Four Pees

Switch

App

Monday.com

Table of Contents

1. Introduction

Monday.com is a platform to manage things. Different things in different industries or even company divisions in the same industry. But regardless of what it manages, it does so in a very structured way (with boards, groups, items, updates...) and in an extremely visual way.

Want to create a platform where you see the jobs moving through your plant, and at what stage they are? Create a board for that. Want to have a team member see a list of jobs to assemble, or send off? Create a board for that. Want to keep track of which jobs have been sent in case a customer calls? Create a board for that.

You have to maintain all of this information and updating everything manually is a distraction at best. This suite of apps gives you everything to upload information to Monday.com from Switch or download information for a specific job from Monday.com when necessary.

Switch? Meet your job dashboard. Monday.com? Meet your workflow. Enchanté!

1.1. Versions

The following is a short version overview:

• version 1: initial version of the app.

2. A suite of apps

This is a suite of apps. They all talk to Monday.com and they have similar properties to configure them, but each app has been optimized to do one thing really well. As a result, they're simpler to deal with for you and easier to maintain and evolve for us. This chapter gives you an overview; the next chapters go into the details for each individual app.

2.1. Add to Monday.com

If you give this app the board you are interested in, it will create a new row on the board for you (in the group you select). You are in control over what information you put in that row; you might update some columns or all of them.

With one exception that is, you can't upload a file to a column that supports that. Due to the Monday.com architecture, there necessarily is a different app for that. That may sound bad, but given that this app will return the row ID it just created to you, it's very easy to then upload a preview or something else to that row later.

2.2. Upload to Monday.com

Speaking of the devil, this app lets you specify a row, and you can then upload a file to that row. You want to be careful with this as this file will then take up space in your Monday.com setup, but of course Switch can help you to create the proper preview file for upload for example.

2.3. Update on Monday.com

What if you already have the data in your Monday.com board and you just want to update the status column for example? This app has your back. Specify the row you're interested in (yes, you can search, for example on the job ID) and the app allows you to change any column you fancy.

2.4. Get from Monday.com

Sending information to Monday.com is great, but what if I want to get information about certain jobs? Can I look for a row with a particular job ID and then see what its status is? Or who is the owner of the job so I can have Switch send an email? Of course you can; this nifty little app does exactly that.

Given a row ID or a search that results in a row, it can download exactly those columns you're interested in, and store the information in private data for the passing job. What more can you want?

3. Common principles

Switch is quite flexible, and so is Monday.com. That makes for some fun possibilities to make the connection between the two work, but it also opens up a (small) can of worms. Therefor it's good to talk about a few principles and ways this complexity is tackled in the apps.

3.1. Terminology

Monday.com divides information at the highest level into **boards**. You can look at the information in boards in different ways (a calendar, Kanban, list view…), depending on what fits your way of working the best. All of the apps in this suite require you to select a board to work with.

Each board has at least one **group** in it, but you can create multiple groups to logically manage information. On a job tracking board, you might have a separate group for different production facilities for example. Or perhaps it makes more sense to group job per product type? The choice is yours.

On a board, in a group, Monday.com has **rows** or **items**. Two different terms that are used for the same concept. In our job board example, a row represents a job we're tracking. In this suite of apps we use the term "row" as much as possible (rather than item).

As in a spreadsheet application or a database, each row has multiple pieces of information. A job probably has an ID, the type of job it is, a user-friendly name, a due-date, a person responsible for it, a production status… You name it. These things are called **columns** in Monday.com.

3.2. ID versus friendly names

A complexity in Monday.com is that things typically have two identifiers. An internal **ID**, which is often not user-friendly, and a name, or title which is the **user-friendly name** for it. It is after all (for most people) easier to know what they're looking at if you tell them the board is "Production dashboard" instead of "124596548" (which is the internal board ID).

However, to talk to Monday.com, you need to know the ID of the item. We've tried to make it as easy as possible to work with this, but it's still something you're going to run into at some point.

In many places we use what Switch calls a "library property editor" for the apps. This is a property editor that interrogates Monday.com and lets you select a value, rather than having to figure it out for yourself. An example is the board selection. Rather than having to know the board ID, you can use the "Select from library" option. This shows a dialog window that lists all boards, followed by a pipe sign ("|") and the board ID. Just select the board you want to use and you're set.

If you know the ID and prefer to use it for whatever reason, you of course can do that as well. This might be handy if you for example want to provide a different board ID depending on some parameter of the job (maybe you have a different board for UK jobs vs. jobs from Belgium). In that case you just enter the board ID itself and the app will figure it out.

3.3. Identifying rows

Whenever an app requires to know which row you want to work with, it offers two ways to identify that row.

3.3.1. ID

The most straightforward way is to allow you to enter a row ID. This is a number that uniquely identifies the row in your Monday.com instance. This is particularly useful if you have first added a row to a board. The app to do so returns the ID of the newly added row in a private data field of your choice, so later you can retrieve it using a Switch variable or script expression.

3.3.2. Search

Using the row ID isn't always straightforward as you might not know the row ID, but rather would like to identify the row by searching for a certain value in a specific column. Using the production dashboard example again, each job likely has a unique job ID. In that case, the apps will let you search for the job ID of the job in the job ID column.

3.4. Identifying columns

Identifying columns isn't always straightforward either. Monday.com uses a column title (what you see in the Monday.com board) and a column ID (which you really need to use in an automation scenario). Unfortunately this ID isn't immediately visible in Monday.com. What now?

3.4.1. Using the app

You can use for example the "Update row" app to identify column IDs. In the "Row selection" property, choose "By value in column". That will bring up two additional properties and the "Column ID" property has a library editor that shows each column in your board and its ID.

3.4.2. Using a Monday.com "beta" feature

Monday.com has a configuration option that should show you all normally hidden IDs. This is according to them in beta and might or might not work for you.

3.4.3. Using the app again

When you need to specify a column and can't use a library editor, the app tries to make your life easier by allowing you to specify columns in three different ways. See the examples below:

- `id:date`, looks for a column with ID equal to "date",

- `title:Delivery date`, looks for a column with title equal to "Delivery date",

- `Status`, looks for a column where either the ID or the title is equal to "Status".

4. Add to Monday.com

This app adds a new row to a particular Monday.com board. This chapter describes how to configure the app to get the desired result.

4.1. Properties

4.1.1. Token

Your API token for Monday.com. To find it, click on your profile icon (bottom left of the Monday.com interface). Then select "Admin" and "API". Then generate and copy the token to paste it into the app.

4.1.2. Board ID

The ID of the board you want to work with. In the inline editor for this property you can paste the numeric ID of the board, or you can use the "Select from library" editor. This shows you a dialog window with all available boards from which you select one.

4.1.3. Group

The ID of the group you want to work with. In the inline editor for this property you can paste the ID of the group, or you can use the "Select from library" editor. This shows you a dialog window with all available groups from which you select one. You have to enter a valid board, before you can select a group.

If you think the ID of your group is weird and doesn't match its name, you're probably right. Check out the section on Monday.com IDs at the back of this manual.

4.1.4. Row name

The main property of each row on a board is its name. While you could think of this as "just a column", Monday.com doesn't and as a result this app has a special property for it. This could be the job ID, the name of the Job or anything else that helps you identify the row on your board.

4.1.5. Columns to set

This is the heart of this app and also the most complex property to set. The property contains an example that explains what is expected. In essence you need to have one line for each column value you want to set. A key-value format is used where an equal sign ("=") to separate the key and value. The key is the identification of the column you want to set (see also 3.4.3 on identifying columns). The value is... the value for the column. Some examples:

- id:job_id=BE1005599
  Look for the column with ID equal to "job_id" and set its value to "BE1005599".

- id:status=Waiting for approval
  Look for the column with ID equal to "status" and set its value to "Waiting for approval". As you can see in the example you can have spaces in the value without having to quote it.

- title:Order date=2020-09-21
  Look for the column with title equal to "Order date" and set its value to the given date. Here you can see that you can have spaces in the title of the column, no quotes necessary (or allowed).

Some last remarks: the key (the column identification) cannot contain an equal sign, the value can. And setting some columns (like a date) requires following some guidelines. See the tips & tricks chapter for more information.

4.1.6. Private data for row ID

When this app adds a new row on your board, it gets the ID of the row back from Monday.com. This property allows you to specify in what private data field that information should be stored so you can use it later to update the row, add a file to one of its columns...

The default value for this field is "`fpMondayRowID`", but you can change it to any valid private data field name.

5. Upload to Monday.com

This app uploads a file to a column in a Monday.com board. This chapter describes how to configure the app to get the desired result.

5.1. Properties

5.1.1. Token

Your API token for Monday.com. To find it, click on your profile icon (bottom left of the Monday.com interface). Then select "Admin" and "API". Then generate and copy the token to paste it into the app.

5.1.2. Board ID

The ID of the board you want to work with. In the inline editor for this property you can paste the numeric ID of the board, or you can use the "Select from library" editor. This shows you a dialog window with all available boards from which you select one.

5.1.3. Row selection

Select "**by ID**" if you know what the ID of the row is you want to add the file to (for example because you added it to the board using the Add row app). The additional "**ID**" property now allows you to enter the row ID.

Select "**By value in column**" if you don't know the row ID and want to search for it. The additional "**Column ID**" property lets you specify which column you want to search in and the "**Column value**" property what value you want to look for in that column.

The app will only add the file to one row. If your search would result in multiple rows, the first one will be used and a warning will be logged in the Switch log so you know this happened.

5.1.4. File column ID

The column you want to upload the file in. This should be a Monday.com column that supports file uploads!

5.1.5. File to upload

The file you want to upload. This can be either the incoming file (that triggered the app), a dataset attached to the incoming file, or a specific other file. Some additional points:

· Multiple files are not supported. Consider zipping them into a single file before using this app. But...

· ... these files are uploaded to your Monday.com account. Make sure you have sufficient storage. You can of course always use Switch (and perhaps an application such as callas pdfToolbox) to create low-res versions of your PDF or JPEG preview images before you upload the file.

6. Update on Monday.com

This app updates an existing row on a particular Monday.com board. This chapter describes how to configure the app to get the desired result.

6.1. Properties

6.1.1. Token

Your API token for Monday.com. To find it, click on your profile icon (bottom left of the Monday.com interface). Then select "Admin" and "API". Then generate and copy the token to paste it into the app.

6.1.2. Board ID

The ID of the board you want to work with. In the inline editor for this property you can paste the numeric ID of the board, or you can use the "Select from library" editor. This shows you a dialog window with all available boards from which you select one.

6.1.3. Row selection

Select "**by ID**" if you know what the ID of the row is you want to update (for example because you added it to the board using the Add row app). The additional "**ID**" property now allows you to enter the row ID.

Select "**By value in column**" if you don't know the row ID and want to search for it. The additional "**Column ID**" property lets you specify which column you want to search in and the "**Column value**" property what value you want to look for in that column.

The app will only update one row. If your search would result in multiple rows, the first one will be used and a warning will be logged in the Switch log so you know this happened.

6.1.4. Columns to set

This is the heart of this app and also the most complex property to set. The property contains an example that explains what is expected. In essence you need to have one line for each column value you want to set. A key-value format is used where an equal sign ("=") to separate the key and value. The key is the identification of the column you want to set (see also 3.4.3 on identifying columns). The value is... the value for the column. Some examples:

- id:job_id=BE1005599
  Look for the column with ID equal to "job_id" and set its value to "BE1005599".

- id:status=Waiting for approval
  Look for the column with ID equal to "status" and set its value to "Waiting for approval". As you can see in the example you can have spaces in the value without having to quote it.

- title:Order date=2020-09-21
  Look for the column with title equal to "Order date" and set its value to the given date. Here you can see that you can have spaces in the title of the column, no quotes necessary (or allowed).

Some last remarks: the key (the column identification) cannot contain an equal sign, the value can. And setting some columns (like a date) requires following some guidelines. See the tips & tricks chapter for more information.

7. Get from Monday.com

This app gets the information from an existing row on a particular Monday.com board. This chapter describes how to configure the app to get the desired result.

7.1. Properties

7.1.1. Token

Your API token for Monday.com. To find it, click on your profile icon (bottom left of the Monday.com interface). Then select "Admin" and "API". Then generate and copy the token to paste it into the app.

7.1.2. Board ID

The ID of the board you want to work with. In the inline editor for this property you can paste the numeric ID of the board, or you can use the "Select from library" editor. This shows you a dialog window with all available boards from which you select one.

7.1.3. Row selection

Select "**by ID**" if you know what the ID of the row is you want get the information from (for example because you added it to the board using the Add row app). The additional "**ID**" property now allows you to enter the row ID.

Select "**By value in column**" if you don't know the row ID and want to search for it. The additional "**Column ID**" property lets you specify which column you want to search in and the "**Column value**" property what value you want to look for in that column.

The app will get information for only one row. If your search would result in multiple rows, the first one will be used and a warning will be logged in the Switch log so you know this happened.

7.1.4. Columns mappings

This is the heart of this app and also the most complex property to set. The property contains an example that explains what is expected. In essence you need to have one line for each column value you want to extract. A key-value format is used where an equal sign ("=") to separate the key and value. The key is the identification of the column you want to get the information from (see also 3.4.3 on identifying columns). The value is the name of the private data field you want to store the information in. Some examples:

- id:job_id=fpJobID
  Look for the column with ID equal to "job_id" and store its value in the private data field named "fpJobID".

- id:status
  id:status=
  Both forms look for the column with ID equal to "status" and store it in a private data field named "status". As the lines don't contain a name for the private data field, it's the column ID that is used.

- title:Order date=fpOrderDate
  Look for the column with title equal to "Order date" and store its value in the private data field named "fpOrderDate".

Bonus tip of the week: if you want to make your life easier, you can leave this property completely empty. In that case the app is going to extract all columns and store them in private data fields with the name the same as the ID of that column.

8. Tips, tricks & pitfalls

This chapter describes more advanced topics, limits and implementation limits, tips and tricks.

8.1. Rate limiting

The Monday.com API implements rate limiting which restricts the number of calls you can do to the API (with the number depending on what they call the complexity of the job. The app currently doesn't implement any mechanism to queue Monday.com requests so you will need to construct your Switch flows in such a way that you don't violate the rate limiting.

For more information about rate limiting and complexity, see here: https://monday.com/developers/v2#rate-limits-section. In general modifying boards is much more expensive than querying information (mostly as the apps really allow you to query a single row at a time).

8.2. Monday.com IDs

When you're looking at the IDs Monday.com uses for boards, groups, rows, columns… you might notice that the ID often has nothing to do with the item and that apparently you can't change it to something that makes more sense. That is correct and a limitation of the software.

8.3. Updating columns

When updating columns, it is necessary that your value matches the column as Monday.com does implement limitations. Two examples:

· A date column expects the date in the only sane format: "yyyy-MM-dd". An example is "1971-09-21".

· A tag column only allows existing tag values.

You can read more about this in the technical Monday.com information here: https://monday.com/developers/v2#simple-column-values-section. If you violate the Monday.com restrictions, there will be an error message in the Switch log so you can try to figure out where the error occurred and why.

8.4. Deleting information

At this moment, this suite of apps does not allow deleting information from Monday.com. This is not a technical limitation in Monday.com and could be implemented if it is something you need in your workflow. We have not done this for a number of reasons, mainly:

· Doesn't automatically delete stuff from a system like this make you cringe? Yeah, us too.

· We would need to find a good way to identify what needs to be deleted and how to delete it. There are certainly ideas on how that might function, but we'd rather implement it in a practical project so we know it's useful from the get-go.

9. More information

9.1. Four Pees 〰 feel the good flow

This app was created by Four Pees. You can find more information about our company here: http://www.fourpees.com. We created this app based on the experience we have with projects where Switch is used, but of course that is not a guarantee that the app will be suitable for every project out there.

If you run into a problem, or this app doesn't completely cover what you had hoped it would, don't hesitate to send us feedback. There are multiple ways you can do this:

- Go to our website and use the contact page: https://www.fourpees.com/en/contact.

- Send us an email at support@fourpees.com. You'll get a confirmation message and we'll be with you before you can say "Automation".

9.2. Free apps

If you're using one of our free apps, please keep in mind that our support on those is limited. We believe this is fair as free apps can't be handled the same way as payable project work.

That having been said, we of course will try to help you as best as we can! Just get in contact and we'll have a conversation on how we can help you.