenue			Number no decimals ~		Andre instekter	Other Revenue		3300-3998 3999
Cash Monthly	3	INPUT	1.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4	✓ IP030	Operating Income	IP010 + IP020		Number, no decimals		 Inntekter totalt 	Operating Income		3300-3220,3222
	4	INPUT		✓ 1P040	Cost of Goods			Number, no decimals ~		 Varekost 	Cost of Goods	1	4000.4001-4098.4099
Input	5	INPUT		< 1P050	Other Direct Cost			Number no decimals		Andre direkte kostnader	Other Direct Cost		4100-4999
	6	INPUT		✓ 1P060	Gross Margin	IP030-IP040-IP050	S4 .	Number, no decimals Y	BoldOverline	Bruttofortieneste	Gross Profit		
Income statement	7	INPUT	Input	✓ IP061	Gross Margin %	(IP030-IP040-IP050)/IP030		Percentage, 1 decimal	Bold	· Bruttofortjeneste %	Gross Profit %		
	8	INPUT	Input	· IP070	Payroll		55	Number, no decimals ~		✓ Lgnn	Payroll	1	5000-5049
	9	INPUT	Input	✓ IP100	Other Personnel Cost			Number, no decimals ~		 Andre personalkostnader 	Other Personnel Cost	1	5050-5999
	10	INPUT	Input	· IP110	Personnel Cost	IP070+IP100		Number, no decimals V	BoldOverline	· Personalkostnader totalt	Personnel Cost		
	11	INPUT	Input .	✓ IP120	Other Operating Expenses		S6 🗸	Number, no decimals ~		Driftsutgifter	Other Operating Expenses	1	6100-7999
	12	INPUT	Input	✓ IP130	Depreciation and Amortization		\$7	Number, no decimals ¥		Auskrivninger	Depreciation and Amortization	1	6000-6099
	13	INPUT	Input	✓ IP140	Operating Expenses	IP120+IP130	~	Number, no decimals 🗸	BoldOverline	Oriftsutgifter totalt	Operating Expenses		
	14	INPUT	Input .	✓ IP150	Operating Profit	IP060-IP110-IP140	58	Number, no decimals	BoldOverUnderline	 Driftsresultat 	Operating Profit		

The report setup is maintained in Planner in the Report Setup workbook.

Any number of reports can be created containing any number of report lines that will either:

- 1. Map to a range of account (ref. column "IncludeAccountsExp")
 - Ranges of accounts are specified comma-separated, for example 3000-3005, 3011-3014 that evaluates to:
 - 3000, 3001, 3002, 3003, 3004, 3005, 3011, 3012, 3013 and 3014

Or

- 2. Calculate across other report lines (ref. column "Formula")
 - Formulae are specified as arithmentic operations addition (+), subtraction (-), 0 multiplication (*), division (/) between ReportLineIDs, for example IP010 + IP020 that evaluates to:
 - The result of report line id IP010 added to the result of report line id IP020

Use of normal paranthesis () follow the general rule of paranthesis in arithmetic.

2.4.1 The INPUT report

Reserved for the Budget and Forecast Workbooks and acts as a summary and launch site for these.



Summary Status								
Department	д				Year			
York	Dep		Save Refresh	Trend			\sim	
 All Departments 	Department	Yor	k (NOK)					
✓ Profitways			Report	Actuals L12M	Act.YTD 2020	For.YTG 2020	2020	2021
Bergen		60	Sales	1 566 293	1 058 743	0	1 058 743	
Berlin		99	Other Revenue	0	0	0	0	
benin			Operating Income	1 566 293	1 058 743	0	1 058 743	
Houston		60	Cost of Goods	0	0	0	0	
London		99	Other Direct Cost	29 097	29 097	0	29 097	
			Gross Profit	1 537 196	1 029 646	0	1 029 646	
Oslo			Gross Profit %	98.1 %	97.3 %	0	97.3 %	
Paris		00	Payroll	0	0	22 220	22 220	66 8
Stavanger		69	Other Personnel Cost	1 395 152	113 232	88 880	202 112	267 52
-			Personnel Cost	1 395 152	113 232	111 100	224 332	334.41
Trondheim		60	Other Operating Expenses	117 925	100 763	0	100 763	
York		99	Depreciation and Amortization	0	0	0	0	
			Operating Expenses	117 925	100 763	0	100 763	
			Operating Profit	24 119	815 651	-111 100	704 551	-334 41

The INPUT report should always be present and set up to map the customer's account dimension.

Note that for the INPUT report, no one account should map to more than one report line.

2.5 Sign factor

Sign factor is relevant in two scenarios

- 1. Account sign factor: a sign factor of -1 tied to an account will:
 - o Switch the sign of any historical data
 - Switch the sign of any input data

This would typically apply to income accounts booked with a credit sign that one would like to see and input as a positive amount in an input form.

2. *Report line* sign factor: a report line nets a range of accounts or is a calculation of other report lines.

The report line sign factor indicates whether this net amount should be presented "as is" (sign factor +1) or with the opposite sign (sign factor -1) in this particular report. Note that any report lines that act as calculations of other report lines will perform that calculation based on the values displayed, i.e. after the sign factor has been applied.

2.6 Ledger fact - Actual and other historical transaction datasets

The table below defines the data required for finance general ledger actual data or other datasets such as financial goals or last official financial forecast.

There is no input solution for ledger fact data in Planner, an integration will have to be set up to load data from an external source, ref <u>Ledger fact</u>.

Please note that the ledger fact table contains a number of dimension columns, identified below. For any dimensional column, if used, there id used in the fact transaction must have corresponding id (member) in the dimension.

For example: a transaction marked with AccountID = 3000 will only make so long as the Account dimension contains a member with ID = 3000.



The following are the mandatory fact columns.

#	Column name	Description	Mandatory / Optional	Comment
1	AccountID	ID corresponding to an item in the Account dimension	М	
2	SYS_DatasetID	Identifier of the transaction dataset, valid values: (Actual BudgetHist ForecastHist)	М	
3	LegalEntityID	ID corresponding to an item in the Legal Entity dimension	М	Company Code
4	DepartmentID	ID corresponding to an item in the Department dimension	м	
5	TransTypeID	Identifies if the transaction is an opening balance (=0) transaction, a regular transaction (=1) or an elimination transaction (=3), allocation transactions (=4), etc.	М	This "tagging" of transactions is done so that the sum of all give the most complete picture.
6	CurrencyForeignID	Currency code for transactions; e.g. 'NOK', 'SEK', 'EUR', 'USD', 'DKK'.	М	
7	AmountForeign	Transactions amount using at least 2 decimals.	М	The AmountForeign will be converted to the legal entity's functional currency (home currency) in Planner if needed. I.e. transactions for any given legal entity may hold different currencies so long as valid currency exchange rates to and from alle relevant currencies exist in Planner.
8	Transdate	Transaction or booking date.	М	



A	AccTypeID
---	-----------

In addition to the mandatory information described above, the following dimensional information is optional but may be desirable to include depending on the Planner functionality used and the ability to connect ledger information to these dimensions:

#	Column name	Description	Mandatory / Optional	Comment
1	ProductID	ID corresponding to an item in the Product dimension	0	
2	MarketID	ID corresponding to an item in the Market dimension	0	
3	SupplierID	ID corresponding to an item in the Supplier dimension	0	
4	EmployeeID	ID corresponding to an item in the employee dimension	0	
5	Dim1	ID corresponding to an item in the free dimension #1 (Dim1)	0	
6	Dim2	ID <i>corresponding to</i> an item in the free <i>dimension</i> #2 (Dim2)	0	
7	Dim3	ID <i>corresponding to</i> an item in the free <i>dimension</i> #3 (Dim3)	0	

8	Dim4	ID <i>corresponding to</i> an item in the free <i>dimension</i> #4 (Dim4)	0	
9	ProjectID	ID <i>corresponding to</i> an item in the Project dimension	0	Available from Planner v4.2
10	ActivityID	ID <i>corresponding to</i> an item in the Activity dimension	0	Available from Planner v4.2

For details on how to connect an external source, please refer to Ledger fact.

2.7 Currency Exchange Rates

The *historical* rates are by default fetched from an external source maintained by Profitbase using the operation "Import and Reprocess Exchange Rates"

\equiv Operation Manager	
Execute Data Admin Tasks Schedule Broadcast Me	ssage to workbooks
Filter operations by category Data Maintenance	Add operation Refresh
Operations	Import and Reprocess Exchange Rates
Clean Operation History Generate Time Dimension	ExchangeRates Edit operation
Import and Reprocess Exchange Rates	

The following currencies are currently handled (additional currencies may be added by contacting Profitbase):



	CurrencyID	CurrencyToID	1
1	AUD	NOK	
2	BGN	NOK	
3	BRL	NOK	
4	CAD	NOK	
5	CHF	NOK	
6	CNY	NOK	
7	DKK	NOK	
8	EUR	NOK	
9	GBP	NOK	
10	HKD	NOK	
11	IDR	NOK	
12	INR	NOK	
13	JPY	NOK	
14	MXN	NOK	
15	MYR	NOK	
16	NOK	NOK	
17	NZD	NOK	
18	PHP	NOK	
19	PLN	NOK	
20	RUB	NOK	
21	SEK	NOK	
22	SGD	NOK	
23	тнв	NOK	
24	USD	NOK	
25	ZAR	NOK	

Future exchange rates are managed in the Planner solution and does not require an external source:

\equiv Dimensions and Currency exchange rates										
Exchange Rate Daily Exchange Rate Monthly Le	egal Entity and De	partment	A	ccount Pr	oduct Ma	rket Suppl	ierID Em	ployee Asse	et Group	Dim1 Dim4
Save Refresh Publish Changes and Overrides to Daily Exchange Rates	Exchange Ra	ate								
 Exchange Rate 	Currency	Datase	et	From Date	Value	High	Low	Comments		
Exchange Rate Historical Daily Override	EUR	*	~	01/01/1900	9,5000	10.0000	9.3000			
			*	01/01/1900	9.5000	10.0000	9.5000			
	EUR	*		01/01/2020	10.0000	11.0000	9.5000			
		*		01/01/2020						
	EUR		* *	01/01/2020	10.0000					
	EUR	*	* * *	01/01/2020 11/26/2006	10.0000					
	EUR NOK SEK	*	> > > >	01/01/2020 11/26/2006 01/01/1900	10.0000 1.0000 1.0000					

Note that when adding new rates to currency *codes* ("Currency" field in image above) that do not exist already, these currency codes are automatically added to the currency dimension.

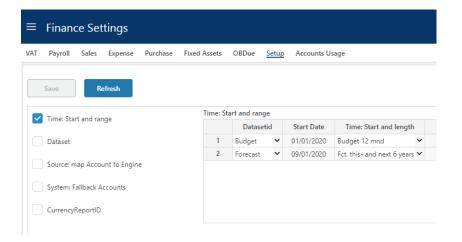
If *historical* rates are to be fetched from a *customer specific external* source, the following information is required and the steps involved to switch sources from the default source is described in <u>Currency Exchange rates</u>:



#	Column name	Description	Mandatory / Optional	Comment
1	CurrentyID	ID for the currency. 3- letter currency code.	М	
2	ToCurrencyID	Base currency for the exchange rates	М	
2	ExchangeRateDate	'Actual' or 'Budget'	М	
3	DayAverageValue		Μ	Company Code
4	MonthlyAverageValue		М	
5	MonthlyClosingValue		М	

2.8 Time dimension

The time dimension is generated within Planner from the "Finance Settings" workbook:



The "Start Date" is established automatically based on the start date of the Budget and Forecast processes respectively.

The "Time: Start and length" is selected from a drop down list of pre-defined options and reflects the planning horizons supported:



Select the option that corresponds to the situation at hand.

The time dimension is automatically re-generated when the forecast is rolled forward and when a new budget year is created.

3 Optional data requirements – depending on functionality used

This section is relevant if the following modules are to be used:

- Personnel
- Sales by GM
- Sales Forecast
- CapEx

Optional dimensions are:

- Product mandatory in the Sales modules
- Market mandatory in the Sales modules
- Supplier optional in the Sales modules
- Asset Group optional in the CapEx module
- Dim1..Dim4 optional in several modules
- Employee mandatory in the Personnel modules

Optional fact data are:

- Personnel fact current personnel facts such as FTE and monthly salary
- Sales forecast fact historic data for measures such as Sales Quantity, etc.

3.1 Dimension data

The following applies to the Product, Market, Supplier, Employee, Dim1..Dim4, Asset Group and (from version 4.2) Project and Activity optional dimensions:

The dimensions are by default maintained in the "Dimensions and Currency Exchange rates" workbook in their respective workbook pages:

Dimensions ar	ind Currer	ncy exchange rates							profilbas		
xchange Rate Daily Exchang	ge Rate Monthly	y Legal Entity Departme	nt Account Product Mark	et Supplier <u>Project</u> Activi	ty Employee Asset Group	Dim1_Dim4			0 +		
Inter Referands August Aug											
Save Refresh											
roject			ProjectID_Name	ProjectGroup	ProjectGroup_Name	Last changed	ChangedBy	Modify Type			
roject		nternal Source	ProjectID_Name	ProjectGroup	ProjectGroup_Name	Last changed	ChangedBy	Modify Type			
roject	Project Ir	nternal Source Project									
	Project Ir	Project	[cal		Ind	=		Dat			

To maintain this, add data rows manually as required or paste from the relevant excel template, click the "Save" button followed by the "Publish" button.



Please note that deleting dimension members for which input data exists will render those input rows without descriptions but will not affect any input.

The dimensions are by default set up with a group level – columns XYZGroup/XYZGroup_Name for XYZ dimension – this renders as a group level the dimension hierarchy.

#	Column name	Description	Mandatory / Optional	Comment
1	XYZID	The XYZ dimension ID	Μ	Primary key
2	XYZID_Name	The XYZ dimension ID name	М	
3	XYZGroup	ID for The group level	Μ	
4	XYZGroup _Name	Name for the Group Ikevel	М	

For details on how to switch from the Planner-internal source to an external source, please refer to <u>All optional dimensions</u>.

3.2 Personnel fact

The fact source data contain current FTE and monthly salary data per department/employee combinations:

ersonnell facts Sales forec	ast facts															
Save Refrest		fact - current values. When	pasting c		unts a	e in home currency. re per FTE per month. limension columns!						Check Forecas	ŧ	Check Budget		Update fo
Profitways		Departm.		Employee		Current FTE		Current monthly salary		Bonus		Overtime		Free Car	Trainin	1
		Ixal		lol		=	=		=		-	=	=		=	
 All Departments 	1	York	~	Jenny (Hourly)	~	1		22,000								
Profitways	2	Stavanger	~	Lisa	~	1		30,000								
	3	Stavanger	~	Cleaners (Hourly)	~	2.10		22,500								
	4	Stavanger	~	Sam (hourly)	~	1		32,600		1	00	100		100		100
	5	Stavanger	~	Jenny (Hourly)	~	0.25		10,000		5	00	250		300		100
	6	Stavanger	~	Technicians	~	7.10		32,400								
	7	Stavanger	~	Tim	~	1		28,900								

Note that the personnel modules have a number of optional dimensions and columns that may be included or not. The fact format displayed will display the optional dimensions and columns included with their chosen headings ("Bonus", "Overtime", etc in the image above).

#	Column name	Description	Mandatory / Optional	Comment
---	-------------	-------------	-------------------------	---------



1	Departm.	The department ID	М	Primary key
2	Employee	The employee ID	Μ	Primary key
3	ProjectID	The project ID	0	Available from Planner v4.2. If no value is provided, the default value # is set
4	ActivityID	The activityID	0	Available from Planner v4.2. If no value is provided, the default value # is set
5	Dim1ID	The dim 1 ID	0	Available from Planner v4.2. If no value is provided, the default value # is set
6	Dim1ID	The dim 2 ID	0	Available from Planner v4.2. If no value is provided, the default value # is set
7	Dim1ID	The dim 3 ID	0	Available from Planner v4.2. If no value is provided, the default value # is set
8	Dim1ID	The dim 4 ID	0	Available from Planner v4.2. If no value is provided, the default value # is set
9	Current FTE	The current FTE position of the employee at the given department.	М	
10	Current monthly salary	The current monthly salary for a full time FTE for the employee at the given department.	М	
11	Bonus		0	
12	Overtime		0	



13	Misc1	0	
14	Misc2	0	
15	Misc3	0	
16	Misc4	0	
17	Misc5	0	

Add new rows as needed or paste selection from the "Personnel fact" excel template. When pasting data, make sure to paste dimension **ids**. A dropdown will evaluate the id against the corresponding dimension and render the dimension **description**. If no description is rendered, just the id, this indicates that the id does not exist in the dimension.

Dimension combinations found in the source and not in the input module will automatically be processed into the module on forecast rollover.

To check which combinations will be processed into the budget and forecast modules respectively, click the "Check Budget"/"Check Forecast" buttons. Revise data as appropriate and keep the source fact data current.

Source fact data sales forecast										ę
Save Refresh				Amounts must be in home	currency			Check Forecast Check Budget	Updat	le forecast Update budget
epartment	Salary fa	ct - curre								
All Departments			Check personnell						×	
11 December of a		0xa0								
 All Departments 	1	York	Save Refresh		_					
> Profitways	2	Stavany			Budget	The following	g rows will be update to input m	module when updating. Revise if needed.		
	3	Stavane	Departm.	Employee	Current FTE	Curren	monthly salary			
	4	Stavane	Ital	Iol	=	=				
	5	Stavan	1 Stavanger	 Jenny (Hourly) 		0.25	10,000			
	6	Stavany	1 Countingen	 Denity (Hourity) 		0.4.0				

Modules can be updated manually by clicking the "Update forecast"/"Update budget" buttons:

≡ Source fact data	Source fact data								
Personnell facts Sales forecast fa	sates forecast facts @								
Stree Belleeh Anounta must be in home currency Check Formant Onek Budget Update budget Update budget									
Department	Salary fa	ct - current values. When past	ting data, make sure to u	use IDs for al	dimensio	in columns!			
All Departments		Departm.	Employe	e		Current FTE	Current monthly sala	ay .	
and Descent services		Ival	bal		=		=		
 All Departments 	1	York	 Jenny (Hourly) 	*		1	2	22,000	
> Profitways	2	Stavanger	▼ Lisa	*		1	3	30,000	
	3	Stavanger	 Cleaners (Hourly) 	*		2.10	2	22,500	
	4	Stavanger	 Jenny (Hourly) 	*		0.25	1	10,000	
	5	Stavanger	 Technicians 	*		7.10	3	32,400	
	6	Stavanger	▼ Tim	*		1	2	28,900	

For details on how to switch from the Planner-internal source to an external source, please refer to <u>Personnel fact</u>.



3.3 Sales forecast fact

A simple input tool for maintaining historical data is available in the "Source Fact Data" workbook

≡ Source fact data																			
Personnell facts Sales forecast	facts																		
												Dataset		Measure			Year	Month	
Save Refresh				Amounts must be in hom	e currency		Data	iset and Mea	sure filters m	ist be set to	enable save	Actual	$-\times \mid \sim$	SalesQty	X	\sim	2020 × ~		~
Department	Sales fr	orecast fact - (current values.	When pasting data, make su	re to use IDs for all o	dimension co	lumns!												
Profitways		Dataset	Departm.	Product	Market	SupplierID	Dim1	Dim2	Dim3	Dim4	Cp LegalEnti	ity Measure	Value 09	Year yyyy	Month 1-12				
	1	Actual	Stavanger 🗸	Profitways DiVision Core 🛩	European Union 🛩	~	~	~	~	~		✓ SalesQty ✓	19.20	2020	7				
 All Departments 	2	Actual	Stavanger 🗸	Project Manager	European Union 🛩	~	~	~	~	~		✓ SalesQty ✓	17	2020	7				
> Profitways																			

Select a value in the "Dataset" and "Measure" filter at the top and click the "Refresh" button to enable the save button.

Add new rows as needed or paste selection from the "Sales forecast fact" excel template.

When pasting data, make sure to paste dimension **ids**. A dropdown will evaluate the id against the corresponding dimension and render the dimension **description**. If no description is rendered, just the id, this indicates that the id does not exist in the dimension.

#	Column name	Description	Mandatory / Optional	Comment
1	DepartmentID	The department ID	М	Primary key
2	ProductID	The product id	М	Primary key
3	MarketID	The market id	М	Primary key
4	SupplierID	The supplier id	0	If no value is provided, the default value # is set
5	ProjectID	The project id	0	Available from Planner v4.2. If no value is provided, the default value # is set
6	ActivityID	The activity id	0	Available from Planner v4.2. If no value is provided, the default value # is set
7	Dim1	The frem dimension #1 id	0	If no value is provided, the default value # is set



8	Dim2	The frem dimension #2 id	0	If no value is provided, the default value # is set
9	Dim3	The frem dimension #3 id	0	If no value is provided, the default value # is set
10	Dim4	The frem dimension #4 id	0	If no value is provided, the default value # is set
11	CPLegalEntityID	Counterpart legal entity id	0	If no value is provided, the default value # is set
12	SystemModelAccountID	The measure id	Μ	
13	Value	The value (amount, quantity, percentage, etc depending on the nature of the measure)	М	Numeric. Any amounts to be provided I the home currency of the legal entity that the departmentid belongs to. Value will default to 0 if no value is provided.
14	Year		М	4-digit year, for example 2020.
15	Month		М	Month number, 1-12
	1	1		1

Dimension combinations found in the source and not in the input module for either the last 12 months actuals or any of the (optional) historical reference columns, will automatically be processed into the module on forecast rollover.

The module can also be updated manually by clicking the "Apply..." button in the "Sales Forecast Setup" page of the "Sales Forecast Setup" workbook.

For details on how to switch from the Planner-internal source to an external source, please refer to <u>Sales Forecast fact</u>.

4 Integration

Seen from Planner, the integration is done at the *database level*, implying that any external data that is to be imported must exist in a staging database accessible from Planner.

Integration from the actual external source to the staging database will vary is out of scope for this document.



4.1 Switching from a Planner-internal source to an external source

Profitbase Planner is by default set up to be self-served with data and as such dimensions can be maintained in Planner. However in many cases it is preferred to use external source for e.g. accounts.

The general pattern used to switch to enable reading from external source:

- 1. Edit the SQL select statement in script called "Merge External <name> Dimension".
- 2. Under Operation Administration edit the appropriate dataflow to enable the first step.

See details below on the different dimension.

4.1.1 Legal Entity dimension

To import legal entities from an external source you have to do the following:

1. Modify the SQL script "Merge External LegalEntity Dimension" to read from your source (see original script below):

6	/*
7	** External source for LegalEntity dimension
8	*/
9	with
10	LegalEntityExternal
11	AS (
12	
13	Edit below to read from another source
14	
15	SELECT cast(s.[LegalEntityID] as nvarchar(50)) as LegalEntityID Mandatory
16	<pre>, cast(s [LegalEntityID Name] as nvarchar(100)) as LegalEntityID Name Mandatory</pre>
17	, cast(s.[CurrencyFunctionalID] as nvarchar(50)) as CurrencyFunctionalID Mandatory 3-character currency code
18	<pre>,cast(s.[OperationTypeID] as nvarchar(50)) as OperationTypeID Mandatory One of values: 'Main', 'Elimination'</pre>
19	<pre>,cast(s.[DefaultDepartmentID] as nvarchar(50)) as DefaultDepartmentID Mandatory</pre>
20	<pre>, cast(s.[LegalEntityL1ID] as nvarchar(50)) as LegalEntityL1ID Mandatory</pre>
21	<pre>,cast(s.[LegalEntityL1ID_Name] as nvarchar(100)) as LegalEntityL1ID_Name Mandatory</pre>
22	<pre>,cast(s.[LegalEntityL2ID] as nvarchar(50)) as LegalEntityL2ID Mandatory</pre>
23	<pre>,cast(s.[LegalEntityL2ID_Name] as nvarchar(100)) LegalEntityL2ID_Name Mandatory</pre>
24	<pre>,cast(s.[LegalEntityL3ID] as nvarchar(50)) as LegalEntityL3ID Mandatory</pre>
25	<pre>,cast(s.[LegalEntityL3ID_Name] as nvarchar(100)) LegalEntityL3ID_Name Mandatory</pre>
26	,'Import' as ModifyType
27	,'External' as DataSourceID
28	
29	<pre>from @Object[LegalEntityDimOrigSrc,Store].DbObjectName s Demo SQL source to be changed for external loading</pre>
30	From [server],[databasename].[schema].[tablename] s
31	
20	14

2. In "Operation Administration" you edit the "Reload LegalEntity Dimension". Enable the first step to read from external source (that was modified above) and disable the second step which is now obsolete (but will not do any damage).



Edit operation				×	
ration details				?	
PERATION					
Category	Data Maintenance	× I × Comment:			
peration ID:	Legal Entity Dimen	sion			
peration Name: (Englisl	h) Reload Legal Entity	intity Dimension			
peration Name: (Norwe	egian) Relaste dimensjon	for legal enhet			
DD STEP					
elect Step type:					
Select step:		V Type here t	o filter step selection		
ep name (English):					
ep name (Norwegian):					
				Add step	
TEPS nabled Step# Nam	ne -	Name (NO)	Name (EN)		
2] 1 Me	rge External LegalEntity Dimens	Importer ekstern legal enhet dimensj	or Import and Merge External	LegalEntity	
) 2 Me	rge to LegalEntity Dimension	Kombiner editert versjon til LegalEnti	ty Merge edited versjon to Le	galentity din	
_	date CurrencyFunctionalID	Oppdater CurrencyFunctionalID	Update Functional Currenc	y for Legal E	
3 Upr	date ourrenoyr unotionalio				

Note that if you need to make further changes to the dimension such as creating a larger hierarchy, you have to use the Profitbase InVision Designer to create the additional columns and define the hierarchy for dimension. Concerning the import you have to modify and extend the script to import more columns.

4.1.2 Department dimension

To import departments from external source you have to do the following:

1. Modify the SQL script "Merge External Department Dimension" to read from you source table:



9	*/	
10	/*	
11	** External source for Department dimension	
12	*/	
13	with	
14	DepartmentExternal	
15	AS (
16		
17	Edit below to read from another source	
18		
19	SELECT cast(s.[DepartmentID] as nvarchar(50)) as DepartmentID	Mandatory
20	<pre>,cast(s.[DepartmentID_Name] as nvarchar(100)) as DepartmentID_Name</pre>	Mandatory
21	<pre>,cast(s.[LegalEntityID] as nvarchar(50)) as LegalEntityID</pre>	Mandatory
22	<pre>,cast(s.[LegalEntityID_Name] as nvarchar(100)) as LegalEntityID_Name</pre>	Mandatory
23	<pre>,cast(s.[DepartmentL1ID] as nvarchar(50)) as DepartmentL1ID</pre>	Mandatory
24	<pre>,cast(s.[DepartmentL1ID_Name] as nvarchar(100)) as DepartmentL1ID_Name</pre>	Mandatory
25	<pre>,cast(s.[DepartmentL2ID] as nvarchar(50)) as DepartmentL2ID</pre>	Mandatory
26	,cast(s.[DepartmentL2ID_Name] as nvarchar(100)) as DepartmentL2ID_Name	Mandatory
27	<pre>,cast(s.[DepartmentL3ID] as nvarchar(50)) as DepartmentL3ID</pre>	Mandatory
28	<pre>,cast(s.[DepartmentL3ID_Name] as nvarchar(100)) as DepartmentL3ID_Name</pre>	Mandatory
29	<pre>,cast(s.[DepartmentL4ID] as nvarchar(50)) as DepartmentL4ID</pre>	Mandatory
30	,cast(s.[DepartmentL4ID_Name] as nvarchar(100)) as DepartmentL4ID_Name	Mandatory
31	<pre>,cast(s.[DepartmentL5ID] as nvarchar(50)) as DepartmentL5ID</pre>	Mandatory
32	<pre>,cast(s.[DepartmentL5ID_Name] as nvarchar(100)) as DepartmentL5ID_Name</pre>	
33	<pre>,cast(s.[DepartmentL6ID] as nvarchar(50)) as DepartmentL6ID</pre>	Mandatory
34	<pre>,cast(s.[DepartmentL6ID_Name] as nvarchar(100)) as DepartmentL6ID_Name</pre>	Mandatory
35	,'Import' as ModifyType	
36	,'External' as DataSourceID	
37		
38	<pre>from @Object[DepartmentDimOrigSrc,Store].DbObjectName s Demo SQL source to be</pre>	changed for external loading
39	From [server],[databasename].[schema].[tablename] s	
40),	
	F 004	

2. In "Operation Administration" you edit the "Reload LegalEntity Dimension". Enable the first step to read from external source (that was modified above) and disable the second step which is not obsolete (but will not do any damage).



ration details			(?	
PERATION					
ategory	Data Maintenance	× V Comment:			
peration ID:	Department Dimen	sion			
peration Name: (English)	Reload Department	t Dimension			
peration Name: (Norwegian)	Relaste avdelingsd	imensjonen			
DD STEP					
elect Step type:		· ·			
elect step:		✓ Type here to	Type here to filter step selection		
tep name (English):					
tep name (Norwegian):					
			Add ste	p	
TEPS nabled Step# Name		Name (NO)	Name (EN)		
1 Merge E	ternal Department Dimen:	Importer ekstern avdelingsdimensjon	Import External Department Dimensior]	
2 Merge to	Department Dimension	kombiner editert dimension til Departr	Merge edited dimenison to Departmen	j.	
Compile	Department Dimension	Kompiler Department dimensjon	Compile Department Dimension		
Delete			Save Cano	:el	

To set up an import from an external dimension source for accounts you have to do the following:

1. Edit the select statement under AccountExternal item in script called "Merge External Account Dimension". Make sure to deliver all columns read from the table and change the FROM-table to your source.

Edit	below to read from another source
SELECT	cast(s.[AccountID] as nvarchar(50)) as AccountID Mandatory
	,cast(s.[AccountID_Name] as nurchar(100)) as AccountID_Name Mandatory Mandatory
	, cast(s, [AllowInput] as beit) as AllowInput Mandatory (cast(s, [SignFactor] as decimal(18,2)) as SignFactor Mandatory
	coalesce(
	cast(s.AccTypeId as nvarchar(50))
	<pre>cess(saccipyerio as invarcian (20)) , case when left(ltrim(rtrim(s.AccountID)),1) in ('1','2') then 'BAL' else 'PL' end Default is assuming Norwegian accounting plan</pre>
) as Active ID Mandatory
	.cast(s.fAccountID Name EN] as nyarchar(100)) as AccountID Name EN Optional
	cast(s, Account) Name NO1 as nvarchar(100)) as Account) Name NO Optional
	/* Hierarchy information below, by default 3 levels where L1 is the highest level */
	, cast(Isnull(s. (AccountGroupL1D), substring(s. (AccountD), 1, 1)) as nuarchar(50)) as AccountGroupL1D Mandatory, default to first character of AccountID
	, cast(Isnull(s.[AccountGroupLIID Name], substring(s.[AccountID],1,1)) as nvarchar(100)) as AccountGroupLIID Name Mandatory, defaults to first character of AccountI
	.cast(s.fAccountGroupLIID Name EN] as nvarchar(100)) as AccountGroupLIID Name EN Optional
	cast(s.fAccountGroupLIID Name NO] as nvarchar(100)) as AccountGroupLIID Name NO Optional
	, cast(Isnull(s.[AccountGroupL2ID], substring(s.[AccountID],1,2)) as nvarchar(50)) as AccountGroupL2ID Mandatory, defaults to first 2 characters of Accou
	, cast(Isnull(s.[AccountGroupL2ID Name], substring(s.[AccountID], 1, 2)) as nvarchar(100)) as AccountGroupL2ID Name Mandatory, defaults to first 2 characters of Account
	.cast(s.fAccountGroupL2ID Name EN] as nvarchar(100)) as AccountGroupL2ID Name EN Optional
	cast(s.fAccountGroupL2ID Name NO] as nvarchar(100)) as AccountGroupL2ID Name NO Optional
	<pre>cast(Isnull(s.[AccountGroupL3ID], substring(s.[AccountID],1,3)) as nvarchar(50)) as AccountGroupL3ID Mandatory, defaults to first 3 characters of AccountGroupL3ID</pre>
	, cast(Isnull(s.[AccountGroupL3ID Name], substring(s.[AccountID],1,3)) as nvarchar(100)) as AccountGroupL3ID Name Mandatory, defaults to first 3 characters of Account
	<pre>,cast(s.[AccountGroupL3ID_Name_EN] as nvarchar(100)) as AccountGroupL3ID_Name_EN Optional</pre>
	<pre>,cast(s.[AccountGroupL3ID_Name_NO] as nvarchar(100)) as AccountGroupL3ID_Name_NO Optional</pre>
	,'External' as DataSourceID

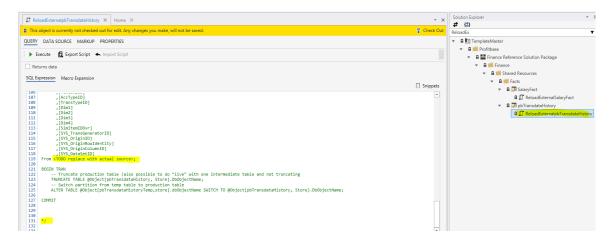
2. Under Operation Administration edit the dataflow: "Account(s) Added Update Full" and enable the first step (circled in picture below). This will read from external source, merge content with accounts edited and update Account dimension.

Note that when reading from external source the second step is not needed but will not make any difference since this step use the updated edit table from previous step to update Account dimension.

\equiv Operation Manager		Edit operation					×
Execute Data Admin Tasks Schedule Broadcast Message to v	workbooks	Operation details					0
Filter operations by category		OPERATION					
Common Scenarios X ~	Add operation Refresh	Category	Common Scenarios	× ~	Comment:		
		Operation ID:	Account Added Upd	ate Full	This operation 1. Process the	e Account dimension.	
Operations	Account(s) added - update sol	Operation Name: (English)	Account(s) added -	update solution	3. Update the	torical fact data (ledger). budget (account). forecast (account).	
Account(s) added - update solution	Account Added Update Full	Operation Name: (Norwegian)	Konti lagt til - oppda	Konti lagt til - oppdater løsningen		Account(s) added. Have you mapped report lines in Report Setup?	
Actuals incomplete - update solution							
Report data incomplete - update solution	Execute Edit operation						
Report setup changed - update solution	Job status: Ok Log	ADD STEP					
Settings changed - update solution	Last run: 28 Sep 2020, 16:06:13			~ ~			- 1
	Last run time: 86 seconds	Select step:		\sim	Type here to filt	er step selection	- 1
	Average run time: 17 seconds Next run time:	Step name (English):					
	next for anne.	Step name (Norwegian):					
	SCHEDULE PLAN Create new sche					Add	step
	Name Schedule pl						-
	No schedules are defined for this operation.	STEPS Enabled Step# Name		Name (NO)		Name (EN)	- 1
		1 Merge External	Account Dimension	Hent konto dimensjon fi	ra ekstern kilde	Merge External Account Dimension	÷
		2 UpdateAccount	tDimensionWithRep	Oppdater konti dimensje	onen basert på	Update edited dimension to Account	
	STEPS	3 Apply Changes	to Account Dim incl	Oppdater skyggetabell f	or Account dim	Update shadow table for account din	ne 🖯
	# Step name		pbTransdataHistory	Relaste pbTransdataHis	tory	Reload pbTransdataHistory	Û
	1 Merge External Account Dimensio		ByMonthHistorical L	Relaste ReportAccount	ByMonthHistori	Reload ReportAccountByMonthHisto	ric 🛱
	2 Update edited dimension to Account	6 ReportLineByM	IonthHistorical Load	Relaste ReportLineByMe	onthHistorical	Reload ReportLineByMonthHistorical	Û

4.1.4 Ledger fact

In order to establish an external integration, edit the script "ReloadExternalpbTransdataHistory" using the Profitbase InVision designer:



Please note that the time resolution used in Planner is month. Any ledger data should thus be aggregated correspondingly at or before the import to Planner.

This script is by default commented out (not active) and an external integration involves mapping to the external source and uncommenting (making active) the script.

Having done so, the Operation "Reload Historical Fact Data" will pick up this change as it already runs the script and thus update the solution, ref.:

\equiv Operation Manager										
Execute Data Admin Tasks Schedule Schedule Chart Broad	icast Message to workbooks									
Filter operations by category			Edit o	peratio	n					×
Data Maintenance	Add operation	Refresh	Operation d	letails						0
	Add operation	Kenesii	Galegory					comment.		
			Operation	n ID:		Process FactHistor	Y			
Operations	Reload Historie		Operation	n Name: (i	English)	Reload Historical Fi	act Data			
Clean Operation History	Process FactHis	tory	Operation	a Mama (Norwegian)	Relaste historiske t	ransaksionsdata			
Get new Accounts			Operation	n Name: (i	vorwegianj	100000				
Kalkuler rapportdata	Execute	Edit operation								
Maintain Database Indexes 🕚	Job status:	Ok Log	ADD STI	EP						
Process Forecast History	Last run:	24 Sep 2020, 05:00:21	Select St	ep type:			1~			
Reload Department Dimension	Last run time:	18 seconds	Select st	ep:				Type here to fill	ter step selection	
Reload Historical Fact Data	Average run time:	13 seconds	Step nam	ne (Englist	1):					
Reload Legal Entity Dimension	Next run time:	25 Sep 2020 05:00		ne (Norwe						
		Create new schedule	Step nan	ie (Norwe	gian):					
Reprocess Exchange Rates	SCHEDULE PLAN	cleate new acheque							Add	t step
Update Currency dimension	Name	Schedule plan	STEPS							
Reload Time Dimension	Reload historic dat	a daily At 05:00 AM	Enabled	Step#	Name		Name (NO)		Name (EN)	
Update Dataset Dimension				-	DeleastCutere	alphTransdataHistory	Relaste pbTransdataHis	rtani	Reload pbTransdataHistory	0
				2		ntByMonthHistorical L	Relaste ReportAccounti		Reload ReportAccountByMonthHisto	
				3		MonthHistorical Load	Relaste ReportLineByM		Reload ReportLineByMonthHistorica	
	STEPS			4						
	# Step name			-	Load Reporte	FraphSeriesByMonthH	Relaste ReportGraphSe	respymonthHis	Reload ReportGraphSeriesByMonthH	His 🖸
		ansdataHistory rtAccountByMonthHistorica	Dele	te					Save	Cancel
		at to an transfer the state of								

4.1.5 Currency Exchange rates

Currency Exchange rates in Profitbase Planner by default is based on imported historical rates that is used when doing currency conversion on actual. These rates are imported from a Profitbase data table that provide official daily rates from the European Central Bank.

Future currency conversion rates are by default managed in Planner in the table shown below:

hange Rate Daily Exchange Rate Monthly I	Legal Entity and D	epartment	Account P	Product M	larket Sup	plierID E	mployee As	set Group
Save Refresh Publish								
Exchange Rate	Exchange Ra	ite						
	Currency	Dataset	From Date	Value	High	Low	Comments	IsImporte
				9.5000	10.0000	9,3000		
Exchange Rate Historical Daily Override	EUR	* •	01/01/1900	9.5000	10.0000	9.3000		
Exchange Rate Historical Daily Override	EUR	* •		10.0000	11.0000	9.5000		
Exchange Rate Historical Daily Override			01/01/2020					
Exchange Rate Historical Daily Override	EUR	*	01/01/2020	10.0000				
Exchange Rate Historical Daily Override	EUR NOK	*	01/01/2020 11/26/2006 01/01/1900	10.0000				
Exchange Rate Historical Daily Override	EUR NOK SEK	* •	01/01/2020 11/26/2006 01/01/1900 01/01/1900	10.0000 1.0000 1.0000				

Note that this list of Currency is also used to update the Currency dimension (i.e. the list of available currencies).

Imported future rates is imported to the table above and tagged with a "IsImported" flag. This way you will not overwrite manual added entries, and you can manually override imported entries.

You can also provide your own currencies by making adjustment when setting up the solution. To set up the solution using another source for historical and future currencies you must du the following:

1. From the Profitbase InVision Designer you must adjust the SQL query to fetch from you source. Edit script called: "Reload CX from External Source"

1	*	
	* Modify the following SOL to read	from other source
		imports actual historical rates because Planner by default is set up to manage future exchange rates in planner
*		
S	elect [CurrencyID]	Mandatory the exchange rate converted to from CurrencyID; 3-character code
	,[CurrencyToID]	Mandatory base currencyand must be the same across all exchange rates
	,'Actual' as [DataSetID]	Mandatory dataset which must be one of 'Actual', 'Forecast' and 'Budget' for Planner
	[FromDate]	Mandatory Date; exchange rate will stay the same from this date and until a new date is given
	[Value]	Mandatory value for exchange rate; decimal(18,4), 4 decimals
	,null as [High]	- Optional high rate to be used for simulation
		- Optimal low rate to be used for simulation
	,null as [Low]	
	,	Free text
	Change the table below	
	<pre>from @Object[Currency Exchange</pre>	Rate Historical, Setting].DBObjectName
	where [FromDate] between @Start	Date and @EndDate Avoid loading exchange rates outside of historic and plan time window as defined by Time dimension
	and [CurrencyToID] = 'NOK'	Important to ensure that base currency is the same
	;	
(end of edit	

2. In "Operation Administration" edit the "Import and Reprocess Exchange Rates" operation and enable step 1 and disable step 2 ("Copy Local Currency Exchange Rate Data").



eration de	tails						(?)
							0
PERATI	ON						
ategory			Data Maintenance	× ~	Comment:		
peration	ID:		ExchangeRates			sh button under Finance Operation	
Operation Name: (English)		Import and Reprocess Exchange Rates		To import from your own external source, you need to configure the query and enable the first step and disable second step.			
Operation Name: (Norwegian)			Importer og rekalk	uler valutakurser			
ADD STE	Р						
elect Ste	p type:			\sim			
Select step:			~	Type here to file	er step selection		
Step name	e (Englis	sh):					
Step name	e (Norwe	egian):					
						Add st	ер
STEPS Enabled S	Step#	Name		Name (NO)		Name (EN)	
	1	Reload CX fro	m External Source	Importer rater fra eksterr	n kilde	Import Rates from External Source	
			urrency Exchange Rat	Importer historiske rater		Import historical European Cantral Ban	ן,
	2				urser for alle da		
	2	GenerateExch	angeRatesDaily	Kalkuler daglige valutaku	arber for and at		
			angeRatesDaily angeRatesMonthly	Kalkuler daglige valutaku Kalkuler snitt- og sluttku		Process Monthly Average and Closing	1

Import is to the "CurrencyExchangeRate Source" table defined as follows:

- CurrencyID (nvarchar(50)) 3-character currency code. This is the rate to convert to base currency. Default here is NOK.
- CurrencyToID (nvarchar(50)) 3-character currency code. This is the rate for base currency default NOK.
- DatasetID (nvarchar(50)) this is the dataset which can be on of the following values: '*' (all datasets), 'Actual', 'Forecast', 'Budget'.
- FromDate the date the rate is valid from
- Value decimal(18,4) is the exchange rate as the factor you use to convert from CurrencyID to CurrencyToID. Default this is the rate to convert to NOK.
- High, Low decimal(18,4) is the high and low rate. These are optional and only relevant for simulation.
- Comments (nvarchar(200)) optional text string



4.1.6 All optional dimensions

Optional dimensions are:

- 1. Project (from Planner v4.2)
- 2. Activity (from Planner v4.2)
- 3. Product
- 4. Market
- 5. Supplier
- 6. Employee
- 7. Dim1..Dim4

To switch from the internal source to an external source, edit the "Merge External *XYZ* Dimension" script found under the dimension in question in the Profitbase InVision designer.

The example shows the script "Merge External *Product* Dimension" script:

Home X I Merge External Product Dimension X	Solution Explorer
a This object is currently not checked out for edit. Any changes you make, will not be saved.	₹ Ø
QUERY DATA SOURCE MARKUP PROPERTIES	B Finance
► Execute 👩 Export Script 🔺 Import Script	Bill Shared Resources
percente port script - import script	🔻 🔒 🗰 Dimensions
Returns data	► 🖬 🖾 Department
SQL Expression Macro Expansion	▶ 6 12, LegalEntity
Snippets	► B L4 Account
1 /*	a 12, Currency
 Setup usage: I. Edit the SQL below. Note that the dimension will initially use an internal source that can be edited in the Dimension and Currecy Exchange Rates and 	▶ 월 12, Dataset
4 2. This script will be executed with Merge External Product Dimension dataflow. This dataflow is needed to compile the dimension and reprocess any ranke	C LA Report
5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	► Ž. Time
7	► 🔒 🖾 Employee
8 Merge into @Object[Product,Dimension].DbObjectName t 9 USTNS (► 🖬 🖾 Dim1
10 /*	► 🖬 🖾 Dim2
12 Remember to provide all columns required.	▶ 8 12, Dim3
13	▶ 8 12, Dim4
15	▼ B L. Product
16 SELECT Dummy SQL to be changed 17 [ProductID] as [ProductID]	Contract Con
18 ,[ProductID_Name] ss [ProductID_Name] 9 .[ProductForup] as [ProductForup] as	Compile Product Dimension
20	G G Merge External Product Dimension
21 from @Object[Product Internal Source,setting].DbDbjectName Internal source	G G
23	a ga Product internal Source
<pre>25 on t.[ProductID] = s.[ProductID] COLLATE DATABASE_DEFAULT</pre>	► B L. Market
26	► a 12, Supplier
28 Note that there may be FK constraints in the model which will prevent removing member items that are referenced in fact tables	► a L Asset group
29 If so a SQL message will be issued and the merge will fail. 30	Merge External Dimension
31 when matched then 32 Update	Compile Dimension
33 Set [ProductID_Name]=s.[ProductID_Name],	a di Dataflow Items
34 [ProductGroup]=s.[ProductGroup] 35	▶ 4 12 Users
36 when not matched by target then	🔻 🔒 💼 Facts
37 insert 38 ([ProductID],[ProductID_Name],[ProductGroup])	B B SalaryFact
39 values 40 (s.[ProductID],s.[ProductIO_Name],s.[ProductGroup])	B B pbTransdataHistory
41	B B SalesGMFact
42 when not matched by source then 43 Delete	B 📰 SalesFact
44 ;	G CA Source fact data
45	· · · · · · · · · · · · · · · · · · ·

The source part of the script, that by default is the *internal* source exposed in the Dimensions and Currency Exchange Rates workbook, must be replaced with the *external* source.

Consider to *hide* the dimension's page in the the Dimensions and Currency Exchange Rates workbook to avoid any confusion as the dimension is no longer maintained in Planner but sourced externally.

Consider also to create an operation that will fetch the external source and compile the dimension. This operation is created in the "Operations Manager" workbook and should consist of the following two steps:

- 1. Merge External XYZ Dimension (type SQL script)
- 2. Compile XYZ Dimension (type DataFlow)

Using Product as an example:



Add operation		×
peration details		?
OPERATION		
Category	Data Maintenance X V Co	omment:
Operation ID:	UpdateProduct	
Operation Name: (English)	Update Product dimension	
Operation Name: (Norwegian)	Oppdater Produktdimensjonen	
ADD STEP		
Select Step type:		
Select step:	🗸 тур	pe here to filter step selection
Step name (English):		
Step name (Norwegian):		
		Add step
STEPS Enabled Step# Name	Name (NO)	Name (EN)
1 Merge Extern	al Product Dimension. Hent ekstern produktdimens	sjon Fetch external product dimension
2 Compile Pro	fuct Dimension Kompiler produktdimensjone	en Compile Product dimension
Delete		
Delete		Save Cancel

The operation can be executed manually and/or scheduled at certain intervals.

4.1.7 Personnel fact

In order to establish an external integration, edit the script "ReloadExternalSalaryFact" using the Profitbase InVision designer:

Home × 🖸 ReliadeDeternalSatenyFact X	Solution Explorer 👻
🔒 This object is currently not checked out for edit. Any changes you make, will not be saved.	<i>4</i> ² 1⊞)
QUERY DATA SOURCE MARKUP PROPERTIES	B 12, Dataset
Execute 🛱 Export Script 🔸 Import Script	B 比 Report ▲ 比 Time
Execute Construction Comparison of Company	► a L. Time ► a L. Employee
Returns data	 B 2. cmployee B 2. Dim1
SQL Expression Macro Expansion	▶ 8 12 Dim2
Snippets	▶ 8 1/2, Dim3
1 /*	▶ 🔒 🗠 Dim4
2 Dummy sql - replace with actual sql to reload salary fact from an external source 3 */	► B L4 Product
5 24	B 12 Market
6	 B 12, Supplier
7 Insert Into @Object[SalaryFactTemp,store].dbObjectName 8 (Asset group
9 DepartmentID,	Merge External Dimension
10 EmployeeD, 11 FTE,	Compile Dimension
12 MonthlySalary,	🔒 📁 Dataflow Items
13 Bonus, 14 Overtime,	A 12 Users A Sers A
15 Miscl,	🔻 🔒 🗰 Facts
16 Misc2, 17 Misc3,	🔻 🔒 🔐 SalaryFact
18 Misc4, 19 Misc5	🛱 📰 SalaryFactTemp
20)	ReloadExternalSalaryFact
21 Select 22 DepartmentD,	🔒 🎹 SalaryFact
23 EmployeeID,	SalaryFactNotInInputStores
24 FTE, 25 MonthlySalary,	B 📴 pbTransdataHistory
26 Bonus,	B B SalesGMFact
27 Overtime, 28 Miscl.	🔻 🔒 📰 SalesFact
29 Misc2, 30 Misc3.	🔒 🎵 ReloadExternalSalesFact
30 Misc3, 31 Misc4,	🔒 📰 SalesFactTemp
32 Misc5 33 From (TODO replace with actual source);	🔒 🗐 ModuleExtensionHistoricReference
34	8 🗐 SalesFactViewL12MActual
35 BEGIN TRAN 36 Truncate production table (also possible to do "live" with one intermediate table and not truncating	🔒 🎹 SalesFact
37 TRUNCATE TABLE @Object[SalaryFact,store].dbObjectName;	Source fact data
 Switch partition from temp table to production table ALTER TABLE (Dobject[SalaryFactTemp.store].abObjectName SWITCH TO @Object[SalaryFact,store].dbObjectName; 	B i Settings
48	🔻 🔒 🛑 Finance Configuration
	B iii Finance Filters
	B iii Finance Settings



This script is by default commented out (not active) and an external integration involves mapping to the external source and uncommenting (making active) the script.

Consider creating an operation in the "Operation Manager" workbook that executes this script (type "Script"). An operation can executed directly from the workbook and/or scheduled at certain intervals.

Consider to *hide* the fact table's page in the "Source Fact Data" workbook to avoid any confusion as the fact table is no longer maintained in Planner but sourced externally.

The Personnel fact table is not reloaded by default when rolling forward the forecast as it is maintained locally in Planner. Having switched to an external source, an automatic reload of the table may be desirable before rolling forward. This has to be done in the Profitbase InVision designer by enabling the following step in the "Fct Roll Forward" data flow item:

Home X 🖪 TemplateMaster X 🗟 Fct Roll Forward X	- ×	Data Flow Item
This object is currently not checked out for edit. Any changes you make, will not be saved.	🙄 Check Out	⊿ E Fct Roll Forward
DESIGN MARKUP PROPERTIES		 Parameters Resource Sets
		Data Source
		D 🙀 Tasks
Linearte Task		
Properties		
Sales - Reload Sales Fact - Enable when needed		
Execute Task		
Properties		
Archive Workflow Data Set Members		
🗹 Execute Task		
Properties		
Copy actualised periods to pbForecastHistory		
Execute Task Properties		

4.1.8 Sales Forecast fact

In order to establish an external integration, edit the script "ReloadExternalSalesFact" using the Profitbase InVision designer:

Home X Trackasticurentions decked ou for edit. Any changes you make, will not be saved. C bits to checked ou for edit. Any changes you make, will not be saved. C bits to checked ou for edit. Any changes you make, will not be saved. C bits to checked ou for edit. Any changes you make, will not be saved. C bits to checked ou for edit. Any changes you make, will not be saved. C bits to checked ou for edit. Any changes you make, will not be saved. C bits to checked ou for edit. Any changes you make, will not be saved. C bits to checked ou for edit. Any changes you make, will not be saved. C bits to checked ou for edit. Any changes you make, will not be saved. C bits to checked ou for edit. Any changes you make, will not be saved. C bits to checked ou for edit. Any changes you make, will not be saved. C bits to checked ou for edit. Any changes you make, will not be saved. C bits to checked ou for edit. Any changes you make, will not be saved. C bits to checked ou for edit. Any checked out for
QUEN_DATA SOURCE_MARKUP_PROPERTIES Execute C_ Export Script
Success Success B Exposition
Exact Exposit Ex
Returns data > @ ½ fungloyee SOL Expression Suppose SOL Expression Suppose * @ ½ Dinal > @ ½ Dinal * @ ☐ Dinal > @ ☐ Dinal * @ ☐ Dinal > @ ☐ Dinal @ @ Dinal @ @ Dinal
Instrume asset > & & & & & & & & & & & & & & & & & &
SQLEpression Suppose Suppose
Snippet i i i i i i i i i i i i i i i i i i i
4 6 6 7 Insert Into @Veject[SalesFactTemp,store].doDejectHame 6 9 (spalitity10, (spalitity10, 11 femployetD), 10 SpapicrestID, 11 femployetD), 11 Supplier 12 Supplier 13 Supplier 14 Supplier 15 State group 16 Comple Dimension 16 Comple Dimension 16 State group 16 State group 17 State group 18 State group 19 Clarence/Intro 10 Currence/Intro 10 State group 11 State group 12 State group 13 State group 14 State group 15 State group 16 State group 17 State group 18 State group 19 State group 10 State g
5 0 7 Inser Into @Vbjet[SalesFatTemp,store].doDbjetHame 8 12 9 (egalitity/D). 10 beparteentD, 11 imployeeTD, 11 fmg/setD, 12 ProductD, 13 bini, 14 DataSon 15 Diad, 16 DataSon 17 Diad, 18 Diad, 19 Diad, 10 Diad, 11 Diad, 12 ProductID, 13 Diad, 14 Diad, 15 Diad, 16 Diady 17 Diady 18 Diady 19 Diady 10
? Insert Into @Diget(slate/setTemp,store).dDDiget(late/setTemp.store).dDDiget(late/
<pre> (</pre>
18 DepartmentID, 2 Asset group 11 EmployeeID, 6 Marge Sternal Dimension 13 MarketID, 6 Comple Dimension 15 Dist, 6 Comple Dimension 15 Dist, 6 Comple Dimension 16 Dist, 6 Comple Dimension 17 Dist, 6 Comple Dimension 18 Dist, 1 6 19 Dist, 1 6 10 Dist, 1 6 10 Dist, 1 6 10 Dist, 1 1
11 fm joyeED, ImployeED, 11 fm joyeED, ImployeED, 11 fm joyeED, ImployeED, 11 fm joyeED, ImployeED, 12 skp2ikerD, ImployeED, 13 skp2ikerD, ImployeED, 14 skp2ikerD, ImployeED, 15 biss, ImployeED, 16 biss, ImployeED, 17 biss, ImployeED, 18 biss, ImployeED, 19 biss, ImployeED, 19 Chrencip/netionalD, ImployeED, 10 Chrencip/netionalD, ImployeED, 11 StateModel.countD, ImployeED, 21 systemModel.countD, ImployeED, 21 systemModel.countD, ImployeED, 22 swartfunctionalL, ImployeED, 24 systemModel.countD, ImployeED, 25 smartfunctionalL, ImployeED, 26 systemModel.countD, ImployeED, 27 stateState ImployeED, 28 systemModel.countD, ImployeED, 29 stateState ImployeED, 20 stateState ImployeED,
13 MarkettD, MarkettD, 15 SupplierD, Gample Commit Commonion 15 Dist, Gample Commit Commonion 16 Dist, Gample Commit Commonion 17 Dist, Factor 18 Gample Commit Commonion 19 Dist, Factor 10 Dist, Factor 11 Dist, Factor 12 Dist, Factor 13 Cample Commit
14 Suppliant Image: Suppliant 15 Data Image: Suppliant 15 Data Image: Suppliant 16 Data Image: Suppliant 17 Data Image: Suppliant 18 Data Image: Suppliant 19 Disa Image: Suppliant 10 Disa Disa 10 Disa Image: Suppliant 10 Disa Disa 11 Disa Disa 12 Disa Disa 13 Disa Disa 14 Disa Disa 15 Disa Disa 16 Disa Disa 16 Disa 14 Disa 15 Disa <t< td=""></t<>
16 Dis2, 16 Dis2, 15 Dis2, 16 16 16 Dis2, 16 16 17 Dis3, 16 16 18 OffsetEntityD, 16 16 19 OffsetEntityD, 16 16 10 SystembolalCountD, 16 16 10 SystembolalCountD, 16 16 11 SystembolalCountD, 16 16 12 SystembolalCountD, 16 16 13 SystembolalCountD, 16 16 14 SystembolalCountD, 16 16 15 16 16 16 16 StateState 16 16 16 StateState 16 15 16 16 16 StateState 16 16 StateState 16 16 StateState 16
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46 Truncate production table (also possible to do "live" with one intermediate table and not truncating
47 TRUKATE TABLE @Oject[SalesFact_store].dObjectBase; 48 suitch partition from temp table to production table 49 suitch partition from temp table productions from the product of the product o
49 ALTER TABLE @Object[SalesFactTemp.store].dbObjectName SWITCH TO @Object[SalesFact.store].dbObjectName:
59 CVPIT



This script is by default commented out (not active) and an external integration involves mapping to the external source and uncommenting (making active) the script.

Consider creating an operation in the "Operation Manager" workbook that executes this script (type "Script"). An operation can executed directly from the workbook and/or scheduled at certain intervals.

Consider to *hide* the fact table's page in the "Source Fact Data" and "SalesForecastSetup" workbooks to avoid any confusion as the fact table is no longer maintained in Planner but sourced externally.

The Sales forecast fact table is not reloaded by default when rolling forward the forecast as it is maintained locally in Planner. Having switched to an external source, an automatic reload of the table may be desirable before rolling forward. This has to be done in the Profitbase InVision designer by enabling the following step in the "Fct Roll Forward" data flow item:

Home X 🖪 TemplateMaster X 🖪 Fct Roll Forward X	×	ata Flow Item
🕯 This object is currently not checked out for edit. Any changes you make, will not be saved.	Dut 4	Fct Roll Forward
DESIGN MARKUP PROPERTIES		Parameters Resource Sets
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Salary Relead Salary Rect - Enable when needed		P 10 1050
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right the second s		
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🜮 Archive Workflow Data Set Members		
Execute Task		
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⁶⁹ Copy actualised periods to pbForecastHistory		
Z Execute Task		
Properties		

5 Switching from demo to customer's data

Planner comes with a full set of demo data at deployment.

During the implementation phase a switch from demo to customer data should take place. This applies to dimension data as well as fact and input data.

This switch involves:

1. Empty the solution for demo data

Please note that this step involves data deletion and should therefore never be executed in a live production system.

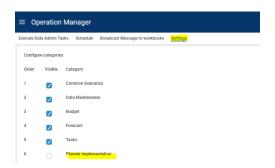
- 2. Input or import customer's data
- 3. Re-initialize Planner



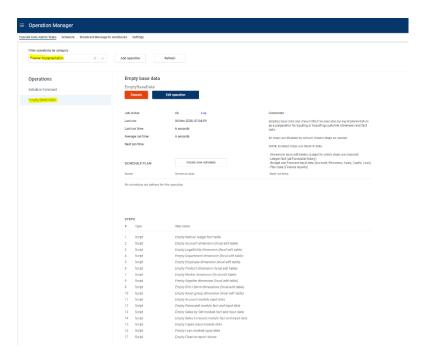
5.1 Empty the solution for demo data

Please note that this step involves data deletion and should therefore never be executed in a live production system.

In the Operation Manager workbook, select the Settings page and enable the "Planner implementation" category:



In the Operation Manager workbook, select the "Execute Data Admin Tasks" page. Select the "Planner implementation" category and the "Empty base data" operation:



This operation contains multiple steps that are by default disabled.

Click the "Edit operation" button that opens the "Edit operation" dialogue and enable steps as needed:



Operation Manager					
secute Data Admin Tasks Schedule Broadcast Message to	workbooks Settings				
Filter operations by category Plannar implementation X V	Add operation 6	lafresh			
Operations Initialize Forecast	Empty base data EmptyBaseData	Edit operation	Edit operation		×
Emytybese data	Job status: Last run: Last run time: Alexage run time: Next run time:	Ok Log 04 New 2020, CT 04:59 6 seconds 6 seconds	OPERATION Category Operation ID Operation Name: (English) Operation Name: (Norwegian)	Planer implementation X V Emptyllisex/bits Emptyllisex/bits Tem ljeme-data	Comment: English base data and should (NV) be executed using implementations as a proposition for insoling castron ad memory and fact data. An only as well should be offered. English NDTE: Franked stage with DELFE data: - Comments house at these insalesci to which shou an
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Scroll to the bottom of the "Edit opetaion" dialogue and click Save.

Execute the "Empty base data" operation by clicking the Execute button.

The "Planner implementation" category should not be visible after go live.

5.2 Input or import customer's data

Depending on the strategy chosen, input directly in the Planner-internal source or importing from an external source(s), fill Planner with customer's data.

5.3 Re-initialize Planner

Once the customer's data is in, re-initialize Planner. This involves:

1. Reload historical fact data

In the Operation Manager workbook, select the "Reload historical fact data" operation in the "Data Maintenance" category of operations:

Operation Manager			
cute Data Admin Tasks Schedule Broadcast M	essage to v	vorkbooks Settings	
Filter operations by category			
Data Maintenance X	$ $ \sim	Add operation	Refresh
Operations Clean Operation History Delete old log data	Ð	Reload Histori Process FactHis Execute	
Generate Time Dimension Import and Reprocess Exchange Rates Maintain Database indexes	٩	Job status: Last run: Last run time:	Ok Log 04 Nov 2020, 07:02:51 19 seconds
Reload Department Dimension	5	Average run time: Next run time:	32 seconds 05 Nov 2020 05:00

Click the "Execute" button.



2. Initialize forecast (if relevant to the solution)

In the Operation Manager workbook, select the "Initialize Forecast" operation in the "Planner implementation" category:

te Data Admin Tasks Schedule Broadcast Me	ssage to workbooks Settings			
Filter operations by category				
Planner Implementation X	✓ Add operation	Refresh		
Operations	Initialize Foreca	st		
Initialize Forecast	FctInitialize	100 March 100 C		
Empty base data	Execute	Edit operation		
	Job status:	Ok	Log	Comments
	Last run:	03 Nov 202	0, 06:36:54	A full initialization of the Forecast.
	Last run time:	77 seconds		This will DELETE ALL Forecast INPUT DATA
	Average run time:	90 seconds		Initialization is done at Planner deployment but will have to be done aga during implementation after customer dimensions and facts are in place

Click the "Edit operation" button and enable the step:

ilter operations by category					
Planner implementation X	Add operation	Refresh			
Operations	Initialize Forecast	t			
Empty base data	Execute	Edit operation	Edit operation		
nitialize Forecast			OPERATION		
	Job status:	Ok Log	Category	Planner implementation $\times \mid \lor$	Comment:
	Last run: Last run time:	03 Nov 2020, 05:36:54 77 seconds	Operation ID:	Fctinitialize	A full initialization of the Forecast. This will DELETE ALL Forecast INPUT DATA
	Average run time:	90 seconds	Operation Name: (English)	Initialize Forecast	Initialization is done at Planner deployment but will have be done again during implementation after customer dimensions and facts are in place.
	Next run time:		Operation Name: (Norwegian)	Initialiser Prognose	cimensions and racis are in prace.
	SCHEDULE PLAN Name	Create new schedule Schedule plan	ADD STEP		
	No schedules are defined fo	or this operation.	Select Step type:		
			Select step:	· · ·	Type here to filter step selection
			Step name (English):		
	STEPS # Type	Step name	Step name (Norwegian):		Add st
	1 DataFlow	Initialize Forecast	STEPS Enabled Step# Name	Name (NO)	Name (EN)
			Fct Initialize 5	Solution Initialiser Prognose	Initialize Forecast
			Delete		Save

Click "Save" in the "Edit operation" dialogue.

Click the "Execute" button to execute the initialization of the forecast.

3. Create new budget (if relevant to the solution)

In the Input Settings and Administration workbook, select the "Budget Admin" page.

Set the budget start date and click the "Start New Budget Period" button:



Input Settings and Administ	stration	profitba <u>se</u>
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Start Date. 01/01/2321	Before starting a see hadpotperiod starting at 2021 41 91 deek and antiktative terescence data by closing the Check and leri-Matrice References button. NOTE: The starts we hadpot period operation will archite current liquid data and/our Solethiland all liquid data dates.	

