

Release notes v5.9.7

Important! Create a backup copy of your projects and connector repositories before updating to the new version. Projects saved in the new version can't be opened in versions earlier than **5.9**. Also, if your organization uses EasyMorph Server, please make sure that the Server is upgraded to the new version *before* Desktops, not after.

A few words from the creators of EasyMorph

The headline feature of this release is the “Call Python” action that brings integration between Python scripts and EasyMorph to a whole new level. Now, an EasyMorph workflow can interoperate with a Python script as if it was another EasyMorph workflow:

- Pass workflow parameters to Python script
- Pass the input dataset to Python script
- Create/modify a dataset in Python and return it as a result dataset to EasyMorph

The action comes in tandem with a newly developed Python module¹ “easymorph” that provides low-level bindings for native use in Python scripts ([read more](#)). The module makes dealing with EasyMorph datasets and parameters in Python scripts extremely easy ([see example](#)).

This is the first milestone in our roadmap for strong Python support in EasyMorph. In the future versions, we would like to add Python scripts as native modules in EasyMorph projects, so that it will be possible to call or iterate a module regardless whether it's a workflow or a Python script. Besides that, in Python scripts it will be possible to work with Shared Memory, raise issues, and read/update Catalog metrics (and maybe even datasets). The end goal is to make Python a first-class citizen in EasyMorph.

We hope the tighter integration with Python will simplify leveraging machine learning in EasyMorph workflows, and improve collaboration between data analysts, data engineers, and data scientists.

Another notable novelty in this version is the full support of asset commands in EasyMorph Server. Now it's possible add and edit commands as well as use column and general commands right on the Server.

What's new

¹ Don't confuse with EasyMorph modules.

Changes in existing connectors

The **Amazon S3** and **S3-compatible** connectors now have the “Force path-style URLs” option to enforce path-style weblinks for accessing objects.

New actions



The **Call Python** action calls an external Python script. The called script can receive the workflow parameters, the input dataset of the action, and can return a dataset that becomes the output dataset of the action.



The **Skip if unchanged** action skips the rest of the actions in the current table, if the input of the action hasn't changed since the previous execution of this action. If the input has changed, then the action returns the difference between the current input and the input as it was in the previous run.

The action is intended to simplify detecting changes when a workflow is triggered by a Server trigger or by a Launcher task. The action has two modes:

- Detect and return *added or changed* rows compared with the previous run
- Detect and return *missing* rows compared with the previous run

Changes in existing actions

The **Email command** action now has a command for listing email folders.

What's new in Desktop

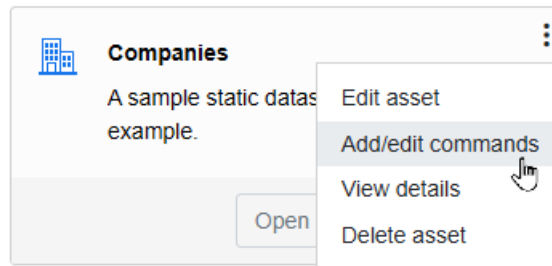
Miscellaneous

- The Catalog asset picker now has search for easier finding assets
- In File Manager, hidden files and folders are now shown semi-transparent

What's new in Server

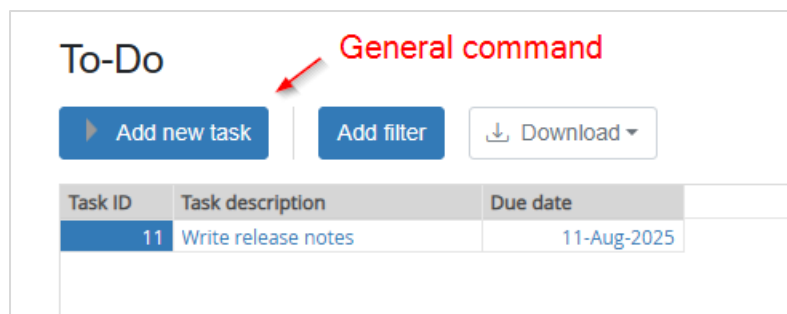
Asset commands

Starting from this release, it's now possible to add/edit asset commands for any dataset asset in the Catalog. The respecting “Add/edit commands” menu item is now available in the asset context menu.



Screenshot 1: Add/edit asset commands.

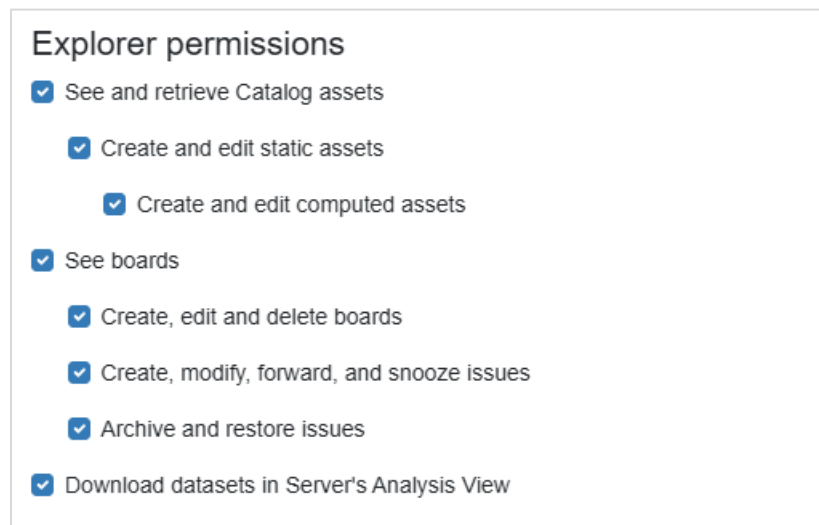
Besides that, column commands are supported for dataset assets in Analysis View and board sections. The Analysis View also supports general commands of dataset assets.



Screenshot 2: A general asset command in Analysis View

Explorer permissions

User roles now allow configuring permissions for Explorer:



Screenshot 3: Explorer permissions configuration in a user role.

Miscellaneous

- In the Users tab, in the list of users, Server admins are now indicated with a separate marker
- The list of issues in Explorer boards is now paginated to support a large number of active issues
- “Static” datasets in Explorer have been renamed to “pre-computed datasets”
- It’s now possible to add/edit related assets in settings of Catalog assets
- The “Catalog command” action can now work in non-Default workers

Release notes v5.9.6

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A few words from the creators of EasyMorph

In this release, we continue improving automation and Explorer in EasyMorph Server and making Desktop more convenient to use, especially for new users, by adding the ability to generate expressions from free-form descriptions in plain English, help preview, and better actions search.

Also, you can notice that the “What’s new in Server” section in our release notes now comes before the “What’s new in Desktop” section, not after it. That change reflects the fact that the Server has become the center point of the EasyMorph product line and thus the Server receives the spotlight first.

What’s new

Performance improvements

EasyMorph’s in-memory engine has got a few deep performance optimizations. They affect multiple actions so you can notice that actions, such as Merge or Append, are now executed faster, sometimes twice faster. On average, expect workflows to run about 10-15% faster and consume less memory, but the actual performance gain strongly depends on the actions used in the workflow and the nature of that data it operates with. Some workflows may not demonstrate any speedup at all.

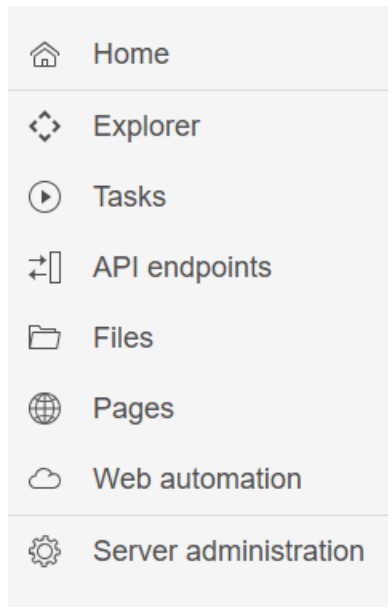
Changes in existing connectors

The **Snowflake** connector now supports two more authentication modes:

- Private key
- Programmatic access token

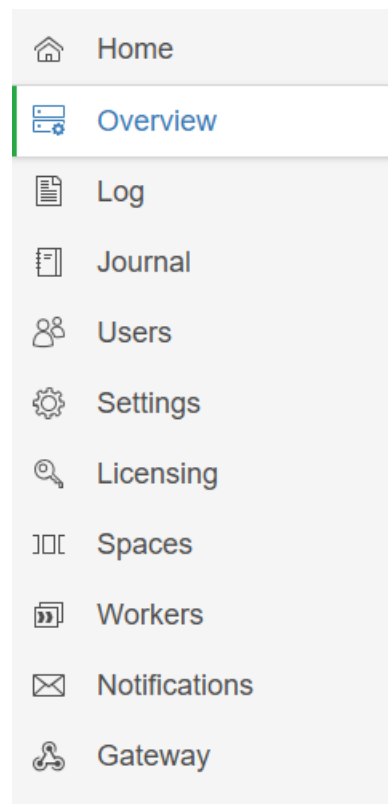
What’s new in Server

The sidebar menu and Server navigation has changed:



Screenshot 4: New sidebar menu.

The sidebar menu no longer displays the administrator's menu items in the same menu with space features. Instead, the administrator's menu items are only available in the Server administration:



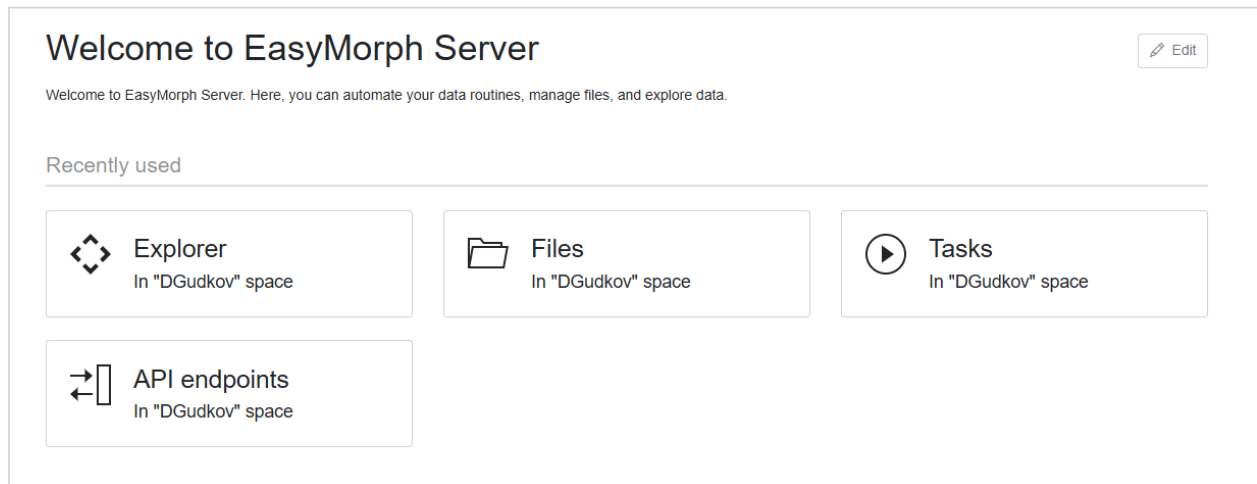
Screenshot 5: New administrator's menu.

Besides that, two new pages have been added:

The Home page

The Home page is a new page that is individual for each user. It's accessible from the sidebar menu, and is the starting point for any user after logging into the Server.

In the initial version, the Home page has only one section – “Recently visited”. More useful sections, and the ability to customize the Home page will be introduced later.



Screenshot 6: The new Home page.

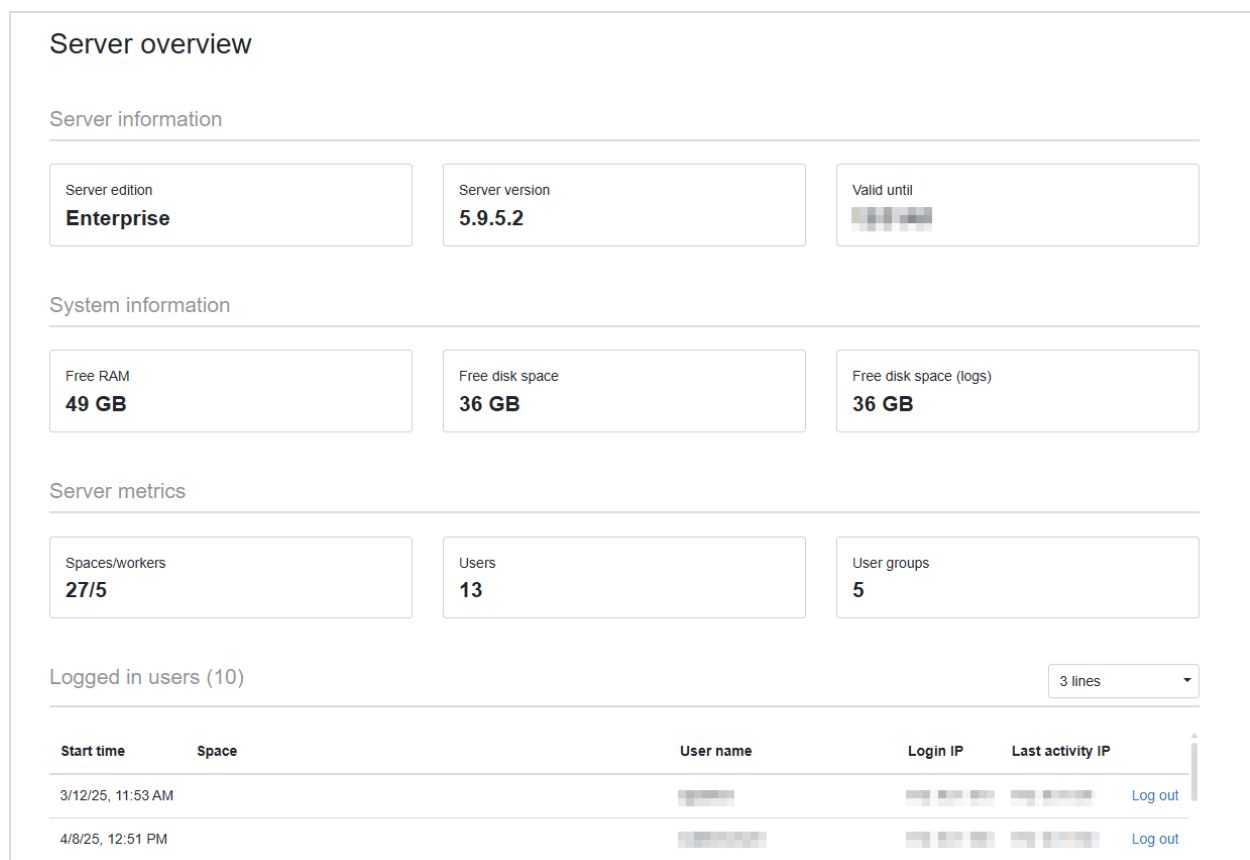
Server administrators have the ability to change the title and welcome text of the Home page displayed to every Server user.

The Server Overview page

When Server administrators enter the Server administration mode, they are brought to the new Server Overview page that contains various live information about the Server (see below).

In the future versions, the Overview page will keep adding more real-time information. It will also be possible to configure sections to be displayed in this page.

Note that the lists of currently logged in users and currently running task have been moved from the Journal page to the new Server Overview page.



Screenshot 7: The new Server Overview page.

New task triggers

In this new version, we keep introducing new task triggers with two more triggers added:

The “File event” trigger can be configured to fire in case of the following events:

- One or more files appear in the specified folder
- One or more files in the specified folder are changed
- One or more files in the specified folder are deleted

Note that the trigger only works with local folders. However, if you use the recently added SFTP feature of EasyMorph Server, the trigger can be used to fire on SFTP uploads or deletions.

The “Database rows added” trigger fires when one of the following events occurs:

- The row count in the specified database table has increased
- The max value in the specified database field has increased

The trigger can also be used to fire when a database row has updated if it’s configured to monitor a field with the last updated timestamp.

Note that the trigger sends an SQL query to the target database every time it needs to check the configured database table for changes. Therefore, pick the polling interval reasonably, to not overload your target database.

More assets in Explorer

More Catalog assets can now be added and edited in Explorer:

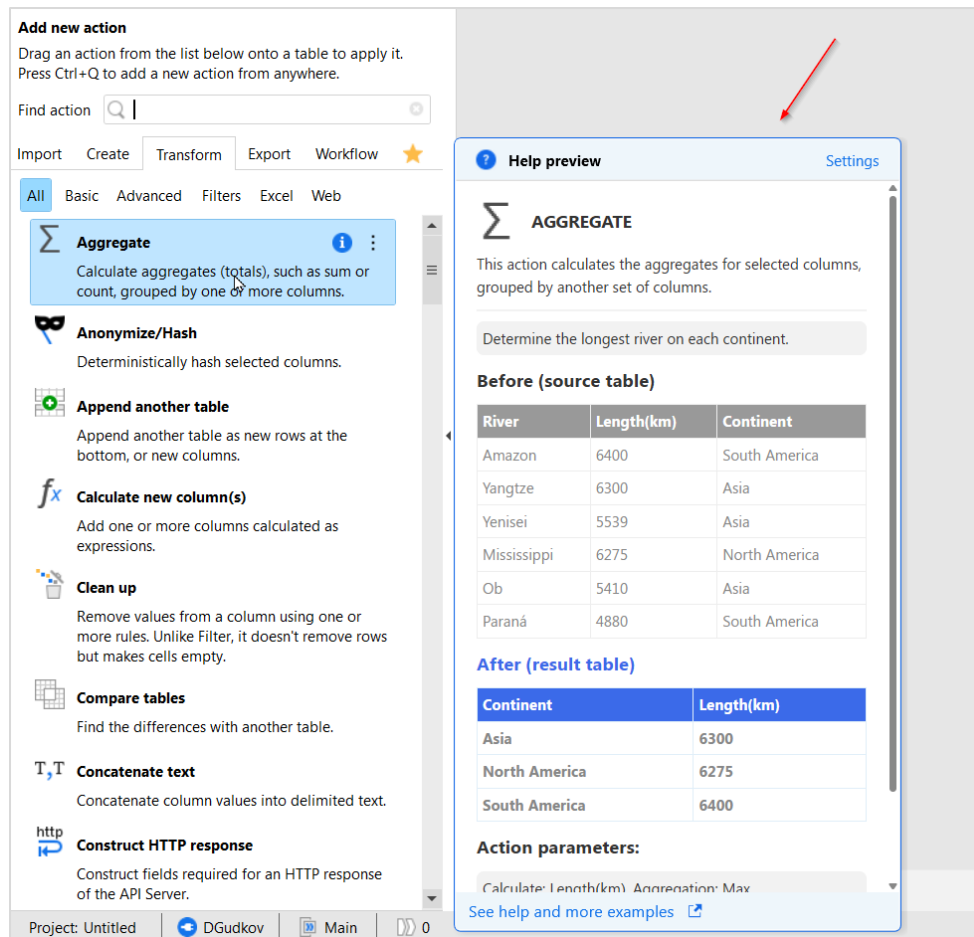
- Computed web link
- File
- Workflow
- Remote folder

Besides that, Catalog assets can now be deleted from the Server's UI.

What's new in Desktop

Help preview

As we learned, one of the common challenges for new EasyMorph users is finding the right action among almost 200 actions available in EasyMorph. To help understand faster what an action does, we've added a help preview that is displayed for actions in the action catalog (invoked by pressing "Add action" on the toolbar).



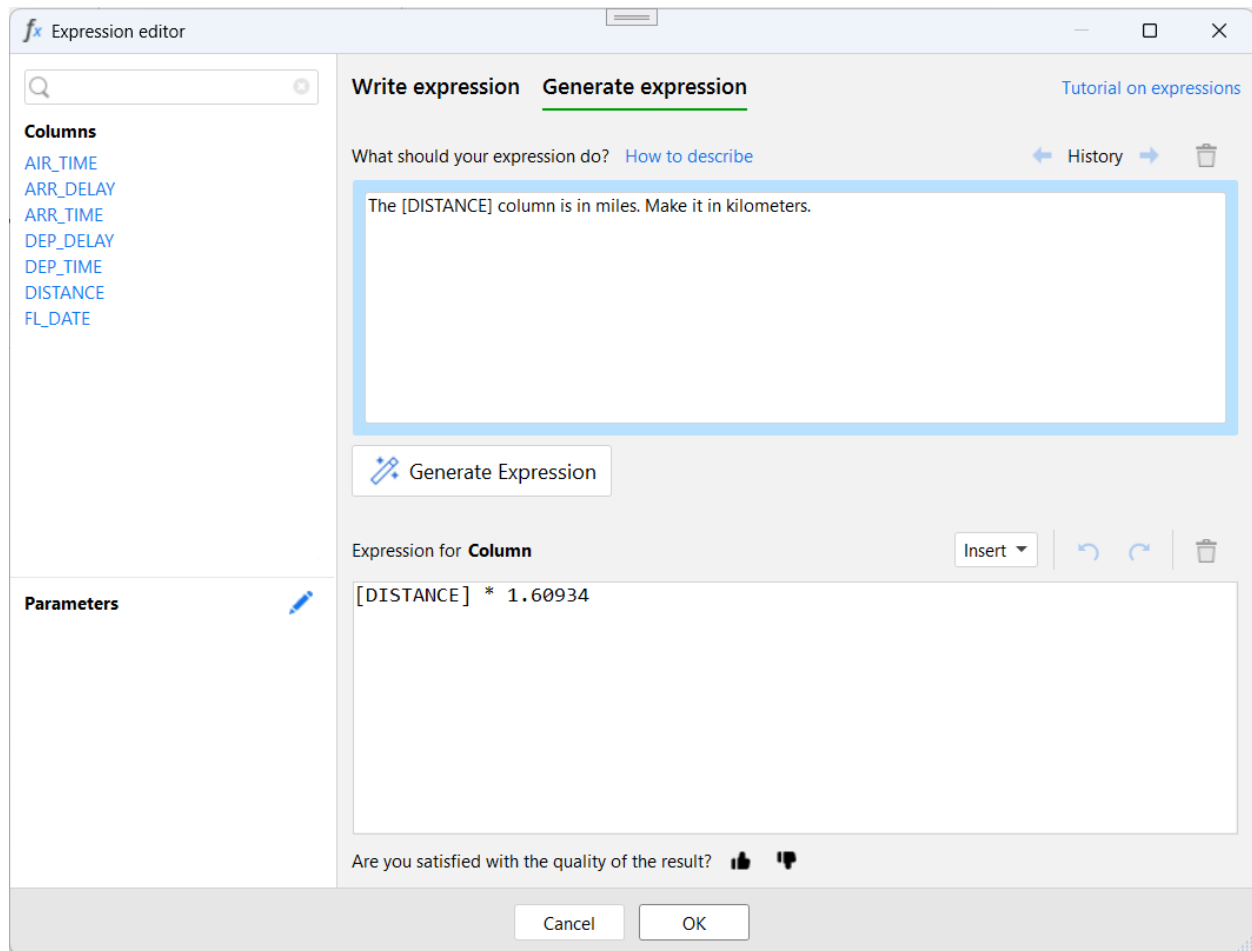
Screenshot 8: Help preview.

The preview shows a reduced version of the [web-help](#) page for the respective action.

Generation of expressions from descriptions

The next new feature of this release is also aimed to help users, especially new ones, with writing expressions in EasyMorph.

The Expression Editor now has a new mode – “Generate expression”. In this mode, you can enter a free-form description of the expression you need, using column names, if necessary, and press the “Generate expression” button to automatically generate an expression that corresponds to the description.



Screenshot 9: Generation of expressions from descriptions in the Expression Editor.

Note that the feature uses a 3rd party AI service, therefore using it requires the users to explicitly consent to sharing descriptions and column names with the 3rd party. The creators of EasyMorph may also analyze descriptions and generated expressions to improve quality of the feature.

The feature is not available in the free edition of EasyMorph.

The preview pane in “Iterate”

The “Iterate” action has got a preview pane that allows calling the iterated module and setting its parameters from any row of the input dataset. It was a frequently requested feature intended to simplify designing an debugging iterations.

The preview pane is also available in the “Iterate with another table” action.

The “Regular expression” facet

We keep adding new facets to the Analysis View (and [CSVViewer](#)). In this release, we’ve added the “Regular expression” facet that selects only column values that match or do not match the specified regular expression. For convenience, it’s also possible to add a description to clarify what the regular expression is intended to match as they are notoriously hard to read.

File name only

Filenames with dashes

Edit regex

Show

<input type="radio"/> All	87
<input checked="" type="radio"/> Matched	56
<input type="radio"/> Not matched	31
<input type="radio"/> Not text	0

Revert Apply

Screenshot 10: The “Regular expression” facet.

Release notes v5.9.5

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A few words from the creators of EasyMorph

This release introduces two major new features of EasyMorph Server: task triggers and SFTP Server. Besides that, boards in Explorer get a new section type – Server tasks, and Desktop gets a few minor but very useful improvements.

What's new

Changes in actions

The “Ask AI” action now allows attaching images to prompts. Image attachments are also supported for OpenAI-compatible connectors.

The “Pivot” action has got two new options which will make the action easier to use, especially for new users:

- No-aggregation pivoting mode
- No enforced column sorting

The “Catalog command” action has got a new command: Increment metric.

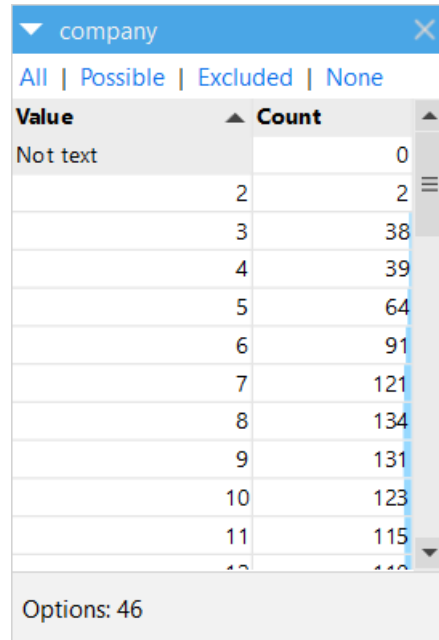
Changes in functions

The [workdays\(\)](#) function has got two optional arguments – mandatory exclusions, and mandatory inclusions. These arguments allow excluding specific dates, such as national and provincial holidays.

What's new in Desktop

New facet “Text lengths”

The Analysis View has got another new facet – “Text lengths”. The facet displays a list of the text lengths (in characters) of all text values in the specified column.



company	
All Possible Excluded None	
Value	Count
Not text	0
2	2
3	38
4	39
5	64
6	91
7	121
8	134
9	131
10	123
11	115
12	110

Options: 46

Screenshot 11: Facet "Text lengths".

The facet is a convenient tool to detect outliers – too long or too short values, and also ensure that text values aren’t too long when exporting to a database table.

Miscellaneous

- Module names now can be up to 30 characters (previously, only up to 20)

What’s new in Server

Task triggers

As you can immediately notice, the page with Server tasks now looks different and displays *triggers* next to each task where applicable. The task triggers are a explicit mechanism of EasyMorph Server that triggers a task when a certain event occurs.

Note that all task schedules are converted into the trigger “Schedule”.

Another trigger available in the new version is “Email received”. This trigger fires when an email message that satisfies pre-configured conditions is received by an email service specified by a connector.

In future releases, more task triggers will be added, including triggers on events in cloud applications (e.g. “File uploaded to Dropbox”).

Real-time updates of metrics in boards

Now Explorer boards update metrics if they are changed, without needing to reload the whole page. For the real-time updates to work, use the “Catalog command” action to change or increment metric values.

Section “Tasks” in boards

Boards in Explorer now can have a section with Server tasks. You can choose whether to display all tasks without a group, or a specific group of tasks.

The section makes it possible to create boards dedicated to specific ETL processes. It works well with real-time updates for metrics. For instance, you design a board to have a list of tasks for loading files into a data warehouse, and also add metrics that will display in real time the number of files successfully loaded today. Add a section with a text description to provide more explanation on the ETL process.

SFTP Server

Starting with this release, EasyMorph Server comes with a built-in SFTP server. The SFTP server operates on a separate port and makes it possible to transfer files to and from EasyMorph Server using any SFTP client (application).

To enable the built-in SFTP server:

- Configure general SFTP settings in Server settings
- Enable the “SFTP server” feature in the space settings and specify a local folder that will be exposed via the SFTP service

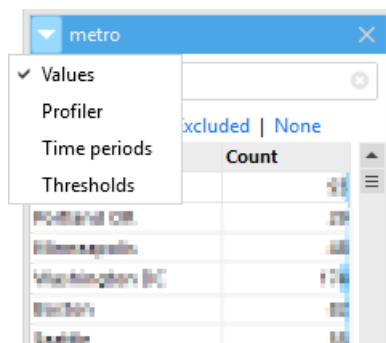
Release notes v5.9.1

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A few words from the creators of EasyMorph

This release continues major improvements to EasyMorph, both Desktop and Server, started in previous release (version 5.9). The headline feature of the new release is the introduction of multi-modal filters (aka *facets*) in the Analysis View in EasyMorph Desktop. This version adds three more facets besides the regular filter:

- Profiler (data types)
- Time periods (automatic grouping by time periods – year, quarter, month, week, day)
- Thresholds (automatic grouping by value ranges, e.g. 0 to 100, 100 to 500, above 500)



Screenshot 12: Facet selector.

Facets are a powerful feature that simplifies technical data analysis (such as detecting data quality issues) as well as business analysis (such as segmentation).

[EasyMorph Server](#) has got two major improvements as well:

- Support for Microsoft Entra ID for user authentication
- [Web Tasks](#) now support uploading files

File uploads in Web Tasks, enable automated and secure data and file collection through [EasyMorph Gateway](#) from people outside of your organization – customers, suppliers, partners, etc. It's a more scalable and secure replacement for shared Google Drive (or OneDrive) folders, and more user-friendly than exposed SFTP servers.

What's new

New connector

The new **OpenAI-compatible** connector allows working other LLM services than OpenAI's ChatGPT as long as their API is compatible with ChatGPT. It includes both cloud-based and local LLMs. The connector can be used with the "Ask AI" action (formerly, "Ask ChatGPT").

New actions



The **Board/issue command** action allows automating certain operations with issues in workflows and has three commands (more to come):

- List boards
- List issues in a board
- Archive issue

Changes in existing actions

The "Shared Memory" action has got a new command: **Increment value**. The command is intended for use in concurrent workflows and allows correct, atomic value increments (and decrements).

The **Ask ChatGPT** action has been renamed to **Ask AI**. It now supports the Open-AI compatible connectors (described above).

New functions

yearquarter(number_date) – returns a text string with the year and quarter of the specified date.
Examples:

```
yearquarter(#2025-03-16) //returns "2025-Q1"
```

yearweek(number_date) – returns a text string with the year and ISO week of the specified date.
Examples:

```
yearquarter(#2025-03-16) //returns "2025-w11"
```

replacebetweenmany(text, string1, contents, string2[,N]) – replaces in *text* the first N occurrences (or the last N, if N is negative) of any text between *string1* and *string2* with *contents*. When omitted, N is 1
Examples:

```
replacebetweenmany("<a><b>", "<", "c", ">", 2) //returns "<c><c>"
```

Changes in existing functions

The **replacebetween()** function has got the optional 5th argument that allows specifying which occurrence to replace (by default, first). Example:

```
replacebetween("<a><b>", "<", "c", ">", 2) //returns "<a><c>"
```

What's new in Desktop

Facets in Analysis View

The Analysis View (both in Workflow Editor and in Explorer) has got new filter types:

- Profiler
- Time periods
- Thresholds

The screenshot displays three facets in the Analysis View:

- Profiler**: Shows a breakdown by data types for the field **ARR_TIME**. The **Numbers** facet is selected, showing counts for **All** (975865), **Integer** (0), **Not integer** (975865), **Can be a date** (0), and **Can be a date w/time** (0). The **Text** facet shows counts for **All** (0), **Not empty** (0), and **Empty** (0). The **Boolean** facet shows a count of 0. A filter icon at the bottom indicates "1 selected".
- Time periods**: Shows a breakdown by time periods for the field **FL_DATE**. The **Group by** is set to **Year-Week ISO**. The **All** | **Possible** | **Excluded** | **None** filter is active. The table shows counts for various time periods: **Not a date** (0), **2005-W52** (17169), **2006-W01** (128024), **2006-W02** (124990), **2006-W03** (124660), **2006-W04** (125308), **2006-W05** (108985), **2006-W06** (100777), **2006-W07** (107742), and **2006-W08** (107153). The **Periods: 10** filter is active.
- Thresholds**: Shows a breakdown by thresholds for the field **DEP_TIME**. The **Edit thresholds** button is visible. The **All** | **Possible** | **Excluded** | **None** filter is active. The table shows counts for various thresholds: **Not a number** (0), **Below 12** (390658), and **Above (or =) 12** (585207). The **Ranges: 2** filter is active.

Screenshot 13: New facets in v5.9.1.

Changing the filter type (facet) can be done in the filter's title bar.

The "Profiler" facet displays a breakdown by data types and can be used for selecting values of wrong types. It's a tool for analyzing data quality.

The "Time periods" facet is intended for use on fields with number dates and automatically aggregates numeric date values into time periods of the selected granularity: year, quarter, month, week (ISO), and

date. The periods are selectable. Note that selections are reset when facet granularity is changed. The facet can be used for business analysis. For instance, in a list of orders, you can quickly select a customer in one filter, and then see and select the customer's orders grouped by month in another filter.

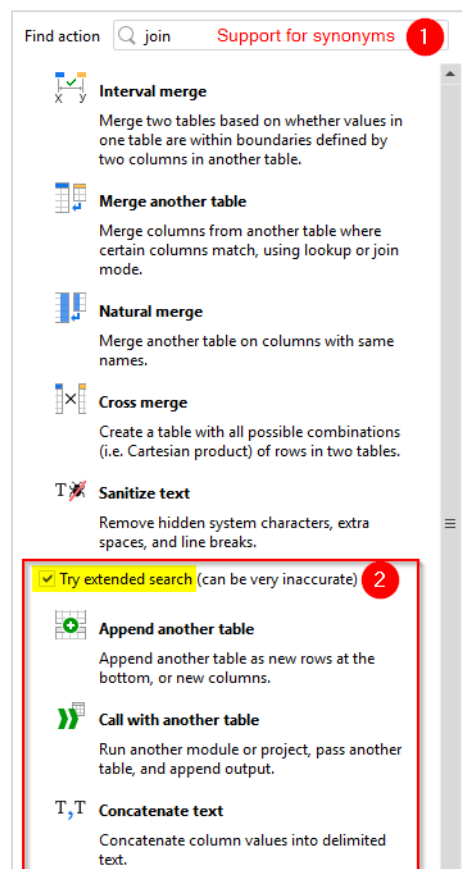
Finally, the "Thresholds" facet allows specified thresholds that group number values into ranges. The facet can be used for business analysis. For instance, in a list of orders, you can quickly group them into small, medium, and large orders by specifying meaningful thresholds for the order amounts.

Facet settings, such as time period granularity or thresholds, are saved in Analysis View, so you won't need to configure them again when re-opening a project or a dataset.

Note that new facets are currently only supported in EasyMorph Desktop, but not in Server. Also, older versions open new facets in Analysis View as regular filters.

Improved action search

We've improved the search algorithm in the action catalog. The search index has expanded to include the wiki help and synonyms.



Screenshot 14: Improved action search with the extended search option.

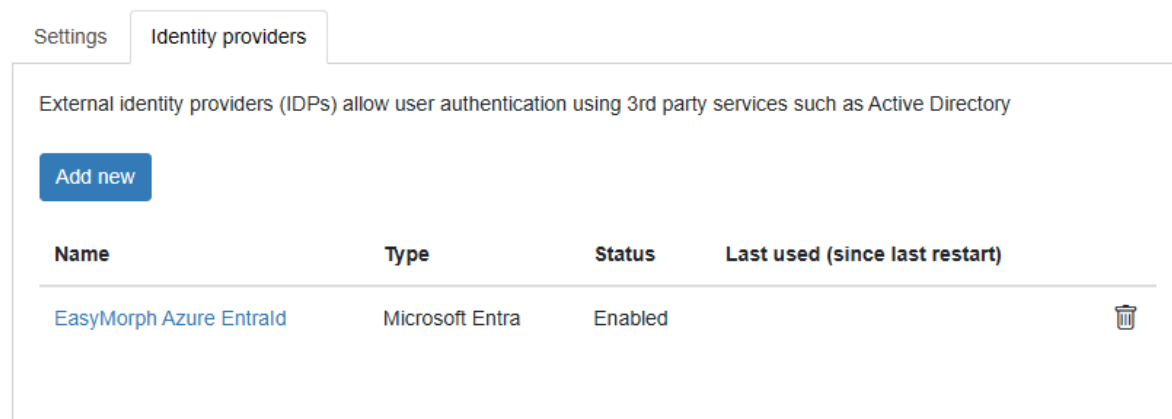
Besides that, as an experiment, we've added the optional extended search that tries to find actions using semantic similarity. Note that the extended search can return highly irrelevant results due to its fuzzy logic, but once in a while it can be of help. In the future, the extended search may leverage LLM-based semantic algorithms provided by a cloud-based service.

What's new in Server

Support for Microsoft Entra ID

In the new version, we're adding support a new external identity provider – Microsoft Entra ID. The Server settings page has now a new tab to manage external identity providers which, as of this version, include Active Directory and Microsoft Entra ID. More identity providers will be supported in future versions.

Server settings



Screenshot 15: External identity providers in Server.

Note that you can work with multiple domains in Microsoft Entra. Just configure in EasyMorph Server a separate provider per each domain.

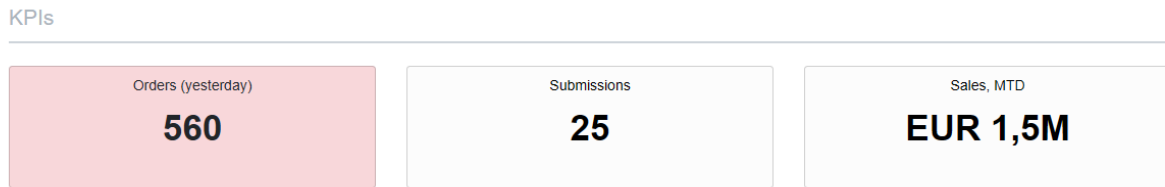
EasyMorph Server also supports authentication via user groups in Microsoft Entra.

When authentication via Entra is configured, users must select Microsoft Entra from the list of available options on the login screen to get authorized via Entra.

Real-time metrics in boards

Metric sections in Explorer boards are now updated immediately if their values are changed using the “Set metric” command of the “Explorer command” action. Real-time metrics add convenience to boards and make them useful for monitoring real-time processes, such as ETL jobs or online sales. To remind

you, with EasyMorph Server, you can also collect real-time metrics from external applications using [custom API endpoints](#) or webhooks on [EasyMorph Gateway](#).



Screenshot 16: Sample metrics section in an Explorer board.

Note that real-time updating only works when a metric's value is changed using the "Set metric" command. It doesn't work when the corresponding Shared Memory value is updated directly.

In future versions, we will keep making board sections more real-time and interactive.

Miscellaneous

- The space settings page has been redesigned
- The space features page has got a more polished look

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A few words from the creators of EasyMorph

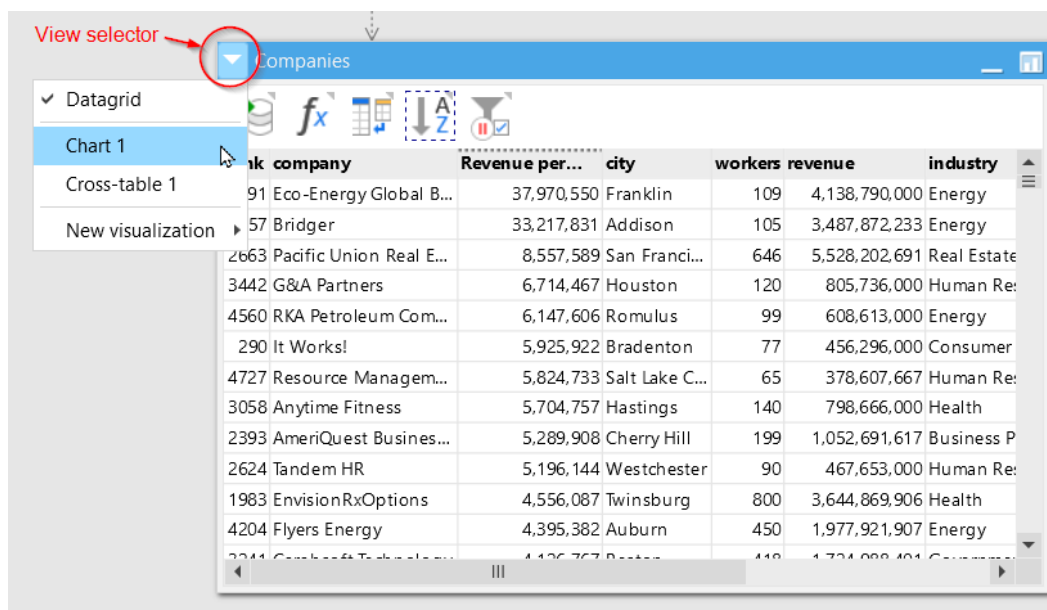
This release contains the first part of major improvements to EasyMorph, both Desktop and Server. The second part will come in v.5.9.1 and will introduce even more changes.

The headline feature of this release is the unification of workflow tables and charts described earlier on the [Community forum](#).

What's new

Unification of tables and charts in workflows

In the new version, tables and charts in workflows are unified. Charts are converted to tables and tables can now have alternative views in the form of charts, besides the datagrid with actions which is the default view. The view selector is located in the table title bar in front of the table name (see screenshot below).



Screenshot 17: View selector in tables.

If a table has Analysis View, then the charts configured in Analysis View also become alternative table views in the table. Now there is no distinction between charts in Analysis View and in workflow – they are now the same charts. As a result, each table now has two lists – a list of actions, and a list of charts.

Note that a chart view in a table displays the table output, i.e. the output of the last action in the table.

The change simplifies EasyMorph projects and makes data analysis more convenient. All existing projects continue to work as previously, without any changes in their calculation logic. However, projects saved in the new version can't be opened in earlier versions.

New parameter type “File upload”

“File upload” parameters can be added in any workflow and are intended for Server use. Parameters of the “File upload” type allow users select local files even when the workflow runs on EasyMorph Server. The selected files are automatically uploaded to Server and stored in the designated folder configured in the space settings.

New connector

The new “Microsoft Graph OData” connector can be used in the “Import OData” action also introduced in this release.

Changes in existing connectors

The “Amazon Redshift” connector now has an option for enforcing SSL.

New actions



The **Import OData** action allows importing data any OData provider (OData versions 3 or 4 are supported). The action works with “Web location” connectors as well as with new “Microsoft Graph OData” connectors introduced in this release.



The **Uploaded files** action lists all files uploaded by the use of the “File upload” parameters in the current workflow.



The **Modify column names** action is a simple action that allows adding suffixes or prefixes to column names. The action can be used, for instance, to distinguish columns merged from another table.

Changes in existing actions

The “Recalculate workbook” command in the **Excel command** action now has an option to rebuild all relationships in the workbook.

The **Concatenate text** action now has an option to ignore empty values.

What's new in Desktop

Miscellaneous

- Favorite actions can now be re-ordered by dragging
- The Connector Manager now has a search function

What's new in Server

The "File upload" parameters

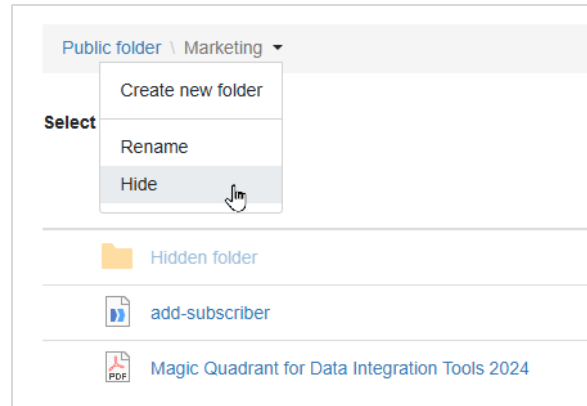
EasyMorph Server fully supports the "File upload" parameter type in Server task. The parameter type allows users to pick local files (i.e. files from the user's machine) that are then automatically uploaded to EasyMorph Server, quarantined, checked for malware with Windows Defender, and finally placed into the designated folder configured in the space settings.

While the parameters of the "File upload" type can be used on their own, for convenience, you can use them in combination with the "Uploaded files" action.

Hiding/unhiding folders

EasyMorph Server now fully supports hidden folders:

- User roles can now be configured to display or hide hidden folders. User that can see hidden folders, can also hide and unhide folders.
- Hidden folders are indicated by semi-transparent icons in File Manager and file pickers.
- The folder menu in File Manager now has menu commands for hiding/unhiding the current folder (subject to role permissions).



Screenshot 18: The "Hide" command and a hidden folder in File Manager.

Miscellaneous

- In space settings, there is now indication that the space shares its repository with other spaces
- The Server now automatically sends an email reminder 3 days before license expiration (requires configured email notifications in the tab "Notifications")
- In Explorer, assets of the "Remote folder" type now can open automatically in File Manager
- Catalog directories now have a context menu (similarly to File Manager) for creating, renaming, moving, and deleting Catalog directories.

Previous release notes

Link: [Release notes for v5.8.2](#)