NEW FEATURES OF ZAGREUS 1.5.5.6

ZAGREUS
Automate your IT

Introduction

Zagreus 1.5.5.6 will be released at the end of November, 2022. This version will contain exciting new features and many updates of already existing actions.

With **REST API** interface Zagreus can connect to various systems like Atlassian Jira, Confluence and Microsoft 365 (via Microsoft Graph). Furthermore, it can communicate with MicroStrategy Intelligence Servers via REST API, which multiplies the possibilities of automated reporting.

New Action Groups

PDF

With the actions of PDF action group pdf documents can be easily edited:

- **pdf:extract-images** - Extracts images from a PDF resource.
- **pdf:list-resources** - Lists the resources (e.g. images) of a given PDF document. The resulting data can be used for e.g. saving the individual images by the "pdf:extract-images" action.
- **pdf:load** - Loads a PDF from binary data with options of page filtering and password handling.
- **pdf:merge** - Merges several PDF documents into one PDF resource.
- **pdf:to-image** - Converts the pages of a PDF document to images.

Microsoft

Microsoft actions can communicate with Microsoft 365 servers to manage emails and files. Actions of this group:

- msft:connection
- msft:copy-mail
- msft:delete-item
- msft:delete-mail
- msft:download-file
- msft:get-mail
- msft:list-drives
- msft:list-folder
- msft:list-mail-folders
- msft:list-mails
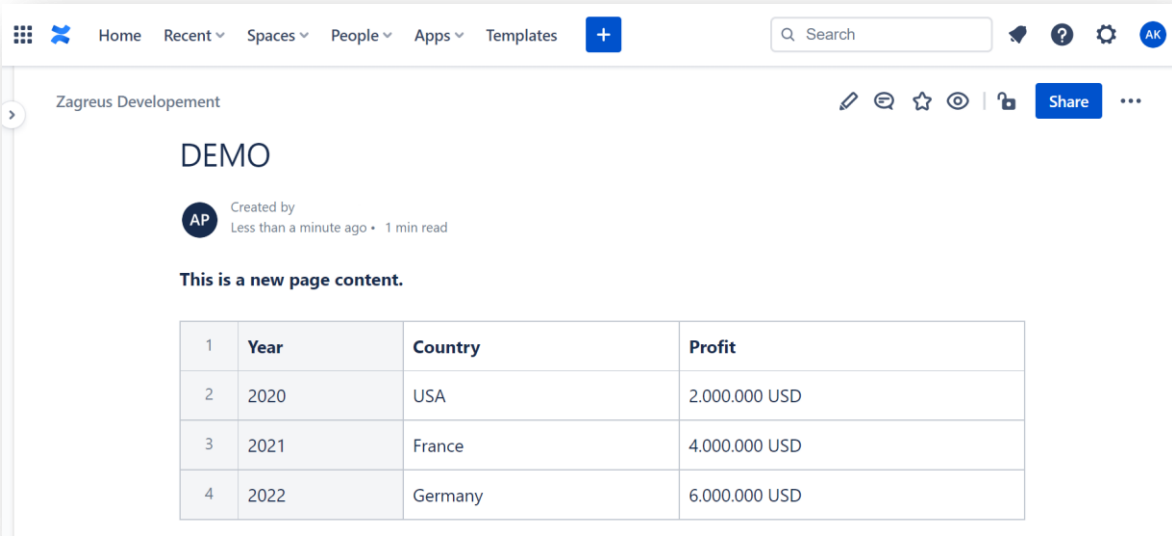- msft:list-sites
- msft:move-mail
- msft:upload-file

Confluence

This action group contains versatile actions for creating, updating and deleing pages in Confluence system. Comments and attachements can also be added to specific pages.

- confluence:add-attachement
- confluence:add-comment
- confluence:connection
- confluence:create-page
- confluence:delete-page
- confluence:get-page
- confluence:list-attachments
- confluence:list-comments
- confluence:list-pages
- confluence:update-page

Creation of a formatted HTML table in Confluence with a simple Zagreus script:

confluence-create-page [1.0.0.0] (script)

Confluence

2 confluence:create-page
a t l c
connection-name = con
space = ZAGREUS
page-id =
title = DEMO
log = true
result-type =

```
<b>This is a new page content.</b>
<table data-layout="default">
<colgroup><col /><col style="width: 120px;" /><col style="width: 200px;" /><col style="width: 250px;" /></colgroup>
<tbody>
<tr><th class="numberingColumn" /><th><p><strong>Year</strong></p></th><td><p><strong>Country</strong></p></td><td><p><strong>Profit</strong></p></td></tr>
<tr><td class="numberingColumn">1</td><th><p>2020</p></th><td><p>USA</p></td><td><p>2.000.000 USD</p></td></tr>
<tr><td class="numberingColumn">2</td><th><p>2021</p></th><td><p>France</p></td><td><p>4.000.000 USD</p></td></tr>
<tr><td class="numberingColumn">3</td><th><p>2022</p></th><td><p>Germany</p></td><td><p>6.000.000 USD</p></td></tr>
</tbody>
</table>
```
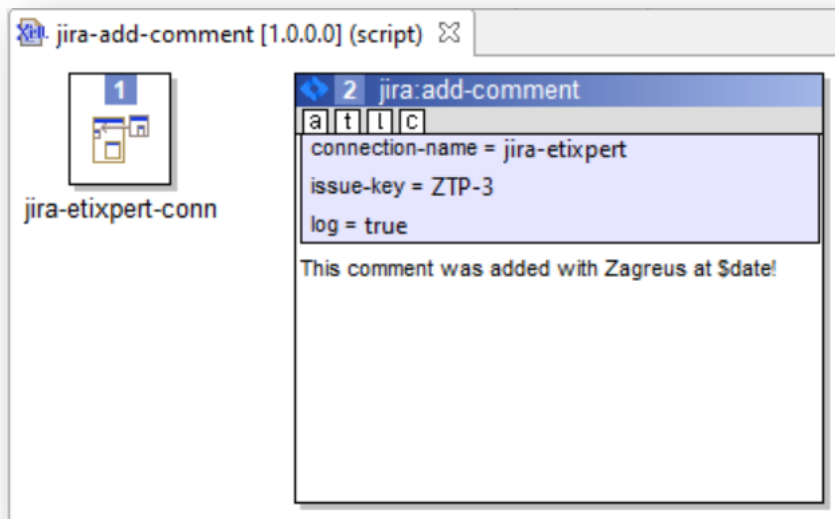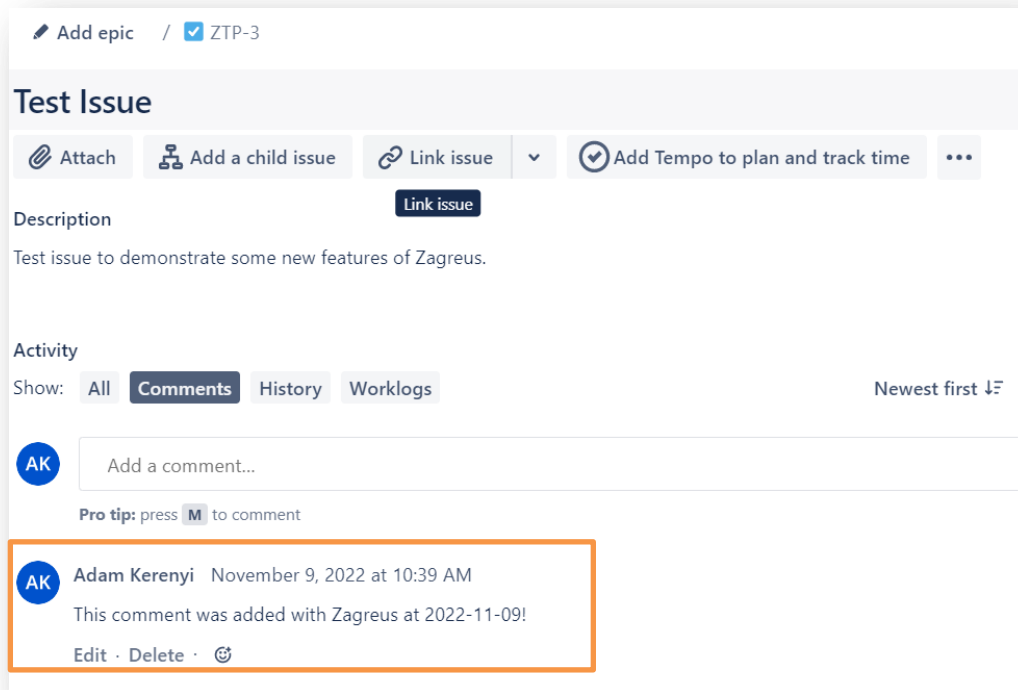
Home   Recent ∨   Spaces ∨   People ∨   Apps ∨   Templates   +   Q Search

Zagreus Developement

Share

DEMO

AP   Created by
Less than a minute ago • 1 min read

This is a new page content.

1	Year	Country	Profit
2	2020	USA	2.000.000 USD
3	2021	France	4.000.000 USD
4	2022	Germany	6.000.000 USD

JIRA

A comprehensive action group to manage issues, comments, attachements and users in Jira system:

- jira:add-attachement
- jira:add-comment
- jira:connection
- jira:create-issue
- jira:delete-issue
- jira:filter-issues
- jira:get-issue
- jira:list-attachements
- jira:list-comments
- jira:list-projects
- jira:list-users
- jira:update-users

Adding a comment to an existing Jira issue with Zagreus:

Further new features in 1.5.5.6

SERVER:

- "cancel.runscript" queuing option is implemented. The script specified script will be called when the script (in which this option is defined) is cancelled. The called script can be specified by ID or path. Variables related to the cancelled job: $callerName, $callerType, $cancelType, $cancelledJobId

- "cancel.runscript.source" option is implemented. If option"cancel.runscript" is set, this setting specifies for which cancel types should it be applied. Per default, all cancel types trigger the execution. Possible values are: gui, monitor, zs and server. Multiple values can be specified by ",". E.g. cancel.runscript.source=gui,zs

- **queue.maximum.parallel.queuing** parameter in conf.properties sets the maximum possible simultaneously queued job instances of the same script. Default is -1 which means infinite. It can be defined for individual scripts with engine.maxparallelqueuing option.

- 2 new parameters are implemented in conf.properties:

  If "server.canceljobs.onstop" set to true, all running and queued jobs will be cancelled by the server itself when the server is shutting down. Default values is true. With this feature "zombie" jobs can be avoided after server start. If "server.canceljobs.onstart" set to true, all possibly running or queued jobs will be cancelled by the server when the server is starting. This can only occur if the server was not stopped properly (e.g. killed).

ENGINE:

- **since 1.5.5.1:** new action is implemented: *z:cast* converts the content to a different data type.

- **since 1.5.5.1:** "*log*" and "*log-result-attributes*" common attributes are implemented. If set to "true", the generated result or result attributes of the action will be logged.

- **zs:workercontrol** - using this action in a script workers can be started, stopped, restarted, enabled and disabled during execution

- **zs:migrate-subscription** - It is designed for migrating subscriptions between two Zagreus servers. It copies all data of the subscriptions including variables, options, aliases and their active status. The subscriptions to be migrated can be specified by scripts, schedules or both. Further filtering can be applied by specifying the alias(es) of the subscriptions as well. Note that the IDs of both the schedules and the scripts have to be the same on the two Zagreus servers for all subscriptions involved. Also note that the IDs of the

subscriptions will not match.

- new attributes are introduced in z:parse action:

  - quotation: Defines the character (e.g. double quote character) which is used to indicate the special case when there is a column-separator character is present inside the text.

  - quotation-start: If the quotation starting and ending characters are different, this attribute can be used to specify the starting one.

  - quotation-end: If the quotation starting and ending characters are different, this attribute can be used to specify the ending one.

- confluence:update-comment action updates an existing comment in a Confluence page.

- jira:update-comment action updates an existing comment in a Jira issue. The text of the comment must be specified as the child text of the action.

- ldap:connection: Zagreus can connect to Microsoft Active Directory servers using ldap:connection

- mstrrest:header-param subaction is implemented for mstrrest:call action. It can send special header parameters (that are mandatory in some calls) in the REST API call, e.g. when defining changeset-id

- ldap:search action has a new attribute called "scope" which can set the scope of the results. Possible values: subtree, object, one-level. Default value: subtree

- xslt:transform: "encoding" attribute is implemented

- excel:data: "printarea" attribute is implemented for excel:data action which sets the print area for the given sheet (in the standard format, e.g. "A4:E43"). "none" results in removing the previously set print area (not implemented for binary Excel format)

- **test-expr**: A new logical expression can be used in test-expr attribute called "in". It returns "true" if the value of the evaluated variable is in the list. E.g. test-expr=x in ["apple", "pear", "cherry"]

  test-expr=NOT job.status in ["error", "cancelled"]

- **z:filter**:A new logical expression can be used in "where" attribute of z:filter action. It is called "in" and it returns "true" if the value of the evaluated variable is in the list. E.g.

  where=x in ["apple", "pear", "cherry"] //where x is the key of z:filter

- **loop-counter**: All iterative action (z:for, z:foreach, z:while, z:do-while) have a new attribute called "loop-counter" that specifies the name of the implicit variable which is used for counting the loops. This variable is changing its value in every loop cycle. "loopcnt" result atribute also the stores the total count the executed loops. NOTE: in z:foreach "counter" result attribute is deprecated, however it still can be used to maintain backward compatibility.

- **skip** attribute is implemented for z:head and z:tail actions. It defines the number of lines which will be skipped from the start or the end of the input.

- **skip-head** and **skip-tail** attributes are implemented for file:read action. With these attributes the number of lines which will be skipped from the start or the end of the input can be specified.

- **content-type** attribute is implemented for Confluence and Jira actions (Confluence:add-attachement/add-comment/update-comment/call/create-page, Jira:add-attachement/call)

- **concatobject(input-object, inbput-object)** system function is implemented: concatenates the elements of the two input-objects. Returns the same type as the first input-object. The possible types of the parameters are: binary, text, list and record types.

  E.g.
  concatobject(list([1, 2, 3]), list([4, 5, 6])) returns a list with the elements 1, 2, 3, 4, 5, 6.

  concatobject('Zag', 'reus') returns 'Zagreus'

- **mstr:connection**: "locale" attribute is implemented for mstr:connection action which defines the default locale ID. It supports the Java-style locale strings, e.g. "en_US" or "en-US".
- **db:sql**: sql-log (true/false) attribute is implemented for db:sql action. If set to true, the executed SQL command will be logged.
- **mstr:prompt**: The attribute values of mstr:prompt action (id, name, value) are printed in the log.
- **mstrrest:call**: The following result attributes are returned in mstrrest:call action (some result attributes - marked with * - are displayed only if they were defined in the script): http_method, request_parameters*, request_headers*, request_body*, rest_url, http_response_code

GUI:

- result messages are displayed in "Script runtime information" dialog.
- Browsing of IMAP and POP3 mail:connections is implemented in GUI.
- clicking on "Secure" checkbox on "Define/Modify Zagreus server connection" dialog will automatically change the server port values to the default ones

(Note: if a new value is defined in conf.properties, it has to be edited manually in GUI connection definition!)

- The system functions are grouped in categories:
  - String functions
  - Date functions
  - Compley type functions
  - Numeric functions
  - Date type functions
  - System functions

  This feature can be turned on/off by an icon in the top right corner of the "Variables window".

- When double clicking on a job in "Finished jobs" tab the log will be opened directly in the text editor. This feature can be turned off/on in Tools/Options/General Behavior

- The content of the "Active logs" tab can be opened in the text editor directly by clicking on the icon of the top right corner. Only the actual content will be displayed, it is not refreshing over time.

- When right clicking on a folder, a new menu item is displayed in the context menu: "Create new resource..."

- When right clicking on an action on the working area, a new menu item is displayed in the context menu: "Help..." It shows the help description of the action.

- Help is displayed as tooltip in "Execution and queuing options" when hovering the mouse cursor above the execution/queuing option.

MONITOR:

- values can be copied to clipboard by right clicking on the variable on the info panel of a job.

MISC:

- the hotfix updater asks the user interactively during the update process if mstr libraries and the related configuration files should be updated when a new version is available in the hotfix package. Furthermore, outdated Zagreus certifications are replace automatically.
- **new feature (linux):** on linux "zagreus.sh status" command can detect "zombie" MySQL processes that are still running without a related Zagreus server
- on windows "status_zagreus.bat" command can detect "zombie" MySQL processes that are still running without a related Zagreus server
- until this version worker-controller and workers were killed on linux. Now they shut down normally by calling a newly implemented stop function. "zagreus.sh" script is updated accordingly.

Zagreus in 2023 – Future plans

By creating a **general REST API** action group, Zagreus will be able to exploit already existing communication interfaces of different systems. E.g. tickets could be transferred from one ticket system to another, or exported MicroStrategy reports could be uploaded easily to a Microsoft 365 Sharepoint folder.