

Restoration of the database



Installation manual for system providers

10/11/2021

Product line neo, version 6.x

The described functions can be used with the following ASC products:

EVOIPneo

EVOLUTIONneo / XXL / eco

INSPIRATIONneo

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ASC offers different possibilities to protect the database of a neo system against loss of data. It does not matter which recording architecture is used or whether the system is a single- or a multi-core system. The backup scenarios described in the following can be used in all architecture types and with all core variants.

First of all, it is important to distinguish the following terms:

- *Backup of recordings*
This is the actual communication data (audio, video, screen or chat). This data is archived on external media for long-term storage.
- *Backup of recording information*
This is the corresponding additional data of the calls. This data is stored in the database and is thus protected via the database backup.

A disaster recovery solution protects the information stored in the database if the database fails. This is not a database redundancy! If the database fails, the functionality of the *neo* system is restricted until the database is restored.

Recording can be continued, but the corresponding recording information will not be transferred until the database has been restored.



As long as the database is unavailable, the system cannot be used for search, replay or administration.

Solution concept

During the installation of the ASC recording software, a backup job is created for PostgreSQL databases which automatically backs up the internal PostgreSQL database every 24 hours. As many as five complete backups are stored before the oldest backup is overwritten. This guarantees that up-to-date database backups of the last five days are available. The backups are stored on the partition :\\ASCDATA. By creating an automated copy process to external drives such as to a backup server in the customer environment, the backups can be saved separately. This solution allows saving all backups of the database until the very last one.

For external MSSQL databases, you have to create a backup job manually.

If there is a gap between the latest backup and the current recording, you can restore the possibly lost data with the import functionality *neo* Rebuild.

The following manual describes the steps to backup and restore a PostgreSQL or an MSSQL database.



For information about the import job *neo* rebuild refer to the administration manual for system providers *Rebuild of conversations*.



The restore should definitely be carried out by an authorized ASC service technician. Contact your local ASC support or call ASC support at +49 700 27278776.

2 Overview of steps to take

2 Overview of steps to take

Restoration of the database

- *Stop services ASC ServiceMan and ASC ApplicationServer*
- *Install backup of the database*
- *Install backup of partition :\\ASCDATA, if required*
- *Start services ASC ServiceMan and ASC ApplicationServer*
- *Carry out rebuild of conversations by means of the import job neo Rebuild*

3 Restoration of the database

3.1 Database backup available

If operating system and hardware are intact and the call pool exists but the database is defective, continue with the respective instructions for the database you are using to install a backup.

- See [chapter "Restore PostgreSQL database", p. 6.](#)
- See [chapter "Restore MSSQL database", p. 8.](#)

3.2 Restore PostgreSQL database

During the installation of the provided PostgreSQL database of the *neo* recording software, a backup job is created for the PostgreSQL database which covers the last 5 days (default value).

By default, you find the files in the following directory:

- %ASCDATA%\DatabaseBackup\

The period for the backup job of the PostgreSQL database (default value: 5 days) can be changed by means of the administration tool for the database, if required.

To restore the database, proceed as follows.

Delete defective database

Before you install the backup, you have to delete the existing database and create a new one.

1. Stop the services *ASC ServiceMan* and *ASC ApplicationServer*.
In multi-core systems, **all** Enterprise Cores must be stopped.
2. Open the program *pgAdmin*.
3. Log in and select the database entry *asc_rs*.
4. From the context menu, select the entry *Delete/Drop* and delete the database *asc_rs*.

Create new database

1. Right-click on *Server > Server Name > Databases*.
2. Select the menu item *New Database* from the context menu.
3. In the tab *Properties*, enter *asc_rs* as name.
4. From the drop-down list *Proprietor*, select the value *postgres*.
5. In the tab *Definition* check whether the value for the coding has been set to *UTF8*.
6. Click on the button *OK* to save the database.

3.2.1 Apply configuration data

When deploying a PostgreSQL database, you can apply the saved configuration data.

Before restoring the database, copy the following files to the following path:

1. Copy the saved configuration files of the database:
 - : \ASCDDB\pg_hba.conf
 - : \ASCDDB\postgresql.conf
 - : \ASCDDB\recovery.conf
 - : \ASCDDB\DataBase.conf

3.2.2 Restore of the PostgreSQL database



For a restore, the PostgreSQL server must be running.

1. Before the restore, copy the saved configuration files to the database.

- Right-click on the database instance *asc_rs* that you would like to restore.

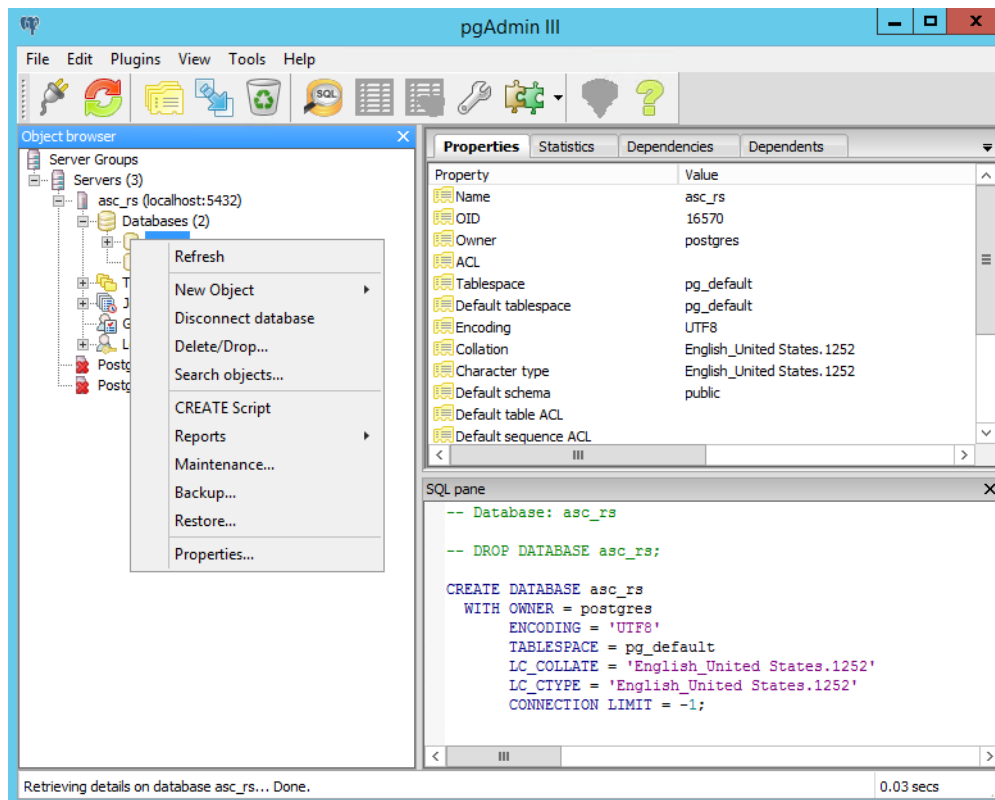


Fig. 1: Restore options

- From the context menu, select the menu item *Restore*.

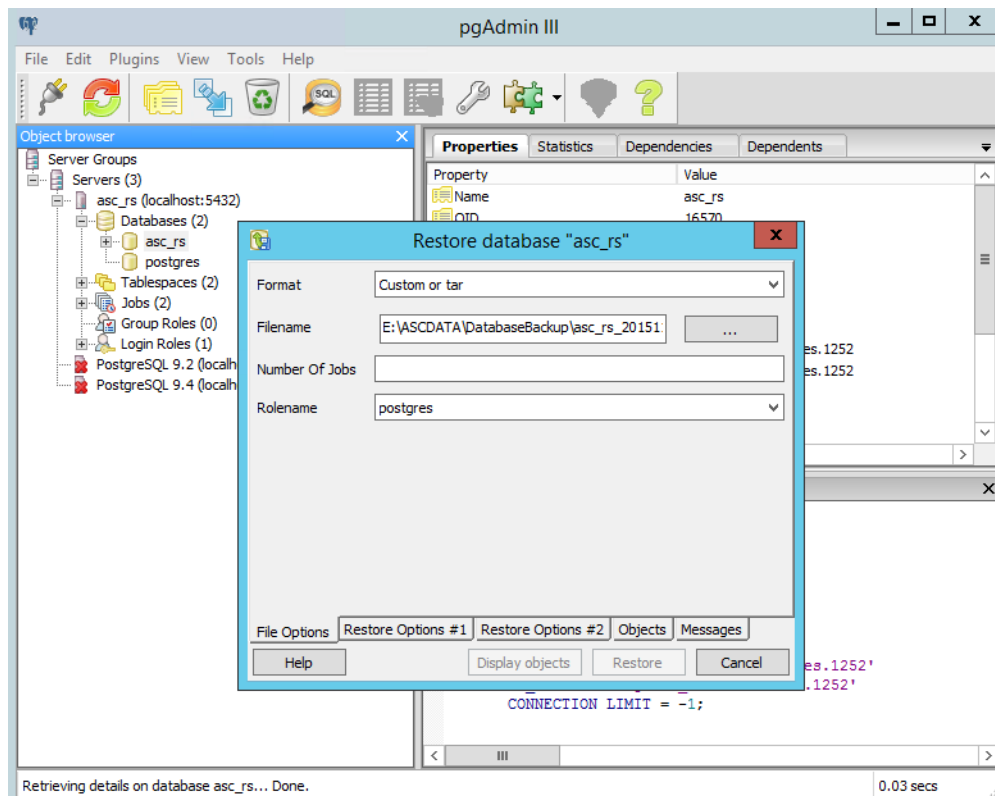



Fig. 2: Select restore file

- Select the following options for the restore:

<i>Format</i>	From the drop-down list, select the entry <i>Custom or tar</i> .
<i>Filename</i>	Select the backup file from which you would like to restore the database by clicking on the button  .
<i>Rolename</i>	From the drop-down list, select the entry <i>postgres</i> .

Tab. 1: Select restore file

5. Click on the button *Restore*.
 - ⇒ Once the restore has been completed, the tab *Messages* becomes active. Here, you can check the result.
Status 0 indicates that there are no messages and that the restore has been successful.
6. Reboot the server after the restore.



If you have to restore a failover configuration on the standby server, copy the configuration files back into the database directory. For further information refer to the installation manual for system provider *Failover operation for PostgreSQL databases*.

3.2.3 Start updater

After the database restore, you must start the ASC Updater so that the general program parts can be installed subsequently.

1. Start the *updater.exe* from the installation directory.
 C:\Program Files (x86)\ASC\ASC Product Suite\Updater
2. Restart the server once the Updater has run through.
3. Check the system.

3.3 Restore MSSQL database

1. Stop the services *ASC ServiceMan* and *ASC ApplicationServer*.
 In multi-core systems, **all** Enterprise Cores must be stopped.
2. Open the program *Microsoft SQL Server Management Studio*.
3. Log in and select the database entry *asc_rs*.
4. Check the properties and the files of the database.

The MSSQL database can be restored by means of the existing database. It is not necessary to delete the existing database and create a new one.

3.3.1 Restore of the MSSQL database



For a restore, the Microsoft SQL server must be running.

1. Right-click on the database instance that you would like to restore.
2. From the context menu, select the menu item *Task > Restore > Database*.

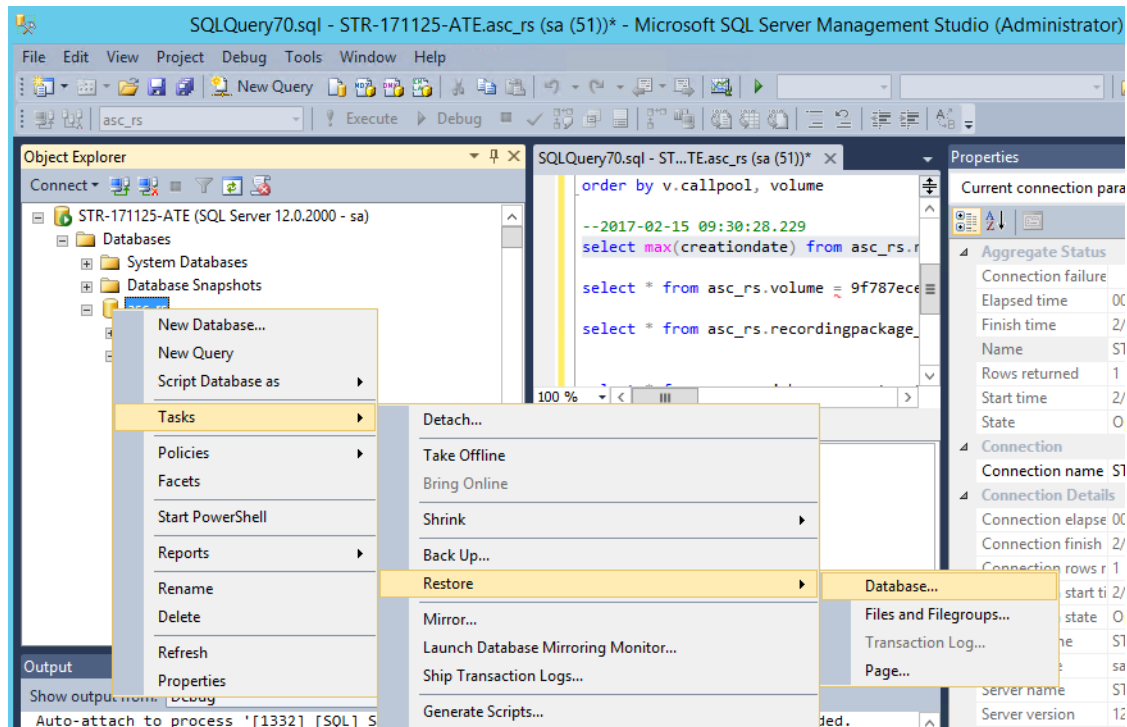


Fig. 3: Restore options

- Click on the menu item *General* in the navigation bar.

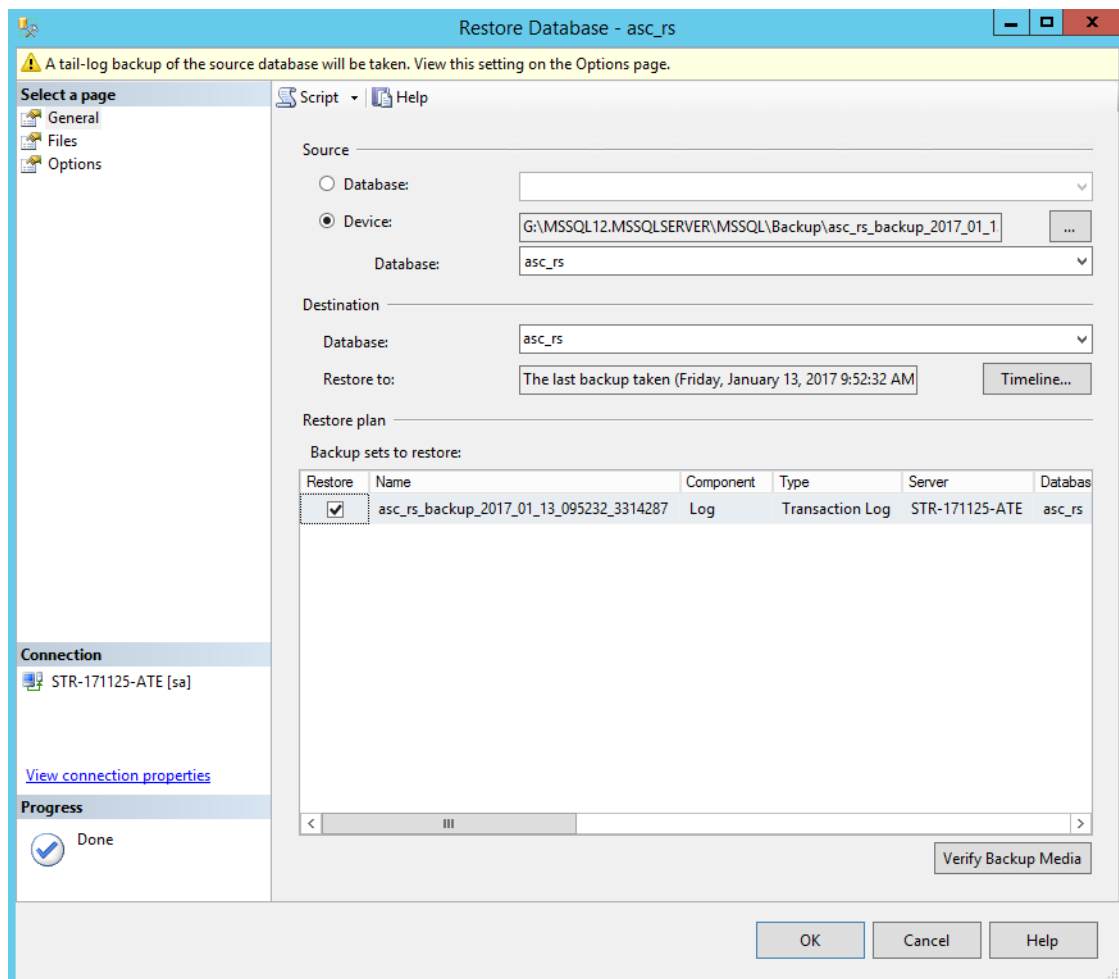


Fig. 4: Select restore file

- Select the following options for the restore:

Source

<i>Device</i>	Activate this option if the backup has been stored on a different medium.
<i>Database</i>	From the drop-down list, select the database backup from which you would like to restore the database, e. g. <i>asc_rs</i> .

Tab. 2: Select restore file

Destination

<i>Database</i>	From the drop-down list, select the database backup from which you would like to restore the database, e. g. <i>asc_rs</i> .
<i>Restore to</i>	Select the backup that you would like to use for the restore. If you do not want to use the suggested backup for the restore, you can select a different backup by clicking on the button <i>Timeline</i> .

Tab. 3: Select destination

5. Click on the button *OK*.
 - ⇒ Once the restore has been completed, the tab *Messages* becomes active. Here, you can check the result.
 - Status 0* indicates that there are no messages and that the restore has been successful.
6. After the restore, check the properties and the files of the database.
7. Reboot the server after the restore.



For further information see <http://msdn.microsoft.com/en-us/library/ms187510.aspx>.

3.3.2 Start updater

After the database restore, you must start the ASC Updater so that the general program parts can be installed subsequently.

1. Start the *updater.exe* from the installation directory.
C:\Program Files (x86)\ASC\ASC Product Suite\Updater
2. Restart the server once the Updater has run through.
3. Check the system.

4

Rebuild of recordings



Depending on the extent of the data loss, you may have to install the backup of the database first.

To fill the gap from the latest database backup to the most recent recording, in the application System Configuration, you can use the import function *neo* rebuild.



Basic information about using the application System Configuration can be found in the user manual for administrators *System Configuration - General information*.

4.1

Configure import job

To be able to use *neo* rebuild, you must configure an import job.



The following configuration has to be carried out as system administrator.



In a multi-tenant system, you have to run a separate import job for each tenant.

1. Open the application System Configuration.
2. Log in as system administrator.
3. Select the menu item *Setup > Recording Import*.

⇒ The following main view appears:

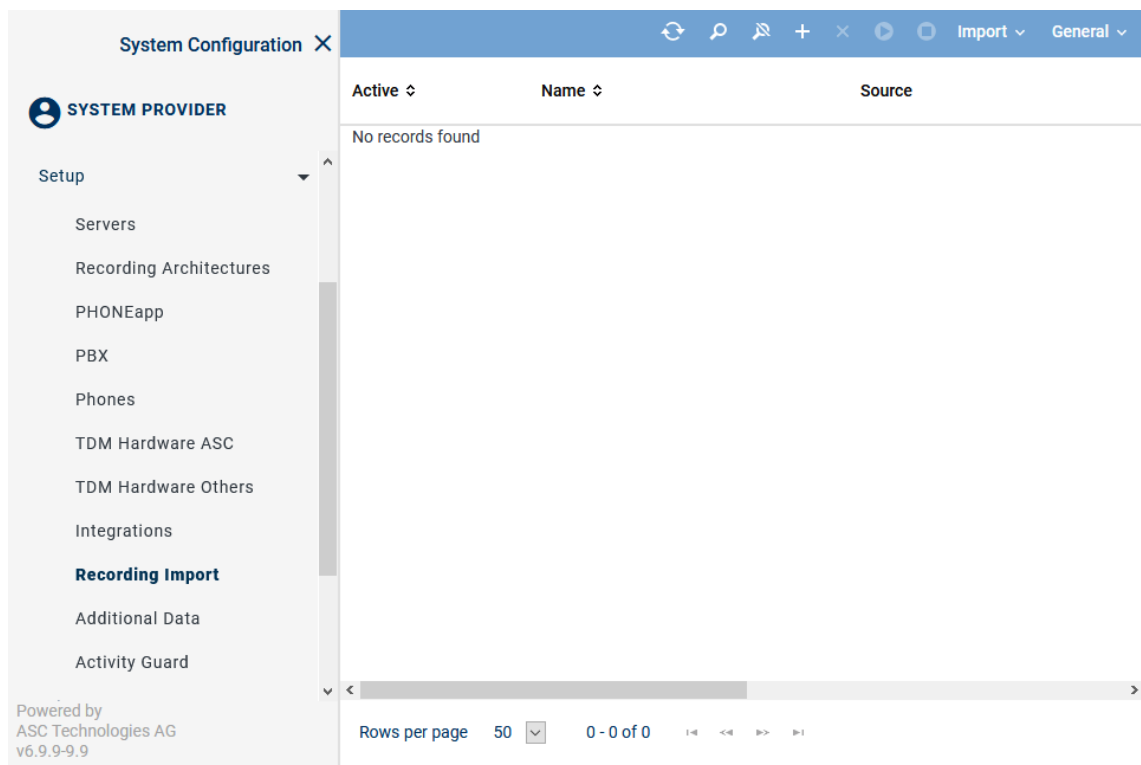



Fig. 5: Exemplary main view of import jobs

4. Click on the icon  (Create) in the toolbar of the main view to configure the import format for *neo* rebuild.

4.1.1

Tab Details

Select the tab *Details* to select the tenant that you would like to carry out the rebuild for and to configure the import format.

Rebuild

<

Details*

Drives*

Mapping

Check Duplicate

>

Help

Active

☐

Name*

Rebuild

Description

Import format*

neo rebuild

Codec

G.711 a-law

Execution mode

☒ Once
 ☐ Continuous

Tenant*

1st-tenant + -

Conversations with employees without import key

☐ Import without mapping
 ☒ Don't import

Start time

End time


Save

Reset

Fig. 6: Tab Details - Import format neo Rebuild ASC neo rebuild

1. In the tab *Details*, enter the following parameters:


Active	<p>Tick the check box to activate the import configuration.</p> <p><input checked="" type="checkbox"/> = Configuration is active; the import is started directly upon saving.</p> <p><input type="checkbox"/> = Configuration is not active; no import is carried out. A running import can be stopped that way.</p>
Name	Enter the name of the import configuration.
Description	Here, you can enter a description for the import configuration.
Import format	Select the import format <u>neo</u> Rebuild from the drop-down list.
Codec	The codec cannot be changed for this import format.
Execution mode	<p>This import job is always executed only once. This setting has been preselected and cannot be changed for this import format. If the import has to be executed once again for some reason, you have to deactivate the import job, activate it again and save it.</p>
Tenant	<p>Click on the button + to select the tenant that you would like to map the imported data to, see chapter "Assign tenant", p. 13.</p> <p>The rebuild functionality has to be carried out for each tenant separately.</p>
Conversations with employees without import key	<ul style="list-style-type: none"> Import without mapping <p>The conversations without mapping are imported but cannot be mapped to an agent, i. e. these recordings can only be seen by those who have the right to see all recordings.</p>

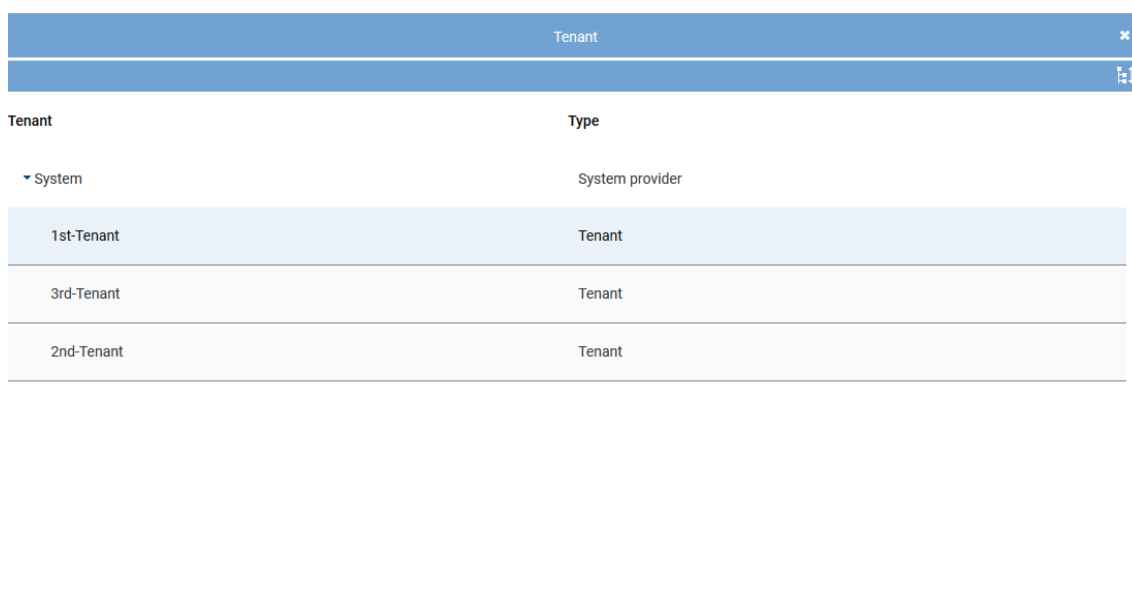
	<ul style="list-style-type: none"> Don't import The conversations are not imported into the destination system.
<i>Start time / End time</i>	<p>If you have selected the import format <i>neo</i> Rebuild, you can limit the period from which recordings are supposed to be imported.</p> <p>Define the <i>start time</i> and the <i>end time</i> to limit the import to the exact period during which data was lost. You can set the period generously; already existing conversations are not imported again.</p> <p>Alternatively, you can enter either only the start time or the end time. If you enter neither a start time nor an end time, the import period is unlimited.</p> <p>You can enter the date directly in both entry fields via the keyboard or by clicking on the icon .</p>

NOTICE!

You do not have to select a **PBX**; the conversations of all PBXs assigned to the selected tenant are imported.

4.1.1.1 Assign tenant

- Click on the button  on the right of the entry field.
- Select a tenant from the list.



Tenant	Type
System	System provider
1st-Tenant	Tenant
3rd-Tenant	Tenant
2nd-Tenant	Tenant

Fig. 7: Add tenant

- To apply the selection, click on the button *Add*.
To discard the selection and close the window, click on the button *Cancel*.

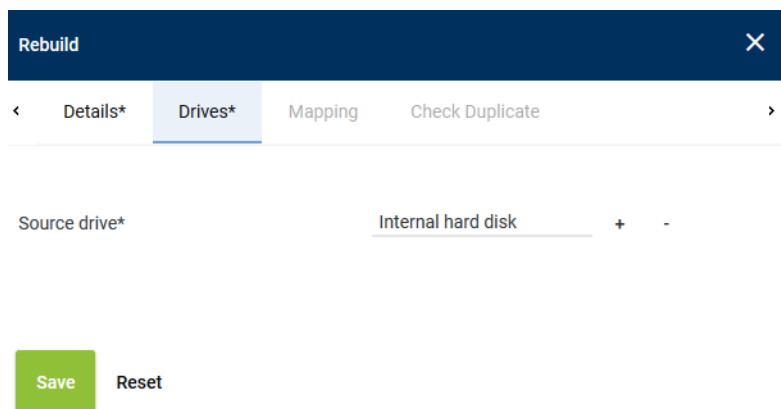
4.1.2 Tab Drives

Select the tab *Drives* to select the source drive from which the data is supposed to be imported.

A drive can be used in several job configurations as long as the drive is not used actively by a configuration.



If a drive is currently used actively by a job, no additional job which uses the same drive can be released or activated. This behavior includes all modules, i. e. regardless of the module that the configuration belongs to.



Rebuild

Details* Drives* Mapping Check Duplicate

Source drive* Internal hard disk + -

Save Reset

Fig. 8: Tab Drives - select source directory

Time zone Select the time zone from the drop-down list that the time indicated in the data to be imported refers to.

Source drive Select the drive from which the data is supposed to be imported, see [chapter "Assign drive", p. 14](#).



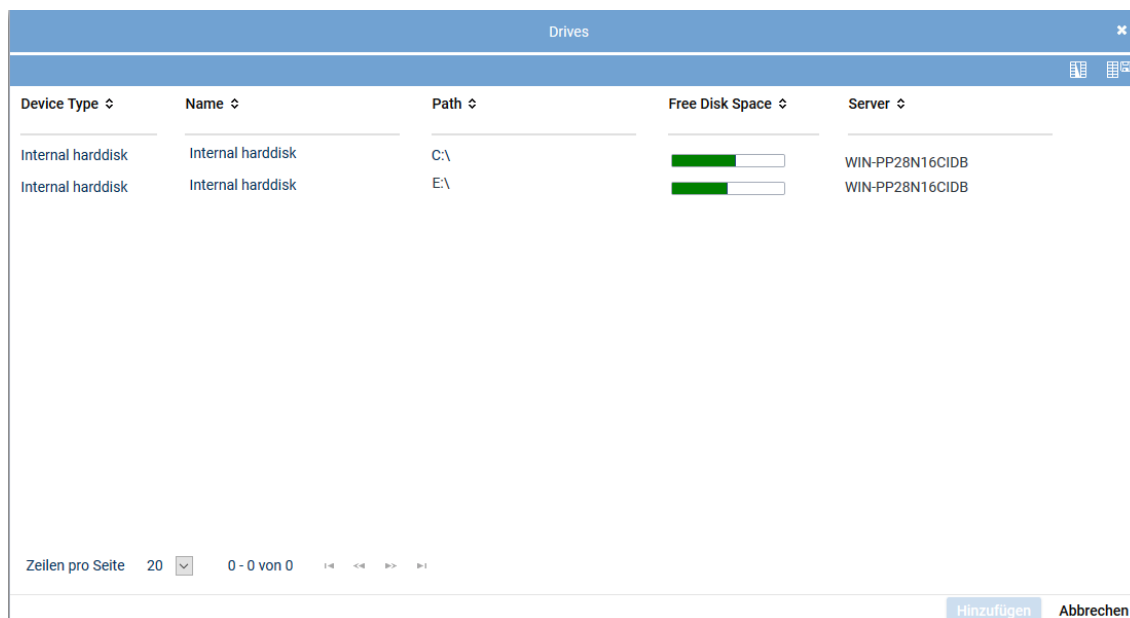
You have to create a separate import job for each drive.

The drive types S3 and EMC Centera are not supported for this import job.

1. To save the settings, click on the button *Save*.
To discard the settings, click on the button *Reset*.

4.1.2.1 Assign drive

1. Click on the button **+** on the right of the entry field.
2. Select a drive from the list.



Device Type	Name	Path	Free Disk Space	Server
Internal harddisk	Internal harddisk	C:\	<div><div></div></div>	WIN-PP28N16CIDB
Internal harddisk	Internal harddisk	E:\	<div><div></div></div>	WIN-PP28N16CIDB

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Hinzufügen Abbrechen

Fig. 9: Add drive

3. To apply the selection, click on the button *Add*.
To discard the selection and close the window, click on the button *Cancel*.

5 Verifying functionality

5 Verifying functionality

1. Check System Monitoring for possible error messages.
2. To check whether the conversations have been imported successfully, open a player and check whether the conversations are displayed and whether they can be replayed.

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Glossary

PBX

Private Branch Exchange

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