Release notes v4.2

Important! Create a backup copy of your projects and connector repositories before updating to the new version. Projects saved in version 4.2 can't be opened in earlier versions.

A few words from the creators of EasyMorph

The headliner of this release is **integration with Power BI**. For a long time, the two most popular applications for ETL / data preparation for Power BI users were PowerQuery and SSIS. PowerQuery is typically considered more user-friendly while SSIS is a powerful enterprise-grade ETL platform that has a steep learning curve and requires strong technical skills. We believe EasyMorph can be the golden middle between the two, combining computational power and programmatic flexibility with the ease of use and the interactivity of authoring. In this release we're adding the ability to export into Power BI datasets in *personal* workspaces. In the next minor release (v4.2.1) EasyMorph will start supporting *shared* workspaces in Power BI.

Another novelty is the new Parameter Editor. While it may look like an insignificant change, it prepares EasyMorph for adding new parameter types (e.g. checkbox, fixed list) in future versions. Also, it introduces parameter validation rules which put restrictions on acceptable parameter values. Parameter validation helps make EasyMorph workflows more robust and error-resistant.

Finally, we're introducing a new action for dealing with web APIs – the "Import from web API" action. It's simpler and more light-weight than the "Web request" action. It automatically parses a JSON/XML response into a tabular dataset in EasyMorph. The new action is intended for less technically savvy users who might find "Web request" and "Parse JSON" overly complex.

Breaking changes

What changed	What it can break
The "Import from XML" action in the "Load only selected paths" mode creates error values "#Path not found" if a path is selected but is missing in some (but not all) elements. Previously, in such cases an empty value was created.	Projects that use the "Import from XML action" and expect that in cases when a selected path is missing for <i>some</i> elements, the respective column contains empty
If a selected path is missing in all elements, then the behavior remains unchanged – the action will fail with the "Missing path" error.	values.

What's new

The "Power BI" connector

A configured "Power BI" connector is required for all actions that interact with Power BI. The connector uses OAuth authentication provided by Azure AD and must be authorized using a Power BI account before use. All operations with the connector will be performed using the Power BI account used for authorization.

New actions

The **Export to Power BI** action exports data from EasyMorph into a new Power BI dataset, or appends it to an existing one. The action allows modifying the target table metadata, thus automatically adding or removing columns from it.



The **Power BI command** action allows performing a number of actions with Power BI:

- List all Power BI datasets
- Refresh a Power BI dataset
- Delete all table rows in a table in a Power BI dataset



The **Import from web API** action imports data from a web API and automatically parses it into a tabular dataset in EasyMorph.

The **Parse XML** action is similar to "Parse JSON". It parses XML from values in a specified column into a tabular dataset.

Changes to existing actions

The Label columns action now allows using a separator for merging row values into labels.

The Fill down action now supports grouping.

Columns to import can now be selected in the Import from SAS action.

The **Status** action now can send the status text as a Windows desktop notification right from EasyMorph Launcher. While it may look like a minor improvement, it simplifies creating various alerts. For instance, schedule a project to run once a day in the Launcher and send you a desktop notification if some data wasn't submitted in time, or <u>cold weather</u> is approaching, or <u>air quality</u> drops. Get creative!

Parameter validation rules

The new Expression Editor provides the ability to specify validation rules for a parameter. The validation rules are very similar to the rules you can see in the "Rule" action, except the result is the text of the validation error produced when a rule condition is met.

Note that a validation condition *must* always include the name of the parameter that is validated, and *may* refer to other parameters as well.

Name	Param1	
Note	A parameter with 2 validation rules.	
Prope	erties Validation	
lf a ru	le condition is TRUE, then parameter validation fails.	
if n	ot isnumber({Param1})	f× 📋
error	message Param1 must be a number]•
else		
if {	Param1} < 1 or {Param1} > 100	∫x 📋 д
error	message Param1 must be between 1 and 100	
	Add validation rule	

Screenshot 1: Parameter validation rules in the Parameter Editor.

Query Editor: manual value entry for the "in list" condition

In addition to retrieving a list of available field values from the target database, it's now possible to provide such values by entering them manually.

Select column values	\times
JobTitle	
Pick from list Ist Enter manually	14
Accountant	Ċ
Finance Manager	Ċ
Add new value	

Screenshot 2: Manual value entry for the "In list" condition.

SQL dialect for Google BigQuery (limited support)

With the help of the new SQL dialect "Google BigQuery" for ODBC connector it's now possible to query tables in Google BigQuery using the visual query builder. Also, the dialect is supported in the "SQL command" action. However, exporting to Google BigQuery using the "Export to database" is not possible yet.

What's new in Desktop

New Parameter Editor

The Parameter Editor has been revamped.

🕦 Edit parameters						×
New parameter *	📋 Remove	14				
Parameter	Current value		Name	Param1		
⊺]# Param1	500		Note	A parameter with 2 validation rules.		
📅 Date	2020-01-23		NOLE			
			Prope	erties Validation		
			Value	500		
		Cancel	C	К		

Screenshot 3: The new Parameter Editor.

The "Replace" command in the cell context menu

The cell context menu has got a new command – "Replace". When selected, it shows a dialog to replace the cell value (e.g. "NY") with a new value (e.g. "New York"). This automatically inserts the "Replace" action with the desired replacement configured.

ıy		city		w
ce Pro	0	NY		
te	Сору		а	
nt	Metadata	9		
(A	Filter)	lis	
01	Clean up	1		
nk	Replace I			
ы	Trim table	h	cee	
io,	tubi			

Screenshot 4: The "Replace" command opens the "Replace value" dialog.

The "Go to tab" command

Large EasyMorph projects can easily have tens of tabs. To simplify switching to a tab a new command has been added to the tab context menu – "Go to tab". When selected, it shows a list of tabs in the current module. Selecting or double-clicking a tab in this list makes EasyMorph immediately switch to the tab.

What's new in Server

Automatic log rolling

Task logs and the Server log are now rolled automatically. When a log file size reaches 100KB it's automatically renamed and a new log file is created.

Miscellaneous

- The "Clear log" button has been removed
- When a task is deleted the task logs are now deleted too

Previous release notes

Link: <u>Release notes for v4.1.0</u>.