Profitbase AS

Profitbase Planner

Configuration and Operation
Sales Forecast module

Profitbase

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B E T T E R I N F O R M A T I O N F A S T E R

Content

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1   Abstract, intended audience and pre-requisites

The Profitbase Planner Configuration and Operation series consist of several documents dealing with the configuration and operation of individual Planner modules and functions.

Planner modules are operational input modules that contributors to the Budget and/or Forecast processes use to prepare the Profit & Loss (P&L) of their respective areas of responsibility. Different modules will typically cover parts of the P&L such as sales, personnel, cost, etc.
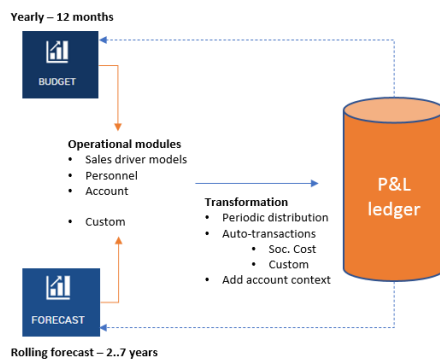
The modules are typically accessed from the Budget and Forecast summary workbooks and the input provided by the contributors are transformed into P&L transactions and fed back to the summary workbooks resulting in a P&L work-in-progress report summary.

The intended audience of this document is implementation partners configuring the solution initially and solution administrators responsible for operating it thereafter.

This document assumes that a Profitbase Planner solution has been deployed and that access to this solution is given to the reader.

The Sales forecast module is included as a standard Profitbase Planner module and is specific to the Forecast process.

2   Common functionality

Changes made to input sheets are not saved automatically. To save changes, click the "Save" button. The "Save" button will remain disabled until a change has been made.

To undo all unsaved changes, click the "Refresh" button.

To undo the last of a series of unsaved changes, click the Ctrl and Z keys simultaneously.

To insert new rows to an input sheet, right-click in the sheet and select one of the available options:

- Insert row
- Insert row below
- Insert copy of row

To delete a row from an input sheet, right-click the row in question and select:

- Delete row

Please note, that although the row is no longer visible in the input sheet, the change must be committed using the "Save" button or undone using the "Refresh" button.

In input sheets, editable fields are distinguished from non-editable fields by fill color, editable fields have by default a white fill color.

In setting tables, a so-called ranked input concept is often used for the dimensional context. Ranked input allows for a high-level selection of dimensional nodes and gives the opportunity to alter the rank or specificity between rows.

A ranked input cell can be set through the ranked input selector by clicking the cell value (cell will display 3 dots if no value is set):
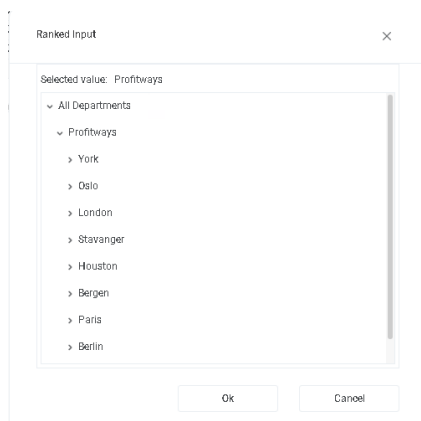
The ranked input selector will display the dimensional hierarchy and allows for the selection of a high-level dimensional node. The selection of a high-level node implies that the setting applies to all sub-ordinate nodes.

Select node and click "OK".

Click "Cancel" to leave the selector without selecting.

In a table containing multiple rows, the rank or specificity of individual rows can be altered by moving the row up (decrease specificity) or down (increase specificity) by right-click the row in question and selecting:

- Move up
- Move down

The less specific the setting is, row should be high up in the table. The more specific the setting is, the further down in the table the row should reside.

3   Principle of operation

Diver based models

The sales forecast module uses a driver-based principle.

Multiple models consisting of measures may be defined. Common to all models is the definition of one of the measures as the driving measure for that model.

Examples of driving measures may be Sales quantity, Sales volume, FTE (Full Time Equivalents) and so on.

Click the $ icon to view the P&L transactions generated from the row in question.

Additional measures make up the detail model and may take direct input, be lookups to assumptions and calculations of other measures.

Click the 🖵 icon for the row in question to view the detailed model.

Measures will render as rows of the model, for example:

For details on how to set up a model, refer to Define models.

Measures to which a **distribution function** is associated is identified by the 📊 icon.

Note that it is possible to click the icon to view the distribution and any default distribution if it exists.

A year-total input is automatically spread to the plan months of that particular year. The total is spread according to the monthly distribution function tied to the product and market as follows:

- o If a specific monthly input has been made by the user, the distribution inherent in the monthly values is used as a distribution key.
- o If not, then if a central distribution key is tied to the account, this distribution will be used
- o If none of the above applies, the total is spread evenly over the plan months

Please refer to Distribution keys for details on distribution keys.

Measures that are **lookup to assumptions** are identified by the 🔍 icon.

Note that it is possible to click the icon to view the assumption values and to override the assumption values and reset to the default if overridden if the model allows.
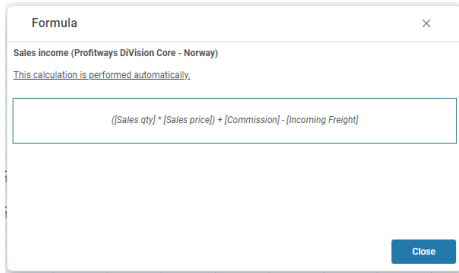

An overridden assumption is marked by a blue left border indication: |🔍

Please refer to Assumptions for details on assumptions.

Measures that are **calculations** are identified by the *fx* icon.

Note that it is possible to click the icon to reveal the formula and a formula description if set:

A formula that is not executed automatically but requires the click on the "Recalculate" button is marked with a red left border indication: $|fx$

Please refer to [Define calculations](#) for details on calculations.

Dimensionality

The basic dimensionality of the sales forecast module is department, product, and market. Extra dimensionality may be added:

- Supplier
- Dimensions Dim1 to Dim4

For details on defining dimensionality, refer to [Define dimensionality](#).

Historical references

The models are preset with the last 12 months of actuals.

In addition to the above, up to 5 historic reference columns may be added as needed.

For details on defining historical reference columns, refer to [Define historical reference columns](#).

Long-term forecast

For forecasting, a long-term horizon can be extended to a maximum of 5 years beyond the default horizon that comprises of this year and next year.

The long-term plan allows for a year-total input only. When saving the forecast, the long-term year-totals are automatically distributed to months using whatever distribution that is relevant to the next year forecast.

For details on setting up long-term forecasts, refer to [Define long-term forecast](#).

Forecast roll forward actions

1.1.1 Source data

The input module will be updated with source data when rolling forward.

Any new combinations that exist in the sales forecast source fact data will automatically be processed into the input module and their last 12 months actuals updated.

Please refer to [Data management](#) for details.

1.1.2   Long term forecast

If long-term forecasting is enabled, the year-total forecast for next-year+1 will be distributed to monthly values using next-year's distribution when rolling over to a new year.

4   Model configuration

Sales forecast models are configured in the "Sales Forecast Setup" workbook and the "Sales forecast setup" page.

Multiple input models can be created and published to users. Select a model in the filter-list on the far left to activate buttons and display content.
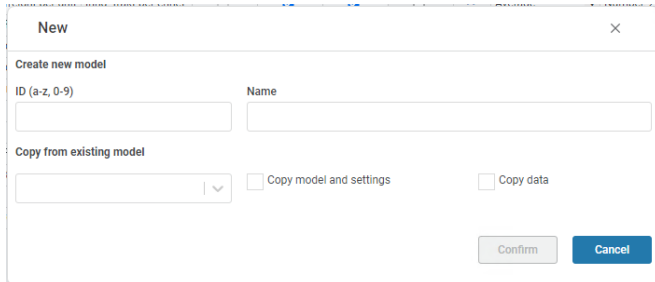
Input models

Select the "Input model" tab.

1.1.3   Create a new input model

To create a new model, click the "New ..." button.

In the following dialogue, enter a model id and a model default name.

If relevant, select an existing model to copy from and select whether to copy only the model and settings or the input data as well.

Click "Confirm".

The new model is created and displays in the filter list at the far left.

1.1.4   Process an input model

Processing a model will re-generate any P&L transactions from the model. This should be done if changes have been made to the model, its assumptions or output processing definitions such as account mapping.

Processing is done by clicking the "Process" button.

Note that processing is a potentially time-consuming operation depending on the amount of input data associated with the model.

1.1.5   Delete an existing input model

An input model can be deleted by clicking the "Delete ..." button.

In the following dialogue, select from the following options:

- "Delete data" - deletes any input data associated with the model
- "Delete model and settings" – deletes the complete model, its settings, and any associated input data.
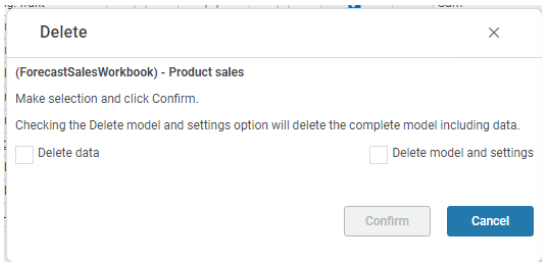
Note that deleting a model is a potentially time-consuming operation depending on the amount of input data associated with the model and the model will be processed to delete any associated P&L transactions.

1.1.6   Publish an input model

To publish a model, check the "Published" checkbox and click the "Save" button.

Conversely, to set a model offline, uncheck the "Published" checkbox and click the "Save" button.

A model that is not published, will not be editable by users accessing the model from the "Forecast Summary" workbook.
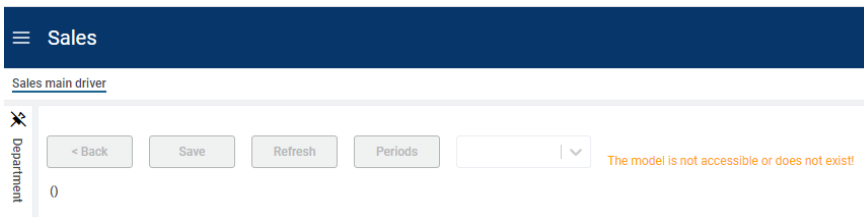
It is, however, possible to open an unpublished model from the "Open" button:
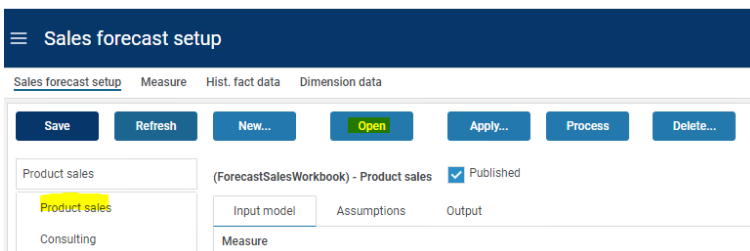
1.1.7   Edit input model properties

Select the model to edit in the filter list at the far left.

The input models are defined in the following screen:

Column	Description
Measure	The MeasureID. Mandatory. Select from list. For details on adding a new measure, refer to Define measures.
Description	The measure's default description.
Description EN	The measure's English translation.
Description NO	The measure's Norwegian translation.
Driver	The measure is the driver (checked). Note that only one measure per model can be a driver.
Input	The measure is open for input (checked) or not (unchecked). Note that if the measure is also a lookup (checked), the measure will not be open for input until the user has chosen to override the default lookup assumption value.
Lookup	The measure attains its value from a lookup assumption. For details on maintain assumption settings, refer to Assumptions. Note that if the measure is also open for input (checked), the user will have the opportunity to override the default lookup assumption value. A lookup measure will be read-only if not open for input.
Calc	Read-only indicator that the measure is calculated (checked) or not (unchecked). A measure that is a calculation is read-only. Note that calculations are performed in the sequence indicated by the Sorting column.
Calc. order	For back-end (sql) calculations, the default order of calculation is the sorting, i.e. that it is assumed that no measure with a low sorting rely on a calculation with a higher sorting (further down in the model). If this is not the case, the Calc order my be used to override this sequence.
Set	Action link that open a calculation pop-up in which calculation formulae and optional verbal calculation explanations are maintained. For details on defining calculations, refer to Define calculations.
Total across periods	Defines how year-totals are calculated from the monthly values (Sum | Average). Select from list. Note that the average is an arithmetic average.
Rollup	Defines how the measure is to be rolled up to aggregate organizational levels (Sum | Average). Select from list. Note that the average is an arithmetic average.
Format	The number display format. Select from list.
Style	The style of the measure row. Select from list.
Sorting	Sort sequence. Controls the display order and also the default calculation sequence.
Comment	Optional comment.

To delete a measure from a model, right-click the measure and select one of the options:

- Delete from data – the measure will remain in the model, but any input data associated with it will be deleted.
- Delete from model (incl data) – the measure is deleted from the model and so is the input data associated with it.

Unless the changes made are minor (change style or format), the model changes should be applied. This is done by clicking the "Apply …" button that will reveal a dialogue in which one can opt for updating any historical reference content by checking the "Update L12M actuals":
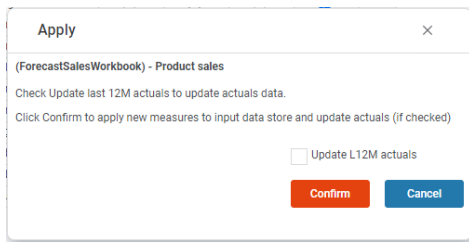
If the changes made also will reflect on the P&L transactions produced, the model should also be processed. This is done by clicking the "Process …" button.

1.1.8 Define calculations

Access the calculation pop-up by clicking the "Set" action link for a measure in the input model setup to reveal the following dialogue:
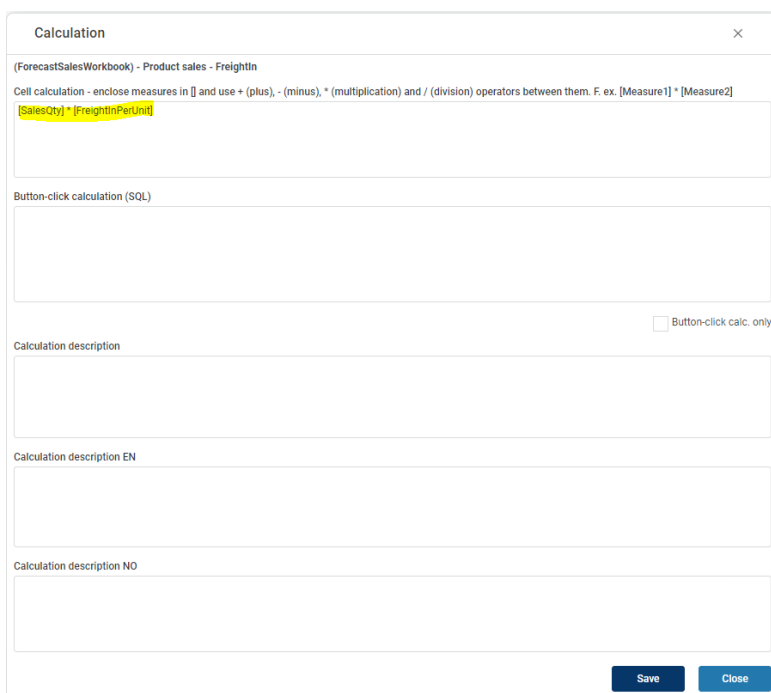
There are two types of calculations:

- Cell-calculations: simple arithmetic calculations (+ - * /) between measures of a model. These calculations are performed automatically, as-you-type, when editing data in the input model.

  Note that when defining the cell-calculation formula, the measures are defined by the measure id enclosed in square brackets, for example [SalesQty] * [SalesUnitPrice].

- Button-click calculations: more complex calculations involving for example conditionals. Such calculations are defined as sql statements and will not calculate automatically, as-you-type, when editing data in the input model. These calculations will require the click of a button to execute, specifically the "Recalculate" button.

In the calculation dialogue, one can also enter more elaborate descriptions using the "Calculation description" fields.

Note that the calculations that are button-click, are indicated with a red left border and that the calculation formula (cell-calculation only) and calculation description will be displayed when clicking the calculation symbol.

1.1.9 Define dimensionality

The dimensionality of a model is defined in the following table:

	Measure	Description	Description EN	Description NO	Driver	Input	Lookup
1	FTE	FTE	FTE	Antall hoder	☑	☑	☐
2	AvailableHours	Available hours	Available hours	Tilgj. timer	☐	☐	☑
3	InvoicedPct	Invoiced %	Invoiced %	Faktureringsgrad %	☐	☑	☑
4	InvoicedHours	Invoiced hours	Invoiced hours	Fakturerte timer	☐	☐	☐
5	SalesUnitPrice	Hourly rate	Hourly rate	Timerate	☐	☑	☑
6	Sales	Gross consulting revenue	Gross consulting revenue	Brutto konsulentinntekter	☐	☐	☐
7	InvoiceTargetPct	Invoiced % TARGET	Invoiced % TARGET	Faktureringsgrad % MÅL	☐	☐	☑
8	Bonus	Bonus 15%	Bonus 15%	Bonus 15%	☐	☐	☐
9	ITAndTelecomsPerFTE	IT & Telecoms per FTE	IT & Telecoms per FTE	IT & Telefon per hode	☐	☑	☑
10	TrainingPerFTE	Training per FTE	Training per FTE	Opplæring per hode	☐	☑	☑
11	TravelExpensesPerFTE	Travel exp. per FTE	Travel exp. per FTE	Reiseutgifter per hode	☐	☑	☐
12	OfficeSupliesPerFTE	Office suplies per FTE	Office supplies per FTE	Kontorutgifter per hode	☐	☑	☑
13	OtherExpense	Other direct expenses	Other diect expenses	Andre direkte utgifter	☐	☑	☐
14	Expense	Direct expenses	Direct expenses	Direkte konsulentutgifter	☐	☐	☐
15	NetConsultingIncome	Net consulting revenue	Net consulting revenue	Netto konsulentinntekter	☐	☐	☐

Dimensions

	DimensionColumn	Description	Description EN	Description NO	VisibleInput	Mandatory	
1	Dim1	Employee	Employee	Ansatt	☐	☐	
2	Dim2	Dim2Name	Dim2Name	Dim1Navn	☐	☐	
3	Dim3	Dim3Name	Dim3Name	Dim3Navn	☐	☐	
4	Dim4	Dim4Name	Dim4Name	Dim4Navn	☐	☐	
5	MarketID	Market	Market	Marked	☑	☑	
6	ProductID	Consultant profile	Consultant profile	Konsulentprofil	☑	☑	

The Department, Product and Market dimensions are default and mandatory in any model.

Column	Description
DimensionColumn	The dimension column id. Preset.
Description	The measure's default description.
Description EN	The measure's English translation.
Description NO	The measure's Norwegian translation.
VisibleInput	Indicates whether dimension is visible (checked) or not (unchecked) in the input sheet of the model.
Mandatory	Indicates whether user must select a value from the dimension drop down when adding a row (checked) or not (unchecked) to the input sheet of the model.
Comment	Optional comment

The dimensions are shared between models. If a dimension drop-down list of a certain model should not display a certain member, it can be excluded for that model by clicking the action link in the "DimensionColumn" column to reveal the following dialogue:

Add dimension members to excluded and click the "Save" button.

For details on dimension management, please refer to Data management.

1.1.10 Define historical reference columns

The last 12 months of actuals will be included for measures where historical data exists.

There is a preset number of historical reference columns to choose from. The historic reference columns of a model is defined in the following table:

Column	Description
Column Name	The internal historical reference column id, Historic1, Historic2, Historic3, Historic4 and Historic5. Select from the drop-down list.
DatasetID	The dataset origin for the historical reference data. Select from the drop-down list.
From Date	The start date for the historical reference data
To Date	The end date for the historical reference data
Description	The column default name
Description EN	The column's English translation
Description NO	The column's Norwegian translation
Visible	Indicates that the column is visible in the input sheet for the model or not (checked | unchecked)

For maintaining source fact data, please refer to Data management.

Define measures

A set of measures is included when Planner is deployed. New measures may be added as needed.

Measure are defined in the "Measure" page:

Column	Description
Measure	Measure id. Mandatory. - Attempts to use special characters when adding a new measure (non a-z, 0-9) will result in an error message. - Attempts to delete a measure that is in use in models and/or assumptions and settings will result in an error message
Description	Default measure name. Optional. The name will typically be set when adding the measure to a model.
EN	English measure name. Optional. The name will typically be set when adding the measure to a model.
NO	Norwegian measure name. Optional. The name will typically be set when adding the measure to a model.

In use	Mandatory, default checked. Indicates whether measure is in use (checked) or not (unchecked). A measure that is not in use, will not be available for selection when adding measures to a model.
Is assumption	Mandatory, default unchecked. Indicates whether measure is an assumption (checked) or not (unchecked). A measure that is not an assumption, will not be available for selection when defining assumptions.
Has currency	Mandatory, default unchecked.
Total across periods	Mandatory, default Sum. Select from list. The value is used for calculating rest of year and next year totals correctly for lookup values (assumptions).
Format	Mandatory, default "Number, no decimals". Select from list. The value is used for displaying lookup values (assumptions) in the correct format when defining assumptions.
Comment	Optional comment.
Owned by	"$System" for measures that initially came with the system. The user id for the user that added the measure for measures added to the solution post-deployment.

Attach module to input report

The module can be attached to the action link button of one or more report lines of the Forecast summary report:

To attach the module to a report line, go to the "Setup" page of the "Input settings and administration" workbook:

Column	Description
Departm.	Source department. Ranked input. Mandatory. Through the use ranked input (high level selection), different modules may attach to a given report line for different part of the department dimension (organization).
Report Line ID	Report line to which input module is to attach. Select from list. Mandatory.
Input module	Input module to attach. Select from list. Mandatory.

Define long-term forecast

The long-term horizon is set up in the "Input settings and administration" workbook:

5 Settings

Sales forecast models are configured in the "Sales Forecast Setup" workbook and the "Sales forecast setup" page.

Multiple input models can be created and published to users. Select a model in the filter-list on the far left to activate buttons and display content.

Assumptions

Assumptions are lookup value and should exist for any measure that is defined as a lookup. For a measure to be eligible for assumptions, it must be defined as an assumption measure, see Define measures for details.

Assumptions are maintained in the "Assumptions" tab:

Select a measure from the dropdown list. The currently existing assumptions will display. Maintain assumption values as needed. To see the effect of any change, click Save and the Process for the model in question.

Assumptions are common across models.

Column	Description
Measure	Measure to which the assumption is attached. Automatically set based on filter dropdown selection. Mandatory.
Legal entity	Source legal entity. Ranked input. Mandatory.
Product	Source product. Ranked input. Mandatory.
Market	Source market. Ranked input. Mandatory.
Currency	Currency for assumption values. Mandatory for measures that have currency, see Define measures for details. Note that if there exist legal entities having different home currencies, assumptions must exist for each of the currencies, i.e. there will be no currency conversion when the lookup is done. For legal entity A with home currency EUR, it is expected that an assumption set with currency EUR exists for the lookup to return values.
Monthly period columns	Numeric lookup values for individual months. Column headings will be dynamic and will change as forecast rolls forward.
NY Plus 1– NY Plus 5 columns	Numeric lookup values for years beyond next year. Column headings will be dynamic and will change as forecast rolls forward. Applicable if long-term forecasting is used.

Please note that the assumption table will roll forward in time in accordance with the forecast rolling forward.

Distribution keys

Distribution keys are specified by the combination of the department, product, and market dimensions.

The dimensional values are selected using the ranked input selector. For details on using the ranked input selector and making rank changes between rows, please refer to Common functionality for details.

As a general rule-of-thumb, it is advisable not to use too specific distribution keys.

Distribution keys are maintained in the "Output" tab:

Column	Description
Department	Source department. Ranked input. Mandatory
Product	Source product. Ranked input. Mandatory.
Market	Source market. Ranked input. Mandatory.
Measure	Source measure. Select from list. Mandatory.
Monthly distribution key weight (heading dynamic)	Numeric values. Mandatory. When distributing a year-total value over monthly periods, the weight given to a specific month is its distribution key weight divided by the sum of the distribution key weights for all the months for that year.
Comments	Optional comment. Note that if a comment is added, the contributor will see the comment when viewing the distribution key of an input row.

Measure to account mapping

For every model, any measure that is expected to generate a P&L transaction must be mapped to an account.

The measure to account mapping is maintained in the "output" tab:

Column	Description
Department	Source department. Ranked input. Mandatory.
Product	Source product. Ranked input. Mandatory.
Market	Source market. Ranked input. Mandatory.
Measure	Source measure. Select from list. Mandatory.
Account	The target account, i.e. that account that the generated P&L transaction will be tied to.
Comment	Optional comment

Auto transactions (optional)

Auto-transactions may be used to trigger additional transactions based on user input. For example, the input to a certain account should always generate an additional transaction to another account amounting to 10% of the input or source transaction.

The target department will always be the same as the input or source department.

The auto transactions are maintained in the "Output" tab:

Column	Description
Department	Source department. Ranked input. Mandatory
Product	Source product. Ranked input. Mandatory.
Market	Source market. Ranked input. Mandatory.
Measure	Source measure. Mandatory. Select from list.
Value	The value and the operator define how the amount of the target transaction will be calculated. In the example above, the amount of the target transaction will be 10% o Numeric value. Mandatory.
Operator	Select from list. Mandatory.
Condition	Optional. Special condition to apply when validating whether to execute the rule or not. For example: - Month() > 6 indicating that rule will be executed only for transactions with a transaction date with month number greater than 6 (June) - CurrentPeriodValue() > 1000 indicating that rule will be executed if value currently processed is greater than 1000 Operators: - Equality: == - Greater than or equal to: >= Greater than: > - Less than or equal to: <= Less than: < - Logical and: && - Logical or: ||
Account	Mandatory. The account that the target transaction will have.
Comment	Optional comment.

6   Data management

Data management comprises of dimension management and source fact data management.

The sales forecast module uses the department, product, and market dimensions with the optional addition of extra dimensions supplier and dim1 to dim4.

The sales forecast source fact data contains the historical data per measure for relevant dimension combinations.

Dimensions

For the Product, Market and Supplier dimensions, a simple data input is available in the "Dimension data" tab:

This gives the opportunity of entering dimension data locally.

To do this, add data rows as required and 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.
The dimensions are by default set up with a group level – column XYZGroup for XYZ dimension – this renders as a group level the dimension hierarchy.

Column	Description
XYZGroup	The group level
XYZID	The XYZ dimension ID. Mandatory.
XYZID_Name	The XYZ dimension ID name.

More dimensions are available in the Dimensions and Currency Exchange rates workbook:

Maintain as appropriate, save the changes, and then click the "Publish" button to publish. The currently published dimension is rendered the tree view display in the right-most part of the screen.

Source fact data

A simple input tool for maintaining historical data is available in the "Hist. fact data" page:

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. 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	Description
DepartmentID	Department id. Mandatory.
ProductID	Product id. Mandatory.
MarketID	Market id. Mandatory.
SupplierID	Supplier id. Optional. If no value is provided, the default value # is set
Dim1	Dim1 id. Optional. If no value is provided, the default value # is set
Dim2	Dim2 id. Optional. If no value is provided, the default value # is set
Dim3	Dim3 id. Optional. If no value is provided, the default value # is set
Dim4	Dim4 id. Optional. If no value is provided, the default value # is set
CPLegalEntityID	Counterpart legal entity id. Optional. If no value is provided, the default value # is set
Value	Numeric
Year yyyy	4-digit year, for example 2020. Mandatory
Month 1-12	Month number, 1-12. Mandatory

Department, Product, Market, Year and Month are mandatory columns.

Any amounts must be given in the home currency.

Value will default to 0 if no value is provided.

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.

The fact source data is also available in the "Source fact data" workbook:

Profitbase Planner Configuration