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Documentation VideoManager Pro Administration

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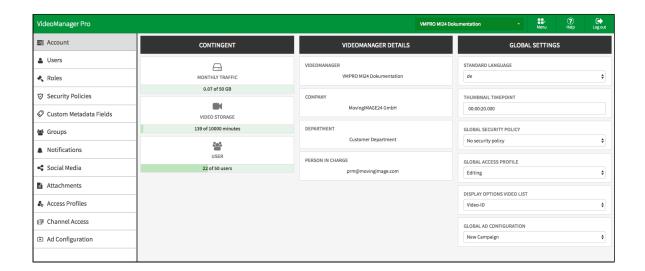
Introduction

The "Administration" area of VideoManager provides among other things a user and rights management. Here, you can create user accounts including access permissions and user rights. This guarantees that each VideoManager user works only with rights associated with him. Unauthorized access to data or their changes will be excluded in this way. Furthermore, you can set a global security policy for all uploaded videos. The "Account" overview gives you the current status of your VideoManager.

From the selection menu for the different areas of VideoManager, you can go here.



To be able to access the area "Administration", you need the appropriate right.





Please note that some features are separately booked modules. Possibly some features are not available for your VideoManager.



The following editing options or information are available in this area:

Standard features:

- account overview
- user management
- roles management
- security policies
- custom metadata fields

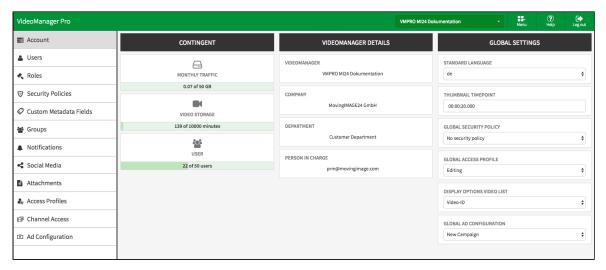
Separately booked modules:

- distibuting videos to social media platforms
- ownership
- attachments to a video
- notifications
- geoblocking
- FTP-import
- video ads

These editing options are described in detail in the following sections of this manual.



Account Overview



In the administration area, you can call the account overview of your VideoManager to get current information about your account. VideoManager data are displayed in addition to the current contingent.



The table presents the current used quantity against the booked capacities. Using the color marking (e.g. red) you can see at a glance, at what rate you might need an additional booking.

Furthermore, you can make global settings (for example, default language or global security policy) for the entire VideoManager.

Global Settings

To make global settings for your VideoManager, go to the account summary. Here you have the following options in the editing area:





| Global Settings | Description |
|------------------------------|---|
| Default language | Set the default language for your VideoManager by selecting the desired language from drop down menu. |
| Thumbnail timepoint | You can specify the time within a video clip at which a thumbnail is automatically captured. This applies to all uploaded videos. |
| Global security policy | From the dropdown menu, select one of the applied security setting or "No security policy". For more information about video security see chapter " Security Policy ". |
| Global access profile | From the dropdown menu, select an access profile. The global access profile applies to all videos in the VideoManager. In accordance to the standard access profile, users can access videos that do not belong to their group if so defined. Further details are in chapter " Access Profiles ". |



| Global Settings | Description |
|----------------------------------|---|
| Display options video list | You can configure the video list according to your needs. Select one of the following display options in the drop down menu. The selected item is displayed in the video list below the video title: No information Description Keywords Video-ID |
| Global ad configuration | From the dropdown menu, select the desired video-ad configuration. The global ad configuration applies to all videos in the VideoManager according to the settings. Further details are in chapter "Video Ads". |
| | Please note that the feature "video ads" must be booked separately. It might not be available in your VideoManager. |

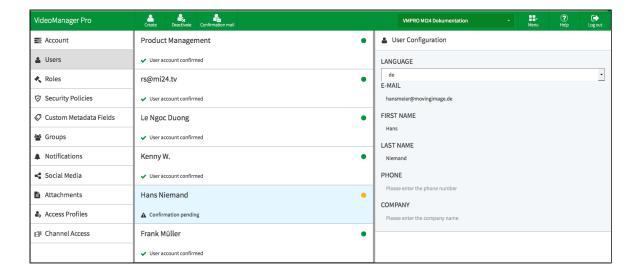
Standard Features

Standard features include the basic administrative functions in the VideoManager, which you need not to book in addition.

4.1 User Management

To ensure that only authorized users can work with the VideoManager, you create in the user administration user accounts with appropriate function privileges. In this way each user have to login on the system with his valid credentials and can perform only the program functions, for which the necessary rights are available (e.g. editing video data, creating channel).



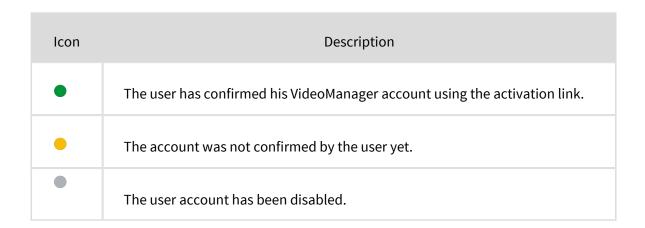


Following options for editing user accounts are here available:

- Create: Creating a new user account for VideoManager
- Deactivate: Disable an existing active account
- Confirmation mail: A newly created account was not confirmed by the receiver yet. This receiver can again be sent a confirmation mail.

The options listed here are described in detail in the next chapters.

From the user list, see also the following information:

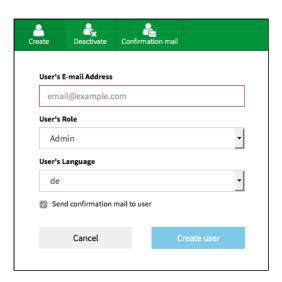




4.1.1 Creating a User Account

To create a new user account, proceed as follows:

- 1. Click on the [Create] button in the action toolbar.
- 2. Enter the e-mail address of the user.



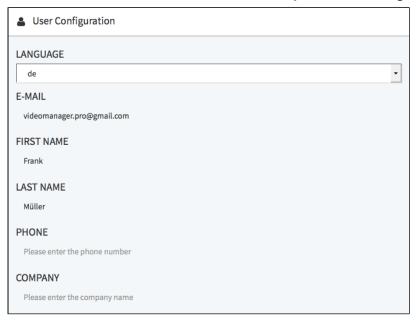
- **3.** If user roles are already defined, you can select the desired from the drop-down menu. But you have also the opportunity to define roles and assign them to the user in the follow-up (see chapter " Roles.").
- **4.** Select from the corresponding drop-down menu the user's language. The confirmation email to the new user will be sent in the language of your choice.
- **5.** Activate the check box "Send confirmation to user". The recipient receives an e-mail with an activation link.
- **6.** Click on the button [Create user], to create the user account. The entry will appear immediately in the list of users.

After you have successfully created the user account, you can make additional settings (see chapter " <a href="Editing User Account").



4.1.2 Editing a User Account

In addition to the basic data of a user account, you can also assign different roles.



- 1. Highlight the entry you want to edit in the list of all created users. In the right pane, the following editing options are available:
 - Language: In the drop-down menu, select the language for the user account. The VideoManager is represented in the chosen language.
 - **E-mail**: The e-mail that you specified when creating the user account, is subsequently not editable.
 - **First name**: Optionally, enter the first name of the user.
 - **Last name**: Optionally, enter the last name of the user.
 - **Phone**: Optionally, enter the user's phone number.
 - **Company**: Optionally, enter the company name.
- 2. You can now allocate roles to the user (see chapter " Assign a Role to a User ").



4.1.3 Disabling a User Account

If you disable a user account, you deprive the user of his access permission to VideoManager, but all data of the user account are retained in your user management. In this way you can make a reactivation of the account at any time if necessary, without further settings - like role assignment etc.

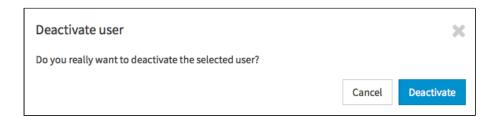


Please keep in mind that you can re-enable disabled user accounts only in the context of your reserved quota. Should this be exceeded, you will receive a notice.

Disabled user accounts are marked accordingly in the administration area; the respective metadata can be edited in this state.

To disable a user account, proceed as follows:

- 1. In the list of all created users, select the account that you want to disable.
- 2. Click on the [Deactivate] button in the action toolbar.
- 3. Confirm the deactivation in the dialog that opens by clicking on the [Deactivate] button.



4.2 Roles Management

Through the role concept in the VideoManager, you have the ability to assign certain properties and rights to a user. Typically, roles are in the context of the tasks that users perform. In this way, sets of rights are defined as user role, so that you can assign many users without having to set permissions for individual accounts. Working with user roles simplifies administration, if e. g. the rights structure changes.

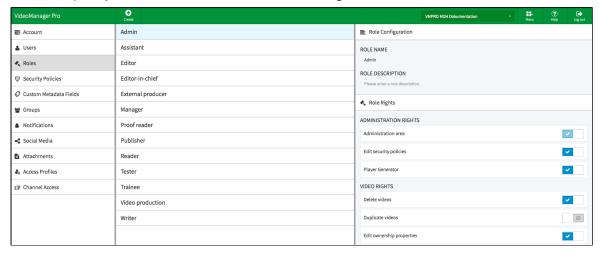
Basically, the rights are subdivided into three categories:

administration rights: these permissions allow global settings for the VideoManager and also settings in the Player Generator



- video rights: these rights relate directly to videos, such as upload, edit or delete
- channel rights: these rights allow, for example, editing of channels or adding videos to these channels.

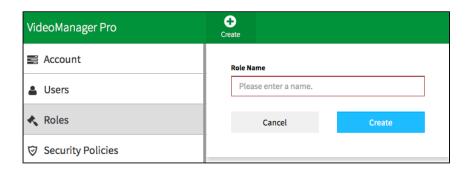
In this chapter, you learn how to create roles and assign these to user accounts.



4.2.1 Creating a New Role

To create a new role, proceed as follows:

- 1. First click on the "Roles" entry in the navigation.
- 2. Click then on the [Create] button in the action toolbar. The dialog for creating a new role opens.



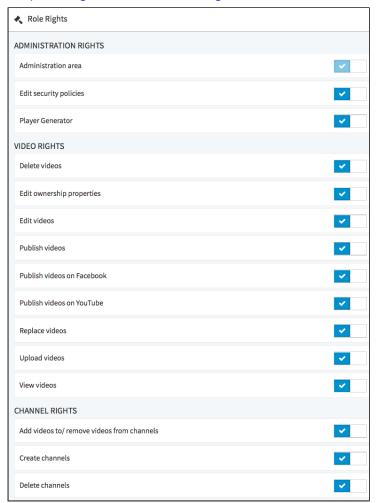
- **3.** Enter the role name and then click on the [Create] button. The new role is created and appears immediately in the list of all roles.
- 4. Make the required settings for the role now (see chapter " Editing Role Data ") .



4.2.2 Editing Role Data

After you have created a new role or the right structure has changed in your company, you can adjust the role rights accordingly.

- 1. Highlight the entry you want to edit in the list of roles. In the right pane, in the accordion menu Role Configuration you can perform the following settings:
 - Role name: If necessary, edit the name of the role.
 - Role description: Optionally, enter a meaningful role description for the role.
- 2. In the accordion menu **Role Rights** you can assign corresponding rights with the activation button. Further information about the rights can be found in the appendix, in chapter "Rights in the VideoManager".



By default, no rights are assigned to a newly created role.



4.2.3 Assigning a User to a Role

If you have created the required roles and users in your user management, you can assign these roles to every single user.



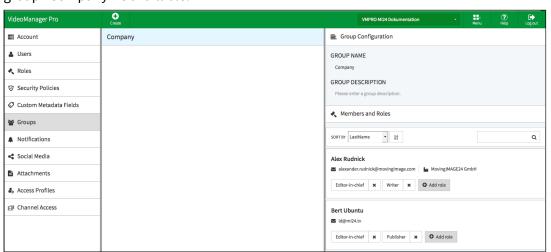
Because the group management is a bookable feature, usually only the default group "Company" will be available if you have not purchased this option.

In the standard group management the group "Company" is created by default, here you can assign the roles to users.

To assign one or more roles to a user, proceed as follows:

1. First click on the menu item "Groups" in the navigation pane.

The list of all groups is located in the middle pane of the browser window, by default, the group "Company" is available.

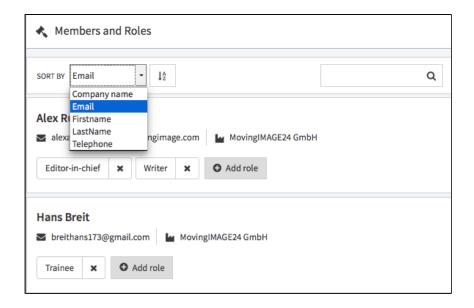


- 2. In the editing area you can make following changes:
 - group name
 - group description
- 3. All created users are listed under the menu Members and Roles.

 Here, all entries are listed by default in alphabetical order. You can use the search function to find the desired user entry faster, or, alternatively you can sort the user list according to the following criteria:

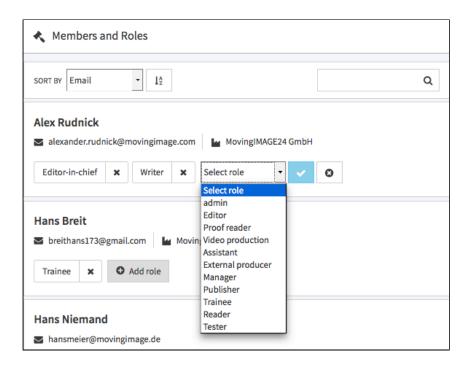


- e-mail
- company name
- last name
- phone number
- first name

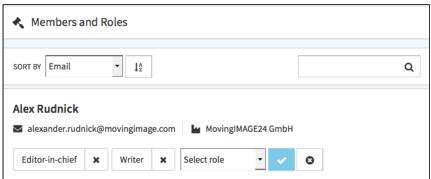




4. For each user entry, all already assigned roles are displayed next to the corresponding email and company name (if one is defined in the user management). To assign a role to a user account, click on the [Add role]-button. This opens the a selection box where you can select other roles.



- 5. Confirm your selection by the ✓-icon. Add more roles as described to this user account as needed.
- **6.** You also have the option, to remove any user assigned roles. To do this, click the -icon of the appropriate role.



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Please keep in mind that it is not possible to withdraw the last role with the administration area right as an administrator.



4.2.4 Deleting an existing Role



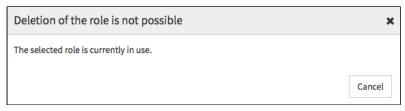
A role can only be deleted if it is currently not in use.

To delete a role, perform the following steps:

- 1. Highlight the entry you want to delete in the list of roles.
- 2. Then, click the [Delete] button in the actions toolbar. A confirmation dialog box opens.



- **3.** Confirm with the [Delete] button. The role is deleted.
- **4.** If the role is still in use, it cannot be deleted. In the appropriate warning dialog, click [Cancel] . The delete action is canceled.



4.3 Security Policy

Company-specific security policies for the playback of videos in the Internet play a key role. One of the most important requirements is the prevention of unauthorized use and distribution of your videos. In some cases sensitive data and information should be not accessible to everyone. Protective mechanism can be set up in varying degrees, including token protection, IP-range protection or encryption of the content (media encryption).

As an administrator, you have the ability to define security settings in the VideoManager. Defined policies can be set on video level or as a global security policy.



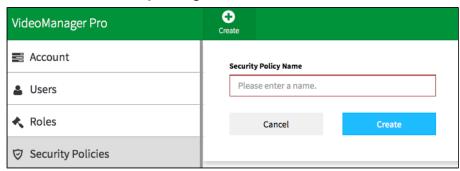
The globally enabled security setting will always be overridden by a video-specific security setting.



4.3.1 Setting up a Security Policy

To create a globally-applicable security policy, proceed as follows:

- 1. In the navigation pane, click the entry "Security Policies".
- 2. To create a new security setting, click on the [Create] button in the action toolbar.

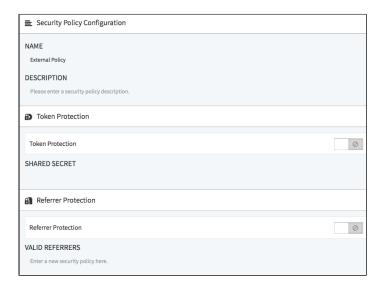


- 3. In the dialog box that opens, type the name of the security setting.
- **4.** Finally, click on the [Create] button. The entry will appear immediately in the list of security settings. Now you can set additional parameters (see chapter " Editing Security Policy").

4.3.2 Security Policy Configuration



The globally enabled security settings will always be overridden by a video-specific security setting.



After you have created a new security policy, you can edit parameters.



- 1. Select the appropriate entry in the list of security policies. In the editing area, the following editing options are available:
 - Name: If necessary, edit the name of the security setting.
 - Description: Optionally, enter a meaningful short description for the security setting.
- 2. If necessary, select the token protection for this security setting through the corresponding activation button.



Please keep in mind that an HMAC implementation is necessary for the playout of token-protected videos. For more information see Developer's Guide, chapter "Token Protection: HMAC-SHA Signature".

3. Choose the referrer protection through the corresponding activation button. Then, enter the valid referrer in the text box provided for this purpose. For example, to include referrers at subdomain level, you have the ability to specify also valid referrer with wild card. Sample: *.website.com



If you first want to test a referrer locally, enter "localhost" without further additions (such as "http").

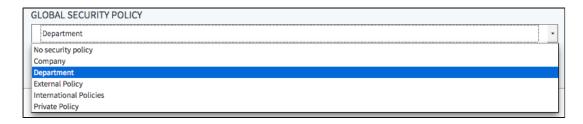
4.3.3 Defining a Global Security Policy

All applied security policies are available in the video asset management for each individual video for selection. However, you have the possibility to determine a global policy. Whenever no video-specific security policy has been defined, then the global policy will be valid.

To globally enable a security policy, proceed as follows:

- 1. Go to the account overview, by clicking on the appropriate entry in the navigation.
- 2. In the editing area of the account overview select now the desired security setting in the drop-down menu.





4.3.4 Deleting a Security Policy



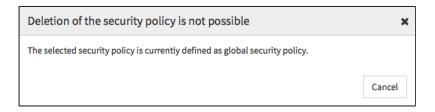
Please keep in mind that a security policy can only be deleted if it is not currently in use or defined as global security policy.

To delete a security policy, perform the following steps:

- 1. Select the entry in the list of security policies that you want to delete.
- 2. Then, click the [Delete] button in the actions toolbar. A confirmation dialog box opens.



- 3. Confirm with the [Delete] button. The security policy is deleted.
- **4.** If the selected security policy is still in use or has been defined as global security policy, it cannot be deleted. In the appropriate warning dialog, click the [Cancel] button. The delete action is canceled.





4.4 Custom Metadata Fields

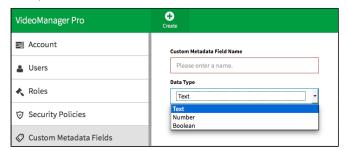
You have the possibility to create and edit additional metadata fields to a video that are no standard metadata (such as title, keyword etc.). In this way, customized information about a video that have company-specific relevance are stored. This metadata can be used, for example, for a search for video files.



All data fields here will appear in the video management under the accordion menu **Metadata**, where video editors can assign appropriate values to every single video.

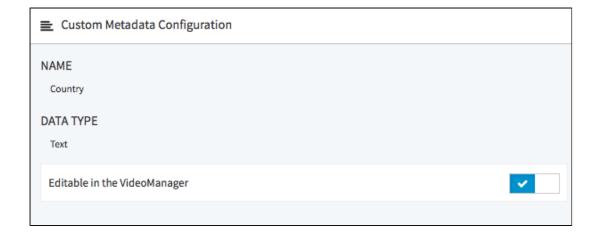
To create a custom data field, proceed as follows:

- 1. Select the "Custom Metadata Fields" entry in the navigation.
- 2. Then, click on the [Create] button in the action toolbar.
- 3. Now, enter the name of the custom data field.



- **4.** In the drop-down menu, select what type of data you want for subsequent input through the video editor. The following data types are possible:
 - text
 - number
 - boolean
- **5.** Click on the [Create] button to create the new metadata field.
- **6.** If the metadata field should not be editable in the VideoManager (for example, because this is allowed only through the API), you can disable this option in the edit pane.





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If the use of a custom metadata field has changed, so that the original field name no longer fits, you are able to rename this field without losing currently saved values. Simply enter the desired name in the configuration area of the custom metadata field.

4.4.1 Deleting a Custom Metadata Field

To delete a custom metadata field, proceed as follows:

- 1. Highlight the entry you want to delete in the list of metadata fields.
- 2. Then, click the [Delete] button in the actions toolbar. A confirmation dialog box opens.



3. Confirm with the [Delete] button. A second dialog box opens, in which you will be informed, in how many places the metadata field is currently in use.



4. If you still want to delete it, click [Delete]. The custom metadata field is deleted.



Separately Booked Features

This chapter describes VideoManager functions that need to be booked separately because they do not belong to the standard features.

5.1 Distributing Videos to Social Media Platforms

The VideoManager allows an easy deployment of your videos for the target platforms YouTube and Facebook.

This section discusses basic concepts such as "Social media profile", "Facebook Page" or "YouTube channel". Then, you will learn how you can connect the VideoManager with your YouTube or Facebook account to provide videos for your channel or page.



The functions "YouTube publication" and "Facebook publication" must be booked separately. It might not be available in your VideoManager.

5.1.1 Social Media Profile

The social media profile in the VideoManager constitutes the connection to the target platform. By means of the social media profile you have created a valid link to your YouTube channel or Facebook page. This is the prerequisite to be able to upload videos to YouTube or Facebook.

By default, a social media profile can be connected with exactly one YouTube channel or one Facebook page.



Please keep in mind that created social media profiles cannot be deleted at the moment, but only disabled.

5.1.2 Facebook Page

Facebook pages offer companies the opportunity to present themselves to their target group on the social media platform. Here, you can provide details about your products or services, always up to date and enriched by photos and videos. Companies can create multiple pages on Facebook.

You can learn more about Facebook pages under the following link: Facebook Pages.



5.1.3 YouTube Channel

In a YouTube channel, which you can customize individually, you have the possibility to add videos to your play lists that are provided for the public. Moreover, depending on the objective of your video strategy, social media-typical functions such as comment or subscribers can be added.

If you have a valid YouTube account, you can upload videos directly from VideoManager. Depending on your needs, you can create more channels on YouTube.

Information about YouTube channels can be found here: YouTube help.

5.1.4 Creating a Social Media Profile

To allow video editors to provide videos on the YouTube or Facebook platform, you must first create a social media profile in the administration area of VideoManager. In the second step, the desired YouTube channel or Facebook page must be associated with this profile.

To create a social media profile, proceed as follows:

- 1. In the navigation pane of the administration area, select the "Social Media" entry.
- 2. Click on the [Create] button in the action toolbar.
- 3. Enter the desired name of the new social media profile in the text field provided.
- **4.** By using the appropriate radio button, select which platform you want to create the profile for.
 - YouTube
 - Facebook
- **5.** Click on the [Create] button. The new social media profile is created and appears in the list of all profiles.
- **6.** Now, connect the profile created with the desired YouTube channel (see chapter "

 <u>Connecting with YouTube Channel "</u>) or the Facebook page (see chapter " <u>Connecting with Facebook Page</u> ").



5.1.5 Connecting with YouTube Channel

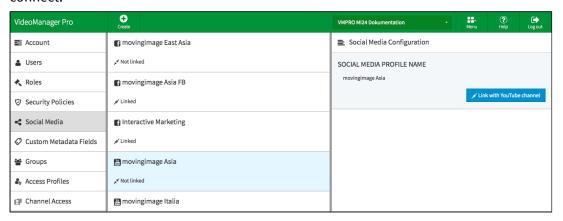
After you have created a social media profile, you can now connect it with the desired YouTube channel, to allow deploying videos.



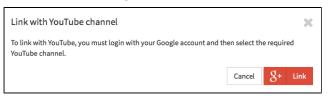
A connection requires that you have created initially the appropriate channel on YouTube with a valid account.

Perform the following steps to establish a connection to your YouTube channel:

1. First select in the list of applied social media profiles, the profile which you want to connect.

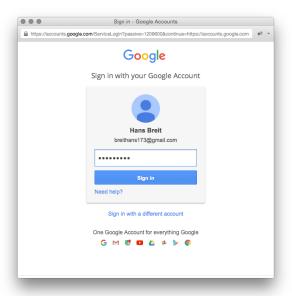


2. In the right pane of your browser window, click on the [Link with YouTube channel] button. A new dialog box with further instructions opens.

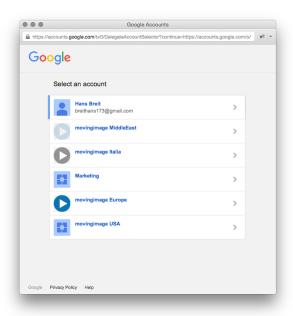


- **3.** Click on the [Link] button. In the next steps, dialogs from Google open for the registration and selection of YouTube channels.
- 4. Login with your Google account.





5. In the next step, select the desired channel.

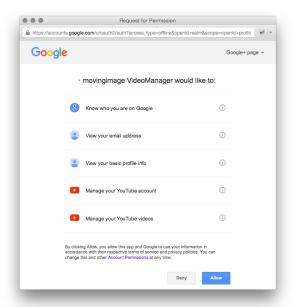




Please keep in mind that each social media profile in the VideoManager can only be connected to exactly one YouTube channel.

6. In the next dialog you are asked to allow access permissions on your data. Click on the [Allow] button. The social media profile is now associated with the selected YouTube channel.





Once the social media profile has been associated with a YouTube channel, it is available for the supply of videos in the asset management area of VideoManager.

5.1.6 Connecting with Facebook Page

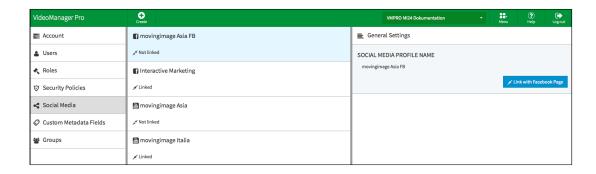
After having successfully created a new social media profile, you must connect it to a desired Facebook page to allow the posting of videos directly from VideoManager.



A connection requires that you have created initially the appropriate page on Facebook with a valid account.

Proceed as follows to connect a social media profile to a Facebook page:

1. First select in the list of applied social media profiles, the profile which you want to connect.

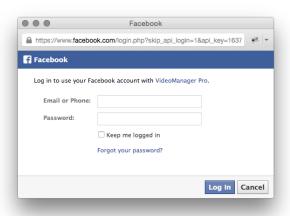




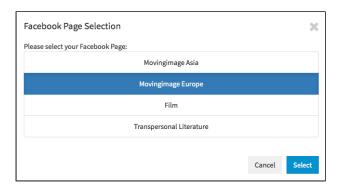
2. In the right pane of your browser window, click on the [Link with Facebook Page] button. A new dialog box with further instructions opens.



- 3. Click on the [Link] button. In the next steps, dialogs from Facebook open for the registration and selection of Facebook pages.
- 4. Login with your Facebook account.



5. Now select the desired Facebook page, which you want to connect to the social media profile.





Please keep in mind that each social media profile in the VideoManager can only be connected to exactly one Facebook page.



6. Confirm your selection with the [Select] button.

After the social media profile has been associated with a Facebook page, it is available for the provision of videos on Facebook.

5.1.7 Disconnecting from YouTube Channel or Facebook Page

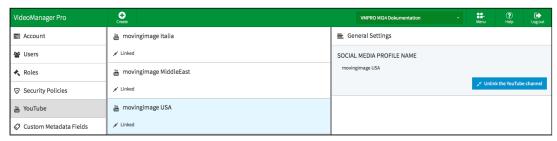
Social media profiles that are successfully associated with a YouTube channel or a Facebook page can be unlinked at any time.



Please note that current transfers of videos are not aborted through a disconnection from the YouTube channel or the Facebook page.

To disconnect a social media profile from a YouTube channel or a Facebook page, proceed as follows:

1. First select in the list of created profiles, the social media profile that you want to disconnect.



2. Then, click in the editing area on the [Unlink YouTube channel] or [Unlink Facebook Page] button.

5.2 Ownership - The User and Rights Management



Please keep in mind that "Ownership" is an optional feature that may not be available in your VideoManager. However, the standard user management still includes the user and role management, with which you can perform basic functions such as "Create user" and "Create role".



The movingimage VideoManager offers a convenient way to manage users and rights to ensure a controlled access to content. For example, videos are generally associated with a group of owners, so that it is initially inaccessible by non-group members. Such access can be granted due to access profiles with defined rights.

You can set up for each employee in your company a user account in the VideoManager and assign him to one or more groups. Groups are completely independent, they depict usually departments or subsidiaries. Unlimited users can belong to a group, they are also flexible changeable. Within a group, all members have equal rights and have same function rights. The care and maintenance of user rights is facilitated by consistently using the group concept. You can apply individually access rights and permissions, so that the company's safety concept can be implemented.

This section discusses first basic terms of user management.

5.2.1 Terminology

User

A user receives via the roles assigned to him the permission to use the system and the data in accordance with his responsibility. Function rights (program functions) and access rights (visibility of videos and channels) are differentiated.

Group

A group represents an organizational entity and can be a department, a subsidiary company or similar.

Every video and every channel in the VideoManager has a group as owner. Newly uploaded videos belong to the group "Company" by default if it is not directly uploaded in a channel that maps to a specific group. This can be modified at any time if other groups were created (see chapter "Assigning a Video to a Group"). A video can only be assigned to exactly one group.

Typically, only members of the owners group have access to the corresponding channels and videos. This may be revised however through access profiles (see below).

Role

A user role defines tasks, characteristics and above all the user's rights. The role specifies what actions a user can perform on videos and channels belonging to his group. Because the role is group-specific, it is possible to assign different rights to a user in different groups.



<u>Sample</u>

A user is a member of the group "Sales" and "Marketing" at the same time. In the "Sales"-group this user has the role "read-only" and therefore can only watch videos that belong to his group, but he is not allowed to edit or publish videos. In the "Marketing"-group, the user is allocated to the "editor"-role. In this role he has the permission to edit and publish videos of his group.

Role rights

You can assign a role to following rights:

- administration area: with this right, you can perform administrative tasks, these include among other things the creation of new users, group management, adding new metadata or the creation of new social media profiles.
- edit security policies
- **channel:** create, view, edit, delete, view sub-channels
- videos: watch, edit, replace, upload, delete, publish, add to a channel, remove from a channel
- social media: publication on YouTube, publication on Facebook

Global access profile

The global access profile applies to all videos in the VideoManager. It is set globally in the account overview. Users can access non-group videos in accordance with the global access profile.

Access profile

Access rights that are possible on a single video can be given by an access profile. This way, users not directly belonging to the group associated with the video, can still work with the video (e.g., edit and manage data).



Sample

A user has the role that allows him to watch videos and channels of the group "Company". In addition, he was assigned to any other role or group. The user would like to edit a video that was associated with the "Sales"-group. Although this video was assigned an access profile with editing rights, the user cannot edit it, since his role was granted no editing right.



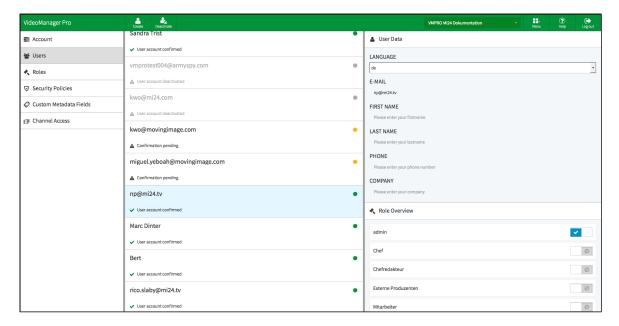
If no access profile for a video is selected, only users in the same group as the video have access to it. If a video is uploaded directly in a channel, it inherits the default access profile of the channel. This profile can be modified later in the accordion menu **Security**.

Access right

Access rights are for example, administrative rights, channel-specific rights or video-specific rights.

5.2.2 Users

To ensure that only authorized users can work with the VideoManager, you create in the user administration user accounts with appropriate function privileges. In this way each user have to login on the system with his valid credentials and can perform only the program functions, for which the necessary rights are available (e.g. editing video data, creating channel).





Following options for editing user accounts are here available:

- Create: Creating a new user account for VideoManager
- **Deactivate**: Disable an existing active account
- Confirmation mail: A newly created account has not confirmed by the receiver yet. This receiver can again be sent a confirmation mail.

The options listed here are described in detail in the next chapters.

From the user list, see also the following information:

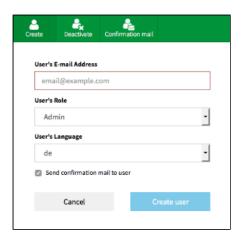
| lcon | Description |
|------|--|
| • | The user has confirmed his VideoManager account using the activation link. |
| • | The account has not confirmed by the user yet. |
| | The user account has been disabled. |



5.2.2.1 Creating a User

To create a new user account, proceed as follows:

- 1. Click on the [Create] button in the action toolbar.
- 2. Enter the e-mail address of the user.



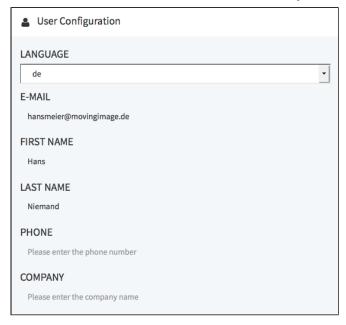
- **3.** If user roles are already defined, you can select the desired from the drop-down menu. But you have also the opportunity to define roles and assign them to the user in the follow-up (see chapter " Roles ").
- **4.** Select from the corresponding drop-down menu the user's language. The confirmation email to the new user will be sent in the language of your choice.
- **5.** Activate the check box "Send confirmation to user". The recipient receives an e-mail with an activation link.
- **6.** Click on the button [Create user], to create the user account. The entry will appear immediately in the list of users.

After you have successfully created the user account, you can make additional settings (see chapter " Editing a User").



5.2.2.2 Editing a User

In addition to the basic data of a user account, you can also assign different roles.



- 1. Highlight the entry you want to edit in the list of all created users. In the right pane, the following editing options are available:
 - **Language**: In the drop-down menu, select the language for the user account. The VideoManager is represented in the chosen language.
 - **E-mail**: The e-mail that you specified when creating the user account, is subsequently not editable.
 - First name: Optionally, enter the first name of the user.
 - **Last name**: Optionally, enter the last name of the user.
 - **Phone**: Optionally, enter the user's phone number.
 - **Company**: Optionally, enter the company name.
- 2. You can now allocate roles to the user (see chapter " Assigning a Role to a User ").



5.2.2.3 Disabling a User

If you disable a user account, you deprive the user of his access permission to VideoManager, but all data of the user account are retained in your user management. In this way you can make a reactivation of the account at any time if necessary, without further settings - like role assignment etc.

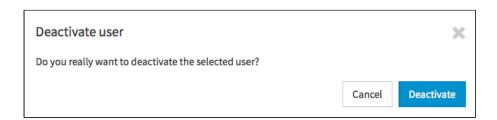


Please keep in mind that you can re-enable disabled user accounts only in the context of your reserved quota. Should this be exceeded, you will receive a notice.

Disabled user accounts are marked accordingly in the administration area; the respective metadata can be edited in this state.

To disable a user account, proceed as follows:

- 1. In the list of all created users, select the account that you want to disable.
- 2. Click on the [Deactivate] button in the action toolbar.
- 3. Confirm the deactivation in the dialog that opens by clicking on the [Deactivate] button.



5.2.3 Roles

Through the role concept in the VideoManager, you have the ability to assign certain properties and rights to a user. Typically, roles are in the context of the tasks that users perform. In this way, sets of rights are defined as user role, so that you can assign many users without having to set permissions for individual accounts. Working with user roles simplifies administration, if e. g. the rights structure changes.

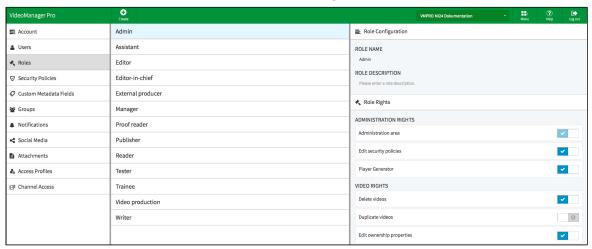
Basically, the rights are subdivided into three categories:

administration rights: these permissions allow global settings for the VideoManager and also settings in the Player Generator



- video rights: these rights relate directly to videos, such as upload, edit or delete
- channel rights: these rights allow, for example, editing of channels or adding videos to these channels.

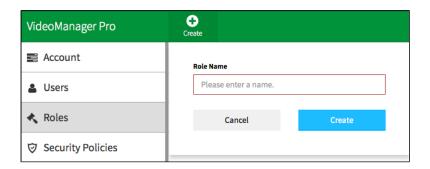
In this chapter, you learn how to create roles and assign these to user accounts.



5.2.3.1 Creating a Role

To create a new role, proceed as follows:

- 1. First click on the "Roles" entry in the navigation.
- 2. Click then on the [Create] button in the action toolbar. The dialog for creating a new role opens.



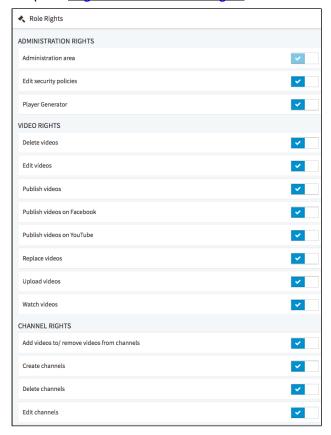
- **3.** Enter the role name and then click on the [Create] button. The new role is created and appears immediately in the list of all roles.
- **4.** Make the required settings for the role now (see chapter " Editing a Role ").



5.2.3.2 Editing a Role

After you have created a new role or the right structure has changed in your company, you can adjust the role rights accordingly.

- 1. Highlight the entry you want to edit in the list of roles. In the right pane, in the accordion menu Role Configuration you can perform the following settings:
 - Role name: If necessary, edit the name of the role.
 - Role description: Optionally, enter a meaningful role description for the role.
- 2. In the accordion menu **Role Rights** you can assign corresponding rights with the activation button. Further information about the rights can be found in the appendix, in chapter "Rights in the VideoManage r".





By default, no rights are assigned to a newly created role.



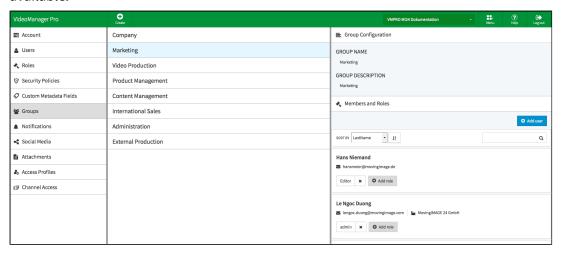
5.2.3.3 Assigning a Role to a User

If you have created the required roles and users in your user management, you can assign these roles to every single user.

In the standard group management the group "Company" is created by default, here you can assign the roles to users.

To assign one or more roles to a user, proceed as follows:

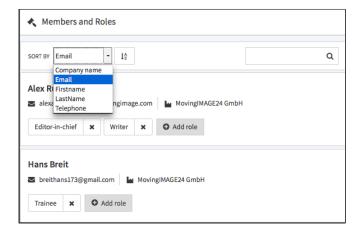
1. First click on the menu item "Groups" in the navigation pane. The list of all groups is located in the middle pane of the browser window, by default, the group "Company" is available.



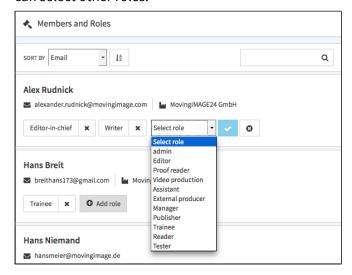
- 2. In the editing area, you can make following changes:
 - group name
 - group description
- **3.** All created users are listed under the menu **Members and roles**. Here, all entries are listed by default in alphabetical order. You can use the search function to find the desired user entry faster, or, alternatively you can sort the user list according to following criteria:
 - e-mail



- company name
- last name
- first name
- phone number

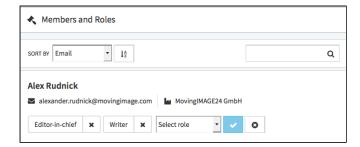


4. For each user entry, all already assigned roles are displayed next to the corresponding email and company name (if one is defined in der users administration). To assign a role to a user account, click on the [Add role]-button. This opens a selection box where you can select other roles.



- 5. Confirm your selection by the ✓ -icon. Add more roles as described to this user account as needed.
- **6.** You also have the option, to remove any user assigned roles. To do this, click the **X**-icon of the appropriate role.







Please keep in mind that it is not possible to withdraw the last role with the administration area right as an administrator.

5.2.3.4 Deleting a Role



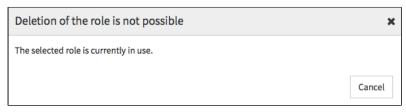
Please keep in mind that a role can only be deleted if it is currently not in use.

To delete a role, perform the following steps:

- 1. Highlight the entry you want to delete in the list of roles.
- 2. Then, click the [Delete] button in the actions toolbar. A confirmation dialog box opens.



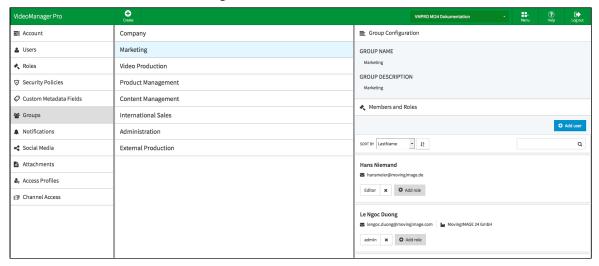
- 3. Confirm with the [Delete] button. The role is deleted.
- **4.** If the role is still in use, it cannot be deleted. In the appropriate warning dialog, click [Cancel] . The delete action is canceled.





5.2.4 Groups

In the group management, a random number of groups, which combine multiple users within a company can be created. This simplifies the administration of all users, since these can be better classified in terms of their rights.



5.2.4.1 Creating a Group

A group represents a business unit and can be a department, a subsidiary company or similar.

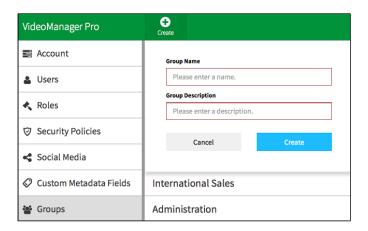
Every video and every channel in the VideoManager has a group as owner. Newly uploaded videos belong to the group "Company" by default if it is not directly uploaded in a channel that maps to a specific group. This can be modified at any time if other groups were created (see chapter "Security"). A video can only be assigned to exactly one group.

To create a new group, proceed as follows:

- 1. First click on the menu item "Groups" in the navigation pane.
- 2. Click the [Create] button in the action toolbar.



3. Enter the group name and a description for this group.



4. Click the [Create] button. The group is created and appears in the list of all groups.

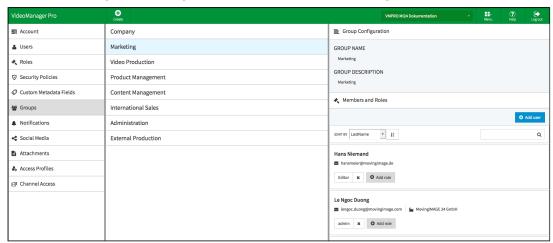
5.2.4.2 Adding Users to a Group



Please keep in mind that it is possible to assign users to self-created groups. Initially, all newly created users are automatically assigned to the default group "Company".

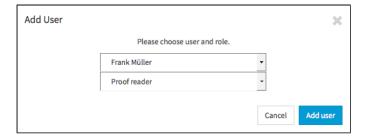
After you have created a new group, you add as follows the user to this group:

1. First, select the group in the group list, which you want to assign users.



2. In the editing pane, click on the [Add user] button. This opens a dialog box to add a user.





- 3. Now, select the desired user, as well as the role from the respective drop down menus.
- **4.** To confirm your selection, click again the [Add user] button. The entry appears in the list "Members and Roles" with the selected roles. In this way, you can assign any desired number of members to this group.

5.2.4.3 Deleting a Group



Please note that a group can only be deleted if it contains any user, videos or channels. Deletion of the default group "Company" is also not possible.

To delete a group, perform the following steps:

- 1. Select the entry in the list of groups that you want to delete.
- 2. Then, click the [Delete] button in the actions toolbar. A confirmation dialog box opens.



- 3. Confirm with the [Delete] button. The group is deleted.
- **4.** If the group is currently in use, it cannot be deleted. In the appropriate warning dialog, click the [Cancel] button. The delete action is canceled.





5.2.5 Access Profiles

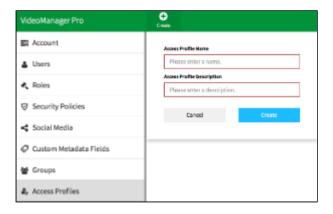
Managing videos in the VideoManager is structured on the basis of the channels and additionally protected by group affiliation. It is still possible that users who are not members of this group are able to work with the protected videos. This is enabled via access profiles - depending on the specified rights, non-members are granted to view, edit or manage videos of different groups.

In chapter " <u>Assigning an Access Profile to a Video</u> " you will learn how to assign an access profile to a video.

5.2.5.1 Creating an Access Profile

Perform the following steps to create a new access profile:

- 1. Click the entry "Access profile" in the navigation pane.
- 2. Click the [Create] button in the action toolbar.
- 3. Enter the profile name and a description for this profile.



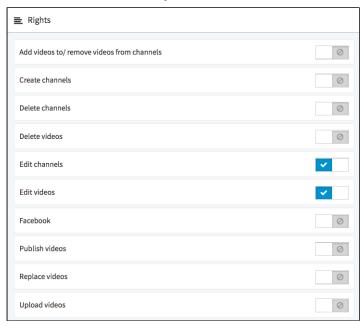
- **4.** Click the [Create] button. The new access profile is created and appears in the list of all access profiles.
- **5.** Next, assign the desired rights to this access profile (see chapter " Editing an Access Profile ").



5.2.5.2 Editing an Access Profile

After the creation of new access profile, you can assign the appropriate rights .

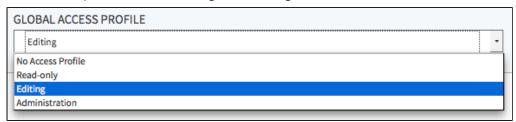
- 1. Highlight the entry you want to edit in the list of access profiles . In the right editing pane, you can make the following settings:
 - Access profile name: Edit optionally the name.
 - Access profile description: Edit optionally the description.
- 2. In the menu **Permissions**, you can now enable the desired rights for this access profile.



5.2.5.3 Global Access Profile

The default access profile applies to all videos in the VideoManager. Users can access non-group videos in accordance with the standard access profile.

To set the default access profile, go to the account overview. Select the desired access profile from the drop down menu in the global settings.





5.2.5.4 Deleting an Access Profile



Please note that you can only delete an access profile if it is currently not assigned to any video.

To delete an access profile, proceed as follows:

- 1. Select the entry in the list of access profiles that you want to delete.
- 2. Then, click the [Delete] button in the actions toolbar. A confirmation dialog box opens.



- 3. Confirm with the [Delete] button. The access profile is deleted.
- **4.** If the selected access profile is still in use, it cannot be deleted. In the appropriate warning dialog, click the [Cancel] button. The delete action is canceled.



5.2.6 Channel Access Rights

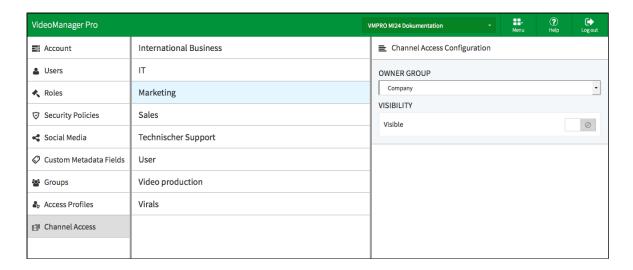


The "Channel access"-feature is an optional function and may not available in your VideoManager.

Access to channels can be controlled in the administration area of VideoManager. Main channels including its sub-channels can be protected. With the status of "protected", the channels and related videos in the video management are basically invisible.

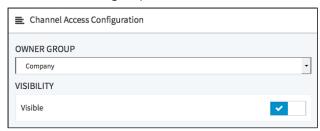
Channels (and any sub-channels) and the related videos are assigned to a group by the administrator. This group is then the owner of the channel.





To assign a channel to a group, proceed as follows:

- 1. In the navigation pane of the administration area, select the "Channel access" entry.
- 2. In the center pane, you see all available main channels of your VideoManager. Highlight the channel that you want to assign to group by clicking on the appropriate entry.
- **3.** In the editing area on the right side of the browser window, select from the drop down menu the owner group.



4. Then enable the visibility if necessary to visualize the channel for non-members of the owners group.



5.3 Attachments to a Video



The function "Upload attachments to a video" must be booked separately. It might not be available in your VideoManager.

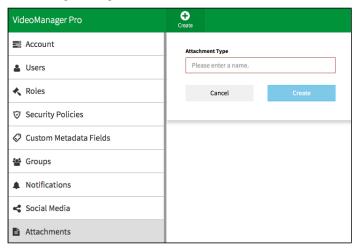
The video asset management provides a way to create different attachments to a video. The management of your video collection can be arranged very comfortably: if, for example, external production companies produce video footage, you can make available additional information to this video - such as invoices, licenses, etc.

As an administrator, you have the possibility to configure different types of documents as an attachments to a video. For each type, the video editor can upload one document to a video in the video asset management.

5.3.1 Setting up Attachment Types

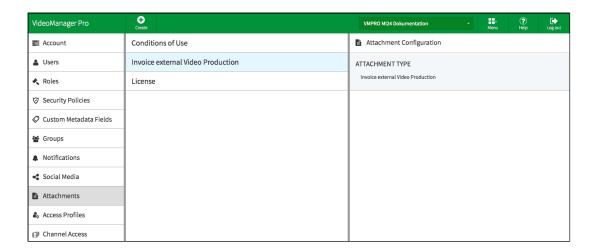
To create a type of attachment, proceed as follows:

- 1. Select the entry "Attachments" in the navigation pane of the administration area.
- 2. Click the [Create]-button in the action toolbar.



- 3. Enter the desired name for the attachment type in the text box provided for this purpose.
- **4.** Click on the [Create] button. The new attachment type is created and appears in the list of attachments types.



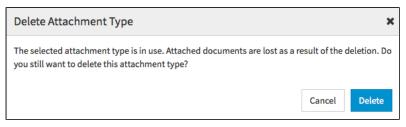


5. To change the name of the attachment type, click the appropriate entry in the list. In the editing area, you can change the name. All attachment types created here are available to any video in the video asset management, see chapter "<u>Upload Attachments to a Video</u>").

5.3.2 Deleting Attachment Types

You can delete exisiting attachment types as follows:

- 1. In the list of all attachment types, select the entry you want to delete.
- 2. Click on the [Delete] button in the action toolbar. A confirmation dialog box opens.



3. If the attachment type is currently in use, you will be noted accordingly. Confirm with the [Delete] button if you want to delete nevertheless.



If to this attachment type a document has been already uploaded, this document is lost.



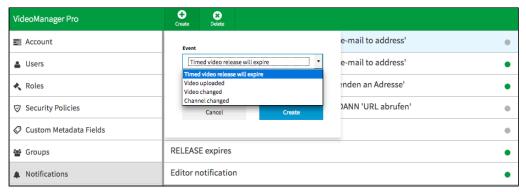
5.4 Notifications

Notification rules can be set up in the VideoManager for various events to automatically send targeted information about certain events. So you can send, for example, a notification to any e-mail address, if an automatic video release expires. The date of notification can be defined as well as the addressee.

5.4.1 Setting up a Notification Rule

To set up a notification rule, proceed as follows:

- 1. Select the entry "Notifications" in the navigation.
- 2. Click on the [Create]-button in the action toolbar.



Now select the event in the dropdown menu, to which an action will be carried out. Currently, you can choose the following event:

| Event | Description | |
|--|--|--|
| Timed video release will expire | As soon as a timed video release will expire, the configured action is triggered. | |
| Video uploaded | As soon as a new video has been uploaded in your VideoManager, the configured action is triggered. | |



| Event | Description | |
|--------------------|--|--|
| Video changed | As soon as a video has been changed, the configured action is triggered. In this context, changes are modifications of the following video data: metadata (e.g. title, description, keywords, etc.) security settings (e.g. release status, security policy, etc.) moving the video to the trash or restoring of a deleted video | |
| | video has been replaced. | |
| Channel changed | video has been replaced. Once there is a change to a channel, the configured action is triggered. In this context, the changes are: a new channel was created a channel was deleted the channel name has been changed the owner group of the channel has been changed | |

- 1. Then select the desired action. Currently, you can choose the following actions:
 - **Send e-mail to address**: When the selected event occurs, an e-mail will be sent to the registered e-mail address.
 - Call up URL with GET: When the selected event occurs, the specified URL will be called up.
 - Call up URL with POST: When the selected event occurs, information regarding the selected event is passed in a JSON-file to the specified URL.
- **2.** Click on the [Create]-button. The notification rule is created and appears in the list of all notification rules.





Please note that you must make other input, so the notification rule can be enabled (see " <u>Editing Notification a Rule</u> ").

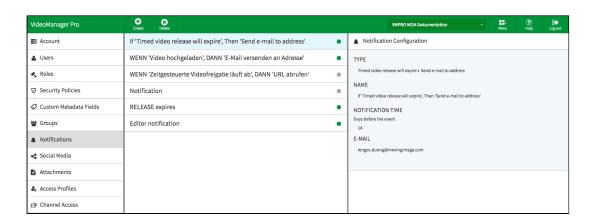
5.4.2 Editing a Notification Rule

After you have created a notification rule, more information have to be added in the editing area, so that the notification rule can be activated.

1. Select first in the list of all notification rules, the newly created rule by clicking on the appropriate entry.



Newly created and thus not yet enabled notification rules are marked with the — -icon in the list.



- 2. Make the following configurations:
 - **Type**: The notification type is automatically entered by the system and cannot not be edited. It consists of the selected event and the action.
 - Name: Optional. Enter the desired name for the notification rule in the text box provided for this purpose.
 - **Notification time**: Enter the desired time for the notification (days before the occurrence of the event). 14 days is predefined by default.
 - **E-mail**: If you have selected the action "Send e-mail to address", then enter a valid e-mail address. To this address, a notification will be sent when the specified event occurs.



- URL: If you have chosen the action "Call up URL", enter the URL that should be called up when the selected event occurs.
- 3. Click finally on the [Activate]-button, to enable the notification rule.

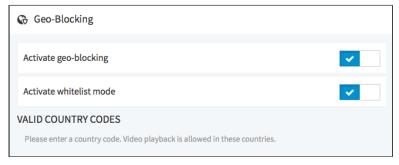
5.5 Geo-Blocking

In some cases, the playback of certain video content, for example, due to country-specific copyright must be prevented. Because technically, the origin of the viewers can be identified, it is possible to restrict access to your video content by geo-blocking on specific countires or regions.

In the administration of security policy, you have the option to provide or prevent access to viewers from certain countries or regions.

To enable the feature "geo-blocking", proceed as follows:

- 1. In the navigation bar, click the entry "Security Policies".
- 2. If you want to add an already existing security policy with geo-blocking, select the corresponding entry in the list of security policies, otherwise set a new security policy (see " Setting up a Security Policy ").
- **3.** In the editing area on the right side, select geo-blocking for this security policy with the corresponding activation button.



4. Optionally, you can enable the 'whitelist mode".



If the white list mode is enabled, viewers from the listed countries and regions have access to your video content.



5. Then enter the desired country codes. In whitelist mode, the playback of videos is allowed in these countries.

FTP Import 5.6

The FTP import offers you another ability to import video files and associated metadata to your VideoManager. Using an XML-file, each imported with the video file, you can store necessary metadata (such as title, description, keywords) and edit them later as usual in the VideoManager. By specifying channels, videos can be directly assigned to a desired channel during import.



To perform a data import via FTP server, the "FTP Import" feature must be additionally booked. Only then access to the relevant file folders on the server is set up by movingimage.

Usually, there are the following folders on the FTP server:

- **Input**: In this folder, your video files including XML-file are uploaded.
- **Done**: Here, the .flag files of successfully uploaded files are located.
- Error: Here, all .flag files of all video files that could not be added to your VideoManager are stored.



For a smooth import, it is essential to comply with the specified XML schema. Please consider the XML schema in the sample file.

5.6.1 Important Notes

Please consider the following instructions when uploading your files to the FTP server:

- If a video file is uploaded without XML-file, only the title or file name is applied.
- To import metadata to the video, the XML-file according to the schema must be uploaded before the video file.



There are two different options of encoding:

```
<keyword>&lt;h1&gt;foo bar&lt;/h1&gt;</keyword>
```

```
<keyword><![CDATA[<h1>foo bar </h1>]]></keyword>
```

• If you want to add a thumbnail to a video, please complete your upload in the following order: 1. XML-file, thumbnail file, 3. video.



Please note that the file must not be larger than 10000 KBytes.

5.6.2 XML-Schema and Sample XML-File



For a smooth import, it is essential to comply with the specified XML schema. Please validate your XML file according to the schema in the sample file below.

The uploader will validate its XML against the following schema:

The XML schema and sample XML-file can be called using the following link: <u>XML-Schema and Sample XML-File.</u>

For a video, you can import the following metadata:

| Metadata | Description | |
|-----------|---|--|
| reference | Optional . To improve mapping of your import you can specify any value. This value will be supplied in the response. | |
| title | Optional. If not specified, the file name is applied. | |



| Metadata | Description | | |
|----------------|--|--|--|
| description | Optional. Enter a short description. | | |
| keywords | Optional. Multiple entries possible. | | |
| source | Mandatory . If the source file is not specified, the XML is invalid. The video is then placed in the "error" folder. | | |
| channels | Optional . Multiple entries possible. Specify the channel ID(s), the imported video is assigned to these channels. | | |
| customMatadata | Optional. Multiple entries possible. Specify the custom metadata of the data type boolean, number or string. | | |
| | Please keep in mind that the custom metadata field must already have been created. | | |
| | If you ave not specified the correct data type to a metadata or the metadata field does not exist, it will not taken into account. | | |
| release | Optional . Specify the release status of the videoby means of the <publish>-tag. There are two options:</publish> | | |
| | ■ if a period is specified, the release is time-controlled (example : <period> <begin>2016-08-01T00:00:00</begin> <end>2016-12-31T23:59:59</end> </period>) | | |
| | if the <publish></publish> -element is left empty, the video is immediately released and without time limit. | | |
| | The time is indicated in the format according to <u>D ISO 8601</u> <u>Date and Time</u> . | | |
| | If you have entered an invalid date (i.g., the release date is in the past), the video will be imported without any release. | | |



| Metadata | Description | |
|----------|---|--|
| download | Optional . You can activate the download release by means of the <download></download> -element. | |
| delete | Optional . Specify the date when the video has to be automatically deleted. | |
| still | Optional . Specify the file, which should be used as thumbnail for the video. | |
| | Please note that the file must not be larger than 10000 KBytes. | |
| | | |

5.6.3 Logging

For each FTP import a log file is created, so that you can see if the import was successful or failed.



Log files are each named after the name of the imported video file.

5.6.3.1 Successful Import

After a successful import, you will find the log file in the "Done"-directory.

This file contains the following information:

- name of the imported file
- video-ID
- channel-ID



5.6.3.2 Failed Import

</success> </result>

If an import has failed, the corresponding log file is placed in the "Error"-directory. The following information is available in this file:

- name of the imported file
- reason for the failed import: for example corrupted XML file or video file, or files could not be parsed.

Sample log file for a failed import

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<result xmlns="http://schemas.video-cdn.net/vmpro/public/v1/ingest/ftp/result.xsd">
<fileName>test.xml</fileName>
<failure>
<cause>XML file 'test.xml' could not be parsed.</cause>
</failure>
</result>
```



5.7 Ad Configuration

You can enrich your video asset with additional video ads from external service providers. This can be i.E. targeted commercials.

In the ad management of your VideoManager, you define whether video ads are embedded as pre-roll, mid-roll or post-roll. It is possible to define pre-, mid- and post-roll at the same time with one single video ad or different video ads. For example, if you have entered a URL for pre-roll and one URL for post-roll, the video ad appears in the beginning and at the end of the video.

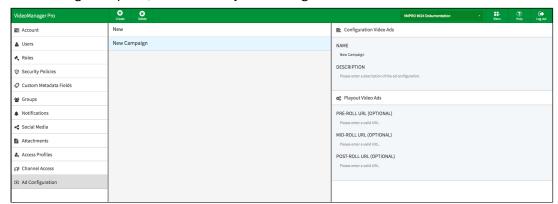


The VideoManager currently supports video ad formats of the VAST 3.0 standard.

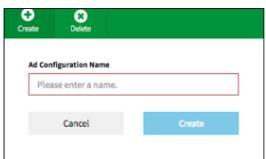
5.7.1 Setting up an Ad Configuration

To set up an ad configuration, proceed as follows:

1. In the navigation pane, click the entry "Ad Configuration".



2. To create a new video ad configuration, click on the [Create] button in the action toolbar.



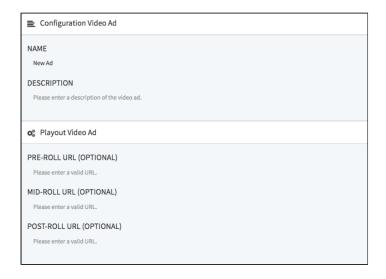


- 3. In the dialog box that opens, type the name of the video ad.
- **4.** Finally, click on the [Create] button. The entry appears immediately in the list of video ads. Now you can set additional parameters (see chapter " Ad Configuration Settings").

5.7.2 Ad Configuration Settings

After you have created a new ad configuration, you can specify the playout and edit some parameters.

- **1.** Select the appropriate entry in the list of ad configurations. In the editing area, the following editing options are available:
 - **Name**: If necessary, edit the name of the video ad.
 - Description: Optionally, enter a meaningful short description for the video ad configuration.



- 2. Then enter the URL to the desired video ads or alternatively a placeholder, such as {{mid_ad_url}}. The following options are available:
 - pre-roll
 - mid-roll
 - post-roll





It is possible to define pre-, mid- and post-roll at the same time with one single video ad or different video ads. For example, if you have entered a URL for pre-roll and one URL for post-roll, the video ad appears in the beginning and at the end of the video.

5.7.3 Assigning a Global Ad Configuration

To define a global ad configuration that is applied for all videos in your VideoManager, perform the following steps:

- 1. Switch to the account overview by clicking on the appropriate entry in the navigation.
- 2. In the account overview under "Global Settings", select the desired ad configuration from the drop down menu. This configuration will be played out for all of the videos in your VideoManager.



5.7.4 Deleting an Ad Configuration

To delete an ad configuration, proceed as follows:

- 1. Select the entry in the list of ad configurations that you want to delete.
- 2. Click then on the button [Delete] in the action toolbar. A confirmation dialog box opens.



- **3.** Confirm with the [Delete] button, The ad configuration is deleted.
- **4.** It is not allowed to delete an ad configuration, which is still in use or defined as global ad configuration. In the appropriate warning dialog, click the [Cancel] button. The delete action is canceled.



Appendix

The appendix offers further information on the VideoManager Pro that will assist you in setting up your system.

6.1 Video Formats and Codecs

Videos can be saved in many formats. Formats are actually rules prescribing how to store digital data for videos. For example, formats specify the maximum resolution and color depth, the aspect ratio, or the number of images per second.

Application programs, such as player, must read out these formats to play out videos properly. For this purpose, codecs are used. Codecs know the format rules, and can encode or decode video files according to these rules. They form the interface between the video format and the application program. Codecs compress and also decompress usually video, audio or images in a desired format: when you play a video codecs ensure that certain information, such as duration, resolution or aspect ratio is correctly implemented.

Analogous to the various video formats, there are a variety of codecs available. The playback program must the find the matching codec from a list of existing codecs to reproduce the corresponding video file. While the player determines parameters such as position and size of the video window, the video resolution can be adjusted during playback by a codec.

6.1.1 Supported Video Formats

The following table lists all the video formats supported in VideoManager Pro.

Types

| Туре | Description |
|------|--------------------|
| D | Demuxing supported |
| E | Muxing supported |



| Туре | Code | Description |
|------|-----------|--------------------------------------|
| D | 4xm | 4X Technologies |
| D | aac | raw ADTS AAC (Advanced Audio Coding) |
| DE | ac3 | raw AC-3 |
| D | act | ACT Voice file format |
| D | adf | Artworx Data format |
| D | adp | ADP |
| DE | adx | CRI ADX |
| D | aea | MD STUDIO audio |
| D | afc | AFC |
| DE | aiff | Audio IFF |
| DE | alaw | PCM A-law |
| D | alias_pix | Alias/Wavefront PIX image |
| DE | amr | 3GPP AMR |
| D | anm | Deluxe Paint Animation |
| D | арс | CRYO APC |
| D | ape | Monkey's Audio |



| Туре | Code | Description |
|------|-------------|--|
| D | aqtitle | AQTitle subtitles |
| DE | asf | ASF (Advanced / Active Streaming Format) |
| DE | ass | SSA (SubStation Alpha) subtitle |
| DE | ast | AST (Audio Stream) |
| DE | au | Sun AU |
| DE | avi | AVI (Audio Video Interleaved) |
| D | avr | AVR (Audio Visual Research) |
| D | avs | AVS |
| D | bethsoftvid | Bethesda Softworks VID |
| D | bfi | Brute Force & Ignorance |
| D | bin | Binary text |
| D | bink | Bink |
| DE | bit | G.729 BIT file format |
| D | bmp_pipe | piped bmp sequence |
| D | bmv | Discworld II BMV |
| D | boa | Black Ops Audio |



| Туре | Code | Description |
|------|-------------|--|
| D | brender_pix | BRender PIX image |
| D | brstm | BRSTM (Binary Revolution Stream) |
| D | c93 | Interplay C93 |
| DE | caf | Apple CAF (Core Audio Format) |
| DE | cavsvideo | raw Chinese AVS (Audio Video Standard) video |
| D | cdg | CD Graphics |
| D | cdxl | Commodore CDXL video |
| D | cine | Phantom Cine |
| D | concat | Virtual concatenation script |
| DE | data | raw data |
| DE | daud | D-Cinema audio |
| D | dfa | Chronomaster DFA |
| DE | dirac | raw Dirac |
| DE | dnxhd | raw DNxHD (SMPTE VC-3) |
| D | dpx_pipe | piped dpx sequence |
| D | dsf | DSD Stream File (DSF) |



| Туре | Code | Description |
|------|----------|---|
| D | dsicin | Delphine Software International CIN |
| DE | dts | raw DTS |
| D | dtshd | raw DTS-HD |
| DE | dv | DV (Digital Video) |
| D | dv1394 | DV1394 A/V grab |
| D | dxa | DXA |
| D | ea | Electronic Arts Multimedia |
| D | ea_cdata | Electronic Arts cdata |
| DE | eac3 | raw E-AC-3 |
| D | epaf | Ensoniq Paris Audio File |
| D | exr_pipe | piped exr sequence |
| DE | f32be | PCM 32-bit floating-point big-endian |
| DE | f32le | PCM 32-bit floating-point little-endian |
| DE | f64be | PCM 64-bit floating-point big-endian |
| DE | f64le | PCM 64-bit floating-point little-endian |
| DE | fbdev | Linux framebuffer |



| Туре | Code | Description |
|------|------------|-------------------------------|
| DE | ffm | FFM (FFserver live feed) |
| DE | ffmetadata | FFmpeg metadata in text |
| D | film_cpk | Sega FILM / CPK |
| DE | filmstrip | Adobe Filmstrip |
| DE | flac | raw FLAC |
| D | flic | FLI/FLC/FLX animation |
| DE | flv | FLV (Flash Video) |
| D | frm | Megalux Frame |
| DE | g722 | raw G.722 |
| DE | g723_1 | raw G.723.1 |
| D | g729 | G.729 raw format demuxer |
| DE | gif | GIF Animation |
| D | gsm | raw GSM |
| DE | gxf | GXF (General eXchange Format) |
| DE | h261 | raw H.261 |
| DE | h263 | raw H.263 |



| Туре | Code | Description |
|------|---------------|----------------------------------|
| DE | h264 | raw H.264 video |
| DE | hevc | raw HEVC video |
| D | hls,applehttp | Apple HTTP Live Streaming |
| D | hnm | Cryo HNM v4 |
| DE | ico | Microsoft Windows ICO |
| D | idcin | id Cinematic |
| D | idf | iCE Draw File |
| D | iff | IFF (Interchange File Format) |
| DE | ilbc | iLBC storage |
| DE | image2 | image2 sequence |
| DE | image2pipe | piped image2 sequence |
| D | ingenient | raw Ingenient MJPEG |
| D | ipmovie | Interplay MVE |
| DE | ircam | Berkeley/IRCAM/CARL Sound Format |
| D | iss | Funcom ISS |
| D | iv8 | IndigoVision 8000 video |



| Туре | Code | Description |
|------|---------------|-----------------------------------|
| DE | ivf | On2 IVF |
| D | j2k_pipe | piped j2k sequence |
| DE | jacosub | JACOsub subtitle format |
| D | jpegls_pipe | piped jpegls sequence |
| D | jv | Bitmap Brothers JV |
| DE | latm | LOAS/LATM |
| D | lavfi | Libavfilter virtual input device |
| D | live_flv | live RTMP FLV (Flash Video) |
| D | lmlm4 | raw lmlm4 |
| D | loas | LOAS AudioSyncStream |
| DE | lrc | LRC lyrics |
| D | lvf | LVF |
| D | lxf | VR native stream (LXF) |
| DE | m4v | raw MPEG-4 video |
| D | matroska,webm | Matroska / WebM |
| D | mgsts | Metal Gear Solid: The Twin Snakes |



| Туре | Code | Description |
|------|-----------------------------|---------------------------------------|
| DE | microdvd | MicroDVD subtitle format |
| DE | mjpeg | raw MJPEG video |
| DE | mlp | raw MLP |
| D | mlv | Magic Lantern Video (MLV) |
| D | mm | American Laser Games MM |
| DE | mmf | Yamaha SMAF |
| D | mov,mp4,m4a,3gp, 3g2,mj2 | QuickTime / MOV |
| DE | mp3 | MP3 (MPEG audio layer 3) |
| D | mpc | Musepack |
| D | mpc8 | Musepack SV8 |
| DE | mpeg | MPEG-1 Systems / MPEG program stream |
| DE | mpegts | MPEG-TS (MPEG-2 Transport Stream) |
| D | mpegtsraw | raw MPEG-TS (MPEG-2 Transport Stream) |
| D | mpegvideo | raw MPEG video |
| D | mpl2 | MPL2 subtitles |



| Туре | Code | Description |
|------|------------|----------------------------------|
| D | mpsub | MPlayer subtitles |
| D | msnwctcp | MSN TCP Webcam stream |
| D | mtv | MTV |
| DE | mulaw | PCM mu-law |
| D | mv | Silicon Graphics Movie |
| D | mvi | Motion Pixels MVI |
| DE | mxf | MXF (Material eXchange Format) |
| D | mxg | MxPEG clip |
| D | nc | NC camera feed |
| D | nistsphere | NIST SPeech HEader REsources |
| D | nsv | Nullsoft Streaming Video |
| DE | nut | NUT |
| D | nuv | NuppelVideo |
| DE | ogg | Ogg |
| DE | oma | Sony OpenMG audio |
| DE | oss | OSS (Open Sound System) playback |



| Туре | Code | Description |
|------|-------------|--|
| D | paf | Amazing Studio Packed Animation File |
| D | pictor_pipe | piped pictor sequence |
| D | pjs | PJS (Phoenix Japanimation Society) subtitles |
| D | pmp | Playstation Portable PMP |
| D | png_pipe | piped png sequence |
| D | psxstr | Sony Playstation STR |
| D | pva | TechnoTrend PVA |
| D | pvf | PVF (Portable Voice Format) |
| D | qcp | QCP |
| D | r3d | REDCODE R3D |
| DE | rawvideo | raw video |
| D | realtext | RealText subtitle format |
| D | redspark | RedSpark |
| D | rl2 | RL2 |
| DE | rm | RealMedia |
| DE | roq | raw id RoQ |



| Туре | Code | Description |
|------|-------|---------------------------------|
| D | rpl | RPL / ARMovie |
| D | rsd | GameCube RSD |
| DE | rso | Lego Mindstorms RSO |
| DE | rtp | RTP output |
| DE | rtsp | RTSP output |
| DE | s16be | PCM signed 16-bit big-endian |
| DE | s16le | PCM signed 16-bit little-endian |
| DE | s24be | PCM signed 24-bit big-endian |
| DE | s24le | PCM signed 24-bit little-endian |
| DE | s32be | PCM signed 32-bit big-endian |
| DE | s32le | PCM signed 32-bit little-endian |
| DE | s8 | PCM signed 8-bit |
| D | sami | SAMI subtitle format |
| DE | sap | SAP output |
| D | sbg | SBaGen binaural beats script |
| D | sdp | SDP |



| Туре | Code | Description |
|------|--------------|-------------------------------------|
| D | sdr2 | SDR2 |
| D | sgi_pipe | piped sgi sequence |
| D | shn | raw Shorten |
| D | siff | Beam Software SIFF |
| D | sln | Asterisk raw pcm |
| DE | smjpeg | Loki SDL MJPEG |
| D | smk | Smacker |
| D | smush | LucasArts Smush |
| D | sol | Sierra SOL |
| DE | SOX | SoX native |
| DE | spdif | IEC 61937 (used on S/PDIF - IEC958) |
| DE | srt | SubRip subtitle |
| D | subviewer | SubViewer subtitle format |
| D | subviewer1 | SubViewer v1 subtitle format |
| D | sunrast_pipe | piped sunrast sequence |
| DE | swf | SWF (ShockWave Flash) |



| Туре | Code | Description |
|------|-------------|-----------------------------------|
| D | tak | raw TAK |
| D | tedcaptions | TED Talks captions |
| D | thp | THP |
| D | tiff_pipe | piped tiff sequence |
| D | tiertexseq | Tiertex Limited SEQ |
| D | tmv | 8088flex TMV |
| DE | truehd | raw TrueHD |
| D | tta | TTA (True Audio) |
| D | tty | Tele-typewriter |
| D | txd | Renderware TeXture Dictionary |
| DE | u16be | PCM unsigned 16-bit big-endian |
| DE | u16le | PCM unsigned 16-bit little-endian |
| DE | u24be | PCM unsigned 24-bit big-endian |
| DE | u24le | PCM unsigned 24-bit little-endian |
| DE | u32be | PCM unsigned 32-bit big-endian |
| DE | u32le | PCM unsigned 32-bit little-endian |



| Туре | Code | Description |
|------|--------------------|---|
| DE | u8 | PCM unsigned 8-bit |
| DE | vc1 | raw VC-1 video |
| DE | vc1test | VC-1 test bitstream |
| D | video4linux2,v4l2 | Video4Linux2 device grab |
| D | vivo | Vivo |
| D | vmd | Sierra VMD |
| D | vobsub | VobSub subtitle format |
| DE | voc | Creative Voice |
| D | vplayer | VPlayer subtitles |
| D | vqf | Nippon Telegraph and Telephone Corporation (NTT) TwinVQ |
| DE | w64 | Sony Wave64 |
| DE | wav | WAV / WAVE (Waveform Audio) |
| D | wc3movie | Wing Commander III movie |
| DE | webm_dash_manifest | WebM DASH Manifest |
| D | webp_pipe | piped webp sequence |



| Туре | Code | Description |
|------|--------------|-----------------------------|
| DE | webvtt | WebVTT subtitle |
| D | wsaud | Westwood Studios audio |
| D | wsvqa | Westwood Studios VQA |
| DE | wtv | Windows Television (WTV |
| DE | wv | raw WavPack |
| D | ха | Maxis XA |
| D | xbin | eXtended BINary text (XBIN) |
| D | xmv | Microsoft XMV |
| D | xwma | Microsoft xWMA |
| D | уор | Psygnosis YOP |
| DE | yuv4mpegpipe | YUV4MPEG pipe |



6.1.2 Supported Codecs

The following table lists all the codecs supported in VideoManager Pro.

D..... = Decoding supported

.E.... = Encoding supported

..V... = Video codec

..A... = Audio codec

..S... = Subtitle codec

...I.. = Intra frame-only codec

....L. = Lossy compression

....S = Lossless compression

| Туре | Code | Description |
|--------|-----------|---------------------------|
| D.VI | 012v | Uncompressed 4:2:2 10-bit |
| D.V.L. | 4xm | 4X Movie |
| D.VI.S | 8bps | QuickTime 8BPS video |
| D.VS | aasc | Autodesk RLE |
| D.VIL. | aic | Apple Intermediate Codec |
| DEVI.S | alias_pix | Alias/Wavefront PIX image |
| DEVIL. | amv | AMV Video |
| D.V.L. | anm | Deluxe Paint Animation |



| Туре | Code | Description |
|--------|-------------|----------------------------------|
| D.V.L. | ansi | ASCII/ANSI art |
| DEVIL. | asv1 | ASUS V1 |
| DEVIL. | asv2 | ASUS V2 |
| D.VIL. | aura | Auravision AURA |
| D.VIL. | aura2 | Auravision Aura 2 |
| D.V | avrn | Avid AVI Codec |
| DEVI | avrp | Avid 1:1 10-bit RGB Packer |
| D.V.L. | avs | AVS (Audio Video Standard) video |
| DEVI | avui | Avid Meridien Uncompressed |
| DEVI | ayuv | Uncompressed packed MS 4:4:4:4 |
| D.V.L. | bethsoftvid | Bethesda VID video |
| D.V.L. | bfi | Brute Force & Ignorance |
| D.V.L. | binkvideo | Bink video |
| D.VI | bintext | Binary text |
| DEVI.S | bmp | BMP (Windows and OS/2 bitmap) |
| D.VS | bmv_video | Discworld II BMV video |



| Туре | Code | Description |
|--------|-------------|--|
| D.VI.S | brender_pix | BRender PIX image |
| D.V.L. | c93 | Interplay C93 |
| D.V.L. | cavs | Chinese AVS (Audio Video Standard) (AVS1-P2, JiZhun profile) |
| D.V.L. | cdgraphics | CD Graphics video |
| D.VIL. | cdxl | Commodore CDXL video |
| DEV.L. | cinepak | Cinepak |
| DEVIL. | cljr | Cirrus Logic AccuPak |
| D.VI.S | cllc | Canopus Lossless Codec |
| D.V.L. | cmv | Electronic Arts CMV video (decoders: eacmv) |
| D.V | cpia | CPiA video format |
| D.VS | cscd | CamStudio (decoders: camstudio) |
| D.VIL. | cyuv | Creative YUV (CYUV) |
| D.V.L. | dfa | Chronomaster DFA |
| D.V.LS | dirac | Dirac |
| DEVIL. | dnxhd | VC3/DNxHD |
| DEVI.S | dpx | DPX (Digital Picture Exchange) image |



| Туре | Code | Description |
|--------|-------------|--|
| D.V.L. | dsicinvideo | Delphine Software International CIN video |
| DEVIL. | dvvideo | DV (Digital Video) |
| D.VS | dxa | Feeble Files/ScummVM DXA |
| D.VI.S | dxtory | Dxtory |
| D.V.L. | escape124 | Escape 124 |
| D.V.L. | escape130 | Escape 130 |
| D.VILS | exr | OpenEXR image |
| DEVS | ffv1 | FFmpeg video codec #1 |
| DEVI.S | ffvhuff | Huffyuv FFmpeg variant |
| D.V.L. | fic | Mirillis FIC |
| DEVS | flashsv | Flash Screen Video v1 |
| DEV.L. | flashsv2 | Flash Screen Video v2 |
| D.VS | flic | Autodesk Animator Flic video |
| DEV.L. | flv1 | FLV / Sorenson Spark / Sorenson H.263 (Flash Video) (decoders: flv) (encoders: flv) |
| D.VS | fraps | Fraps |
| D.VI.S | frwu | Forward Uncompressed |



| Туре | Code | Description |
|--------|--------------|---|
| D.V.L. | g2m | Go2Meeting |
| DEVS | gif | GIF (Graphics Interchange Format) |
| DEV.L. | h261 | H.261 |
| DEV.L. | h263 | H.263 / H.263-1996, H.263+ / H.263-1998 / H. 263 version 2 |
| D.V.L. | h263i | Intel H.263 |
| DEV.L. | h263p | H.263+ / H.263-1998 / H.263 version 2 |
| DEV.LS | h264 | H.264 / AVC / MPEG-4 AVC / MPEG-4 part 10 |
| D.V.L. | hevc | H.265 / HEVC (High Efficiency Video Coding) |
| D.V.L. | hnm4video | HNM 4 video |
| DEVI.S | huffyuv | HuffYUV |
| D.V.L. | idcin | id Quake II CIN video (decoders: idcinvideo) |
| D.VI | idf | iCEDraw text |
| D.V.L. | iff_byterun1 | IFF ByteRun1 (decoders: iff) |
| D.V.L. | iff_ilbm | IFF ILBM (decoders: iff) |
| D.V.L. | indeo2 | Intel Indeo 2 |
| D.V.L. | indeo3 | Intel Indeo 3 |



| Туре | Code | Description |
|--------|----------------|--|
| D.V.L. | indeo4 | Intel Indeo Video Interactive 4 |
| D.V.L. | indeo5 | Intel Indeo Video Interactive 5 |
| D.V.L. | interplayvideo | Interplay MVE video |
| DEVILS | jpeg2000 | JPEG 2000 |
| DEVILS | jpegls | JPEG-LS |
| D.VIL. | jv | Bitmap Brothers JV video |
| D.V.L. | kgv1 | Kega Game Video |
| D.V.L. | kmvc | Karl Morton's video codec |
| D.VI.S | lagarith | Lagarith lossless |
| D.VI.S | loco | LOCO |
| D.V.L. | mad | Electronic Arts Madcow Video (decoders: eamad) |
| D.VIL. | mdec | Sony PlayStation MDEC (Motion DECoder) |
| D.V.L. | mimic | Mimic |
| DEVIL. | mjpeg | Motion JPEG |
| D.VIL. | mjpegb | Apple MJPEG-B |
| D.V.L. | mmvideo | American Laser Games MM Video |



| Туре | Code | Description |
|--------|--------------|---|
| D.V.L. | motionpixels | Motion Pixels video |
| DEV.L. | mpeg1video | MPEG-1 video |
| DEV.L. | mpeg2video | MPEG-2 video (decoders: mpeg2video mpegvideo) |
| DEV.L. | mpeg4 | MPEG-4 part 2 |
| D.V.L. | msa1 | MS ATC Screen |
| D.V.L. | msmpeg4v1 | MPEG-4 part 2 Microsoft variant version 1 |
| DEV.L. | msmpeg4v2 | MPEG-4 part 2 Microsoft variant version 2 |
| DEV.L. | msmpeg4v3 | MPEG-4 part 2 Microsoft variant version 3 (decoders: msmpeg4) |
| D.VS | msrle | Microsoft RLE |
| D.V.L. | mss1 | MS Screen 1 |
| D.VIL. | mss2 | MS Windows Media Video V9 Screen |
| DEV.L. | msvideo1 | Microsoft Video 1 |
| D.VI.S | mszh | LCL (LossLess Codec Library) MSZH |
| D.V.L. | mts2 | MS Expression Encoder Screen |
| D.VIL. | mvc1 | Silicon Graphics Motion Video Compressor 1 |



| Туре | Code | Description |
|--------|-----------|---|
| D.VIL. | mvc2 | Silicon Graphics Motion Video Compressor 2 |
| D.V.L. | mxpeg | Mobotix MxPEG video |
| D.V.L. | nuv | NuppelVideo/RTJPEG |
| D.V.L. | paf_video | Amazing Studio Packed Animation File Video |
| DEVI.S | pam | PAM (Portable AnyMap) image |
| DEVI.S | pbm | PBM (Portable BitMap) image |
| DEVI.S | рсх | PC Paintbrush PCX image |
| DEVI.S | pgm | PGM (Portable GrayMap) image |
| DEVI.S | pgmyuv | PGMYUV (Portable GrayMap YUV) image |
| D.VIL. | pictor | Pictor/PC Paint |
| DEVS | png | PNG (Portable Network Graphics) image |
| DEVI.S | ppm | PPM (Portable PixelMap) image |
| DEVIL. | prores | Apple ProRes (iCodec Pro) (decoders: prores prores_lgpl) (encoders: prores prores_aw prores_ks) |
| D.VIL. | ptx | V.Flash PTX image |
| D.VI.S | qdraw | Apple QuickDraw |



| Туре | Code | Description |
|--------|------------|---|
| D.V.L. | qpeg | Q-team QPEG |
| DEVS | qtrle | QuickTime Animation (RLE) video |
| DEVI.S | r10k | AJA Kona 10-bit RGB Codec |
| DEVI.S | r210 | Uncompressed RGB 10-bit |
| DEVI.S | rawvideo | raw video |
| D.VIL. | rl2 | RL2 video |
| DEV.L. | roq | id RoQ video (decoders: roqvideo) (encoders: roqvideo) |
| D.V.L. | rpza | QuickTime video (RPZA) |
| DEV.L. | rv10 | RealVideo 1.0 |
| DEV.L. | rv20 | RealVideo 2.0 |
| D.V.L. | rv30 | RealVideo 3.0 |
| D.V.L. | rv40 | RealVideo 4.0 |
| D.V.L. | sanm | LucasArts SANM/SMUSH video |
| DEVI.S | sgi | SGI image |
| D.VI.S | sgirle | SGI RLE 8-bit |
| D.V.L. | smackvideo | Smacker video (decoders: smackvid) |



| Туре | Code | Description |
|--------|-----------------|--|
| D.V.L. | smc | QuickTime Graphics (SMC) |
| D.V | smv | Sigmatel Motion Video (decoders: smvjpeg) |
| DEV.LS | snow | Snow |
| D.VIL. | sp5x | Sunplus JPEG (SP5X) |
| DEVI.S | sunrast | Sun Rasterfile image |
| DEV.L. | svq1 | Sorenson Vector Quantizer 1 / Sorenson Video 1 / SVQ1 |
| D.V.L. | svq3 | Sorenson Vector Quantizer 3 / Sorenson Video 3 / SVQ3 |
| DEVI.S | targa | Truevision Targa image |
| D.VI. | targa_y216 | Pinnacle TARGA CineWave YUV16 |
| D.V.L. | tgq | Electronic Arts TGQ video (decoders: eatgq) |
| D.V.L. | tgv | Electronic Arts TGV video (decoders: eatgv) |
| DEV.L. | theora | Theora (encoders: libtheora) |
| D.VIL. | thp | Nintendo Gamecube THP video |
| D.V.L. | tiertexseqvideo | Tiertex Limited SEQ video |
| DEVI.S | tiff | TIFF image |



| Туре | Code | Description |
|--------|-------------|---|
| D.VIL. | tmv | 8088flex TMV |
| D.V.L. | tqi | Electronic Arts TQI video (decoders: eatqi) |
| D.V.L. | truemotion1 | Duck TrueMotion 1.0 |
| D.V.L. | truemotion2 | Duck TrueMotion 2.0 |
| D.VS | tscc | TechSmith Screen Capture Codec (decoders: camtasia) |
| D.V.L. | tscc2 | TechSmith Screen Codec 2 |
| D.VIL. | txd | Renderware TXD (TeXture Dictionary) image |
| D.V.L. | ulti | IBM UltiMotion (decoders: ultimotion) |
| DEVI.S | utvideo | Ut Video |
| DEVI.S | v210 | Uncompressed 4:2:2 10-bit |
| D.VI.S | v210x | Uncompressed 4:2:2 10-bit |
| DEVI. | v308 | Uncompressed packed 4:4:4 |
| DEVI. | v408 | Uncompressed packed QT 4:4:4:4 |
| DEVI.S | v410 | Uncompressed 4:4:4 10-bit |
| D.V.L. | vb | Beam Software VB |
| D.VI.S | vble | VBLE Lossless Codec |



| Туре | Code | Description |
|--------|----------|---|
| D.V.L. | vc1 | SMPTE VC-1 |
| D.V.L. | vc1image | Windows Media Video 9 Image v2 |
| D.VIL. | vcr1 | ATI VCR1 |
| D.VIL. | vixl | Miro VideoXL (decoders: xl) |
| D.V.L. | vmdvideo | Sierra VMD video |
| D.VS | vmnc | VMware Screen Codec / VMware Video |
| D.V.L. | vp3 | On2 VP3 |
| D.V.L. | vp5 | On2 VP5 |
| D.V.L. | vp6 | On2 VP6 |
| D.V.L. | vp6a | On2 VP6 (Flash version, with alpha channel) |
| D.V.L. | vp6f | On2 VP6 (Flash version) |
| D.V.L. | vp7 | On2 VP7 |
| DEV.L. | vp8 | On2 VP8 (decoders: vp8 libvpx) (encoders: libvpx) |
| DEV.L. | vp9 | Google VP9 (decoders: vp9 libvpx-vp9) (encoders: libvpx-vp9) |
| D.VILS | webp | WebP |



| Туре | Code | Description |
|--------|-----------|---|
| DEV.L. | wmv1 | Windows Media Video 7 |
| DEV.L. | wmv2 | Windows Media Video 8 |
| D.V.L. | wmv3 | Windows Media Video 9 |
| D.V.L. | wmv3image | Windows Media Video 9 Image |
| D.VIL. | wnv1 | Winnov WNV1 |
| D.V.L. | ws_vqa | Westwood Studios VQA (Vector Quantized Animation) video (decoders: vqavideo) |
| D.V.L. | xan_wc3 | Wing Commander III / Xan |
| D.V.L. | xan_wc4 | Wing Commander IV / Xxan |
| D.VI | xbin | eXtended BINary text |
| DEVI.S | xbm | XBM (X BitMap) image |
| DEVIL. | xface | X-face image |
| DEVI.S | xwd | XWD (X Window Dump) image |
| DEVI | y41p | Uncompressed YUV 4:1:1 12-bit |
| D.V.L. | yop | Psygnosis YOP Video |
| DEVI | yuv4 | Uncompressed packed 4:2:0 |
| D.VS | zerocodec | ZeroCodec Lossless Video |



| Туре | Code | Description |
|--------|-------------------|---|
| DEVI.S | zlib | LCL (LossLess Codec Library) ZLIB |
| DEVS | zmbv | Zip Motion Blocks Video |
| D.A.L. | 8svx_exp | 8SVX exponential |
| D.A.L. | 8svx_fib | 8SVX fibonacci |
| DEA.L. | aac | AAC (Advanced Audio Coding) (decoders: aac libfdk_aac) (encoders: aac libfdk_aac) |
| D.A.L. | aac_latm | AAC LATM (Advanced Audio Coding LATM syntax) |
| DEA.L. | ac3 | ATSC A/52A (AC-3) (decoders: ac3 ac3_fixed) (encoders: ac3 ac3_fixed) |
| D.A.L. | adpcm_4xm | ADPCM 4X Movie |
| DEA.L. | adpcm_adx | SEGA CRI ADX ADPCM |
| D.A.L. | adpcm_afc | ADPCM Nintendo Gamecube AFC |
| D.A.L. | adpcm_ct | ADPCM Creative Technology |
| D.A.L. | adpcm_dtk | ADPCM Nintendo Gamecube DTK |
| D.A.L. | adpcm_ea | ADPCM Electronic Arts |
| D.A.L. | adpcm_ea_maxis_xa | ADPCM Electronic Arts Maxis CDROM XA |
| D.A.L. | adpcm_ea_r1 | ADPCM Electronic Arts R1 |



| Туре | Code | Description |
|--------|-------------------|---|
| D.A.L. | adpcm_ea_r2 | ADPCM Electronic Arts R2 |
| D.A.L. | adpcm_ea_r3 | ADPCM Electronic Arts R3 |
| D.A.L. | adpcm_ea_xas | ADPCM Electronic Arts XAS |
| DEA.L. | adpcm_g722 | G.722 ADPCM (decoders: g722) (encoders: g722) |
| DEA.L. | adpcm_g726 | G.726 ADPCM (decoders: g726) (encoders: g726) |
| D.A.L. | adpcm_g726le | G.726 ADPCM little-endian (decoders: g726le |
| D.A.L. | adpcm_ima_amv | ADPCM IMA AMV |
| D.A.L. | adpcm_ima_apc | ADPCM IMA CRYO APC |
| D.A.L. | adpcm_ima_dk3 | ADPCM IMA Duck DK3 |
| D.A.L. | adpcm_ima_dk4 | ADPCM IMA Duck DK4 |
| D.A.L. | adpcm_ima_ea_eacs | ADPCM IMA Electronic Arts EACS |
| D.A.L. | adpcm_ima_ea_sead | ADPCM IMA Electronic Arts SEAD |
| D.A.L. | adpcm_ima_iss | ADPCM IMA Funcom ISS |
| D.A.L. | adpcm_ima_oki | ADPCM IMA Dialogic OKI |
| DEA.L. | adpcm_ima_qt | ADPCM IMA QuickTime |



| Туре | Code | Description |
|--------|------------------|--|
| D.A.L. | adpcm_ima_rad | ADPCM IMA Radical |
| D.A.L. | adpcm_ima_smjpeg | ADPCM IMA Loki SDL MJPEG |
| DEA.L. | adpcm_ima_wav | ADPCM IMA WAV |
| D.A.L. | adpcm_ima_ws | ADPCM IMA Westwood |
| DEA.L. | adpcm_ms | ADPCM Microsoft |
| D.A.L. | adpcm_sbpro_2 | ADPCM Sound Blaster Pro 2-bit |
| D.A.L. | adpcm_sbpro_3 | ADPCM Sound Blaster Pro 2.6-bit |
| D.A.L. | adpcm_sbpro_4 | ADPCM Sound Blaster Pro 4-bit |
| DEA.L. | adpcm_swf | ADPCM Shockwave Flash |
| D.A.L. | adpcm_thp | ADPCM Nintendo Gamecube THP |
| D.A.L. | adpcm_vima | LucasArts VIMA audio (decoders: adpcm_vima vima) |
| D.A.L. | adpcm_xa | ADPCM CDROM XA |
| DEA.L. | adpcm_yamaha | ADPCM Yamaha |
| DEAS | alac | ALAC (Apple Lossless Audio Codec) |
| D.A.L. | amr_nb | AMR-NB (Adaptive Multi-Rate NarrowBand) (decoders: amrnb) |



| Туре | Code | Description |
|--------|-----------------|--|
| D.A.L. | amr_wb | AMR-WB (Adaptive Multi-Rate WideBand) (decoders: amrwb) |
| D.AS | ape | Monkey's Audio |
| D.A.L. | atrac1 | ATRAC1 (Adaptive TRansform Acoustic Coding) |
| D.A.L. | atrac3 | ATRAC3 (Adaptive TRansform Acoustic Coding 3) |
| D.A.L. | atrac3p | ATRAC3+ (Adaptive TRansform Acoustic Coding 3+) (decoders: atrac3plus) |
| D.A.L. | avc | On2 Audio for Video Codec (decoders: on2avc) |
| D.A.L. | binkaudio_dct | Bink Audio (DCT) |
| D.A.L. | binkaudio_rdft | Bink Audio (RDFT) |
| D.A.L. | bmv_audio | Discworld II BMV audio |
| DEA.L. | comfortnoise | RFC 3389 Comfort Noise |
| D.A.L. | cook | Cook / Cooker / Gecko (RealAudio G2) |
| D.A.L. | dsd_lsbf | DSD (Direct Stream Digital), least significant bit first |
| D.A.L. | dsd_lsbf_planar | DSD (Direct Stream Digital), least significant bit first, planar |



| Туре | Code | Description |
|------------|-----------------|---|
| D.A.L. | dsd_msbf | DSD (Direct Stream Digital), most significant bit first |
| D.A.L. | dsd_msbf_planar | DSD (Direct Stream Digital), most significant bit first, planar |
| D.A.L. | dsicinaudio | Delphine Software International CIN audio |
| DEA. LS | dts | DCA (DTS Coherent Acoustics) (decoders: dca) (encoders: dca) |
| DEA.L. | eac3 | ATSC A/52B (AC-3, E-AC-3) |
| D.A.L. | evrc | EVRC (Enhanced Variable Rate Codec) |
| DEAS | flac | FLAC (Free Lossless Audio Codec) |
| DEA.L. | g723_1 | G.723.1 |
| D.A.L. | g729 | G.729 |
| D.A.L. | gsm | GSM |
| D.A.L. | gsm_ms | GSM Microsoft variant |
| D.A.L. | iac | IAC (Indeo Audio Coder) |
| D.A.L. | imc | IMC (Intel Music Coder) |
| D.A.L. | interplay_dpcm | DPCM Interplay |
| D.A.L. | mace3 | |



| Туре | Code | Description |
|--------|-----------|---|
| | | MACE (Macintosh Audio Compression /Expansion) 3:1 |
| D.A.L. | mace6 | MACE (Macintosh Audio Compression /Expansion) 6:1 |
| D.A.L. | metasound | Voxware MetaSound |
| D.AS | mlp | MLP (Meridian Lossless Packing) |
| D.A.L. | mp1 | MP1 (MPEG audio layer 1) (decoders: mp1 mp1float) |
| DEA.L. | mp2 | MP2 (MPEG audio layer 2) (decoders: mp2 mp2float) (encoders: mp2 mp2fixed) |
| DEA.L. | mp3 | MP3 (MPEG audio layer 3) (decoders: mp3 mp3float) (encoders: libmp3lame) |
| D.A.L. | mp3adu | ADU (Application Data Unit) MP3 (MPEG audio layer 3) (decoders: mp3adu mp3adufloat) |
| D.A.L. | mp3on4 | MP3onMP4 (decoders: mp3on4 mp3on4float |
| D.AS | mp4als | MPEG-4 Audio Lossless Coding (ALS) (decoders: als) |
| D.A.L. | musepack7 | Musepack SV7 (decoders: mpc7) |
| D.A.L. | musepack8 | Musepack SV8 (decoders: mpc8) |



| Туре | Code | Description |
|--------|------------------|--|
| DEA.L. | nellymoser | Nellymoser Asao |
| DEA.L. | opus | Opus (Opus Interactive Audio Codec) (decoders: opus libopus) (encoders: libopus) |
| D.A.L. | paf_audio | Amazing Studio Packed Animation File Audio |
| DEA.L. | pcm_alaw | PCM A-law / G.711 A-law |
| D.AS | pcm_bluray | PCM signed 16 20 24-bit big-endian for Blu- ray media |
| D.AS | pcm_dvd | PCM signed 20 24-bit big-endian |
| DEAS | pcm_f32be | PCM 32-bit floating point big-endian |
| DEAS | pcm_f32le | PCM 32-bit floating point little-endian |
| DEAS | pcm_f64be | PCM 64-bit floating point big-endian |
| DEAS | pcm_f64le | PCM 64-bit floating point little-endian |
| D.AS | pcm_lxf | PCM signed 20-bit little-endian planar |
| DEA.L. | pcm_mulaw | PCM mu-law / G.711 mu-law |
| DEAS | pcm_s16be | PCM signed 16-bit big-endian |
| DEAS | pcm_s16be_planar | PCM signed 16-bit big-endian planar |
| DEAS | pcm_s16le | PCM signed 16-bit little-endian |



| Туре | Code | Description |
|------|------------------|--|
| DEAS | pcm_s16le_planar | PCM signed 16-bit little-endian planar |
| DEAS | pcm_s24be | PCM signed 24-bit big-endian |
| DEAS | pcm_s24daud | PCM D-Cinema audio signed 24-bit |
| DEAS | pcm_s24le | PCM signed 24-bit little-endian |
| DEAS | pcm_s24le_planar | PCM signed 24-bit little-endian planar |
| DEAS | pcm_s32be | PCM signed 32-bit big-endian |
| DEAS | pcm_s32le | PCM signed 32-bit little-endian |
| DEAS | pcm_s32le_planar | PCM signed 32-bit little-endian planar |
| DEAS | pcm_s8 | PCM signed 8-bit |
| DEAS | pcm_s8_planar | PCM signed 8-bit planar |
| DEAS | pcm_u16be | PCM unsigned 16-bit big-endian |
| DEAS | pcm_u16le | PCM unsigned 16-bit little-endian |
| DEAS | pcm_u24be | PCM unsigned 24-bit big-endian |
| DEAS | pcm_u24le | PCM unsigned 24-bit little-endian |
| DEAS | pcm_u32be | PCM unsigned 32-bit big-endian |
| DEAS | pcm_u32le | PCM unsigned 32-bit little-endian |



| Туре | Code | Description |
|--------|------------|---|
| DEAS | pcm_u8 | PCM unsigned 8-bit |
| D.A.L. | pcm_zork | PCM Zork |
| D.A.L. | qcelp | QCELP / PureVoice |
| D.A.L. | qdm2 | QDesign Music Codec 2 |
| DEA.L. | ra_144 | RealAudio 1.0 (14.4K) (decoders: real_144) (encoders: real_144) |
| D.A.L. | ra_288 | RealAudio 2.0 (28.8K) (decoders: real_288) |
| D.AS | ralf | RealAudio Lossless |
| DEA.L. | roq_dpcm | DPCM id RoQ |
| DEAS | s302m | SMPTE 302M |
| D.AS | shorten | Shorten |
| D.A.L. | sipr | RealAudio SIPR / ACELP.NET |
| D.A.L. | smackaudio | Smacker audio (decoders: smackaud) |
| D.A.L. | sol_dpcm | DPCM Sol |
| DEA | sonic | Sonic |
| D.AS | tak | TAK (Tom's lossless Audio Kompressor) |
| D.AS | truehd | TrueHD |



| Туре | Code | Description |
|------------|---------------|---|
| D.A.L. | truespeech | DSP Group TrueSpeech |
| DEAS | tta | TTA (True Audio) |
| D.A.L. | twinvq | VQF TwinVQ |
| D.A.L. | vima | LucasArts VIMA audio (deprecated id) (decoders: adpcm_vima vima) |
| D.A.L. | vmdaudio | Sierra VMD audio |
| DEA.L. | vorbis | Vorbis (decoders: vorbis libvorbis) (encoders: vorbis libvorbis) |
| D.A | wavesynth | Wave synthesis pseudo-codec |
| DEA. LS | wavpack | WavPack |
| D.A.L. | westwood_snd1 | Westwood Audio (SND1) (decoders: ws_snd1 |
| D.AS | wmalossless | Windows Media Audio Lossless |
| D.A.L. | wmapro | Windows Media Audio 9 Professional |
| DEA.L. | wmav1 | Windows Media Audio 1 |
| DEA.L. | wmav2 | Windows Media Audio 2 |
| D.A.L. | wmavoice | Windows Media Audio Voice |



| Туре | Code | Description |
|--------|-------------------|---|
| D.A.L. | xan_dpcm | DPCM Xan |
| DES | ass | ASS (Advanced SSA) subtitle |
| DES | dvb_subtitle | DVB subtitles (decoders: dvbsub) (encoders: dvbsub) |
| DES | dvd_subtitle | DVD subtitles (decoders: dvdsub) (encoders: dvdsub) |
| D.S | hdmv_pgs_subtitle | HDMV Presentation Graphic Stream subtitles (decoders: pgssub) |
| D.S | jacosub | JACOsub subtitle |
| D.S | microdvd | MicroDVD subtitle |
| DES | mov_text | MOV text |
| D.S | mpl2 | MPL2 subtitle |
| D.S | pjs | PJS (Phoenix Japanimation Society) subtitle |
| D.S | realtext | RealText subtitle |
| D.S | sami | SAMI subtitle |
| DES | srt | SubRip subtitle with embedded timing |
| DES | ssa | SSA (SubStation Alpha) subtitle |
| DES | subrip | SubRip subtitle |



| Туре | Code | Description |
|------|------------|-----------------------|
| D.S | subviewer | SubViewer subtitle |
| D.S | subviewer1 | SubViewer v1 subtitle |
| D.S | text | raw UTF-8 text |
| D.S | vplayer | VPlayer subtitle |
| DES | webvtt | WebVTT subtitle |
| DES | xsub | XSUB |

6.2 Rights in the VideoManager

The following table lists all roles -, videos -, and channel rights of the VideoManager.

| | Right | Description |
|-----------------------|------------------------|---|
| Administration rights | Administration area | The user has access to the administration area. He is allowed to do all administrative tasks in the VideoManager. |
| | Edit security policies | The user is allowed to specify a security setting for a video. |
| | Player Generator | The user has access to the "Player Generator". He is allowed to customize players. |
| Video rights | Delete videos | |



| Right | Description |
|---------------------------------|--|
| | The user is allowed to move videos to the recycle bin. Videos in the recycle bin are scheduled for final deletion from the VideoManager. |
| Duplicate videos | The user is allowed to duplicate videos. |
| Edit ownership properties | The user is allowed to assign owner group as well as the access profile to a video. |
| Edit videos | The user is allowed to edit videos. For example, he is able to change metatdata, specify thumbnails, etc. |
| Publish videos | The user is allowed to release and publish videos. |
| Publish videos on Facebook | The user is allowed to post a video on a Facebook page. |
| Publish videos on YouTube | The user is allowed to provide videos in a YouTube-channel. |
| Replace videos | The function "Replace videos" in the advanced editing of videos can be executed. |
| Upload videos | The user is allowed to upload new videos in the VideoManager. |
| View videos | The list of videos in the video management is accessible. |



| | Right | Description |
|----------------|--|--|
| | | |
| Channel rights | Add videos to/ remove videos from channels | The user is allowed to add videos to specific channels, or he can remove videos from the channel. |
| | Create channels | The user is allowed to create channels and subchannels. |
| | | The channels or subchannels created by a user are not visible for him, if he does not have the right "View channels". |
| | Delete channels | The user is allowed to delete channels and subchannels. Prerequisite is that the right "View channels" has been assigned as well. |
| | Edit channels | The user is allowed to edit channels (renaming). Prerequisite is that the right "View channels" has been assigned as well. |
| | View channel- content | The video lists of the respective channels and subchannels are visible to the user. Prerequisite is that the right "View videos" has been assigned as well. |





| Right | Description | | |
|---------------------|--|--|--|
| | If the user does not have the right "View channels", the list of all videos is visible, but not channels with the respective videos. | | |
| View channels | The already created channels are visible to the user in the navigation (channel tree). | | |
| View subchannels | The already created subchannels are visible to the user in the navigation (channel tree). Prerequisite is that the right "View channels" has been assigned as well. | | |

6.2.1 Access Right Matrix

6.2.1.1 Visibility

In the following matrix, the visibility is represented by channels, subchannels and the respective video list in connenction with the existing rights.

| Rights | | | Expected Impact | | | |
|--------------|-----------------|----------------------|-------------------------|--------------------|-------------------------|--|
| View channel | View subchannel | View channel-content | Channel visible | Subchannel visible | Videos visible | |
| - | - | - | | | | |
| - | - | ✓ | | | | |
| - | ✓ | - | | | | |
| - | ✓ | ✓ | | | | |
| ✓ | - | - | $\overline{\checkmark}$ | | | |
| ✓ | - | ✓ | $\overline{\square}$ | | \square | |
| ✓ | ✓ | - | $\overline{\checkmark}$ | | | |
| ✓ | ✓ | ✓ | | | $\overline{\mathbf{A}}$ | |

6.2.1.2 Upload Videos

In this matrix, you can see which rights are necessary in order to be able to upload videos to a channel or subchannel.



- To be able to upload videos also the right "View videos" is necessary in addition to the right "Upload videos".
- To be able to upload videos to a specific channel the right "View channel" in addition to the right "View channel-content" is required

| Rights | | | | | Expected Impact | | |
|--------------|-----------------|----------------------|-------------|---------------|-------------------------|-------------------------|------------|
| View channel | View subchannel | View channel-content | View videos | Upload videos | Upload videos to | | |
| | | | | | Video list | Channel | Subchannel |
| - | - | - | - | ✓ | | | |
| - | - | - | ✓ | ✓ | $\overline{\mathbf{A}}$ | | |
| ✓ | - | - | ✓ | ✓ | $\overline{\mathbf{A}}$ | | |
| ✓ | - | ✓ | ✓ | ✓ | $ \overline{\nabla} $ | $\overline{\checkmark}$ | |
| ✓ | ✓ | ✓ | ✓ | ✓ | | $\overline{\checkmark}$ | |

6.2.1.3 Duplicate Videos into a Channel

To be able to duplicate a video into a channel, users need more than only the "Duplicate video" right. This is due to the fact that in the framework of the "Ownership" feature, videos and channels are assigned to a group and therefore may have different associated rights for access. In the following, all necessary rights are listed.

Rights on the video that needs to be duplicated:

- View videos
- Duplicate videos

Rights on the channel in which the duplicated video should be placed:

- View channels
- Add videos to/ remove videos from channel
- Upload videos.
- A channel selection is available when a video is duplicated in VideoManager. Thereby, the selection of channels is defined according to the permissions.