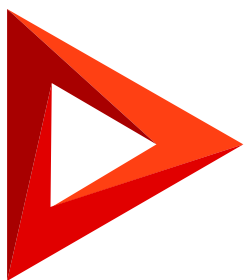


# Forecasting

Version 7.17



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# Set up a forecast

PRODUCTS: SALES ENTERPRISE

Creatio lets you automate financial, quantitative, and temporal forecasting indicators, as well as analyze the actual results to find bottlenecks and increase efficiency. This functionality is available in the [ *Forecasts* ] section (Fig. 1).

The [ *Forecasts* ] section lets you generate forecasts by key dimensions based on Creatio data, as well as to calculate the actual values.

The forecast setup involves several steps this article covers in depth:

1. [Set up the forecast object and period.](#)
2. [Set up the forecast hierarchy.](#)
3. [Specify the forecast data.](#)
4. [Set up the forecast columns.](#)

This article also covers:

- The [forecast value calculation](#), manual or automatic with a set frequency.
- The [data drilldown](#) that helps to track the indicators' changes.

Fig. 1 The [ *Forecasts* ] section

Search	May 2021			June 2021			July 2021			Total		
	Expected	Actual	Actual, %	Expected	Actual	Actual, %	Expected	Actual	Actual, %	Expected	Actual	Actual, %
> Banks	,000	17,495	109.34	18,000	16,348.95	90.83	20,000	0	0	54,000	33,843.95	62.67
> Business services	,000	58,940	98.23	60,000	56,665	94.44	55,000	0	0	175,000	115,605	66.06
Construction	,000	152,370	101.58	150,000	146,100	97.4	150,000	0	0	450,000	298,470	66.33
Axiom	,000	52,000	104	50,000	45,000	90	50,000	0	0	150,000	97,000	64.67
Fast Works	,000	50,370	100.74	50,000	55,100	110.2	50,000	0	0	150,000	105,470	70.31
Tanaka LLC	,000	50,000	100	50,000	46,000	92	50,000	0	0	150,000	96,000	64
> Consulting	,000	186,825	93.41	200,000	201,600	100.8	200,000	0	0	600,000	388,425	64.74
Total	,000	415,630	97.57	428,000	420,713.95	98.3	425,000	0	0	1,279,000	836,343.95	65.39

**Example.** Create a quarterly sales forecast and group sales by category, type, and brand.

The calculation must be based on paid invoices. Run calculation: automatically, once a day based on the user's time zone (GMT-05:00).

When you add new products to the forecast, Creatio must distribute the group indicators among the child

elements automatically.


## 1. Set up the forecast object and period

Select the forecast object (or entity) to use as a dimension when creating a forecast.

We recommend that you select objects that are rarely modified. These objects better suit the long-term data analysis. Examples of good forecast entities include responsible managers (contacts), customers and partners, their need types (your company's product or service categories), opportunity types, products. Use objects like leads, activities, opportunities, invoices, and orders for calculating the expected indicators instead.

**Note.** When you add a forecast by an entity that has not been used in forecasts before, Creatio will add a new database table in the background. This table will store all the forecasts configured for this entity.

To select the forecast object and period:

1. Go to the [ *Forecasts* ] section.
2. Click  in the top right. This opens a box.
3. Take the following steps in the [ *General* ] tab on the box that opens:
  - a. Enter the name of the new forecast. In this example, it is "By products."
  - b. Select the period. In this example, it is "Quarter." This parameter becomes locked after you save the forecast. The following forecast period types are available out-of-the-box: "Month," "Quarter," and "Year." You can create custom periods as well. Learn more in a separate article: [Add forecast periods](#).
  - c. Specify the forecast entity. In this example, it is "Products."


Note that saving the forecast locks the entity. The forecast name and data hierarchy remain editable. Click  on the forecast tab panel to edit them (Fig. 2).

Fig. 2 The general forecast parameters

The screenshot shows a 'New forecast' dialog box with two tabs: 'GENERAL' and 'AUTOMATION'. The 'AUTOMATION' tab is selected. The form contains the following fields and options:

- Name\***: A text input field with the value 'By product'.
- Period type\***: A dropdown menu with the value 'Quarter'.
- Forecast entity\***: A dropdown menu with the value 'Products'.
- Set up hierarchy**: A link with a grid icon, followed by the text '1 level hierarchy across the field'.

At the bottom of the dialog, there are two buttons: 'SAVE' (highlighted in blue) and 'CANCEL'.

- Go to the [ *Automation* ] tab. Here, you can set up the daily autosaves of forecast changes as separate [versions](#) and schedule automatic calculations. In this example, set up the daily autosave of expected and actual sales calculations based on the paid invoices.

To **set up the daily autosave time** of the forecast [versions](#), toggle on the [ *Daily autosave* ] switch and specify the autosave time in the [ *Run at* ] required field. This setting is the only way to save a new forecast version.

To enable the automatic forecast calculation, toggle on the [ *Automatic calculation* ] switch and specify the calculation frequency, as well as the user time zone. In this example, set up calculations to run every 23 hours when the load on Creatio is the lowest: from 12:00 AM to 5:59 AM. Time zone: Eastern Time (US & Canada) (GMT-05:00).

- Click [ *Save* ] (Fig. 3).

Fig. 3 Set up the automatic forecast calculation

**New forecast** ×

GENERAL **AUTOMATION**

Daily autosave

Run at\*  
10:00 AM

Automatic calculation

Run every  
23 hours

from 12:00 AM to 5:59 AM

Time zone\*  
Eastern Time (US & Canada) (GMT-05:00)

**SAVE** **CANCEL**

This will create a new forecast with the settings you specified. When you add an entity that has not been used in forecasts before, Creatio will add a new database table in the background. This table will store all the forecasts configured for this entity.

Proceed to the forecast hierarchy setup.

## 2. Set up the forecast hierarchy

You can group the forecast entities by set conditions if the entities contain too much data to show as a plain list. In this example, the groups are “Category,” “Type,” and “Brand.” A forecast can have up to 10 grouping levels. You can modify the hierarchy at any time.

To group the forecast objects:


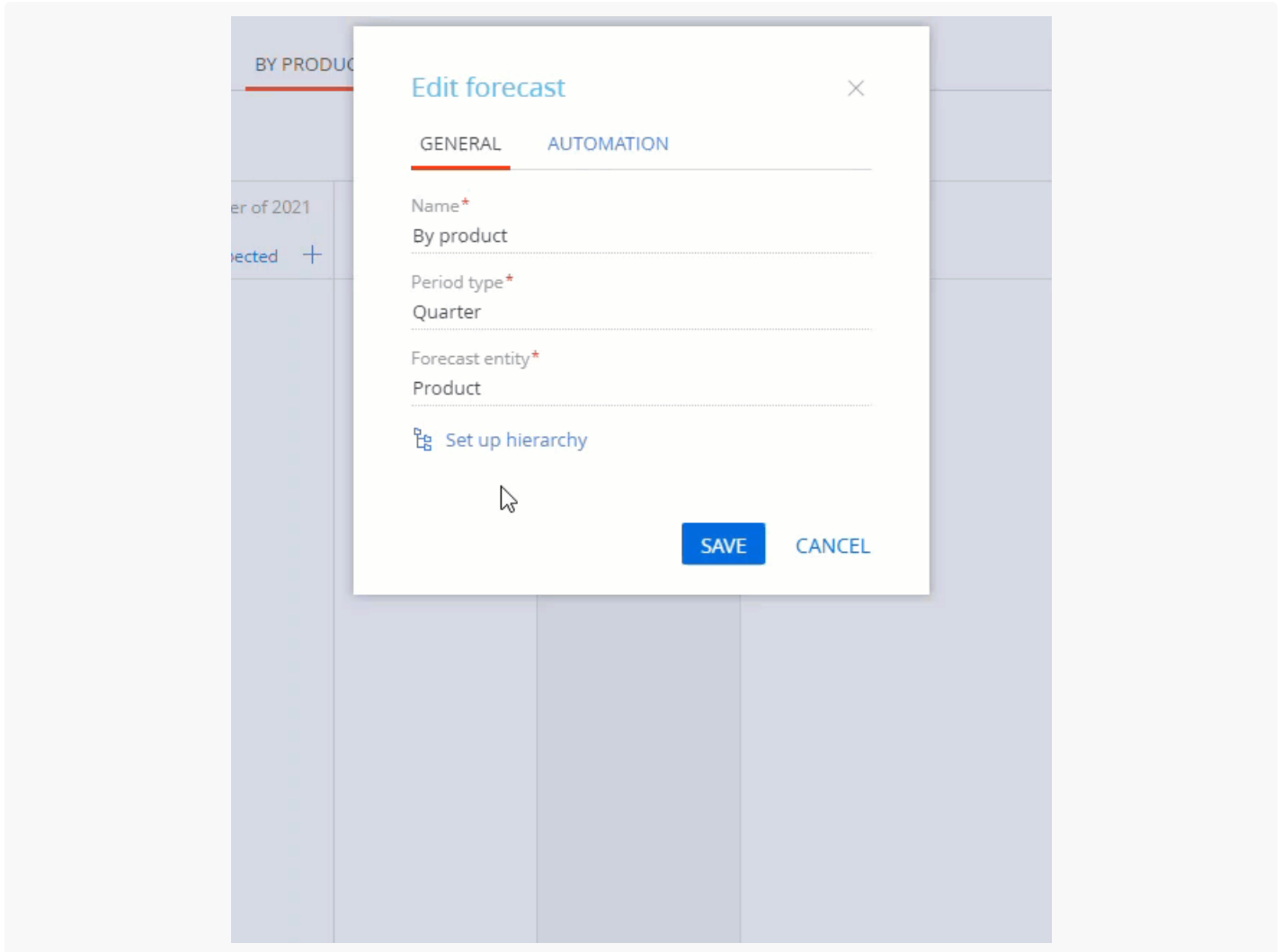
1. Click  on the forecast page and go to the [ *Set up hierarchy* ] field group.
2. Select the column for grouping objects on the first hierarchy level. In this example, this is the [ *Category column* ].
3. Select columns for each subsequent hierarchy level in a similar way. In this example, these are the [ *Type* ] column on the second hierarchy level and the [ *Brand* ] column on the third level.
4. Click [ *Save* ] (Fig. 4).

Fig. 4 Setting up the forecast hierarchy



As a result, Creatio will generate a table that contains forecast entities grouped by the set conditions. Proceed to specify the forecast data.

### 3. Specify the forecast data

Specify the data to use in calculations.

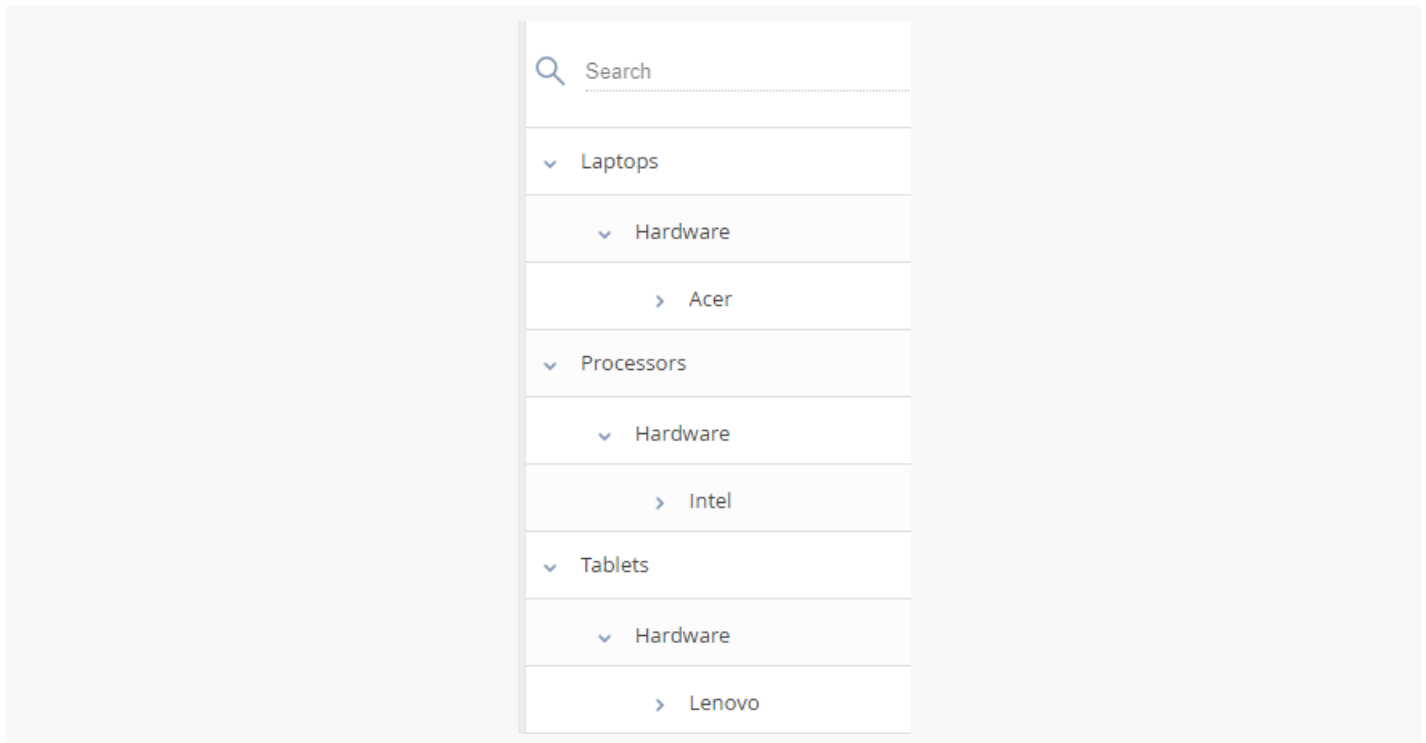
To do this:

1. Click [ *Add* ] on the forecast page. This opens a box.
2. Select the needed records of the forecast entity in the box that opens. For example, a product list. Click Actions → “Select all” to add all available records to the forecast.
3. Click the [ *Select* ] button.


As a result, the list of selected records will appear in the left part of the forecast. Creatio will group the records as per the pre-configured hierarchy (Fig. 5).

Fig. 5 Configure a list of forecast records





Hover over a record and click  to remove it from the forecast.

Click  on the forecast tab panel to change the forecast hierarchy.

Proceed to column setup.

## 4. Set up the forecast columns


Creatio calculates the forecast indicators in the forecast columns. Forecasts have the following column types:

- **Editable.** Specify the value manually.
- **Value from object.** Creatio pulls the value from the database according to the set parameters.
- **Formula.** specify a formula for calculating the value based on the data available in Creatio.

For new forecasts, a single [ *Expected* ] column is available by default for each period. You can edit the column values, change the column settings, or delete the column.

### Set up the [Forecast] column

Enter the expected indicators manually for each forecast structure element or set up the automatic distribution. If you set up the automatic distribution, you will only need to enter the expected indicators for parent elements. Creatio will calculate the values for the child elements automatically. To do this:

1. Hover over the [ *Expected* ] column title and click the  button that appears on the left.
2. Select the [ *Allow editing of group indicators* ] checkbox in the column setup box.

As a result, Creatio will save the new values automatically when you change the expected indicators. Note that this will not create a new version of the forecast. When you add new products to the forecast, you will only be able to edit the expected indicator for the group that includes those products. Creatio will calculate the expected

values for new records in the group proportional to the number of child elements. At the lowest level, the indicators are uneditable and always equal the “Expected indicators of the upper level / number of the nested levels” ratio. However, intermediate indicators are editable. If you change them, Creatio will recalculate the values of both child and parent elements.

## Set up the [Actual] column

1. Click **+** to the right of the [ *Expected* ] column. This opens a box.
2. Specify the name of the new column (“Actual”) and its type (“Value from object”) in the box that opens. The box displays a list of column parameters.
3. Fill out the column parameters:
  - a. Select the Creatio object to be used as data source in the [ *Section* ] field. In this example, it is “Product in invoice.” Configure the filters to include only the paid or partially paid invoices within the specified period when calculating the actual forecast data.
  - b. Select the calculation method in the [ *Function* ] field. The function can be “sum,” “count,” or “average.” For this example, select “sum.”
  - c. Select the base value for the calculation in the [ *Indicator* ] field. In this example, it is “Total, base currency.”
  - d. Select the field that binds the data object (“Product in invoice”) to the forecast entity (“Product”) in the [ *Forecast object binding* ] field. In this example, this is the “Product” field.
4. Save the column.

Fig. 6 Set up a “Value from object” type column

**Column setting** ×

Title\* Actual

Column type\* Value from object ▼

Hide column

**1 Calculation conditions**

Section\* Product in invoice ▼

Invoice.Payment status = Paid; Partially paid

AND

+ Add condition

Period field\* Invoice.Paid on 🔍

**2 Calculation method**

Function\* sum ▼

Indicator\* Total, base currency 🔍 x 100 %

**3 Forecast object binding**

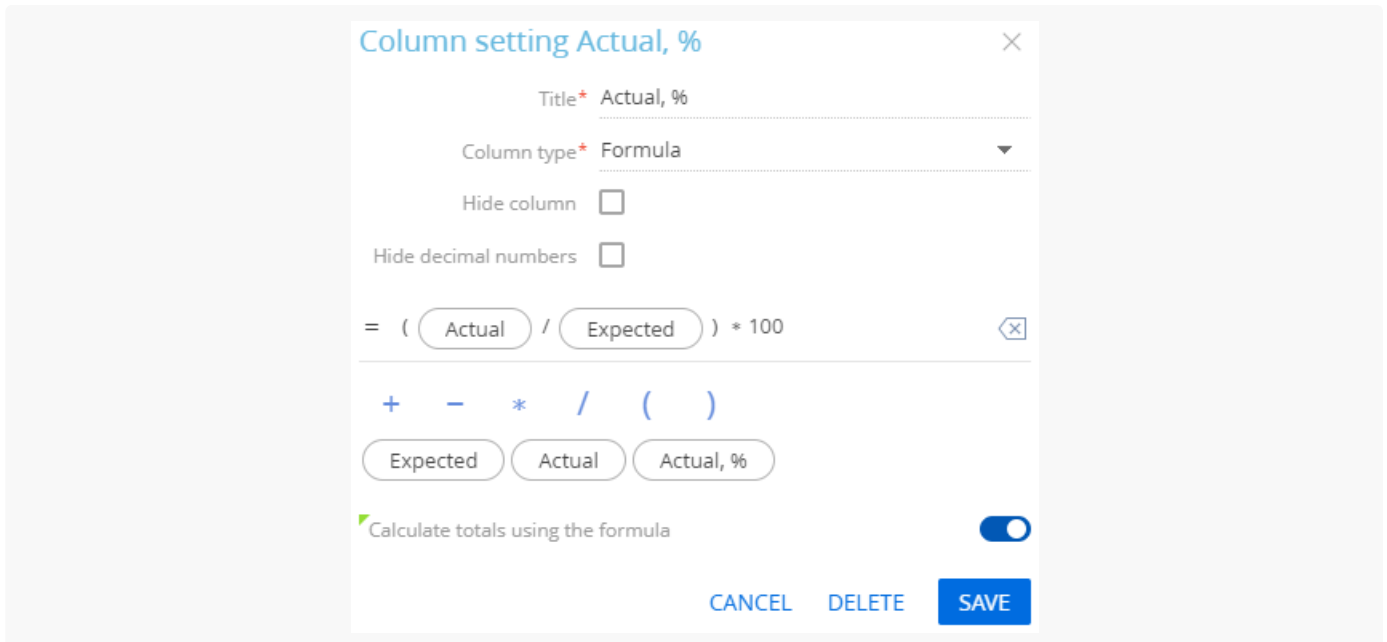
Field in [Product in invoice] for link with [Product]\* 🔍

CANCEL DELETE **SAVE**

## Set up the [Actual,%] column

1. Click **+** to the right of the [ *Actual* ] column. This opens a box.
2. Specify the name of the new column (“Actual, %”) and its type (“Formula”) in the box that opens. The box displays a field for entering the formula, available columns and mathematical operations, as well as the [ *Calculate totals using the formula* ] toggle.
3. Set up the formula that calculates the column value.
4. Turn on the [ *Calculate totals using the formula* ] toggle to apply the formula calculations to every forecast hierarchy level (Fig. 7).
5. Save the column.

Fig. 7 Set up a “Formula” type column





As a result, the configured columns will be added to the table and will display the calculated indicators.


## Calculate a forecast

After the column setup, enter the expected indicators manually for each forecast structure element. Alternatively, set up the automatic distribution and click [ *Calculate* ].

After the calculation is finished, you will receive a notification on the communication panel. As a result, Creatio will populate the expected forecast indicators with data taken from the database or calculated using the formula.

To **change the column settings**, hover over the column title and click  on the left.


To **hide a column**, hover over the column title and click  → select the [ *Hide column* ] checkbox.

To **delete a column**, hover over the column title and click  → [ *Delete* ].

If necessary, drag the forecast columns to change their order (Fig. 8).

Fig. 8 Changing the forecast column order

Search	June 2021			Total		
	Expected	Actual	Actual, %	Expected	Actual	Actual, %
> Banks	18,000	16,348.95	90.83	18,000	16,348.95	90.83
> Business services	60,000	56,665	94.44	123,025	63,305	51.46
> Construction	125,000	146,100	116.88	125,000	146,100	116.88
> Consulting	200,000	201,600	100.8	200,000	205,575	102.79

Click  to lock the [ Totals ] column on the right. This makes it easier to manage the summary indicators.






## Drill down the data

You can review the data used to generate the forecast tab values. This feature is available for cells of the “Value from object” type. Creatio attaches links to the cell values that can be drilled down. Click them to display the records used to calculate the selected value (Fig. 9).

Fig. 9 Drilling down the forecast data

Search	June 2021			July 2021		
	Expected	Actual	Actual, %	Expected	Actual	Actual, %
> Banks	15,000	16,348.95	108.99	20,000	0	0
> Business services	60,000	56,665	94.44	55,000	1,600	2.91
> Construction <ul style="list-style-type: none"> <li>Axiom</li> <li>Fast Works</li> <li>Tanaka LLC</li> </ul>	150,000	146,100	97.4	150,000	0	0
<ul style="list-style-type: none"> <li>Axiom</li> <li>Fast Works</li> <li>Tanaka LLC</li> </ul>	50,000	6,200	0	50,000	0	0
<ul style="list-style-type: none"> <li>Fast Works</li> <li>Tanaka LLC</li> </ul>	50,000	139,900	0	50,000	0	0
<ul style="list-style-type: none"> <li>Tanaka LLC</li> </ul>	50,000	0	0	50,000	0	0
> Consulting	200,000	201,600	100.8	200,000	0	0
Total	425,000	420,713.95	98.99	425,000	1,600	0.38

When drilling down the data, you can:

- click  to **resize** the drilldown window
- click  and  to **hide or show** the window
- Click  → [ *Select fields to display* ] to **select fields to display**
- Click  → [ *Export to Excel* ] to **export data** to Excel

## Compare the forecast versions

PRODUCTS: SALES ENTERPRISE


This feature is only available for forecast tab versions created after updating Creatio to version 7.17.3.

Track forecast changes with the forecast tab versioning. Creatio saves the forecast as a separate version if you specify the daily autosave parameters in the [ *Automation* ] tab when setting up the forecast object and period. Read more: [Set up the forecast object and period.](#)

You can:

- Select and view a specific forecast version.
- Set up the daily forecast autosave time. Read more: [Set up the forecast object and period.](#)
- Compare a selected forecast version with the current version.

You must have access [permissions](#) to view the forecast tab and its records.

Click the  button and select the relevant day to **select** and view the forecast version for a specific date. You can only select the days when Creatio autosaved the forecast version, starting from the date when you set up the version saving. The dates with saved forecast tab versions are clickable and marked in the calendar.

**Note.** If you edit a forecast several times a day, you will be able to view only the data available at the time specified in the autosave settings.

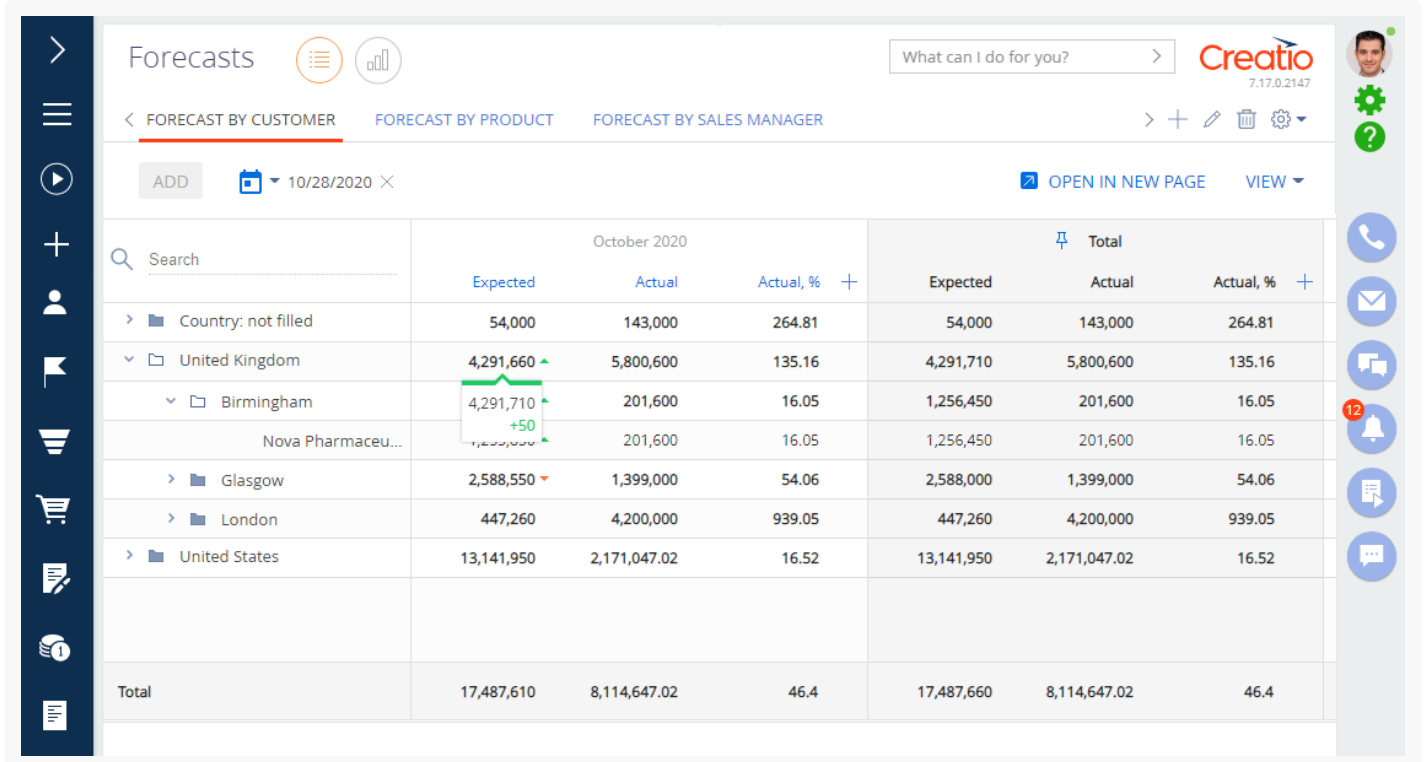
Click the  button next to the date to **return to the up-to-date forecast tab**. Select another date to load a different forecast tab version.

After you select the date, Creatio will highlight the changes relative to the selected version on the current forecast tab:

- Values **higher** in the current version will be highlighted **green**.
- Values **lower** in the current version will be highlighted **red** (Fig. 1).

When you view a specific forecast tab version, Creatio will only display the rows that existed when this version was saved. Rows that existed in the forecast tab on a specific date yet **do not exist in the current tab** will be **greyed out**.

Fig. 1 Comparing data between the forecast tab versions



The screenshot shows the 'Forecasts' section in Creatio. The interface includes a search bar, navigation tabs for 'FORECAST BY CUSTOMER', 'FORECAST BY PRODUCT', and 'FORECAST BY SALES MANAGER', and a date filter set to '10/28/2020'. The main table displays forecast data for October 2020, with columns for 'Expected', 'Actual', and 'Actual, %' for both individual records and a 'Total' column. The data is organized hierarchically by country and region.

Search	October 2020			Total		
	Expected	Actual	Actual, %	Expected	Actual	Actual, %
> Country: not filled	54,000	143,000	264.81	54,000	143,000	264.81
▼ United Kingdom	4,291,660	5,800,600	135.16	4,291,710	5,800,600	135.16
▼ Birmingham	4,291,710	201,600	16.05	1,256,450	201,600	16.05
Nova Pharmaceu...	+50	201,600	16.05	1,256,450	201,600	16.05
> Glasgow	2,588,550	1,399,000	54.06	2,588,000	1,399,000	54.06
> London	447,260	4,200,000	939.05	447,260	4,200,000	939.05
> United States	13,141,950	2,171,047.02	16.52	13,141,950	2,171,047.02	16.52
Total	17,487,610	8,114,647.02	46.4	17,487,660	8,114,647.02	46.4

You can drill down the data used for formula calculations in the forecast columns. To do this, select the relevant date and click a cell you need to drill down. You can only select the cells of the “Value from object” type displayed as links.

## Manage access to forecasts

PRODUCTS: SALES ENTERPRISE

Manage Creatio forecasts in the [ *Forecasts* ] section.

Set up permissions to the section data by setting up permissions to the “Forecast” and “ForecastSheet” objects.

Creatio generates individual system objects for the forecast by a dimension automatically. For example, “ContactForecast,” “AccountForecast,” “ProductForecast” for contact, account, product dimension, respectively. These objects inherit permissions from the “ForecastRow” object.

As such, to ensure the correct operation of the forecast, configure permissions to operations and forecast rows, e. g., add new rows, edit cells, etc., in the “ForecastRow” object.


Learn more: [Object operation permissions.](#)

You can set up permissions to forecasts and separate records within them, as well as permissions to calculate forecasts.

**Example.** Only sales associates and their superiors must be able to access the configured forecast. Only the sales department managers must be able to access individual forecast records.

## Set up the forecast permissions

To enable only sales associates and their superiors to access the configured forecast, assign the access permissions for the forecast tab. To do this:

1. Go to the [ *Forecasts* ] section and open the needed forecast tab.
2. Click  → [ *Set up access rights* ]. This will open a new page.
3. Set up access permissions to the forecast on the page.
  - a. Click [ *New* ] and select the “Read access right” option in the menu. This will open a selection box. Select the “Sales Department” role in the box.
  - b. Grant the read, edit, and delete permissions to the superiors of the sales associates in a similar way.
4. Save the changes. As a result, only the sales department employees will be able to view the forecast.

## Set up permissions to a forecast record

To enable only the sales department managers to access individual forecast records, restrict the access permissions of sales associates. To do this:


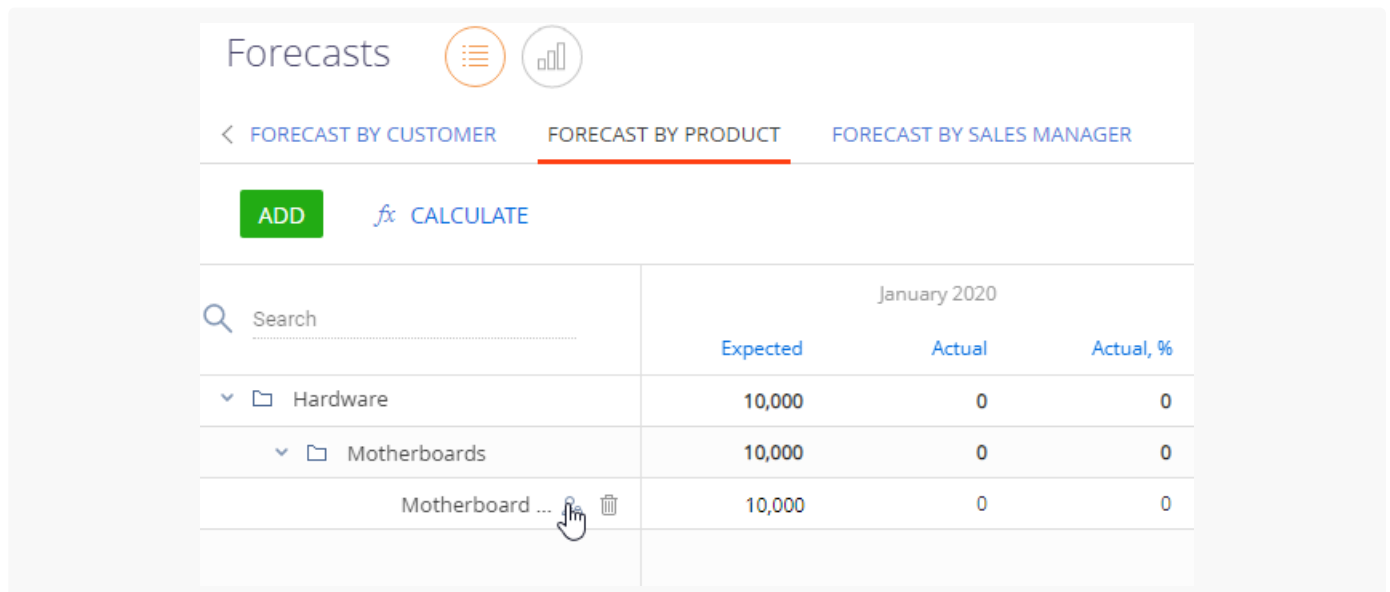

1. Go to the [ *Forecasts* ] section and open the needed forecast tab.
2. Select the record whose permissions to set up.
3. Hover over the record and click the  button (Fig. 1). This will open a new page.

Fig. 1 Select a record whose permissions to set up

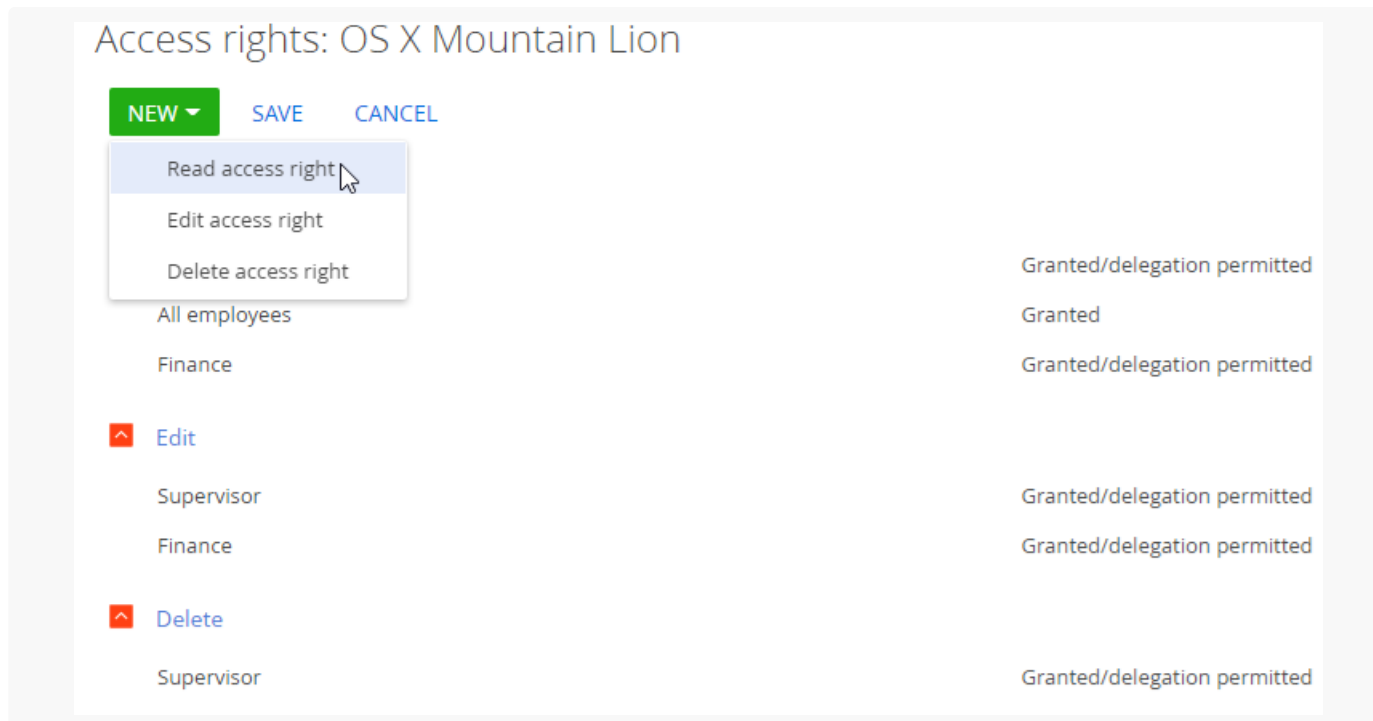


Forecasts		January 2020		
<a href="#">FORECAST BY CUSTOMER</a> <a href="#">FORECAST BY PRODUCT</a> <a href="#">FORECAST BY SALES MANAGER</a>		Expected	Actual	Actual, %
ADD	<i>fx</i> CALCULATE			
Search				
Hardware		10,000	0	0
Motherboards		10,000	0	0
Motherboard ...		10,000	0	0

4. Click [ *New* ] and select the “Read access right”, “Edit access right”, or “Delete access right” option in the menu (Fig. 2) on the page. This will open a selection box. Learn more: [Object operation permissions](#).

Fig. 2 Set up the record access permissions





5. Select the “Sales Department. Head Office” role in the box. You can also grant permissions to this record to individual users.
6. Click [ Save ]. As a result, only the sales department managers will be able to view, edit, or delete the record.

## Set up permission to calculate a forecast

Set up permission to calculate a forecast in the “Can Calculate Forecast” (the “CanCalculateForecast” code) system operation. By default, any user in the “All employees” role can run this operation, but you can restrict it to specific employees. For example, only the managers of the sales and finance departments. Learn more about managing system operation permissions in a separate article: [System operation permissions](#).


## Add forecast periods

PRODUCTS: SALES ENTERPRISE

Use the [ *Periods* ] and [ *Period types* ] lookups to manage forecast periods.

**Note.** The [ *Periods* ] and [ *Period types* ] lookups are not registered in Creatio by default. You need to register these lookups before they become available in the [ *Lookups* ] section. Learn more in the “[Create new lookups](#)” article.

To add a new period:

1. Click  to open the System Designer.
2. Open the [ *Lookups* ] section and find the [ *Period types* ] lookup.
3. Click [ *New* ].


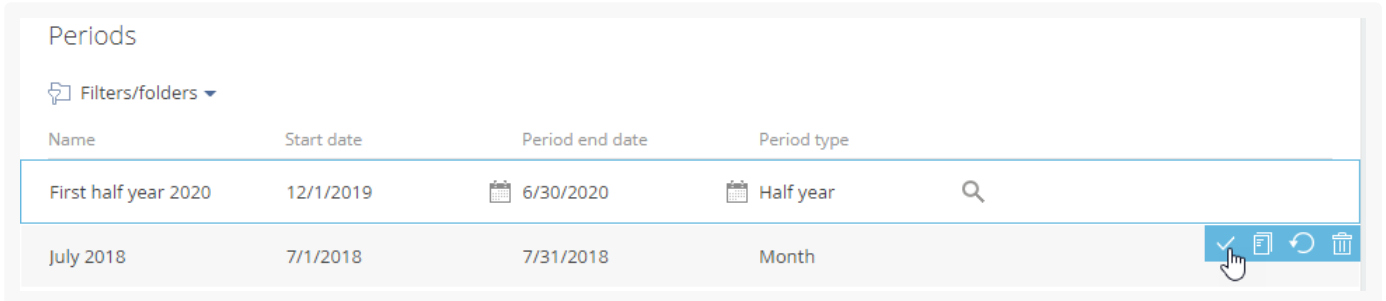
4. Enter the name of a new period type, e.g., “Half-year”.
5. Click  and save the changes.
6. Open the [ *Lookups* ] section again and find the [ *Periods* ] lookup.
7. Click [ *View* ] → [ *Set up fields to display* ] and add the “Period type” column to the section list. Click [ *Save* ].
8. In the lookup list, click [ *New* ] and populate the name, period type, the start and end dates for the new period ([Fig. 1](#)).

Fig. 1 Setting up a new period



Name	Start date	Period end date	Period type
First half year 2020	12/1/2019	6/30/2020	Half year
July 2018	7/1/2018	7/31/2018	Month

9. Add the missing periods up to the end of the current year. For example, with a period that is six months long, you will only need two periods.

As a result, new periods become available for your forecasts.