



Rollup Multiple Boards

Introduction

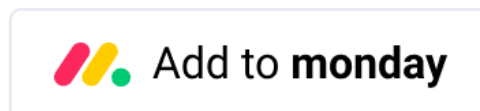
Rollup Multiple Boards rolls up information from lower level boards into a single item in a higher level board. The data from the supported columns (Number, Status, Timeline, Date and Time Tracker) on any number of lower level boards is aggregated in a single row.

The Rollup Multiple Boards app is developed by monday.com power users and is available on the monday.com marketplace. When downloaded from the marketplace the app is installed in trial mode (10 days) and can be unlocked through the [Excellent Team](#) shop at any time.

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Installation



By clicking the image above you add this app to your monday.com account. In case you have multiple accounts, please select the correct account in the upper right corner. During the installation you are asked to authorize the app (see section below).

After installation of the Excellent Team app into your monday.com account you can add the app recipe(s) to your boards. You do this by clicking the integrations and find the monday App you are interested in.

Authorize the app

During the installation of the app in your monday.com account the required permissions (scope) for this app were shown. The app does not store user access tokens but the monday.com platform will grant the permissions shown during the installation for 60 seconds to the app. All actions will be performed with the user credentials of the user that installed the app.

Install **<<App Name>>** in your account
The app will be available to all users in your account



On monday.com, **<<App Name>>** would like to:

Read all of your boards data	The requested permissions (scope) may differ for different apps
Modify any of your boards' data	
Send notifications on your behalf	
Create and modify webhooks	

Cancel

Install

Configuration

After successful installation of the app you need to prepare your first board, called your Top-Level board. From this board you will be able to create down-level boards from account templates by changing a status.

Pre-requisite: you need to have one or more monday.com template boards. Template boards in your account will have the 🌟 icon in front of their name. To limit the template boards recognized by Rollup Multiple Bards (RMB) you should enter the string “[RMB]” somewhere in the description of the template. Below is a screenshot of a correctly configured template.



Pre-requisite: your Top-Level board needs to have a Status column and a Link column, the Status column is used to trigger the creation of the down-level boards and the Link column contains the link to those created boards.

The Top-Level board also need columns to hold the aggregated data from the down-level boards. These output columns can be created in advance or at the time the data collection recipes are added.


Best practice: it is a good practice to name your status values to the type of template you want to use. By default, the down-level board will be created with a name constructed from the item name with the name of the status value appended to it. It is recommended to keep these status values relatively short. Good status values are “Type A”, “Template 1” or “Small project”. You can specify the format of the down-level board names in the recipe.


Best practice: you can have multiple templates (different types of “down-level” boards) configured on one high-level board. There are two different approaches you can take:

1. Using the same status column with different status values to trigger the board creation.

This is the preferred method and prevents possible conflicts where more than one template wants to write to the same output column. A good use case is when you have smaller and larger projects (down-level boards) each holding a different set of columns. On a board it looks like this:

	Action 1	Detail 1	Timeline	Status	Total cost	Numbers
🗨	Type 1	Open	27 Jul - 4 Sep		221,660	
🗨	Type 1	Open	27 Jul - 17 Oct		221,660	
🗨	Type 1	Open	27 Jul - 17 Oct		221,660	
🗨	Type 1	Open	27 Jul - 17 Oct		221,660	
🗨	Type 2	Open	-			213,420
🗨	Type 2	Open	-			213,420
🗨	Type 2	Open	-			213,420
🗨	Type 2	Open	-			213,420
🗨	Type 1	Open	27 Jul - 17 Oct		221,660	
🗨	Type 1	Open	27 Jul - 17 Oct		221,660	

 Watch **Type 2 - Cost** in connected boards and aggregate detailed board items to **Numbers** displaying the **sum**.
 Automation ID: 28030215
Created by Bas de Bruin · Updated 27 minutes ago

 Watch **Type 1 - Cost** in connected boards and aggregate detailed board items to **Total cost** displaying the **sum**.
 Automation ID: 26807212
Created by Bas de Bruin · Updated 4 weeks ago


In this scenario you can use multiple recipes writing to the same output column. The app will generate a **WARNING** notification to warn the user that it is only a good idea if the information in both templates has the same meaning (e.g. both are costs).


2. Using different status columns to trigger board creation.

This scenario is made available for use cases where there are multiple “down-level” boards that together hold the information of one project (e.g. a board with project status, tasks etc. and another board holding the financial information of that project).

In this scenario you can create a conflict when multiple recipes from different templates write to the same output column. The app will discover this on first use and generates a **CONFLICT** notification and clears the values to prevent confusion. On a board it looks like this:

	Action 1	Detail 1	Action 2	Detail 2	Timeline	Status	Total cost	Numbers
	Type 1	Open	Disconnect		27 Jul - 4 Sep		221,660	
	Type 1	Open	Disconnect		27 Jul - 17 Oct		221,660	
	Type 1	Open	Disconnect		27 Jul - 17 Oct		221,660	
	Type 1	Open	Disconnect		27 Jul - 17 Oct		221,660	
	Type 1	Open	Type 2	Open	27 Jul - 17 Oct		221,660	213,420
	Type 1	Open	Type 2	Open	27 Jul - 17 Oct		221,660	213,420
	Type 1	Open	Type 2	Open	27 Jul - 17 Oct		221,660	213,420
	Type 1	Open	Disconnect		27 Jul - 17 Oct		221,660	
	Type 1	Open	Disconnect		27 Jul - 17 Oct		221,660	

 + Add description
 When **Action 2** changes to **Type 2** create a **Main** board based on **Type 2**. Name the new board as "item name + status name" and place the link in **Detail 2**.
 Automation ID: 27934543
Created by Bas de Bruin · Updated 1 minute ago

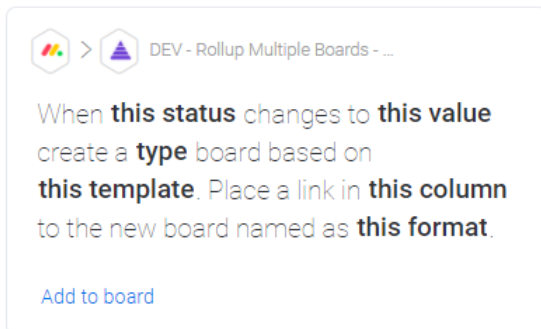
 + Add description
 When **Action 1** changes to **Type 1** create a **Main** board based on **Type 1**. Name the new board as "item name + status name" and place the link in **Detail 1**.
 Automation ID: 25956023
Created by Bas de Bruin · Updated 1 month ago

The recipes

When using any of these recipes the app will notify the user (through the monday.com notifications area) when something goes wrong. When a recipe configuration fails, please check your notifications. At the bottom of this document you find a list of possible notifications and their detailed description.

Setting up down-level board creation

The first recipe you want to use is the recipe that controls the creation of down-level boards.



The fields “this status” and “this value” defines the trigger to create a down-level board. You can select the monday.com board type and the monday.com template to use. A link to the created down-level board will be placed in “this column”. You can define the name of the down-level board that will be created (see below for the “this format” field).

Now, when you change the status to the defined value a new down-level board will be created in the same workspace as your Top-Level board. The down-level board is now linked to the Top-Level board and you can start collecting data from all down-level boards. The user that initiates this action (sets the status to the given value) will be added to the down-level board as owner of that board.

You can add multiple of these recipes to your board and the app will check if the specified template is not already in use (see [Usage](#) section).

Caution: when you have multiple types of down-level boards – each based on their own template – and you change the status while the down-level board has already been created, the link will be removed but the RMB app will **never** delete your down-level board. When you change the status back to trigger the creation of a down-level board again a **new** down-level board (with the same name) will be created.

This format is a text box where you can enter your own text and specific fields. Fields are written between curly brackets, available fields are:

- {year} - the current year in 4-digit notation
- {year2} – the current year in 2-digit notation
- {quarter} – the current quarter
- {month} - the current month in 2-digit notation
- {day} – the current day (0-31)
- {columnid} – the value of the specified column

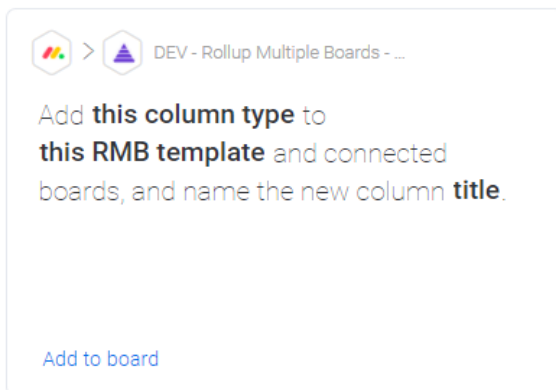
Warning: {columnid} needs to be of type: name (leftmost column), text, status, date, board-relation or lookup. You can find the columnids by activating Developer mode in monday.com. (Avatar > monday.labs > Developer mode > Activate).

The format field can't be left empty. If you enter just a space in the format field the default format will be used which is “Item name – Status value”.

Add columns to your template

When you add the recipe described above to your Top-level board the template you selected will be analyzed and the columnid's of that template will be stored in a database. These column names and id's will be used to select the "Watch" recipes described elsewhere in this document.

If you want to add an additional column to your template that column will not be recognized by the app. Therefore there is a specific recipe available to add a new column to a template in use on the current Top-level board and to all connected (existing) down-level boards.

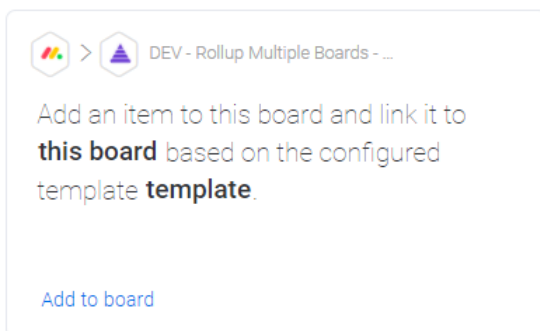


This recipes lets you add a column (of the supported column types) to a template in use and all connected (down-level) boards. You can name the column in the recipe by entering a value in the title test box. Best practice: when adding a status column to your template and connected boards you can set all status values by using the standard monday.com feature. Click on your Avatar > Admin > Customization > Boards and set the board defaults for status columns.

When you add this recipe to your board the action to add the new column to the template will execute immediately (no trigger needed). After this you can safely remove the recipe from your board or use it again to add another column.

Add existing board to your configuration

The recipe described on the previous page creates new down-level boards to your configuration on status value change. If you want to add existing boards you can use another recipe.



This recipe allows you to add an existing board to your configuration as down-level board and link it to an item in your Top-level board. The down-level board need to be based on an existing template.

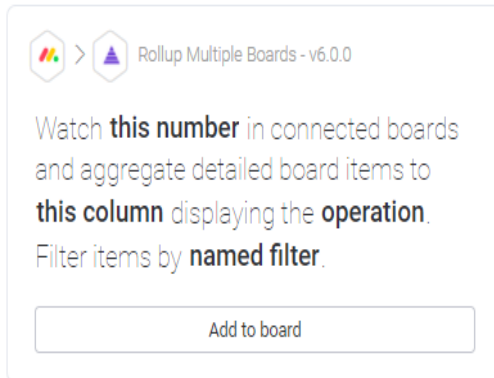
The board you want to add to the configuration must have at least the same columns (column type and columnid) as the columns in the template.

When you add this recipe to your board the action to add the existing board to your configuration will execute immediately (no trigger needed). After this you can safely remove the recipe from your board or use it again to add another board.

Best practice: when you want to add a board that does have different columns than any of your configured templates you can save the existing board as a monday.com account template and add the string [RMB] in the new template its description. Create a new value in your status column controlling the board generation and link the new template to the new status value with the recipe (When status change...create). Now you can add the existing board as a down-level board by selecting the newly created template.

Watching columns and aggregating results

The bulk of the recipes this app supports are used for watching columns in down-level board and aggregated data into a single item in the Top-level board. In this document we will use one of these recipes to described its common use.



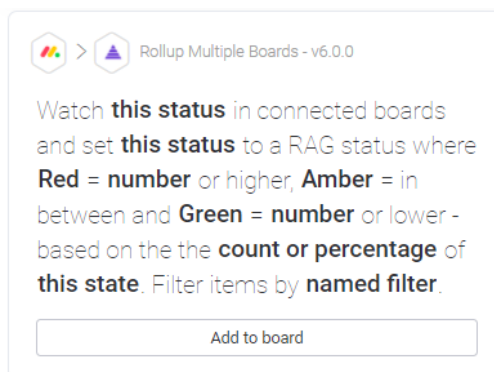
Watch **this number** in connected boards and aggregate detailed board items to **this column** displaying the **operation**. Filter items by **named filter**.

Add to board

In the first field you specify which column from the down-level boards you want to aggregate. The dropdown show "Template - Column". There are different recipes for each supported column type (example uses a number column). In the second field you specify to which column in your Top-level board you want to write the aggregated data to. Some column types support an operation (sum, min, max, avg, count) or a format. All these "Watch" recipes ends with "Filter items by named filter". See section on filtering.

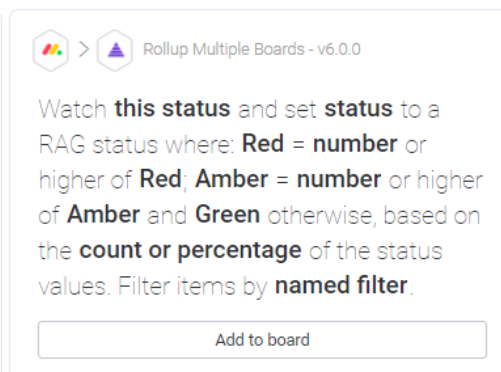
When the selected column from the Top-level board does not support the format (e.g. a non-decimal format in number column) the app will override the format and uses the supported decimal version of the format.

When you want to watch a status column in your down-level boards you need to specify a value to watch for. The app can only watch and aggregate one status value per recipe. There are also two recipes available to set a status column in your Top-level board to a RAG (Red-Amber-Green) status.



Watch **this status** in connected boards and set **this status** to a RAG status where **Red = number** or higher, **Amber = in between and Green = number** or lower - based on the the **count or percentage** of **this state**. Filter items by **named filter**.

Add to board



Watch **this status** and set **status** to a RAG status where: **Red = number** or higher of **Red**, **Amber = number** or higher of **Amber** and **Green** otherwise, based on the **count or percentage** of the status values. Filter items by **named filter**.

Add to board

Both recipes set a status value (Red-Amber-Green) in the Top-level board based on conditions you specify. You can select which values you want to select for Red, Amber and Green in the Top-level board. The leftmost recipe counts (absolute or percentage) one specific status value in the down-level boards. For the second recipe (shown right) you need to read it from left to right (or Red to Green). If the "Red" condition applies the Top-level status will become red, secondly the "Amber" condition is checked. If both "Red" and "Amber" fails to meet the condition the Top-level status value is set to green. Also these recipes can be filtered, see filter section below.

There is also a "Watch date" recipe. This recipe is a little different as it takes the earliest and latest dates from the date column in the down-level board and creates a timeline out of it to show in a timeline column in the Top-level board.

Another recipe that is different is the "Watch all items and count" which will simple returns the number of items in the down-level board.

The People column

The RMB app support watching a People column in the down-level boards and aggregate all persons from that board to a single item / People column in the high level board. There is something particular with the People column because you can only assign persons (in the high-level or “masterboard”) that are subscribed to that board in case the high level board is a shareable board. Therefore the recipe to aggregate the People column examines the board type of the high level and if the board type is:

- **Main;** active persons that are members (not guest) are assigned to the item in the high level board.
- **Shareable;** all active persons (including [pending] guest) are subscribed to the high level board automatically and assigned to the item. **Warning:** this can have an impact on your security and permissions.
- **Private;** only active persons that are subscribed to the high level board will be assigned to the item in the high level board.

A side effect of assigning people to a column in the high level board is that these people now has access to the high level board and its item, unless you lockdown the columns they can make changes to the high level board.

To use the recipe to aggregate the People column without assigning the persons to the high level board you have the option the use a Dropdown column as the output column in the high level board. When using the Dropdown column, the persons **names** are created as labels in the Dropdown column. With this you can still see all persons in the down-level board without the need to assign them to the high level board.

Warning: the app does not protect using a Dropdown column that is also used for filtering. By using the same Dropdown column for this recipe's output column as well as for a filter column the app will run in an endless loop.

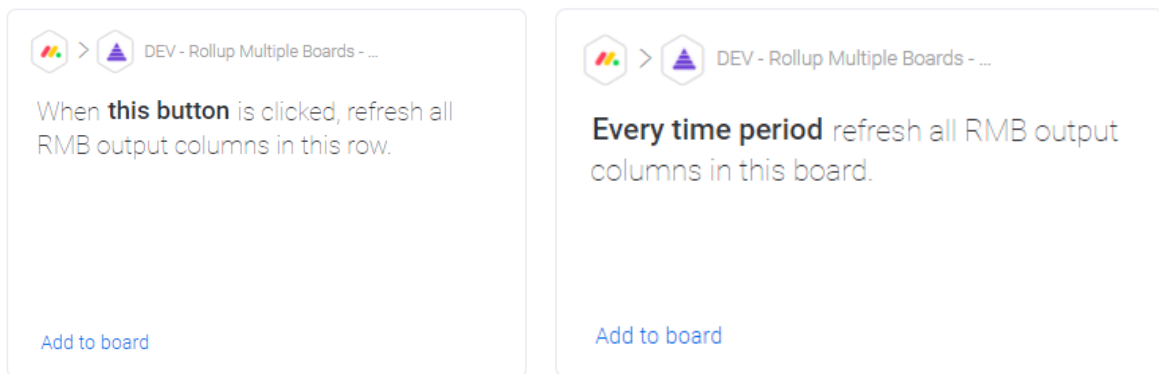
Manually update the Top-level board

The Top-level board is kept in sync with changes in any of the connected down-level boards where possible. The following events in any of the down-level boards updates the aggregated value in the Top-level board:

- Column value change
- Add item

Unfortunately there is no possibility to watch for item deletion. Therefore, if an item is deleted in one of your down-level boards the Top-level board is not updated until one of the events mentioned above takes place.

If you want to manually refresh the Top-level board there are two recipes available to do that.



For the leftmost recipe you need to add a button column to your Top-level board. After adding the recipe you can click the button to refresh the Top-level board with the information found in the down-level board connected to the item.

The second recipe will refresh the entire Top-level board on a scheduled time.

Caution: both these recipes (the scheduled one in particular) will generate a high number of API requests to monday.com. This can easily lead to “rate limiting”, which is a protection mechanism from monday.com to prevent (too) high usage of the API. When the app receives such errors from monday.com the action will be retried in one minute. However, with the current implementation of the monday.com API there is no guarantee that all requests complete successfully under an extreme high load.

Duplicating an item in the Top-level board

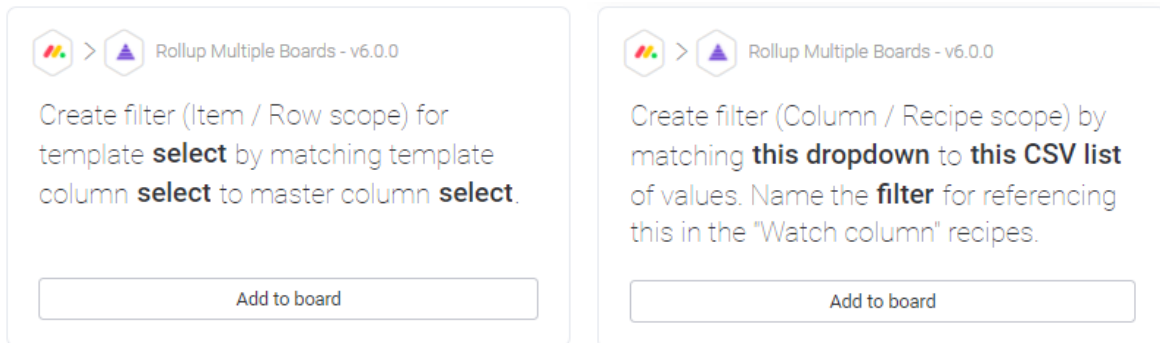
Although there is no recipe for this automation duplicating an item in a Top-level board will also duplicate the relationship to the connected down-level board. This is especially useful when using filters to manage which items in the down-level board should be taken into account (see below).

The filter recipes

Rollup Multiple Boards support filtering items in the low-level boards. With filtering the user decides which items in the low-level boards are used to aggregate data and show the result in the high-level board. Use case examples are:

- You only want to show the total costs of items that are marked “reimbursable”
- You want to show just one date (key date) in the high level board

Filters need to be created with either one of these recipes.



The image shows two side-by-side screenshots of the 'Rollup Multiple Boards - v6.0.0' interface. Each screenshot has a header with a logo and the text 'Rollup Multiple Boards - v6.0.0'. The left screenshot contains the text: 'Create filter (Item / Row scope) for template **select** by matching template column **select** to master column **select**.' Below this text is a button labeled 'Add to board'. The right screenshot contains the text: 'Create filter (Column / Recipe scope) by matching **this dropdown** to **this CSV list** of values. Name the **filter** for referencing this in the "Watch column" recipes.' Below this text is a button labeled 'Add to board'.

Item / Row scope filters: these filters work on all the recipes for a specific template, so all output values in your high-level board on the same row will show filtered data. The filter is configured by selecting a template (**select**) and a set of columns in both the low-level and high-level boards (template column and master column). There are two column types that can be used for this filter (dropdown and people). Items from the low-level board will be filtered when there is a matching values found in either the people or the dropdown columns. Each person / dropdown value is individual checked. As an example: master dropdown column has 1 label (dog) and in the low-level board there are items with 1 label (dog), of two (or more labels), like (dog, puppy, bulldog). Each items that has at least the label (dog) will be used for aggregating the data. When there is no value specified in the master filter column (people or dropdown) **no** filtering is active and all items of your low-level boards are used. The filter can be attached to each of the “Watch” recipe by selecting the named filter “Configured Item filter(s)”. When you do not plan to use filtering this values needs to be selected without a Item / Row filter configured, this will aggregate all items in your low-level board. When you use multiple Item / Row scope filters they will act as an AND, the down-level boards should match all filter values. If you want an OR behavior you can set multiple values in a single dropdown column.

Column / Recipe scope filters: these filters can be given a name during the setup of the filter and that name will show up as an option for the “Watch” recipe’s named filter selection. The filters are configured by selecting a dropdown column in the template (this dropdown), a textbox with comma-separated values (this CSV list) and a name (filter). You can configure multiple named filters as long as the given names are unique per template. Column / Recipe scope filters: these filters can be given a name during the setup of the filter and that name will show up as an option for the “Watch” recipe’s named filter selection. The filters are configured by selecting a dropdown column in the template (this dropdown), a textbox with comma-separated values (this CSV list) and a name (filter). With these filters you have maximum flexibility to show e.g. different cost type next to each other on the same item in your high-level board. The values from your comma-separated list act as an OR, there is currently no support for AND.

Usage

On first use of the feature you will be granted a 10-day trial period, unless you purchased the Excellent Team app in the shop. If you want to use the feature after this trial period you can purchase the feature in the [Excellent Team](#) shop. After purchasing the feature it will be available immediately and if you already configured the feature you will not lose your configuration.

The feature is fully functional in trial mode. You will receive a notification in monday.com that show that the feature is in trial mode. A few days before the end of the 10 day trial period you will receive another notification. The feature stops working after the trial period is passed and you can safely remove the feature from your board(s).

When you have added the recipe to create down-level board and a number of recipes to watch columns the output columns in the Top-Level board will be automatically populated with the aggregated values of the connected down-level boards. Any change (update / add) in one of the down-level boards will be visible in the Top-Level boards within seconds. Caution: removal of items in the down-level boards will not update the Top-Level board because there is no method available in monday.com to do so. However, with the next update of the down-level board the values will be updated correctly in the Top-Level board.

More tips

You can build a complete hierarchy of boards because a Top-Level board can act as a down-level board higher up in the hierarchy. The picture below shows an example of such hierarchy.



Caution: to be able to build such a hierarchy you need to start at the top level and add recipes to create template (project) boards and other top-level boards. It is likely that you need a different template for adding other top-level boards.

All output columns are regular monday.com column type and can be used as input or trigger for other (built-in) automations.

When using multiple templates because you are creating different type of down-level boards you can use the same output column in the Top-Level board to hold the aggregated data of both types of down-level board. The RMB app will send a notification with a warning that you are using the same output column in multiple recipes. Be sure you understand the function of the data in the down-level boards to prevent you are aggregating for example costs and revenue numbers to the same output column.

In case you use different templates to create down-level boards on the same item in the Top-Level board (by using a second set of Status and Link columns) you can configure recipes that will be conflicting with each other. This happens when you use the same output column for different recipes on the same item in the Top-Level board. The RMB app will send a conflict notification and clear the value in the output column until you solved this output column conflict.

Best practice: when building a hierarchy of boards and at a certain level you use both down-level boards and other top-level boards you need to make sure that you understand the data in the down-level boards. Examples where this can lead to confusing information are:

- If you are showing a percentage of completion of a status column you need to make sure your output column is a numbers column when you pass this information higher up in the hierarchy. At the higher level you should configure an average (and not the sum) of the number columns showing the percentage of completion in the lower level boards.
- If you are adding up numbers make sure the numbers represent the same data in both the down-level and top-level boards configured. Technically you can add costs to revenue but the information you will see does not make sense.

For column types Status and Time Tracker you can select both text and numbers columns as output columns. Selecting a number column will overwrite the requested format with a format capable of showing the information in a decimal format. The use case for this is when you want to:

- Use that information in other automations
- Use that information higher up in the hierarchy.

Notifications

The app sends monday in-system notifications (Bell icon in left sidebar) to notify in case of issues or warnings. The list below explains the most common notifications.

Add template definition	The specified status value 'Anything' can't be used to trigger duplication.
	Each to create a board (When status changes ...) need an unique status value, the status value 'Anything' can't be used.
Add template definition	The specified status value is already used for another template.
	Each to create a board (When status changes ...) need an unique status value.
Add template definition	You can't use the master board (boardid) as a template for itself!
	When defining a template you can't use the board where you are adding the definition to. Please use one of your template boards.
Add template definition	The template 'Template Name' is already configured in this board
	A template can only exists once per Top-level board.
Add template definition	ERROR: The specified column is already in use as output column (RAG status). The specified column can't be mixed with an output column used to display the RAG status.
	You can't use the same status column for triggering the board creation and at the same time use it as an output status column. Please create a different status column to use as output column in a RAG recipe.
Add template definition	You can't use the master board (Board Title) as a template for itself!
	You can't use the current Top-Level board as a template. Please create another template if you want to use this Top-level board layout as down-level boards.
Add template definition	You need to purchase the feature for each Master board. You currently used all (x) available Master boards in your account.
	The app is licensed per Master board (the top of your pyramid).
	When you want to use multiple trees / pyramids you need to purchase additional licenses. Please contact info@excellent-team.nl for available volume discounts.
Add template definition	ERROR: monday.com did not return a valid webhook. Please try again later.
	This is a very technical error and can occur occasionally. Please try the same action again.
Board creation	The board (template name) is not a monday.com account template. Please make sure this board is configured as template in monday.com.
	The board you defined as your template is not a monday.com account template. Please read the configuration section.
Board creation	ERROR: monday.com did not return a valid webhook. The board (board name) is created but will not report its data. Please remove the board and try again later.
	This is a very technical error and can occur occasionally. Please remove the created board and try the same action again.

Add a recipe	ERROR: The output column (column name) is already in use by another recipe from the same template.
	You can't use the same column in your Master board to receive updates from different recipes based on the same template. Please select another column as output column in your recipe.
Add a recipe	WARNING: The output column (column name) is already in use by another recipe from the another template. When both templates are configured in the same row you need to delete this recipe to avoid a conflict.
	This is a warning that you are using the same output column to hold data send by boards based on different templates. The warning is to remind you that the output column is in use but as long as the templates are configured on different item in your Master board you are OK. Remember it is not a good idea to add all costs and all revenue in the same output column. See also CONFLICT notification below.
Add a recipe	WARNING: The output column is a numbers column. The requested format will be overruled by the numbers format.
	For some recipes you can select a text or a number column as output column. When you use a number column the specified format (e.g. X of Y (status)) will be ignored and the output is just a number.
During updates	CONFLICT: on board (name of master board) there are multiple recipes configured for column (column name) . Value has been cleared.
	A conflict occurs when you have different recipes using the same output column and on the same item in your Master board. This can only occur if you define multiple status columns to create boards on the same item in your Master board. Please read the configuration section on best practice to use multiple templates.
During updates	DELETED?: unable to find column (columnid detail) on board (boardid detail).
	The column specified in your configuration as an input column can't be found on a down-level board can't be found (probably deleted from monday.com).
During updates	Unable to find board "boardId down-level board". Deleted the relationship(s) from the database.
	The board specified in your configuration as a down-level board can't be found (probably deleted from monday.com). The relationship between the board and the item in the Top-level board is deleted from the database.