

Configuration SCREENrec



Administration manual for tenants

8/11/2022

Product line Neo, version 7.x

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

EVOIPneo

EVOLUTIONneo / XXL / eco

INSPIRATIONneo

Please note that you can always find the most up-to-date technical documentation and product updates in the partner area on our website at <https://www.asctechnologies.com>.

Copyright © 2022 ASC Technologies AG. All rights reserved.

Windows is a registered trademark of Microsoft Corporation. VMware® is a registered trademark of VMware, Inc. All other marks and names mentioned herein may be trademarks of their respective companies.

Contents

1	General information.....	4
2	Introduction	5
3	Configuration	7
3.1	Configure remote desktop	7
3.2	Recording of selected displays in a multiple-monitor environment.....	8
3.3	Configure SCREENrec audio	8
	List of figures	16
	List of tables.....	17
	Glossary	18

1 General information

In the context of this document ASC represents ASC Technologies AG, its subsidiaries, branch offices, and distributors. An up-to-date overview of the aforementioned entities can be found at <https://www.asctechnologies.com>

ASC assumes no guarantee for the actuality, correctness, integrity or quality of the information provided in the manuals.

ASC regularly checks the content of the released manuals for consistency with the described hardware and software. Nevertheless, deviations cannot be excluded. Necessary revisions are included in subsequent editions.

Some aspects of the ASC technology are described in general terms to protect the ownership and the confidential information or trade secrets of ASC.

The software programs and the manuals of ASC are protected by copyright law. All rights on the manuals are reserved including the rights of reproduction and multiplication of any kind, be it photo mechanical, typographical or on digital data media. This also applies to translations. Copying the manuals, completely or in parts, is only allowed with written authorization of ASC.

Representative, if not defined otherwise, is the technical status at the time of the delivery of the software, the devices and the manuals of ASC. Technical changes without specified announcements are reserved. Previous manuals lose their validity.

The general conditions of sales and delivery of ASC in their latest version apply.

2 Introduction

This manual describes the installation of the application SCREENrec and of the optional component SCREENrec scan Editor.

SCREENrec

SCREENrec is an application which allows recording screen content and contains the functionalities SCREENrec, SCREENrec Audio, SCREENrec scan, and SCREENminer.

The application SCREENrec connects the client computer with the recording server. The recordings on the client computer are controlled via the recording server. The application sends the recorded data to the recording server where it is saved and subsequently made available in the system.

There is the possibility to install the application in stealth mode. SCREENrec then is active in the background only and not visible for the user of the client computer. Otherwise, a program icon is created in the taskbar.



SCREENrec is a client application. It has to be installed on each client computer which is supposed to use it.

SCREENrec Audio

SCREENrec Audio is an optional function of the SCREENrec application.

SCREENrec records the screen; SCREENrec Audio the corresponding audio signal of the computer.

SCREENrec Audio allows recording the audio signal of an agent's computer. SCREENrec Audio behaves like a softphone and sends the audio data of the sound card to the recording system as an RTP stream.

Recording can be controlled automatically by means of filters created in the SCREENrec scan Editor. Predefined activities on the agent's screen are used to trigger and stop recording. Alternatively, recording can be started manually.

The recording contains screen content in combination with the audio of the computer. If the call is made via a physical phone instead of the computer, then the screen of the computer and the audio of the physical phone are recorded.

SCREENrec scan

SCREENrec scan is a functionality for automatic activity-based recording control depending on events on the agents' screen. SCREENrec scan allows allocating screen content to audio recordings. Recordings can be started or stopped if for instance a specific program is started or if a certain function is executed via mouse click. As an additional use case, SCREENrec scan offers the possibility to mute the recording if a certain dialog is opened (e. g. when entering sensitive data for credit card payment) and unmute it once the process has been completed (PCI-DSS-Compliance). For this, screen recording is not mandatory: it is also possible to unmute audio recordings with this functionality.

SCREENrec scan Editor

SCREENrec scan Editor is an application to define triggers for action-controlled screen recording by means of SCREENrec scan.

SCREENrec scan Editor enables administrators to create filters with triggers and conditions for recording, e. g.:

- Which areas of the screen are supposed to be recorded.
- Which areas of the screen are not supposed to be recorded.
- Trigger for start/stop function, e. g. when changing to another application.

- Triggers for mute/unmute function, e. g. for [PCI-DSS](#) compliance to hide credit card information.
- Triggers to add additional data, e. g. from a [CRM](#) software.

SCREEN~~rec~~ scan Editor is a vendor-independent solution compatible with most [CRM](#), [ERP](#), Office and Windows applications.



The SCREEN~~rec~~ scan Editor can only be used by an administrator and therefore should not be installed on client computers.

SCREEN~~miner~~

SCREEN~~miner~~ provides a comprehensive insight into the quality of a customer contact. It assesses the agents' workflow and reveals potential for improvement.



For information about the configuration of the SCREEN~~miner~~ Rules module refer to the administration manual for tenants *System Configuration - Configuration SCREEN~~miner~~ rules*.



If the IP address of the recording server changes, then you have to install the SCREEN~~rec~~ clients once again to adjust the new IP address. For safety reasons the IP address cannot be changed via the user interface.

Configure remote desktop

If you want that the computer on which you are installing the application SCREENrec can be used via remote connection, you have to carry out the following configuration steps:

1. Open the system settings via *Control Panel > System and Security > System*.
2. Click on the menu item *Remote settings*.

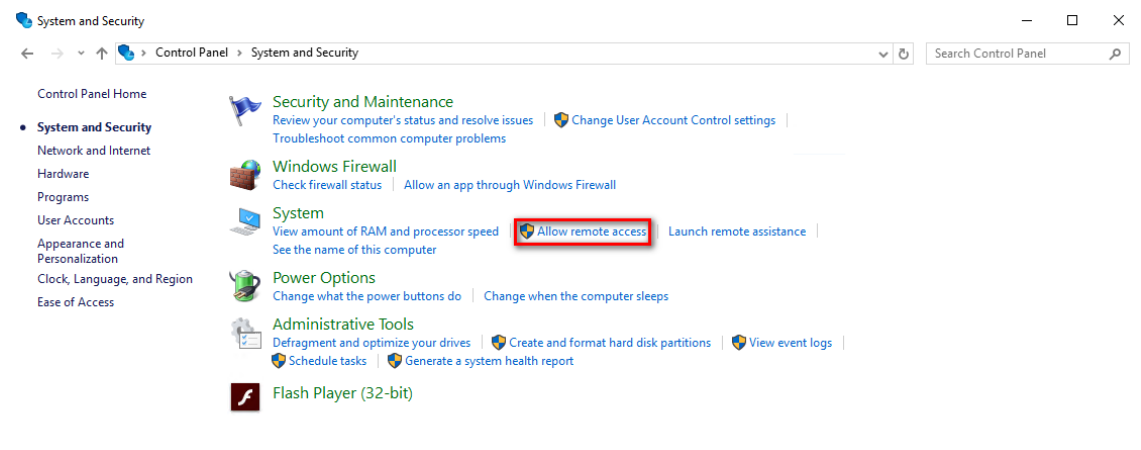


Fig. 1: System settings

3. Click on the tab *Remote*.

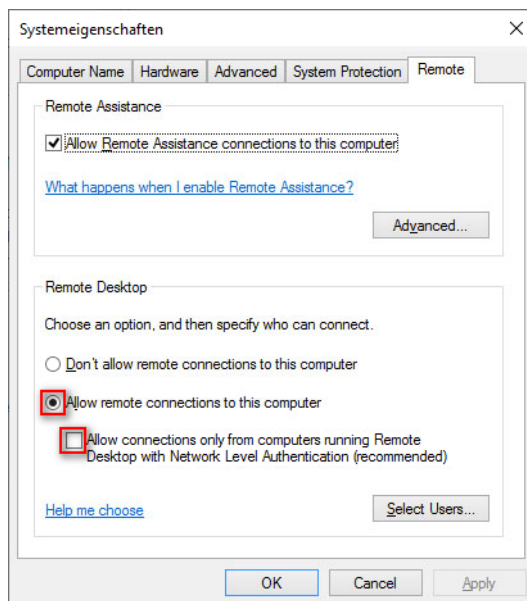


Fig. 2: Remote desktop settings

4. Activate the option *Allow remote connections to this computer*.
5. Activate or deactivate the option *Allow connections only from computers running Remote Desktop with Network Level Authentication*.
If the agent authenticates via the computer name, then this settings determines with which computer name the agent can authenticate in the application SCREENrec:
☐ = The name of the computer that you have just configured (remote computer) is used to authenticate.
☒ = The name of the computer from which the remote connection is established (the agent's local computer) is used to authenticate.
6. Click on the button *OK* to save the settings and to close the window.



Computer names are mapped to the agents in the user management of the application System Configuration.



For information about the configuration of users refer to the administration manual for tenants *User management for tenants*.

3.2

Recording of selected displays in a multiple-monitor environment

For recording in a multiple-monitor environment, the file *client.properties* in the directory `%PROGRAMDATA%\ASC\SCREENrec\config` must be configured accordingly.

Background:

The monitor that has been configured as main display in Windows is labeled *0*.

The monitor on its right is labeled *1*. Any additional monitors are labeled in ascending sequence.

The monitor on its left is labeled *-1*. Any additional monitors are labeled in descending sequence.

Example:

Four monitors are used and the third one has been selected as main display.

`-2 -1 0 1`

To exclusively record the screens of monitors 2 and 4 (i. e. the monitors on the right and on the left of the main display), the file *client.properties* must be adjusted as follows:

```
rec.devices.0=-1 * rec.devices.1=1
```

3.3

Configure SCREENrec audio

Preconditions

The audio is sniffed by the SCREENrec client via a Windows [API](#), the control commands via the HTTP [API](#) and sent to the recording server as [RTP](#) stream.

- The recording is effected via an EVOIPneo universal port-based integration with a port range of at least 4 ports per client which must have been activated on the recording server.

If a fallback to record audio of a physical phone is supposed to take place, the following preconditions must apply:

For each SCREENrec Audio client which has been installed, an [IP](#) phone must be configured, an extension created and assigned to an employee via the [IP](#) address of their computer in the Phones module in the application System Configuration.

NOTICE! Note that:

- the [IP](#) phone must be configured for your actual [PBX](#) and not for the EVOIPneo universal port-based integration;
- the [IP](#) address of the [IP](#) phone must be the same as the IP address of the SCREENrec Audio client instead of the address of the physical phone and that [DHCP](#) is currently not supported;
- the extension of the physical [IP](#) phone must have been configured;
- HTTP [API](#) triggers created in the application SCREENrec scan Editor can be activated by means of an HTTP post via the integrated web server. To do so, a JSON object in the following format must be posted to the web address `http://localhost:1339/trigger`: { id: 0e84bb30-d2ac-4654-ab37-86d81dfaf3c5};

- a tagging can be added to a trigger. To do so, a JSON object in the following format must be posted to the web address `http://localhost:1339/tagging: { id: 75db94a2-0f21-42d7-b964-ce3cab33a341}`. The filter ID is mapped to the custom field in the configuration file `ASC.RecordingControl.ini`

```
[ScreenTagger]
75db94a2-0f21-42d7-b964-ce3cab33a341=CALLER
b18e9f6b-2463-42c6-9d5e-59a005e9eab2=customCP01
```

Configure integration

1. Configure and start an *EVOIPneo* universal port-based integration with a port range of at least 4 ports per client, see administration manual *EVOIPneo universal port-based*.



To be able to activate the *EVOIPneo* universal port-based integration, dummy phones with the mandatory fields *Name*, *Extension*, *IP address*, *Recording server*, and *Port* must be created.

Configure IP phones



As an alternative to creating the phones manually, you can also import the phone configurations. For further information about the configuration import refer to the administration manual for system providers *Import of phone configurations*.

1. Select the menu item *Setup > Phones* in the navigation bar.
⇒ The following window appears:

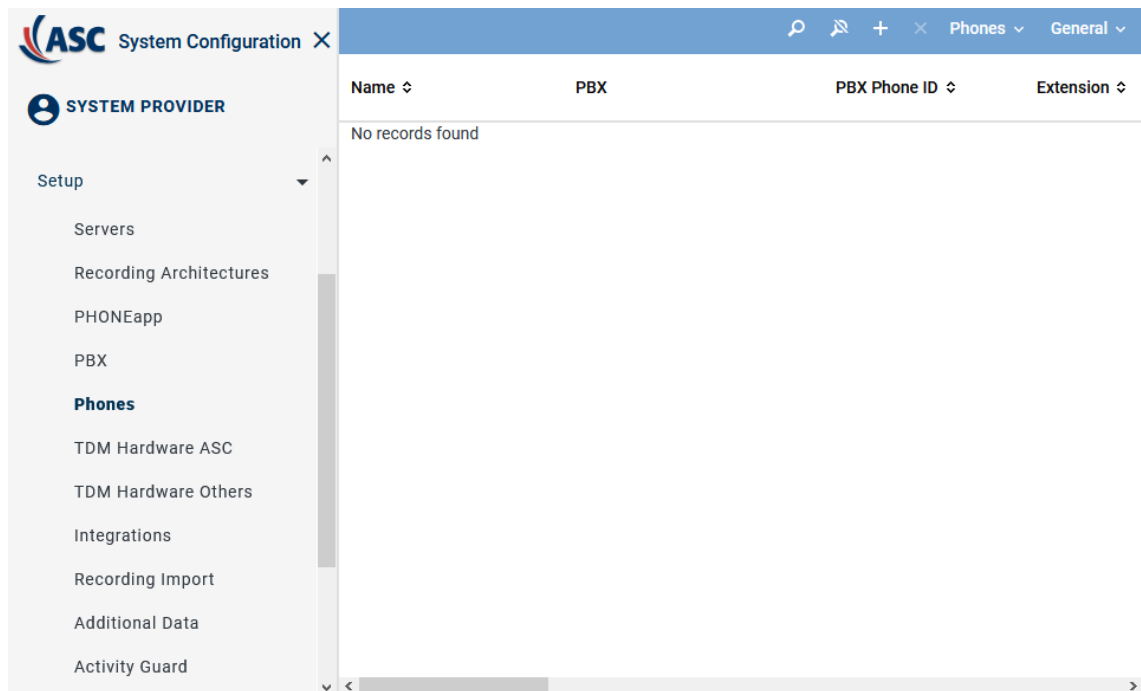



Fig. 3: Phones - main view

Depending on the table configuration, the following information is displayed in the table in the main view:

<i>Name</i>	Shows the name of the phone.
<i>PBX</i>	Shows the name of the PBX.
<i>PBX Phone ID</i>	Shows the identifier which has been configured for the phone in the PBX.
<i>Extension</i>	Shows the assigned extension of the phone.

<i>Computer Name</i>	Shows the computer name if it has been defined in the details.
<i>Phone Type</i>	Shows the selected phone type if the PHONEapp configuration has been activated.
<i>Display Language</i>	Shows the selected display language.

- To create and configure new phones manually, click on the icon  (Create) in the toolbar of the main view.

In recording solutions using TDM phones as well as IP phones, a context menu appears in which you can select which phone type you would like to create. The selection depends on the PBX and the installed licenses.

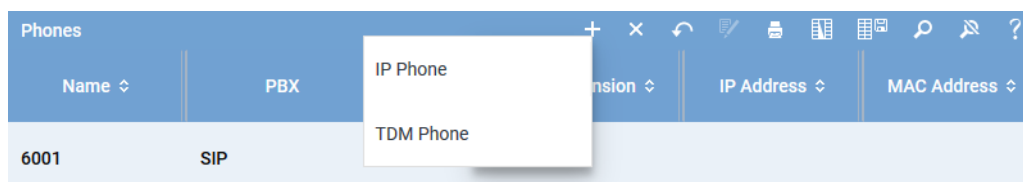
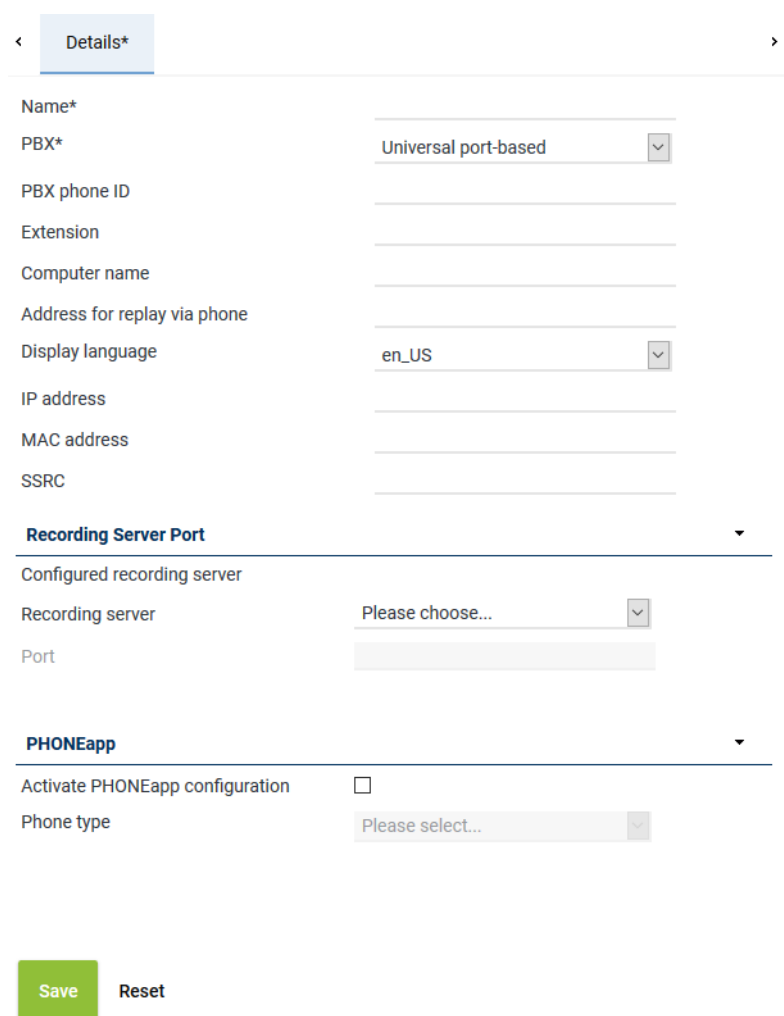


Fig. 4: Create phone

- Select the menu item *IP Phone*.
⇒ The tab *Details* appears where you can enter the phone parameters:



The 'Details' tab contains the following fields and sections:

- Name***: Text input field.
- PBX***: Dropdown menu with 'Universal port-based' selected.
- PBX phone ID**: Text input field.
- Extension**: Text input field.
- Computer name**: Text input field.
- Address for replay via phone**: Text input field.
- Display language**: Dropdown menu with 'en_US' selected.
- IP address**: Text input field.
- MAC address**: Text input field.
- SSRC**: Text input field.
- Recording Server Port**: Section header.
- Configured recording server**: Section header.
- Recording server**: Dropdown menu with 'Please choose...' selected.
- Port**: Text input field.
- PHONEapp**: Section header.
- Activate PHONEapp configuration**: Checkbox (unchecked).
- Phone type**: Dropdown menu with 'Please select...' selected.

At the bottom, there are two buttons: **Save** (green) and **Reset** (grey).

Fig. 5: Create IP phones

Name	Enter a name for the phone.
-------------	-----------------------------

<i>PBX</i>	From the drop-down list, select the PBX that the phone has been mapped to.
<i>Extension</i>	Enter the extension of this phone. NOTICE! Note that the extension of the IP phone must be a real extension.
<i>IP address</i>	Enter the IP address of the SCREENrec Audio client.
<i>Recording server</i>	If you have selected a Universal port-based integration, select the recording server from the drop-down list.
<i>Port</i>	If you have selected a Universal port-based integration, enter a port range of at least 4 ports per client.

4. In the detail view, click on the button **Save** to apply the changes.

Configure .ini file

Proceed as follows:

1. Open the Windows Explorer.
2. Change to the installation directory of the recording software C:\Program Files (x86)\ASC\ASC Product Suite\data\RecordingControl.
3. Open the configuration file ASC.RecordingControl.ini to be edited in an Editor, e. g. *Notepad*.
4. Set the following parameter to 1:
simUsePortBasedSSRCDirectionBit=1

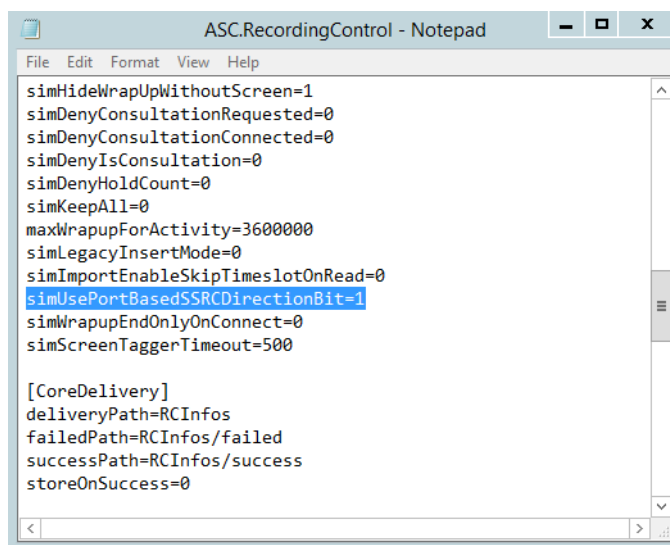
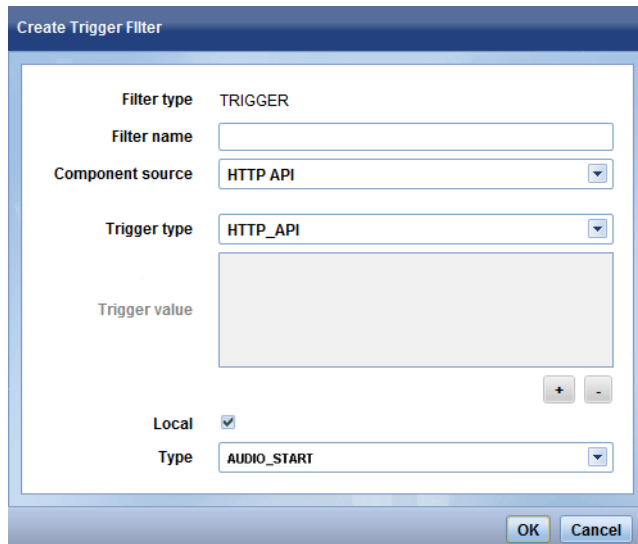


Fig. 6: Configure .ini file

Create trigger

In the application SCREENrec scan Editor, create a recording filter with one trigger which starts and another which stops the recording.

1. In the application SCREENrec scan Editor, open the module *Filter Type*.
2. In the tree structure under the filter, open the context menu of the filter type *Trigger* with a right-click.
3. Click on *Add filter* to create a trigger as filter type.
⇒ The window *Create Trigger Filter* opens:



Create Trigger Filter

Filter type: TRIGGER

Filter name:

Component source: HTTP API

Trigger type: HTTP_API

Trigger value:

Local: ☒

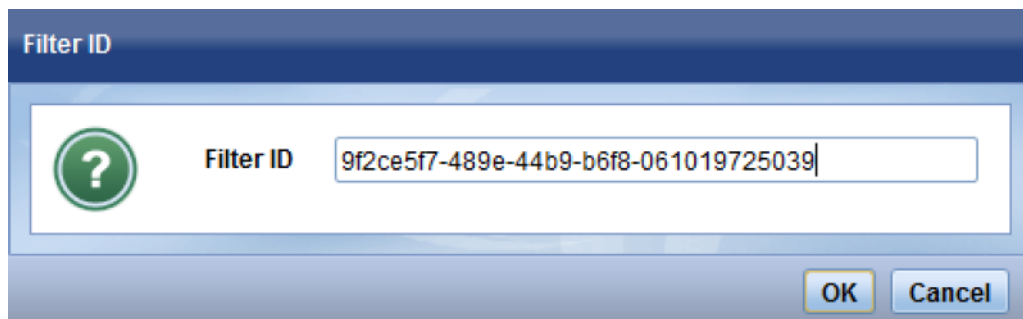
Type: AUDIO_START

OK Cancel

Fig. 7: Create trigger filter (example)

4. Enter a name for the filter.
5. Select *HTTP API* as component source and trigger type from the corresponding drop-down lists.
6. Activate the check box *Local* to define that a local action is supposed to be triggered.
7. To create a start trigger, select the type *AUDIO_START* from the drop-down list.
8. Click on *OK* to save the entries.

⇒ The window Filter ID appears:

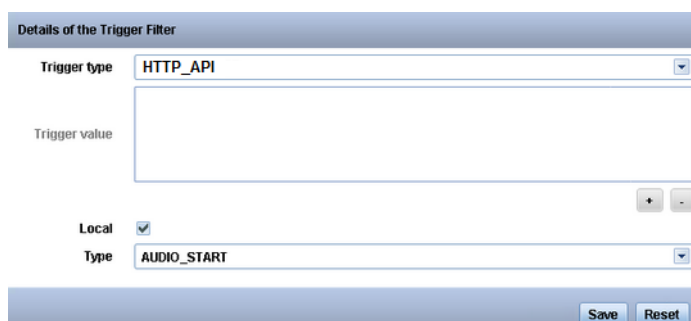


Filter ID

OK Cancel

Fig. 8: Enter UUID (example)

9. Enter an unambiguous **UUID** for the trigger to filter the events. To create a valid **UUID** an online **UUID** generator can be used. If a customer-specific application (such as e. g. purple-view) is deployed, the **UUIDs** must be provided by the customer
 10. Click on *OK* to save the entries.
- ⇒ In the tree structure under the filter type *Trigger*, the filter element you have created appears:



Details of the Trigger Filter

Trigger type: HTTP_API

Trigger value:

Local: ☒

Type: AUDIO_START

Save Reset

Fig. 9: Detail view trigger filter (example)

In addition to the start trigger, a stop trigger must be created.

11. Proceed as described above but select *AUDIO_STOP* as type.
12. Click on *Save* to save the entries.



For more information about using the *SCREENrec* scan Editor refer to the user manual for administrators *Usage - SCREENrec scan Editor*.

Add tagging to trigger

You can add tagging information (e. g. the name of the company or a process number) to created triggers which will be displayed in the additional data of the corresponding recording in the Session module under customCP. To do so, a JSON object with a valid **UUID** in the following format must be posted to the web address `http://localhost:1339/tagging`: { "id" : "0e84bb30-d2ac-4654-ab37-86d81dfae3c2", "value" : "1234"}. The filter ID is mapped to the custom field in the configuration file *ASC.RecordingControl.ini*.

NOTICE! To create a valid **UUID**, an online **UUID** generator can be used.

Example:

Create JSON object

For a recording the name of the company (Company XYZ) as well as a process number (21-A-12345) is supposed to be available as additional data.

For this purpose, the JSON objects with the exemplary **UUIDs** are used:

- { "id" : "91dbe5ad-5acc-4834-803e-55d01ca689bd", "value" : "Company XYZ"}
- { "id" : "54ee2212-915e-4d1d-8825-e421d0144aa8", "value" : "21-A-12345"}

Configure additional data fields

In the Additional Data module of the application System Configuration, the additional data fields *customCP01* and *customCP02* must have been configured where the tagging information will be displayed.



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

Configure .ini file

Map the **UUID** to the corresponding additional data field. To do so, proceed as follows:

1. Open the Windows Explorer.
2. Change to the installation directory of the recording software `C:\Program Files (x86)\ASC\ASC Product Suite\data\RecordingControl`.
3. Open the configuration file *ASC.RecordingControl.ini* to be edited in an Editor, e. g. *Notepad*.
4. Configure the following parameter:

```
[ScreenTagger]
91dbe5ad-5acc-4834-803e-55d01ca689bd=CALLER
54ee2212-915e-4d1d-8825-e421d0144aa8=customCP01
```

Create trigger filter

1. Right-click on the trigger that you would like to add the tagging information to.

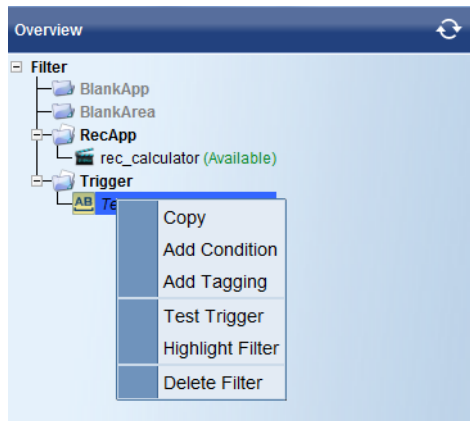


Fig. 10: Add tagging

2. In the context menu, select the menu item *Add tagging*.
⇒ The following dialog window appears:

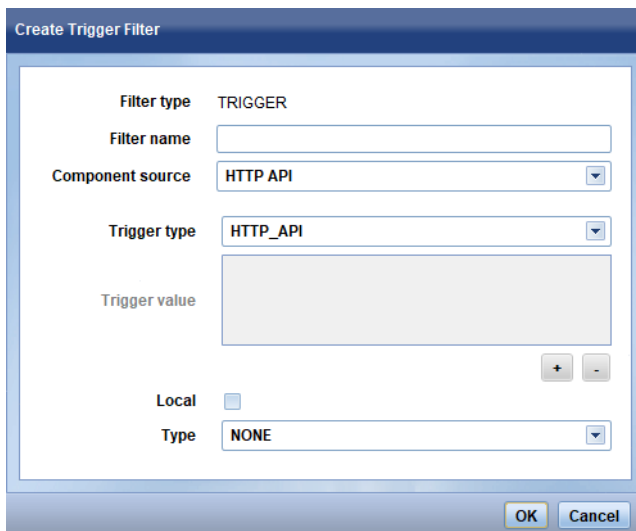


Fig. 11: Create HTTP API trigger (example)

<i>Filter type</i>	Displays the filter type.
<i>Filter name</i>	Enter a descriptive filter name. NOTICE! Do not use umlauts in the filter name!
<i>Component source</i>	Select the component source <i>HTTP API</i> from the drop-down list.
<i>Trigger type</i>	The trigger type is filled automatically when selecting the component source.
<i>Trigger value</i>	Not relevant here. Only available for the trigger types <i>TEXT_</i> .
<i>Local</i>	<input type="checkbox"/> = The trigger is sent to the server and the respective action configured in the Recording Planner is executed. <input checked="" type="checkbox"/> = The trigger executes a local action such as <i>AUDIO_START</i> or <i>AUDIO_STOP</i> , not relevant here.
<i>Type</i>	Not relevant here. Only available for local triggers.

3. To save the settings, click on the button *OK*.
⇒ The window *Filter ID* appears:

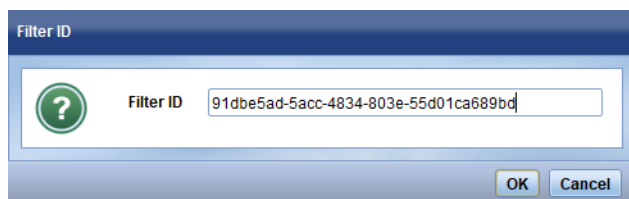


Fig. 12: Enter filter ID

4. Enter a **UUID**. The **UUID** can be selected arbitrarily but it must be unambiguous and comply with the **UUID** format.
5. To save the settings, click on the button **OK**.
To discard the settings, click on the button **Cancel**.

Test HTTP API trigger

There is a test function for the HTTP API. To test the trigger, open the file *client.properties* to set the parameter *core.debug.mode=true* and then restart the SCREENrec client. Via *http://localhost:1339/static/posttest.html*, a page to test the HTTP API is available.

Import filter file of the recording filter

To apply the recording filters created with the application SCREENrec scan Editor within a recording plan, they have to be imported in the application System Configuration in the Recording Planner module.



For information about the configuration of recording plans refer to the administration manual for tenants *System Configuration - Recording Planner*.

List of figures

Fig. 1	System settings	7
Fig. 2	Remote desktop settings	7
Fig. 3	Phones - main view	9
Fig. 4	Create phone	10
Fig. 5	Create IP phones.....	10
Fig. 6	Configure .ini file	11
Fig. 7	Create trigger filter (example)	12
Fig. 8	Enter UUID (example)	12
Fig. 9	Detail view trigger filter (example)	12
Fig. 10	Add tagging.....	14
Fig. 11	Create HTTP API trigger (example).....	14
Fig. 12	Enter filter ID	15

List of tables

Glossary

API

Application Programming Interface

CRM

Customer Relationship Management

DHCP

A Dynamic Host Configuration Protocol allows integrating computers into an existing network without configuring the network interface manually. Necessary information such as IP address, net mask, gateway, name server (DNS) and additionally required settings are distributed dynamically. (Source: Wikipedia 5th April 2017)

ERP

Enterprise Resource Planning

IP

Internet Protocol, basic protocol for Internet communication

PBX

Private Branch Exchange

PCI DSS

Payment Card Industry Data Security Standard

RTP

Real-time Transport Protocol is a protocol to continuously transmit audio and video files via the IP protocol within the network.

UUID

Universally Unique Identifier is an identifier standard which makes it possible to unambiguously identify information in distributed systems without central coordination.