

Telstrat Import Adaptor



Administration manual for system providers and tenants

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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2 Introduction

Telstrat Import Adaptor is an application to extract conversations that have been recorded with Telstrat Call Recording.

Audio data is transcoded into [A-law](#) codec to be able to import it into a Neo system.

The additional data is read out from the database and written into an [XML](#) file.

This manual describes the export of recordings from a Telstrat Call Recording system and the import of recordings in [WAVE](#) and [XML](#) format into a Neo system.

3 Installation requirements

3 Installation requirements



For basic information about the necessary hardware and software components refer to the installation manual *Installation requirements*.

3.1 Licenses

The following application licenses must be installed.

License name	Number
EVOIP ^{neo} Base license - universal	1 license per system
Interface for data import and export	1 license per system

Tab. 1: Licenses of ASC

4 Installation of the Telstrat Import Adaptor

For the installation, the deploy package is required. It contains all application data as well as the two .bat files "deploy.bat" and "undeploy.bat".

Install the application with administrator rights.

During the installation, the application data is copied to the ASC installation directory:

%ProgramFiles%/ASC/TelstratAdaptor/.

The service is registered and the configuration interface *ServiceConfig.exe* is called up.

Configure export from Telstrat

After the installation, the configuration program is called up. You can call up the configuration interface anytime at a later moment to adjust the settings subsequently. The file *ServiceConfig.exe* can be found in the installation directory.

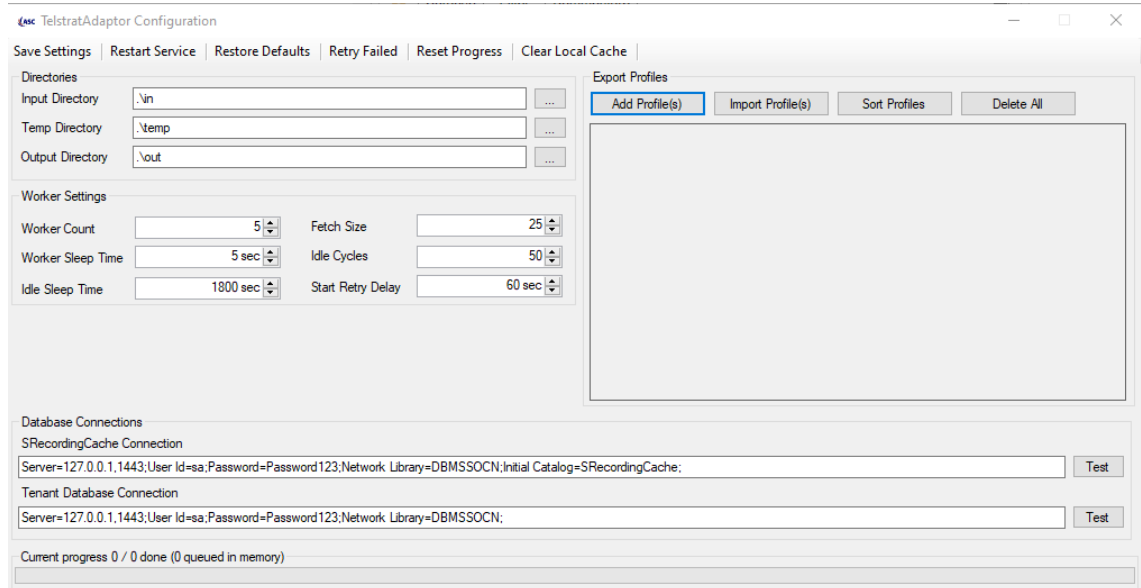





Fig. 1: Telstrat system configuration

1. In the tab *Save Settings*, you can configure the following parameters:

<i>Input Directory</i>	Click on the button  to select the directory where the audio data of the Telstrat system has been saved. If the service is executed with a domain account, it is possible to use a network path here, too.
<i>Temp Directory</i>	Click on the button  to select the directory where the transcoded audio data and the meta data have been buffered.
<i>Output Directory</i>	Click on the button  to select the directory where the transcoded audio data and the meta data are supposed to be saved. From this directory, data from the Neo system may be imported.
<i>Worker Count</i>	Use the arrow keys to select the number of worker threads that are writing metadata and transcoding audio data in parallel.
<i>Fetch Size</i>	Use the arrow keys to select the number of conversations the data of which are supposed to be queried at the same time. The higher the number, the fewer database queries are made. However, this increases the local RAM consumption.
<i>Worker Sleep Time</i>	Use the arrow keys to select the time during which the threads are paused if no data to be processed should be available short-term.
<i>Idle Cycles</i>	Use the arrow keys to select the number of cycles without data to be processed before the worker thread switches to idle mode. In idle mode, the waiting time between the data queries is increased to decrease the processor load.
<i>Idle Sleep Time</i>	Use the arrow keys to select the waiting time of a worker thread in idle mode. This value replaces the Worker Sleep Time when the worker thread is in idle mode.
<i>Start Retry Delay</i>	Use the arrow keys to select the waiting time between the attempts to start the worker threads when starting the service.

Database connection

The text field contains the complete connection character string. Usually, it is sufficient to change the IP and port as well as the user name and the password in the character string. Depending on the MSSQL database of the Telstrat system, it is possible that the connection must be configured by means of an instance name instead of a port. The connection character string allows defining different connection options.

- To test the connection establishment with the database, click on the button *Test*.
 - ⇒ If the connection has been established successfully, the connection character string is displayed in green.
 - ⇒ If it has not been possible to establish a connection, the connection character string is displayed in red and a pop-up window opens containing the details of the error.

Export profiles

Export profiles define for which tenants from the Telstrat system conversations are supposed to be exported. Within the profile, it is possible to define a subfolder for each tenant where the exported conversations are saved separately from those of other tenants. In addition, it is possible to define the start time and end time of a period for the data to be exported.

- On the right of the window, click on the button *Add Profile(s)* to create a new profile for one or several tenants.
 - ⇒ The entry dialog opens.

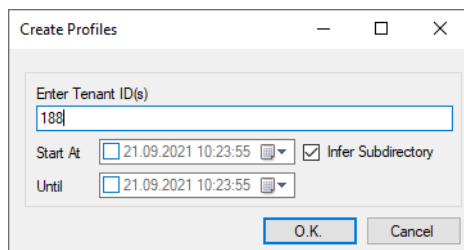


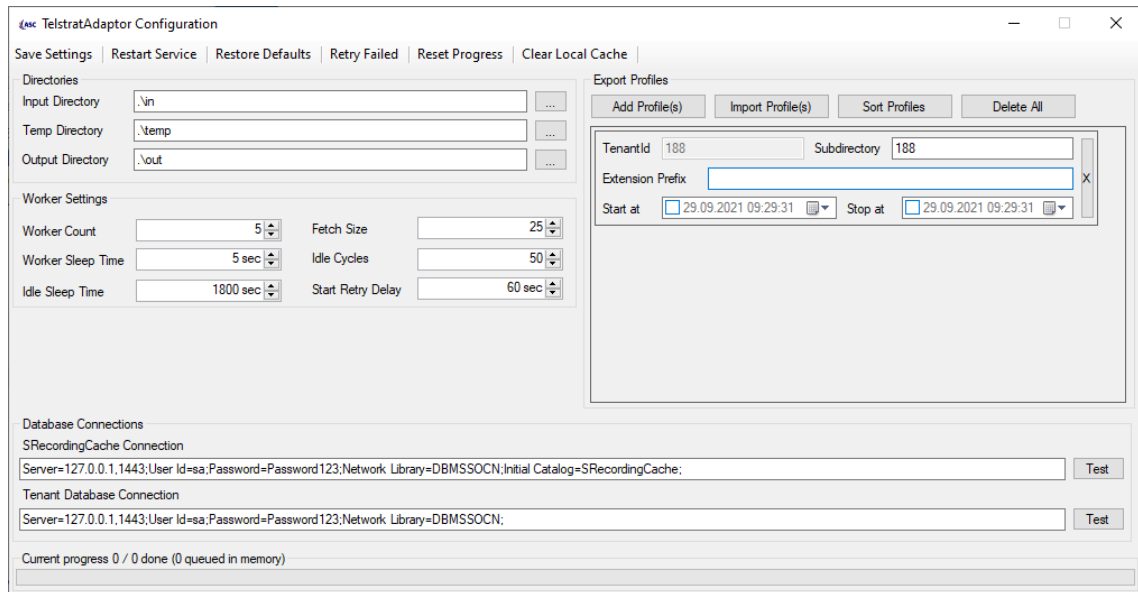
Fig. 2: Telstrat system configuration - Create new profile

- Enter the following parameters:

<i>Enter Tenant ID(s)</i>	Enter one or several IDs of tenants. The following formats are valid: <ul style="list-style-type: none"> • Separated by commas, e. g. 1, 2, 3 • Interval, e. g. 1-3 • Comma and interval, e. g. 1, 2, 3, 7-10, 13-14
<i>Start At</i>	Tick the check box to configure the date. Select the date in the calendar.
<i>Until</i>	Tick the check box to configure the date. Select the date in the calendar.
<i>Infer Subdirectory</i>	Activate the check box if a subfolder with the name of the tenant ID is supposed to be created automatically for the created profiles.

- Click on the button *OK* to apply the entries.
 - ⇒ The data of the profile appears in the window on the right. You can edit all data subsequently with the exception of the tenant ID.

NOTICE! In the entry field *Extension Prefix*, you can enter additional information for the additional data which will be displayed in the [XML](#) file in a separate tag in front of the extension, see [chapter "File content of XML file"](#), p. 16.



TelstratAdaptor Configuration

Save Settings | Restart Service | Restore Defaults | Retry Failed | Reset Progress | Clear Local Cache

Directories

Input Directory: \in
Temp Directory: \temp
Output Directory: \out

Worker Settings

Worker Count: 5 | Fetch Size: 25
Worker Sleep Time: 5 sec | Idle Cycles: 50
Idle Sleep Time: 1800 sec | Start Retry Delay: 60 sec

Database Connections

SRecordingCache Connection
Server=127.0.0.1,1443;User Id=sa;Password=Password123;Network Library=DBMSSOCN;Initial Catalog=SRecordingCache; Test

Tenant Database Connection
Server=127.0.0.1,1443;User Id=sa;Password=Password123;Network Library=DBMSSOCN; Test

Current progress 0 / 0 done (0 queued in memory)

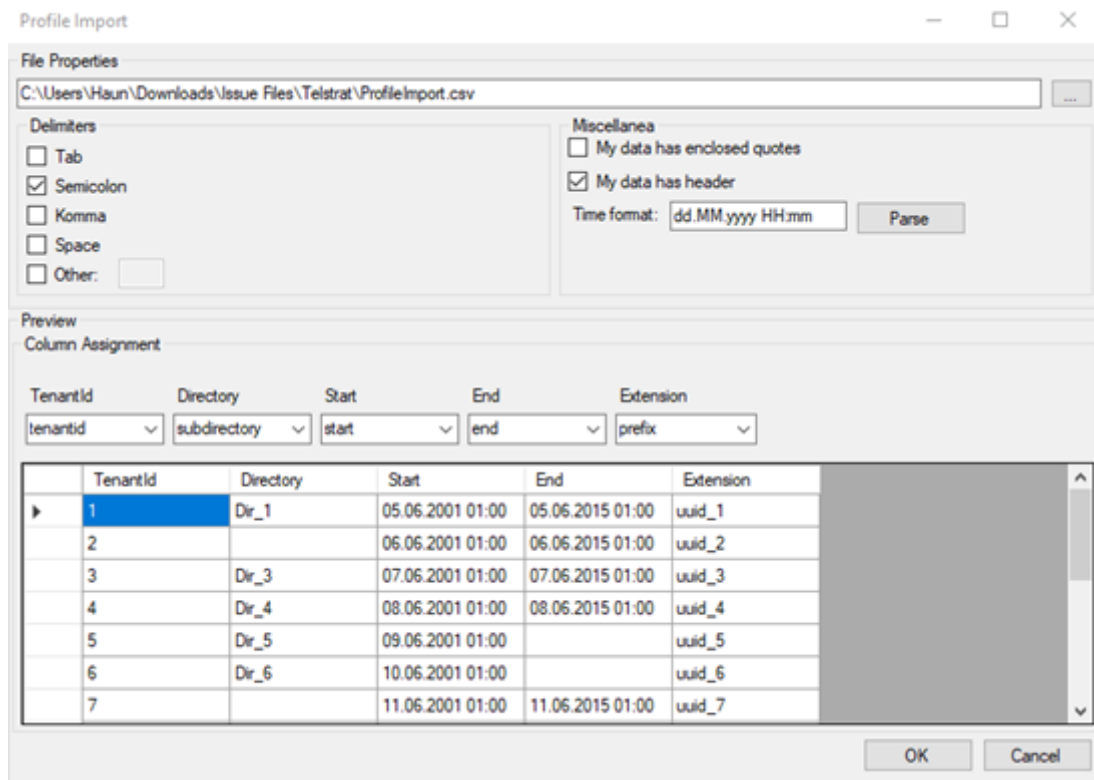
Export Profiles

Add Profile(s) | Import Profile(s) | Sort Profiles | Delete All

TenantId: 188 | Subdirectory: 188
Extension Prefix:
Start at: 29.09.2021 09:29:31 | Stop at: 29.09.2021 09:29:31

Fig. 3: Telstrat system configuration

4. As an alternative to manually entering the information, you can also import the profiles.
5. Click on the button *Import Profile(s)*.
⇒ The selection dialog opens.



Profile Import

File Properties
C:\Users\Haun\Downloads\Issue Files\Telstrat\ProfileImport.csv

Delimiters

☐ Tab
☒ Semicolon
☐ Komma
☐ Space
☐ Other:

Miscellaneous

☐ My data has enclosed quotes
☒ My data has header
Time format: dd.MM.yyyy HH:mm Parse

Preview

Column Assignment

TenantId	Directory	Start	End	Extension
tenantid	subdirectory	start	end	prefix

	TenantId	Directory	Start	End	Extension
1	Dir_1	05.06.2001 01:00	05.06.2015 01:00	uuid_1	
2		06.06.2001 01:00	06.06.2015 01:00	uuid_2	
3	Dir_3	07.06.2001 01:00	07.06.2015 01:00	uuid_3	
4	Dir_4	08.06.2001 01:00	08.06.2015 01:00	uuid_4	
5	Dir_5	09.06.2001 01:00		uuid_5	
6	Dir_6	10.06.2001 01:00		uuid_6	
7		11.06.2001 01:00	11.06.2015 01:00	uuid_7	

OK Cancel

Fig. 4: Telstrat system configuration - Import profiles

6. Click on the button ... to select the path where the CSV file with the profiles has been saved.
7. Enter the following parameters:

Delimiters

In this group field, you can select the delimiters of the CSV file. By default, the values in the CSV file are separated by semicolons.

<i>Miscellanea</i>	<p><i>My data has enclosed quotes</i> Defines that delimiters within a string of characters enclosed by quotes are ignored.</p> <p><i>My data has header</i> Indicates whether the CSV file contains headers to allow automated mapping.</p>
<i>Time format</i>	<p>The time format defines how times are displayed in the CSV file. This format will be used to parse the start times and end times of the profiles.</p> <p>Supported tokens and their meanings can be found at https://docs.microsoft.com/de-de/dotnet/standard/base-types/custom-date-and-time-format-strings.</p>
<i>Column Assignment</i>	<p>In this group field, you can assign the mapping of the CSV columns to the fields of the import profiles. If the CSV file contains column names, they are displayed in the drop-down list. Otherwise, the columns are numbered. The column names are used for automatic assignment which may be adjusted here, if required. If it is not possible to automatically assign a column to a field of the import profile or if no column names are available, the corresponding assignment is set to *UNKNOWN*. In this case, the assignment must be adjusted manually. If the CSV files does not contain a column for a field, then this field may be deactivated by assigning *N/A*, with the exception of the tenant ID which must always be available.</p>

The table displays a preview of the first rows which supports the manual assignment. The preview is updated automatically when changes have been made.

8. Click on the button OK to start the import.

Menu bar

The menu bar at the upper margin contains all available functions.

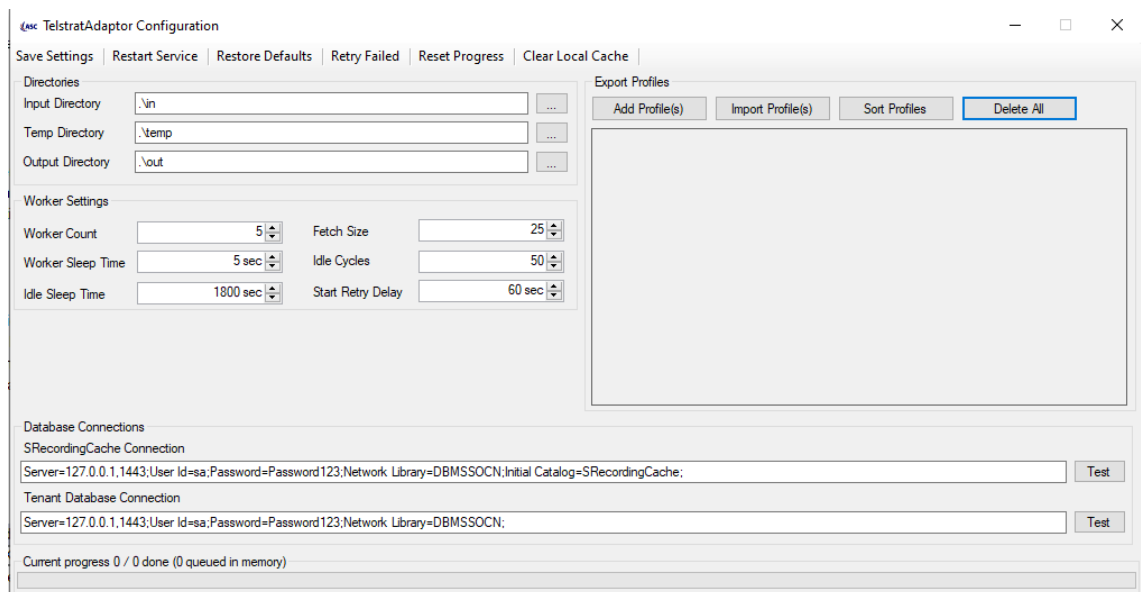


Fig. 5: Telstrat Adaptor - Menu bar - Functions

1. The following functions are available:

<i>Save Settings</i>	Saves the settings and makes them available to the service. Before the data is saved, the connection to the database is tested. If it fails, the settings are not saved. NOTICE! The service is restarted automatically upon saving to apply the new settings.
<i>Restart Service</i>	Triggers a restart of the service.
<i>Restore Defaults</i>	Resets all entry fields to the default value.
<i>Retry Failed</i>	Resets the progress information of the failed conversations to process them again.
<i>Reset Progress</i>	Resets the progress information of all conversations which have been saved in the local cache. After the new restart, the export starts again. Already queried conversation data must not be queried again.
<i>Clear Local Cache</i>	Removes all already queried conversation data from the local cache. After the new restart, the export starts again. NOTICE! Do not execute when the service is active and running.

- Click on the respective button to execute or activate the function.

Observe progress

Once the export has been started, a progress bar appears in the configuration window displaying the current progress. At the beginning of the import, the displayed values may be inaccurate as the conversation data to be exported is transferred to the local cache in batches.

The statistic of the progress bar may be read as follows:

<Exported calls> / <Calls in cache> (<Call data in RAM>, <Failed exports>)

Once the data has been exported, you can import it to the Neo system.

6

Configure import to Neo

To import recordings, you must configure an import job in the Neo system.



The system provider configures the import jobs for the respective tenant. After the import, only the tenant for whom the import has been carried out can access the recordings.

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

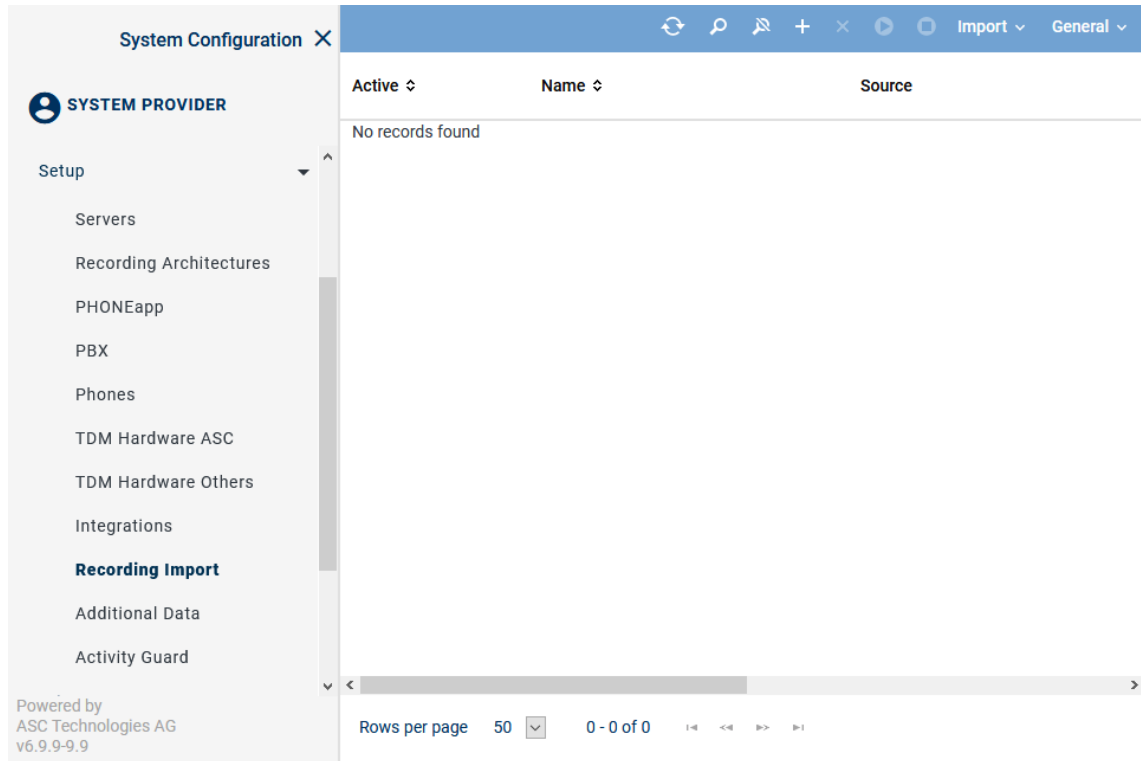



Fig. 6: Main view Recording import

4. Click on the icon  (Create) in the toolbar of the main view.
⇒ The new import configuration is displayed in the detail view.

6.1

WAVE + XML

This import format allows you to import recordings which have been created by a third-party system. Audio data must be available in **WAVE** format.

The additional data is extracted from the corresponding **XML** file. The file names of associated files have to be identical except for the file extension so that the additional data can be mapped correctly.

6.1.1

Tab Details

1. Select the tab *Details* to configure the import job.
- Configuration options depend on the selected import format.

Import 12/18

×

...

<

Details

Drives

Mapping

Check Duplicate

>

?

Help

Active

☐

Name*

Import 12/18

Description

Import format*

WAVE / MP3 + XML

▼

Codec

G.711 a-law

▼

Execution mode

☐ Once
 ☒ Continuous

PBX*

Universal import

+

-

Tenant*

1st-tenant

+

-

Retention period of import statistics

90

Day(s)

Deletion time

☒ According to recording plan
 ☐ Never
 ☐ After

0

Year(s)

0

Month(s)

0

Day(s)

0

Hour(s)

0



Minute(s)

Save

Reset

Fig. 7: Tab Details (example)

Active	<p>Once the configuration is complete, you can activate the import job by activating the check box.</p> <p><input checked="" type="checkbox"/> = Job is active.</p> <p><input type="checkbox"/> = Job is not active.</p> <p>As long as an import job is active, the recording system checks whether new files are available in the source directory. If new data is available, it is imported directly.</p>
Name	Enter a name for the import job.
Description	Here, you can enter a description for the import job.
Import format	<p>Select the import format from the drop-down list.</p> <ul style="list-style-type: none"> WAVE / MP3 + XML <p>For information about the formats see Supported import formats.</p>
Codec	<p>Select the codec from the drop-down list in which the recordings are supposed to be saved.</p> <p>The following codecs are supported:</p> <ul style="list-style-type: none"> G.711 A-law

	<ul style="list-style-type: none"> • G.711 μ-law • G.729a • Linear PCM 8 bit
<i>Execution mode</i>	<p>Select whether the import is supposed to be executed only once or continuously.</p> <ul style="list-style-type: none"> • <i>Once</i> The import is started immediately upon activating the import configuration. The source directory is checked for data only once. • <i>Continuous</i> Upon activating the import configuration, the import job is started permanently and does not end before it is deactivated manually. The source directory is constantly checked for new data as long as the import configuration is active. <p>NOTICE! For some import formats only continuous execution is available. In this case, the present setting is automatic.</p>
<i>PBX</i>	<p>By clicking on the button , select for which PBX the data is supposed to be imported, see Map PBX.</p> <p>It is necessary to map the imported data to a PBX so that the extensions via which the imported conversations have been made can be mapped to a PBX, too, and that the system can check whether an extension or an external phone number is concerned. If an extension has been mapped to an agent, this allows a mapping to an agent.</p>
<i>Tenant</i>	<p>By clicking on the button , select which tenant the imported data is supposed to be mapped to, see Assign tenant.</p> <p>NOTICE! In a 1-tenant system, the tenant is entered here automatically. The setting cannot be changed.</p>
<i>Retention period of import statistics</i>	<p>Enter the retention period for the import statistics. With this information, you can generate a report about the imports of recordings. The entries apply from the time of the import.</p>
<i>Deletion time</i>	<p>Select the conditions for deletion by activating the corresponding radio buttons.</p> <p>The following options are available:</p> <ul style="list-style-type: none"> • <i>Check recording plan</i> The imported data is deleted based on the configuration in the Recording Planner. • <i>Never</i> The imported data is never deleted. • <i>After</i> The imported data is deleted after the time configured here. Enter the corresponding time.

6.1.2 Tab Drives

1. Select the tab *Drives* to configure the source.



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.

Settings depend on the selected import format.

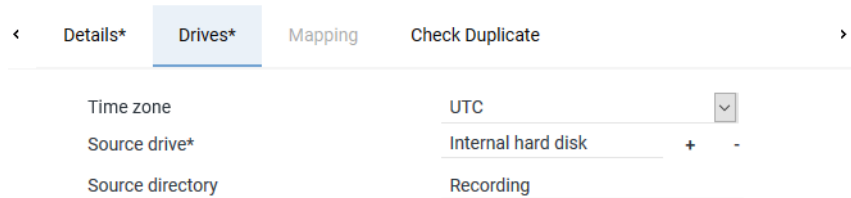


Fig. 8: Tab Drives - [WAVE](#) / [MP3](#) formats

<i>Time zone</i>	Select the time zone from the drop-down list that the time indicated in the data to be imported refers to.
<i>Source drive</i>	Select the drive from which the data is supposed to be imported, see Assign drive.
<i>Source directory</i>	Enter the directory from which the data is supposed to be imported.

6.1.3

Tab Mapping

1. Select the tab *Mapping*.

Here, you can configure rules according to which the additional data from the data sets to be imported are supposed to be mapped to the data structure in the Neo recording system.

The following group fields are available to be configured:

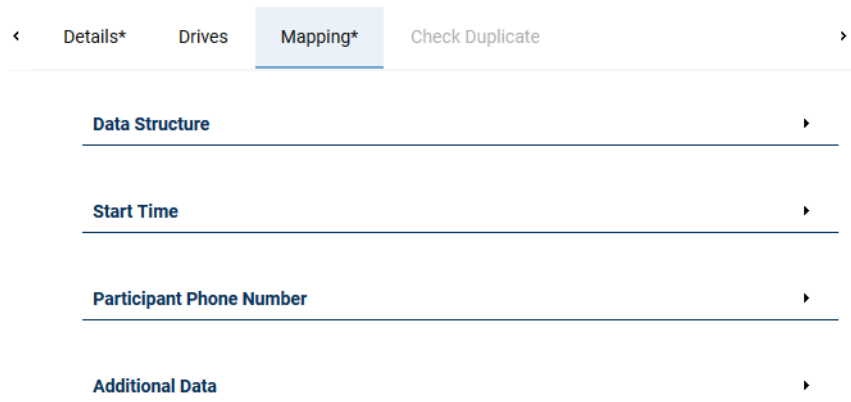


Fig. 9: Tab Mapping for [WAVE](#) / [MP3](#) import formats

6.1.3.1

File content of XML file

The following configuration has been described on basis of the following exemplary [XML](#) file:

Fig. 10: Example of an XML file

NOTICE! Adjust the configuration according to the customer's individual requirements.

6.1.3.2 Group field Start Time

In this group field, you can define how the start time is supposed to be read out.

Exemplary configuration on basis of the file content of an [XML](#) file:

Start Time

Source

File content

☒ Date and time in the same XML tag

XML tag* Call/Time
 Format* yyyy:mm:dd hh:mm:zzz

☐ Date and time in separate XML tags

XML tag for date*
 Format*
 XML tag for time*
 Format*

Fig. 11: Group field Start Time - File content of an XML file

1. Enter the following parameters from the exemplary [XML](#) file:

Source	From the drop-down list, select the entry <i>File content</i> so that the information is read out from the file.
Date and time in the same XML tag	Select the option <i>Date and time in the same XML tag</i> if they have been listed together in the XML file.
XML tag	Enter the path where the information about the start time can be found, e. g. Call/Time.

<i>Format</i>	Enter the format of the date, e. g. yyyy-MM-dd hh:mm:ss:zzz.
---------------	---

6.1.3.3 Group field Participant phone number

In this group field, you can define from which XML tag the phone numbers of the conversation participants are supposed to be read out.

- Click on the button *New* to configure a source.
⇒ The window for the mapping appears.

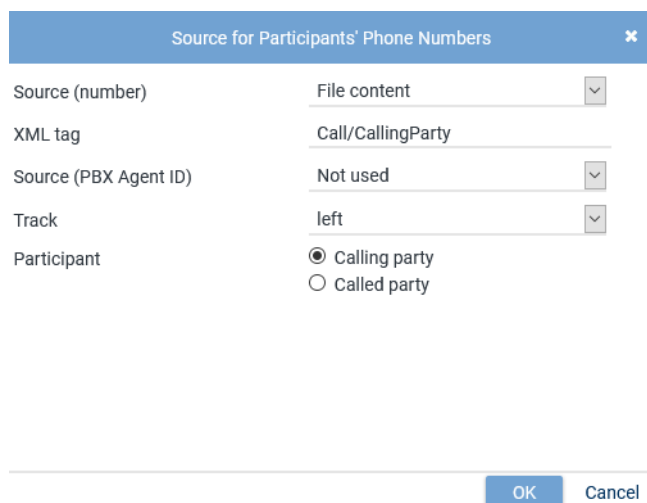


Fig. 12: Group field Map participant phone number

<i>Source</i>	From the drop-down list, select the entry <i>File content</i> so that the data can be read out from the XML file.
<i>XML tag</i>	Select from which tag of the XML file the data is supposed to be read out.
<i>Track</i>	Displays which track the data has been mapped to. If a recording is supposed to be imported to be transcribed, you must define at least one track as <i>left</i> when assigning the agent. The left track indicates the <i>active participant</i> in the database. The result can only be displayed when one of the participants is active. NOTICE! This information is only relevant when the import data is in stereo format and is not converted to mono recordings during the import.
<i>Participant</i>	Select the type of participant by activating the corresponding option, in the example <i>Calling party</i> .

Tab. 2: Group field Additional Data

- Click on the button *OK* to apply the entries.
⇒ The list shows all rules that have been saved to be able to map the participants.

Participant Phone Number ▼

Handling of stereo recordings ☐ Mix stereo to mono

Several phone numbers in a column separated by _____
(max. 1 characters)

Source	Section No./XML Tag	Track
File content	Call/CallingParty	left

New **Edit** **Delete**

Fig. 13: Group field Participant Phone Number



To display all settings of a rule, hover the mouse cursor across the respective line.

6.1.3.4 Group field Additional Data

In this group field, you can select from which **XML** tag which additional data from the file content is supposed to be read out and which additional data type it is supposed to be assigned to.

- Click on the button *New* to configure a source.
⇒ The window for the mapping appears.

Source for Additional Data

×

Source	File content
XML tag*	Call/CallingAgent_LastName
Additional data*	User name

OK

Cancel

Fig. 14: Group field Additional Data - Additional data mapping

Source	From the drop-down list, select the entry <i>File content</i> so that the data can be read out from the XML file.
XML tag	Select from which tag of the XML file the data is supposed to be read out.
Additional data	From the drop-down list, select the field where the additional data is supposed to be displayed.

Tab. 3: Group field Additional Data



For further information about the configuration of the additional data refer to the administration manual for system providers *Additional Data module*.

- Click on the button *OK* to apply the entries.
⇒ The list shows all rules that have been saved to be able to map the additional data.

Additional Data		
Source	Section No./XML Tag	Additional Data
File content	Call/CallingAgent_LastName	User name
New	Edit	Delete

Fig. 15: Group field Additional Data - List of rules

- Click on the button Save to save the entries.

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Glossary

μ-law

PCM digitization method for analog audio signals according to ITU G.711. In the process, analog voice signals are converted into digital signals by means of a logarithmic quantization characteristic. The μ-law algorithm is used in the US while the A-law algorithm is the standard in Europe.

A-law

PCM digitization method for analog audio signals according to ITU G.711. In the process, analog voice signals are converted into digital signals by means of a logarithmic quantization characteristic. The A-law algorithm is used in Europe while the μ-law algorithm is the standard in the US.

Codec

Code/Decode implementation of a method for transforming from coded/decoded data to decoded or coded data

MP3

With regard to audio compression, MP3 uses lossy data-compression to encode data using inexact approximations and the partial discarding of data. MP3 compression works by reducing (or approximating) the accuracy of certain components of sound that are considered (by psychoacoustic analysis) to be beyond the hearing capabilities of most humans. The remaining audio information is then recorded in a space-efficient manner.

PBX

Private Branch Exchange

PCM

Pulse Code Modulation is an uncompressed pulse modulation method which transforms a time- and value-continuous analog signal into a time- and value-discrete digital signal. It is used in audio technology, for example in the context of the G.711 standard and in video technology for digital video signals in compliance with the ITU-R BT 601 standard. (Source: Wikipedia 12th June 2018)

WAVE

WAVE file format is a container format to digitally save audio data and is based on the Resource Interchange File Format (RIFF) defined by Microsoft for Windows. (Source: Wikipedia 23rd February 2021)

XML

Extensible Markup Language is a human-readable and machine-readable language which defines a set of rules for encoding documents.