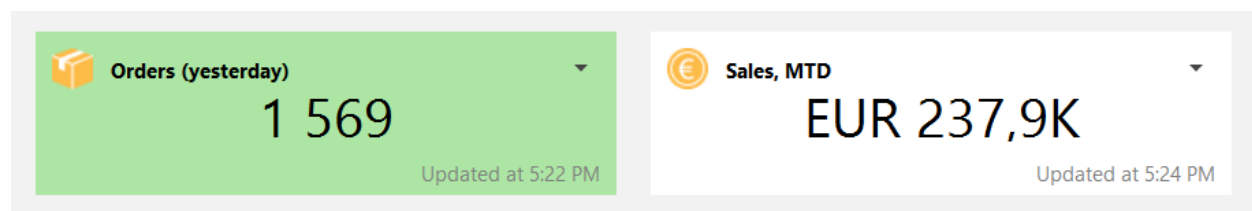


Release notes v5.6

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 **5.6**. Also, if your organization uses EasyMorph Server, please make sure that the Server is upgraded to the new version before Desktops.

A few words from the creators of EasyMorph

The headline new feature of this release are *metrics* in the Catalog. It's an easy-to-use that allows watching and tracking business KPIs and technical metrics right in EasyMorph. Metrics are easy to create and can be updated either manually, or in a workflow with the help of the "Catalog command" action. For a better context, colored ranges can be defined for each metric to indicate whether it's in a "good" or "bad" range. Metrics are available in both Desktop and web UI and can be handy in cases when designing a full-scale BI dashboard is an overkill.



Screenshot 1: Metrics in the Catalog (in EasyMorph Desktop).

In the future, metrics together with other Catalog items will be used as building blocks for *boards* – a new paradigm-shifting data collaboration feature of EasyMorph. Boards will be announced soon on the Community forum.

Besides the metrics, the new version includes many new features – new connectors, new actions, new Server capabilities, as well as numerous improvements of existing capabilities such as twice faster parsing of CSV files and twice faster dataset merging.

What's new in EasyMorph

New connectors

The **Dropbox** connector enables the full support of Dropbox in EasyMorph, including the use of Dropbox locations in the recently introduced File Manager, a built-in app for file transfer and browsing.

Changes in existing connectors

The **SharePoint** and **S3** connectors now have a new setting for the default partition.

The native **SQL Server** connector now supports multiple authentication options using Azure AD.

The connector for **Maria DB** has a new driver under the hood that resolves the connectivity issues existed with the previous driver.

New actions



The new **Compare tables** action compares two tables and produces a list of detected differences based on column metadata. It also displays the first mismatching value in each column, when applicable. The result of the action is empty when both input datasets are identical.



The **Natural merge** action merges two tables based on columns with same names. Four merge modes are supported: lookup, left join, full join, and inner join.



The **Azure Blob Storage command** action performs various file and folder operations with Azure Blob Storage. For instance, file uploading, downloading, deleting, renaming, etc.



The **Dropbox command** action performs various file and folder operations with Dropbox. The commands include file uploading, downloading, deleting, renaming, etc.

Changes in existing actions

The **Import from delimited text** action can now parse and load data 2-3 times faster. We thoroughly tested the new parser, however due to the high criticality of delimited text parsing, the roll-out of this improvement is gradual. In this release, to enable faster imports in EasyMorph Desktop, check the “Twice faster CSV parser option” in the application preferences. The setting also affects the “Split delimited text file” action, and pasting data into a sandbox.

The **Merge** action is now at least twice faster. Also, the limit of ~130 million records for the merge result no longer exists. The general application-wide limit of ~530 million rows per dataset remains, as for any other action.

The **Update/delete records in Salesforce** now has a new mode that keeps only successfully updated records.

The **Import from Qlik** action now supports loading only the first N rows from a QVD file.

The **Export to Excel** action can now update spreadsheets created in the “Strict Open XML” format.

The **Select matching DB rows** action no longer requires a write permission because it doesn’t create a temporary table anymore. Also, it works faster now.

The message in the **Halt/warn on condition** action can now be calculated using an expression, or a first column value.

The **Catalog command** action has got two new commands:

- Get metric
- Set metric

The **Shared memory** action has a new command too:

- Recall values for a list of keys

One more command has been added to the **EasyMorph Server command** action:

- List folders

New functions

guid() – generates a GUID, similar to that generated by the “Generate GUIDs” action. Example:

```
guid() returns 3133c83e-16e8-4e7f-9689-3ab540f8b8ab.
```

replacebetween(text, string1, contents, string2) – replaces in *text* all characters between *string1* and *string2* with *contents*. The function can be used for patching HTML/XML data. Example:

```
replacebetween("<b>123</b>", "<b>", "ABC", "</b>") returns  
"<b>ABC</b>".
```

What's new in EasyMorph Desktop

Auto-saving for projects

EasyMorph Desktop can now recover new or unsaved projects after an application crash. The feature works automatically. It doesn't have to be enabled explicitly. Note that it may create temporary files with semi-random names shown next to your project files. Such files will be deleted automatically, when EasyMorph Desktop is closed. Do not delete them manually.

Metrics in the Catalog

In the Catalog, it's now possible to create and edit metrics, their values (stored in Shared Memory), as well as formatting and ranges.

Metrics don't have to be retrieved. Their values are displayed immediately when browsing the Catalog.

Note that the contents of a Catalog directory can be filtered to show items of only one type, such as metrics.

New features of File Manager

File Manager, the built-in app for remote file browsing, uploading, and downloading, has got a few new capabilities:

- Full support for Dropbox
- Zipping local folders and files, unzipping local files
- Copying local files and folders (non-recursive)

Miscellaneous

- The dialogs “Open project from Server” and “Open dataset from Server” now have a search field that finding a project or dataset (respectively) in the entire Public folder or in the selected subfolder
- In the properties of action “Export to database”, it is now possible to automatically match all field names that are the same in EasyMorph. The “Map possible” link-button is also available in the actions “Bulk export” and “Update database rows”.
- EasyMorph Desktop now prevents the computer from hibernating when a workflow is running

What's new in EasyMorph Server

Worker workload management

Memory is a critical resource for EasyMorph Server and letting the Server to run out of memory is highly undesirable. In this release, we’ve added the ability to manage Server workloads by limiting the memory available to Server workers.

Two memory restrictions can be configured on the worker settings page: the “soft” limit and the “hard” limit.

When memory consumption reaches the “soft” limit, the worker rejects all *new* computations (such as tasks). Computations that were already running, keep running.

If memory reaches the “hard” limit, all computations are immediately forced to fail without exceptions.

Note that task cancellation doesn’t guarantee immediate memory release. For instance, when a task runs an external application, cancelling the task will not automatically terminate the external application it’s running.

Settings Workload management Mapped drives

Save changes Revert

Hard limit: force all running computations to fail, if worker's memory consumption exceeds the limit below.
Notify Server administrator.

Memory limit (GB) 8

Soft limit: Reject (fail) new computations, if worker's memory consumption exceeds the limit below.
Computations that are already running will keep running.

Memory limit (GB) 6

Screenshot 2: Worker workload management.

Creating Catalog items

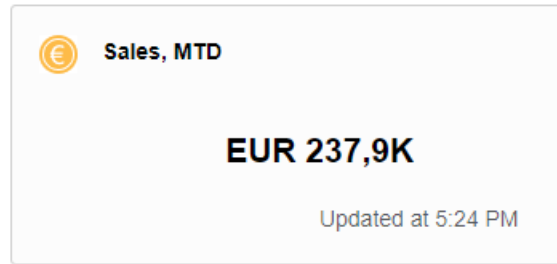
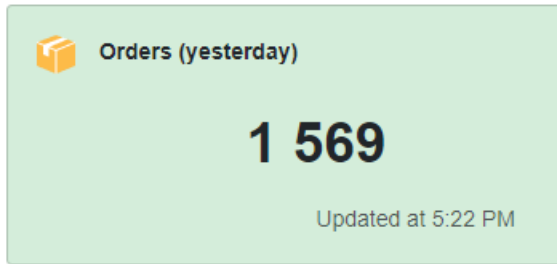
It is now possible to create three item types from the Server UI (previously, Catalog items could only be created in the Desktop):

- Metrics
- Computed datasets (datasets computed using a workflow) – they are like Server tasks but return a dataset. Computed datasets can be downloaded in various formats (xlsx, csv, dset, hyper, qvd).
- Web links – links to external web resources, such as BI dashboards or web sites.

Note that only the basic settings of the Catalog items listed above can be edited in the Server UI. Advanced settings can only be edited in EasyMorph Desktop. Deleting and moving Catalog items is also only possible in EasyMorph Desktop.

Metrics in the Catalog

Creating Catalog metrics is easy and straight-forward. Non-technical users can create metrics and update their values manually. More advanced users can design workflows that update metrics on schedule.



Screenshot 3: Metrics (EasyMorph Server).

Miscellaneous

- The “Computed Results” section of the Catalog now hides automatically when there are no computed results
- The “Catalog” page shows a welcome screen when no Catalog items have been configured yet
- Tasks and Catalog now show a clickable “Jump to...” button when there is failed task or a computed result outside of the visible area

Previous release notes

Link: [Release notes for v5.5](#)