



zenon
by COPA-DATA

zenon manual

Project Backup

v.8.10



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1 Welcome to COPA-DATA help

ZENON VIDEO-TUTORIALS

You can find practical examples for project configuration with zenon in our YouTube channel (https://www.copadata.com/tutorial_menu). The tutorials are grouped according to topics and give an initial insight into working with different zenon modules. All tutorials are available in English.

GENERAL HELP

If you cannot find any information you require in this help chapter or can think of anything that you would like added, please send an email to documentation@copadata.com.

PROJECT SUPPORT

You can receive support for any real project you may have from our Support Team, who you can contact via email at support@copadata.com.

LICENSES AND MODULES

If you find that you need other modules or licenses, our staff will be happy to help you. Email sales@copadata.com.

2 Project Backup

A project consists of Editor and Runtime files. A transfer of the Runtime files is e.g. possible with Remote Transport. This chapter contains information about backing up and restoring the Editor files of a project.

The project backup creates a ZIP file with the saved project. This backup then can be restored to the same or another computer. Project backups can also be versioned (on page 12).

In the Project Manager there is an own node **Project backup**. Also see chapter Project Manager. In the context menu of this entry you can select between '**Create backup**' and '**Restore backup**'.



Attention

Project backups created with zenon and SQL Server Express (SQL Server 2005) cannot be restored to a MSDE database server (or SQL Server 2000)!



Attention

Symbols from the **general symbol library** are saved locally for each theme group (such as *tank*, *substation*, ...) in a separate file (*.sym) in the zenon program folder. These files must always be added manually to back-up the project with multi-user projects and when forwarding projects.

Symbols from the symbol library in the local project and the global project are automatically included in the respective project backup.

Hint: Always save the symbols locally.

PROJECT MANAGER CONTEXT MENU

Menu item	Action
Create backup	Opens the dialog for creating a project backup.
Import backup	Opens the file manager for selecting a backup file and importing this file in the list.
Editor profile	Opens the drop-down list with predefined editor profiles.
Help	Opens online help.

3 Engineering in the Editor

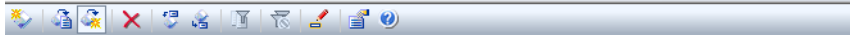
Project backups are created administered and restored in the **Project backups** node.

You can:

- ▶ Create and export project backups (on page 7)
- ▶ Restore project backups (on page 8)
- ▶ Backup and restore workspaces (on page 11)
- ▶ Delete projects (on page 11)

If the **Project backup** node is selected in the Project Manager, all existing backup files are displayed in the Detail view of the project manager.

3.1 Project backup detail view toolbar and context menu



CONTEXT MENU

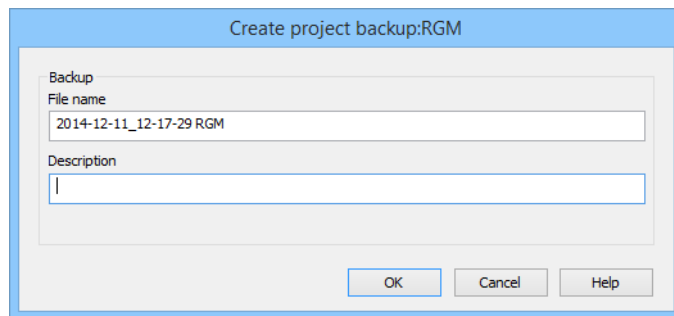
Menu item	Action
Create backup	Opens the dialog for creating a project backup.
Load backup	Restore the project to the condition saved in the backup file.
Restore project backup as new project	Created a new project with the data auf the backup.
Delete	Deletes selected entries after a confirmation from list.
Export backup	Opens the dialog for selecting the folder for the backup file and exports the backup file.
Import backup	Opens the file manager for selecting a backup file and importing this file in the list.
Compare selected backups in the History of Changes	<p>Only active if more than one entry in the list has been selected in the list of the detail view.</p> <p>The oldest and the latest version are determined. From this a time filter is created with which you change to the history of changes where differences of the selected project backup are compared.</p>
Remove all filters	Removes all filter settings.
Edit selected cell	Opens the selected cell for editing. The binocular symbol in the header shows which cell has been selected in a highlighted line. Only cells that can be edited can be selected.
Properties	Opens the Properties window.
Help	Opens online help.

3.2 Project backup and export

BACKUP PROJECT

In order to create a project backup, right-click on **Project backup** in the **Project manager** and select **Create backup**.

The dialog for project backup is opened:



Option	Description
File name	Name of the ZIP file for the project backup
Description	Free text as comment.
OK	Accepts inputs and creates project backup.
Undo	Cancel the backup.
Help	Opens online help.

Note: When converting a project into a higher zenon version, a project backup is created automatically. If its name is identical to a backup that already exists, the pre-existing backup is automatically overwritten without requesting confirmation.



Attention

As the service **zenDbSrv.exe** only runs with local rights and not with the rights of the logged in user, a backup to a network drive is not possible!

zenon saves the project backup in its own predefined database folder (SQL):

`%ProgramData%\COPA-DATA\[SQL-folder]\UID\BACKUP`



Information

At the backup of the workspace, all projects of the workspace are backed up, too. They are however not contained in the project back up and cannot be restored individually.

EXPORT PROJECT

You can export your backups at any time from zenon (e.g. for sending it or transporting it to another computer). Right click the desired project backup and select **Export backup** in the context menu. In the following dialog, select the folder and confirm with **OK**.

If the project backup takes more than 1 second, a progress display appears.

You can see information about the export of the backup (e.g. failure/success) in the output window.

You can display all the backups of a project in the detail view by clicking on Project backups in the Project manager.

(See also Project manager, Detail view of the Project manager).

3.3 Restore project backup

Project backup can be read back via:

- ▶ the workspace
- ▶ the node project backup



Attention

zenon projects in version 6.01 or 6.20 can no longer be directly read back in zenon 7.10 or higher.

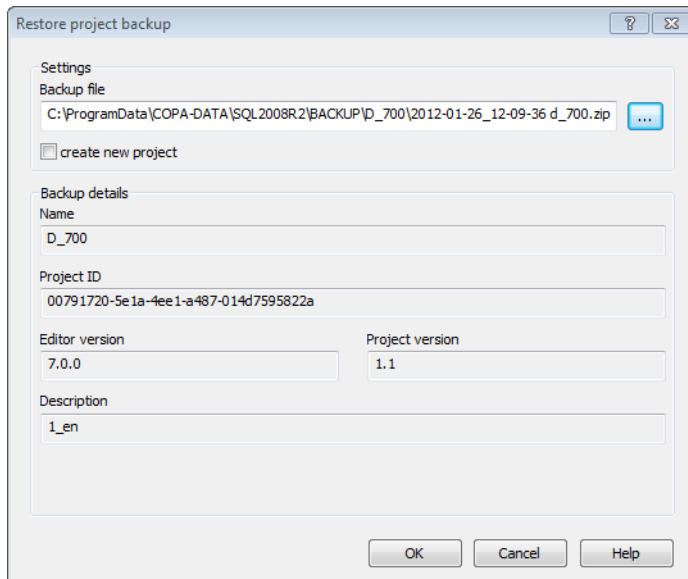
Background: Versions that are based on the MSDE (SQL Server 2000) are not compatible with the SQL Server 2012 used in zenon 7.10.

Solution: Convert the project first in zenon 7.0 and then in 7.10 or higher.

WORKSPACE

1. in the context menu of the workspace select command **Read back project backup...**

- the selection dialog for selecting the project backup is opened




Parameter	Description
Backup file	Selection of the file which is to be read back. Clicking on the ... button opens the file selection dialog.
create a new project	<i>Active:</i> a new project is created in the database.
Backup details	Information about the project which should be read back: <ul style="list-style-type: none"> ▶ Name ▶ Project ID ▶ Editor version ▶ Project version (only if Versioning (on page 12) is active) ▶ Description All data are taken from the project which should be read back and serve only informational purposes. You cannot change them in this dialog.
OK	Data are taken over and the selected project is read in.
Undo	Discards all data and closes dialog.
Help	Opens online help.

NODE PROJECT BACKUP

- navigate to the **Project backup** node

2. Select the desired project backup
Note: If the desired backup is not available, import it.
3. select **Restore backup...** in the context menu or in the toolbar
4. the project backup is read back after a confirmation request and is activated automatically



Attention

Projects,

- ▶ created with SQL Server 2005 Express cannot be used with SQL Server 2000 (MSDE)
- ▶ created with SQL Server 2008 R2 cannot be used with SQL Server 2005 Express

IMPORT PROJECT BACKUP

In node **Project backup** of the project manager select **Import backup** from the context menu. First the project is imported and then restored in the next step.

At first there is a check whether the desired backup file of the project already exists. If the backup does not exist, the imported file is added to the list of backups. All projects, which have been imported but not yet restored, are added to the list of backups in the detailview of the project manager.

This is where you will find a list of all backups created for the project. The file names can be changed in the list.

EXPORT AND IMPORT THE PROJECT BACKUP

It can be necessary to export or import a project backup if the Editor files of a project should be used on another PC. In case of an export the backup file from folder *%ProgramData%\COPA-DATA\[SQL folder]\Projectname* is copied to another device (e.g. USB stick). Both export and import are copy actions and not move actions.

DELETE PROJECT BACKUP

The backup files are deleted from folder *%ProgramData%\COPA-DATA\[SQL folder]\Projectname*.

ERROR MANAGEMENT

Error	Solution
Project backup is not displayed.	Node project backup lists only the projects which are contained in the default SQL/backup folder. Projects from other folders can be imported manually.

Error	Solution
Button OK cannot be operated in read back dialog.	The selected ZIP file contains invalid data. Maybe a workspace backup or another ZIP file has been selected.
History of the project backup is no longer available.	The project was renamed and therefore the history is no longer available. The backup file is however still available and can be imported manually or can be read back via the context menu of the workspace.

3.4 Backup and restore of workspaces

CREATING A BACKUP OF A WORKSPACE

Select the entry **Workspace -> Create backup** from the context menu of the workspace. Backups of workspaces are saved as *.wsb files. The name can freely be defined.

Note: Together with the workspace all projects of the workspace are backed up. They are however not contained in the project back up and cannot be restored individually.

LOAD BACKUP

With opened/closed workspace:

Select the entry **Workspace / Restore backup** from the context menu of the workspace. You now can select a backup and define the folder, to which the workspace should be restored.

3.5 Delete project

To delete a project, choose the entry **project / delete** in the context menu of the project.



Attention

When a project is deleted, all open database connections are closed. When an existing project is reloaded, this is not the case.

4 Versioning

Project backups can also be versioned. Versions are identified and sorted according to numbering and date/time of their creation.

To activate versioning:

1. navigate to the **General** node in properties
2. navigate to area **Versioning**
3. Activate the **Versioning active** property
4. Assign a main number to property **Main version**

With this for each project backup a number for the project version is created. It consists of the **Main version** and an internally assigned detail number separated by a point. This detail number is incremented for each project backup. The version of a project backup is displayed in:

- ▶ the detail view of node project backup
- ▶ in the dialog for restoring a backup in the workspace

The number of the **Project version** is checked at the transfer of the Runtime files with Remote Transport or via the network topology and can be read via VBA or a system driver variable. If another version is loaded in the Editor, a warning is displayed. If there is a conflict during transfer of the Runtime files via the network, you accept or decline the transfer for all projects which are transferred to the computer and at which conflicts exist.

The current project can also be added to the project backup as XML export.

Information

Versioning also works with distributed engineering. At this file **project.ini** must be locked for changes for a backup at the server. XML files are only saved for local backups.

BACKUP OF THE CORRECT SORTING ORDER.

In versioning you can release the **Main version**. Based on this main number the detail number is automatically incremented from 0 for each backup. If **Main version** is changed, distributing the detail number starts again from 0.

Pay attention to consistent **Main version** and consistent versioning. As user can freely change the **Main version**, there is the possibility:

- ▶ of a random order
e.g. 2.1 is followed by 1.0
- ▶ of using the same number several times

e.g. 1.0, 1.1, 1.2, 1.0

- ▶ of temporarily turning of the versioning

That means: Project backups without version number are mixed with versioned backups

To provide an overview over the order of the individual project backups, the creation time of a backup is also saved in the **project.ini**.

XML EXPORT

If property **XML export active** is active, a compressed file **VERSION.ZIP** is created within the project backup. As XML export it contains data from:

- ▶ Variables
- ▶ Data types
- ▶ Reaction matrices
- ▶ Allocations
- ▶ Alarms
- ▶ Units
- ▶ Screens
- ▶ Frames
- ▶ Font lists
- ▶ Color palettes
- ▶ Project Symbol Library
- ▶ Functions
- ▶ Historian
- ▶ Recipes
- ▶ Recipegroup Manager
- ▶ Time control
- ▶ VBA macros
- ▶ Interlockings
- ▶ Command input
- ▶ EMS
- ▶ Menus
- ▶ User administration
- ▶ User groups

- ▶ SAP interface

The content of the file equals the content of the manually exported XML.

The content of this XML file matches the content of the common XML export. For multi-user project XML exports are only created for local backups.

SYSTEM DRIVER VARIABLE

Similar to the **Project version** property, there is a **project version** system driver variable in the **System info** chapter.

4.1 Troubleshooting

Errors at versioning are displayed and processed in the log file, in the output window and in pop-up messages.

DIAGNOSIS VIEWER

Entries in log files:

Entry	Description
Error BackupDatabase: Skip on an Error in BackupXml: [Path]	Error on creating VERSION.ZIP with the XML export files during project back up. The back up was created but the XML files are missing.
GetDBBackupStatus: BINARY.ZIP not exists: [Path]	When reading the versioning of a project back up, file BINARY.ZIP was not found. The back up is damaged.
GetDBBackupStatus: project.ini not exists: [Path]	When reading the versioning of a project back up, file project.ini was not found. The back up is damaged.

OUTPUT WINDOW

Entries in the output window:

Output window entry	Explanation; what does it mean?
The transfer of project '%s' was declined	Two possible reasons: <ul style="list-style-type: none"> ▶ At version checking a conflict occurred and the user declined the transfer. ▶ At version checking an error occurred.
No project directory defined	Error during version check.

POP-UP MESSAGE

Error messages in pop-ups:

Error message	Description
<p>The version %d.%d of the project at the target computer do not match: Should it be transferred anyway?</p>	<p>At transporting the Runtime files with Remote Transport:</p> <p>For the project the versioning was activated and the version number of the project in the Editor does not match with the version number in file project.ini at the target computer.</p> <p>Available reactions:</p> <ul style="list-style-type: none"> ▶ Yes: ▶ No: no transfer
<p>At computer %s the version %d.%d of the project does not concur: Should it be transferred anyway?</p>	<p>At transporting the Runtime files with network topology:</p> <p>For one or more projects the versioning was activated and the version number of the project in the Editor does not match with the version number in file project.ini at the target computer.</p> <p>Available reactions:</p> <ul style="list-style-type: none"> ▶ Yes: Transfer is continued ▶ No: no transfer ▶ Yes, all: Transfer is continued without further request for all projects concerned ▶ No, all: Transfer is canceled without further request for all projects concerned <p>This dialog is again displayed if during the transfer to another target computer, a version conflict occurs again.</p>
<p>The project cannot be saved because 'project.ini' is locked!</p>	<p>At creating a project backup for multi-user projects with versioning, the version number in file project.ini must be incremented. This is not possible because file project.ini is locked.</p>