

Restoration of the database



Installation manual for system providers

6/1/2022

Product line Neo, version 7.x

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

EVOIP^{neo}

EVOLUTION^{neo} / XXL / eco

INSPIRATION^{neo}

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ASC offers different possibilities to backup the database of a Neo system before a failure. It does not matter which recording architecture you use or whether you deploy a single- or a multi-core system. The following backup scenarios can be used with all architecture types and core variants.

In general, you have to distinguish between the following terms:

- *Backup of recordings*
This is the communication data itself (audio, video, screen or chat). This data is archived on external media for long-term data storage.
- *Backup of recording information*
This is the additional data of the calls. It is saved in the database and can be stored long-term by means of the database backup.

A disaster recovery solution safeguards against the loss of the information saved in the database if the database fails. This is not a database redundancy. If the database fails, the functions of the Neo system are restricted until the database is restored.

In general, recording can continue, but the recording information is not transferred until the database has been restored.



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

Solution concept

For PostgreSQL databases, a backup job is set up during the installation of the ASC recording software which backs up the PostgreSQL database every 24 hours. As many as 5 complete backups are created before the oldest backup is deleted. This guarantees that the latest database backups of the last 5 days are available. These backups are stored in :VASCDATA. By configuring an automatic copy job to external drives, e. g. to a backup server in the customer environment, backups can be saved separately. This solution safeguards the database until the latest backup.

For external MSSQL databases, you must set up a backup job manually.

Possible gaps from the latest backup to the latest recording can be filled with the import functionality NEO Rebuild.

The following manual describes the steps required 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. 9](#).

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.

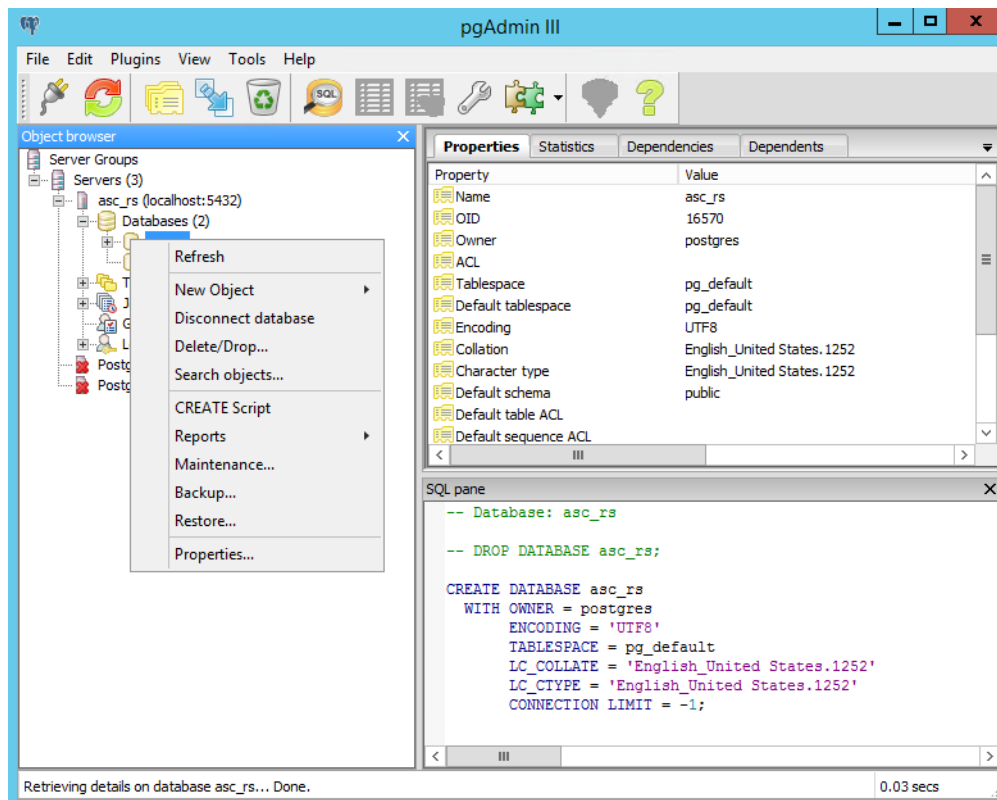


Fig. 1: Restore options

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

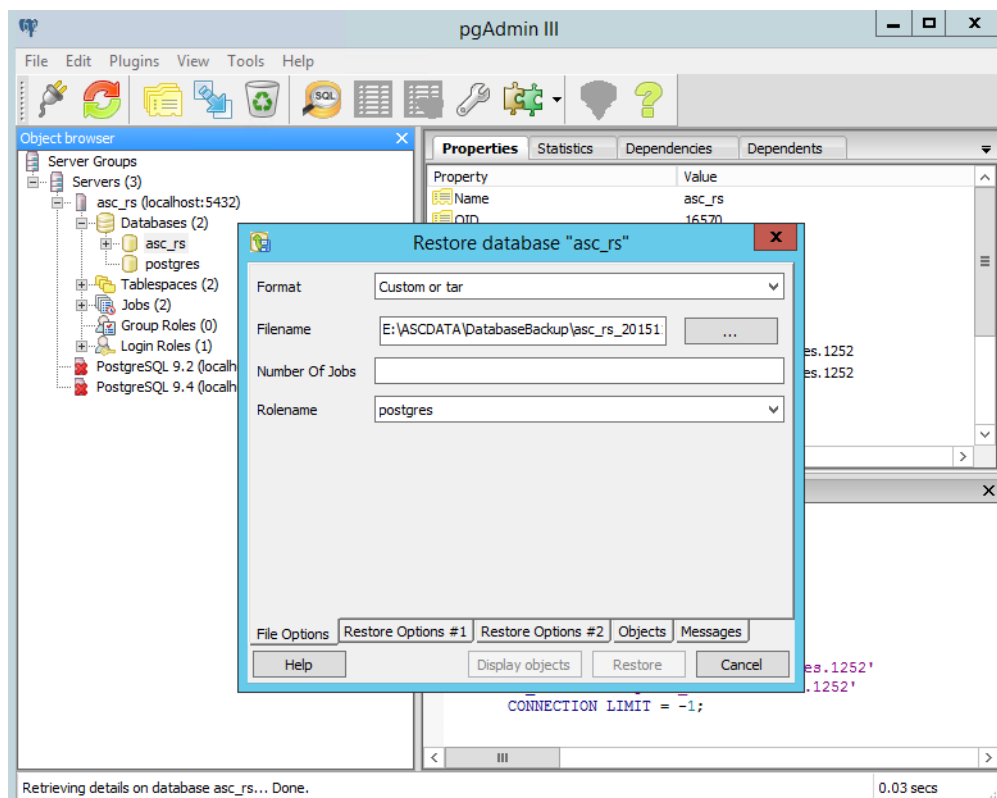



Fig. 2: Select restore file

- 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.

There are 2 options for a restore with the ASC Updater:

1. *Start ASC Updater in simple mode*
2. *Start ASC Updater in isolation mode*

Restore in simple mode

1. Change to the installation directory
`C:\Program Files (x86)\ASC\ASC Product Suite\Updater`
2. Start the ASC Updater with the following command
`updater.exe --open`
3. Restart the server once the Updater has run through.
4. Check the system.

Restore in isolation mode

An installation in isolation mode serves to install one or several Neo servers in parallel with an existing Neo system on a new server. By blocking the connections in the firewall, this server will be unable to connect with existing network drives or communication platforms until the user opts for switching off the existing system and releasing the system installed in isolation mode.

During a restore in isolation mode, the firewall is not opened during the updater routine but the rule `ASC_BLOCK_ALL_OUTBOUND` is activated blocking all outbound connections with the exception of:

- TCP 389, 636 (LDAP),
- TCP 1433 MS SQL (for the external database),
- TCP 3389 RDP (Remote access),
- TCP 5432 PostgreSQL (for external DB)
- UDP 123 NTP

Afterwards, you must remove the rule `ASC_BLOCK_ALL_OUTBOUND` and open the firewall.

To do so, proceed as follows:

1. Change to the installation directory
`C:\Program Files (x86)\ASC\ASC Product Suite\Updater`

2. Start the ASC Updater with the following parameter:
`updater.exe --isolate`
3. Restart the server once the Updater has run through.
4. Ensure that the ASC Updater process has been successful and that the configuration files have been applied.
5. To switch to the new server, you must shut down the previous server.
6. Then restart the ASC Updater on the new server but with the parameter:
`updater.exe --open`
 to remove the blocking of the connections and open the firewall.
7. 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*.

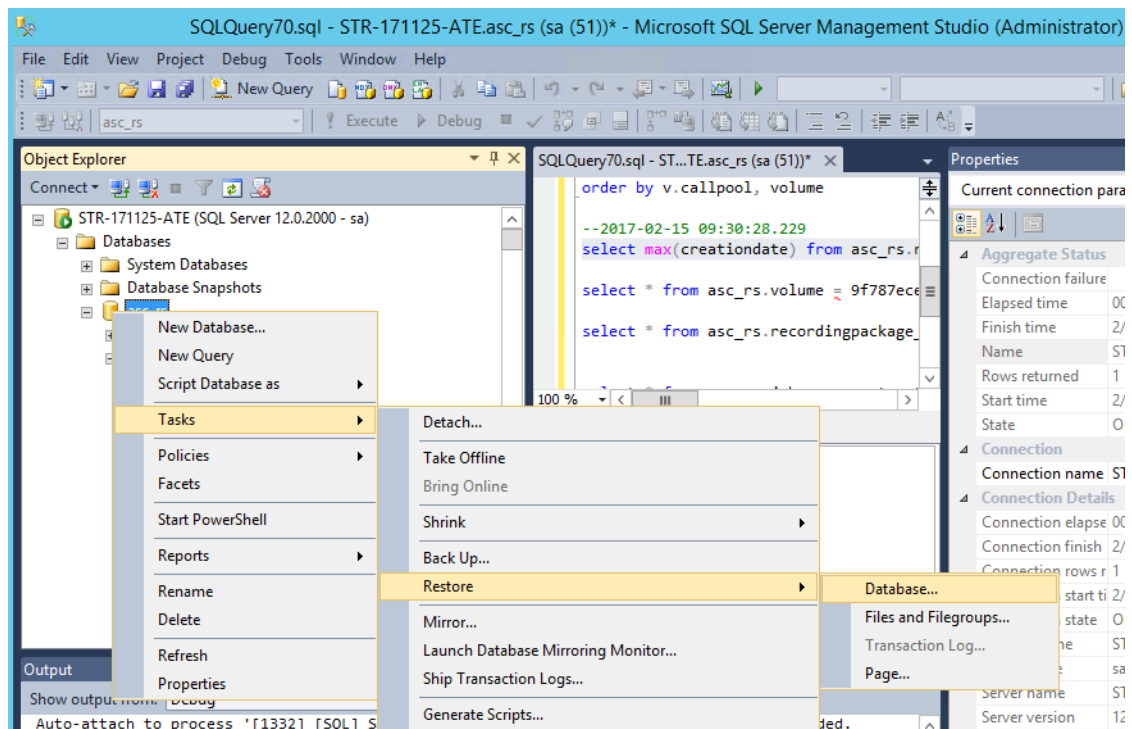


Fig. 3: Restore options

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

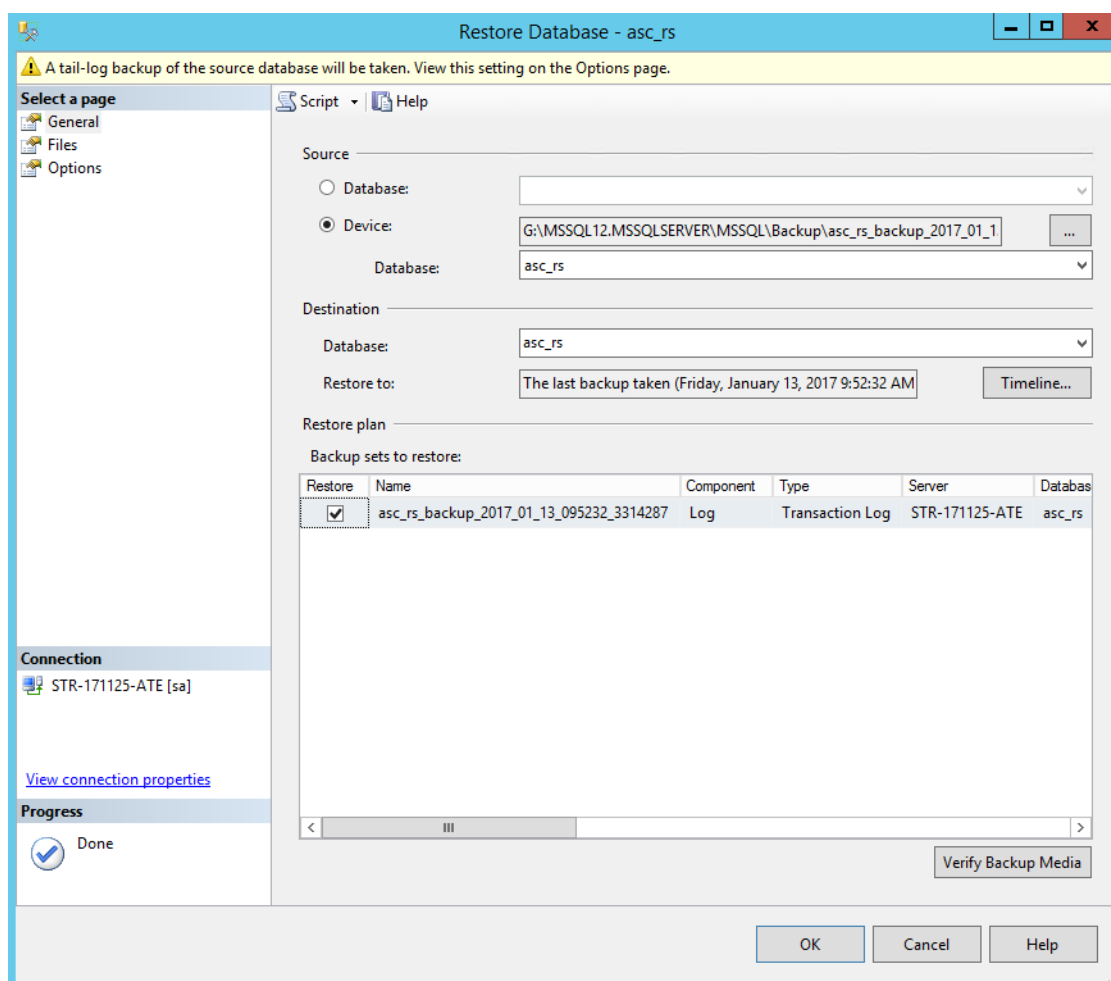


Fig. 4: Select restore file

4. 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>.

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6. Then restart the ASC Updater on the new server but with the parameter:
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7. 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:

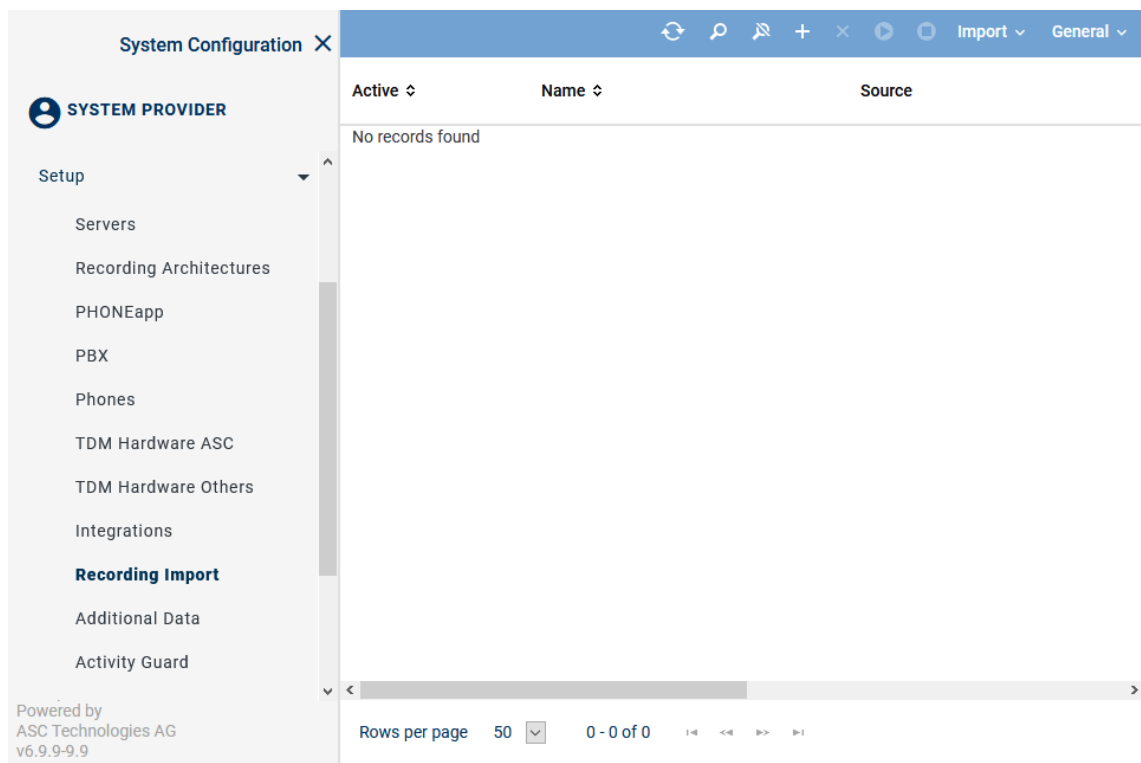

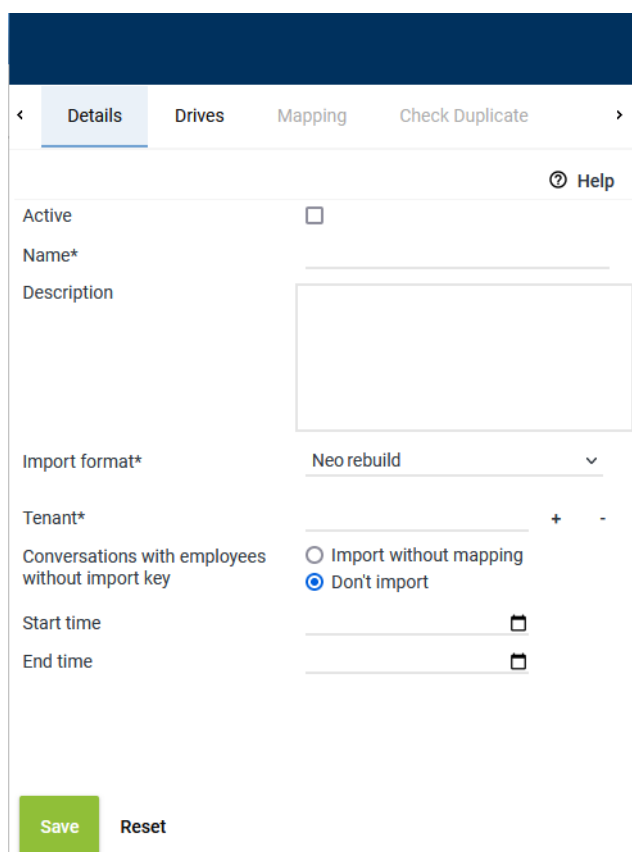


Fig. 5: Exemplary main view of import jobs

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.



The screenshot shows the 'Details' tab of a configuration interface. It includes fields for 'Active' (checkbox), 'Name*' (text input), 'Description' (text area), 'Import format*' (dropdown menu set to 'Neo rebuild'), 'Tenant*' (text input with '+' and '-' buttons), 'Conversations with employees without import key' (radio buttons for 'Import without mapping' and 'Don't import', with 'Don't import' selected), 'Start time' (calendar icon), and 'End time' (calendar icon). At the bottom are 'Save' and 'Reset' buttons.


Fig. 6: Tab Details - Configure import format NEO Rebuild

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

<i>Active</i>	<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>
<i>Name</i>	Enter the name of the import configuration.
<i>Description</i>	Here, you can enter a description for the import configuration.
<i>Import format</i>	Select the import format from the drop-down list NEO Rebuild.
<i>Codec</i>	The codec cannot be changed for this import format.
<i>Execution mode</i>	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.
<i>Tenant</i>	<p>Click on the button  to select the tenant that you would like to map the imported data to, see chapter "Assign tenant", p. 14.</p> <p>The rebuild functionality has to be carried out for each tenant separately.</p>
<i>Conversations with employees without import key</i>	<ul style="list-style-type: none"> • Import without mapping The conversations without mapping are imported but cannot be mapped to an agent, i. e. only the superuser can see the recordings. • Don't import The conversations are not imported into the destination system.
<i>Start time /</i>	If you have selected the import format NEO Rebuild, you can limit the period from which recordings are supposed to be imported.

End time Define the *start time* and the *end time* 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.

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.

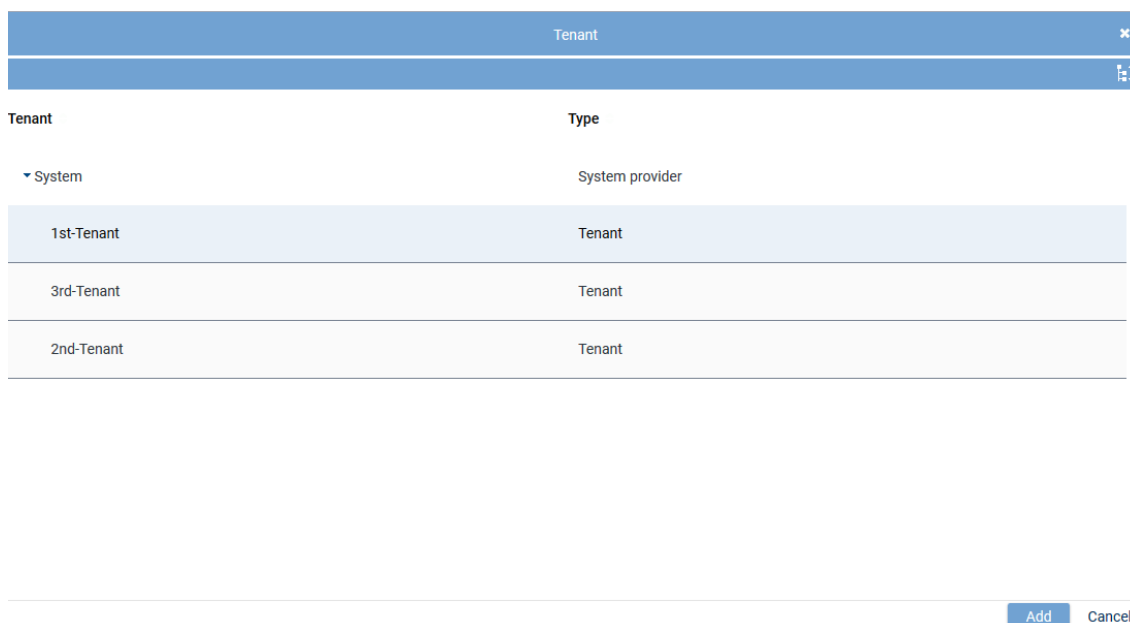
You can enter the date directly in both entry fields via the keyboard or by clicking on the icon .

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

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



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

Add Cancel

Fig. 7: Add tenant

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

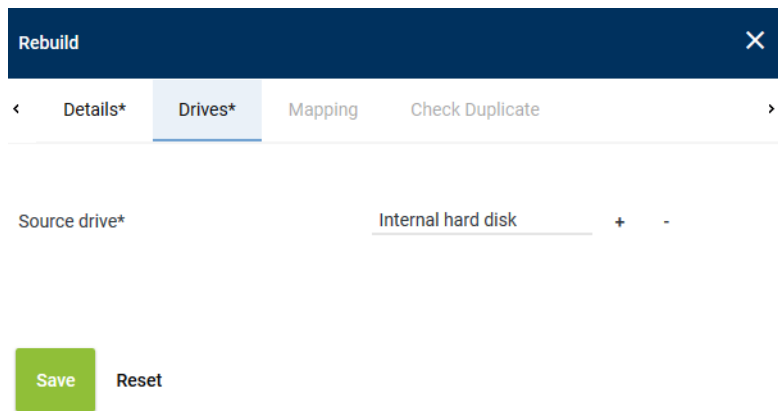
4.1.2 Tab Drives

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 drive

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. 15](#).

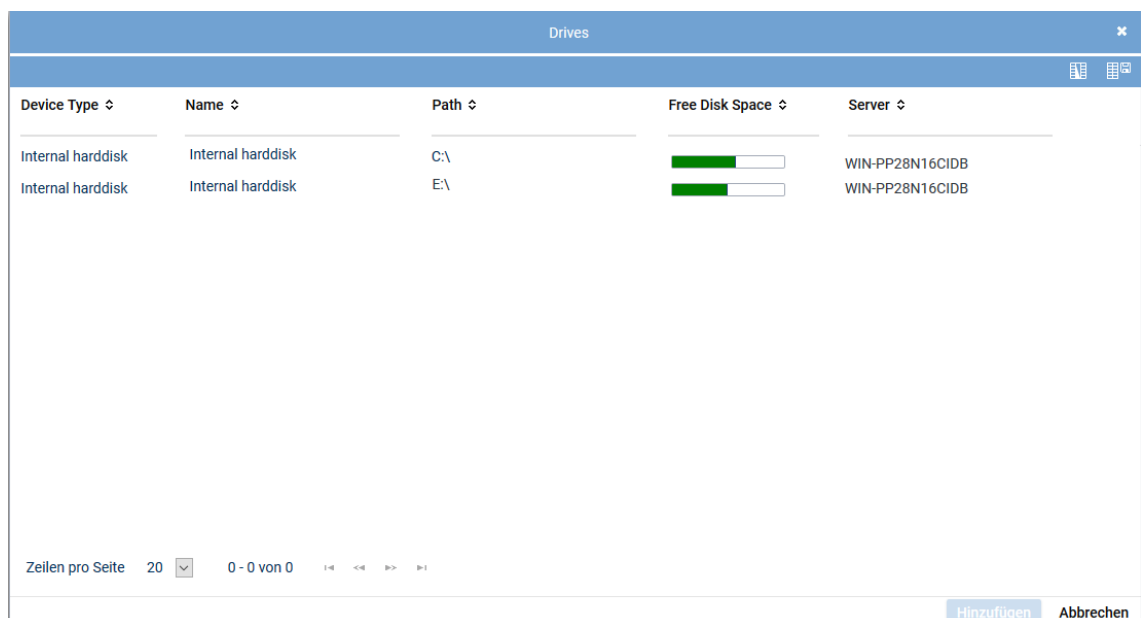


The import job only works for the local call pool.

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 style="width: 100%;"></div>	WIN-PP28N16CIDB
Internal harddisk	Internal harddisk	E:\	<div style="width: 100%;"></div>	WIN-PP28N16CIDB

Zeilen pro Seite 20 0 - 0 von 0

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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