Technical Reference

Version 6.10 - April 2013

IP.MOSGateway

Copyright

Disclaimer

The information in this manual is furnished for informational use only and subject to change without notice. While every effort has been made to ensure that the information contained in this user manual is accurate, up-to-date and reliable, EVS Broadcast Equipment cannot be held responsible for inaccuracies or errors that may appear in this publication.

Improvement Requests

Your comments will help us improve the quality of the user documentation. Do not hesitate to send improvement requests, or report any error or inaccuracy on this user manual by e-mail to doc@evs.com.

Regional Contacts

The address and phone number of the EVS headquarters are usually mentioned in the Help > About menu in the user interface.

You will find the full list of addresses and phone numbers of local offices either at the end of this user manual (for manuals on hardware products) or at the following page on the EVS website: http://www.evs.com/contacts.

User Manuals on EVS Website

The latest version of the user manual, if any, and other user manuals on EVS products can be found on the EVS download center, on the following webpage: http://www.evs.com/downloadcenter.

Table of Contents

What's New?

In the Technical Reference Manual the icon 

has been added on the left margin to highlight information on new and updated features.

The changes linked to new features in version 06.10.90 are listed below.

New EVS Logo has been added to the IPMOSGateway Main Window

Default Startup Mode is Visible

- See section "How to Launch and Start IPMOSGateway" on page 5

XSecure License Check Added with XSAdd32.dll (0.0.66.0)

- See section "Installing IPMOSGateway" on page 3.

Edits are Placed in Edits Bin in IPDirector

- See section "IPDirector Tab" on page 24
- See section "IPDirector Subkey" on page 31.

Placeholder Planned Duration and Description are Added to the Edit Description

- See section "IPDirector Tab" on page 24.

Add Thumbnail Reference to MosObject (in objProxyPath)

- See section "MOS Object Tab" on page 21.
- See section "MOS Object Subkey" on page 42.

Publish Only Online Clips as MOS Objects

- See section "MOS Object Tab" on page 21.
- See section "MOS Object Subkey" on page 42.

mosObjectCreate Messages with the objType 'Undefined' are Also Accepted

1. Introduction

1.1. About IPMOSGateway

IPMOSGateway enables the integration between EVS' content production management software IPDirector and newsroom computer systems (NCS) through the MOS protocol.

IPMOSGateway has the following features:

- Enables IPDirector to push messages to the NCS about media objects. These messages contain a pointer to the media objects as well as descriptive metadata.
- Enables IPDirector to send messages to the NCS containing real-time status information about media objects. For example, messages are sent when clips are created, updated, deleted, assigned to playout channels, cued and played.
- Enables journalists to search for media objects stored on the EVS media servers from within the NCS using the IPMOSBrowser ActiveX plug-in. The media objects can be searched on metadata including names, rankings, keywords, dates and timecodes.
- Enables journalists to preview a proxy version and more detailed metadata of a media object from within the NCS using the IPMOSBrowser ActiveX plug-in.
- Enables journalists to add pointers to existing and virtual media objects stored on the EVS media servers into stories in running orders.
- Enables journalists to request the creation of ‘virtual elements’ in IPDirector using a single click in the running order. EVS will create the virtual element, publish it to the NCS as a pointer, where it will be automatically added as a reference to the relevant story.
- Enables the NCS to build and control playlists on the EVS media servers.
- Enables the NCS to send messages to IPDirector containing real-time status information about running orders. For example, messages are sent to insert, replace, delete, or otherwise resequence the playlist.

IPMOSGateway is compatible with IPDirector 06.10.90.

IPMOSGateway is compatible with the following newsroom computer systems:

- Avid iNews ® 06.10.90
- ENPS ® 6.00.0029
- Dalet ® 2.00.002
- Annova OpenMedia ® 3.6.2.1425
- Octopus ® 6.0

1.2. About the MOS Protocol

The Media Object Server (MOS) protocol is an XML-based protocol for transferring information between newsroom computer systems (NCS) and Media Object Servers such as video servers, audio servers, still stores, character generators, automation servers and prompters.

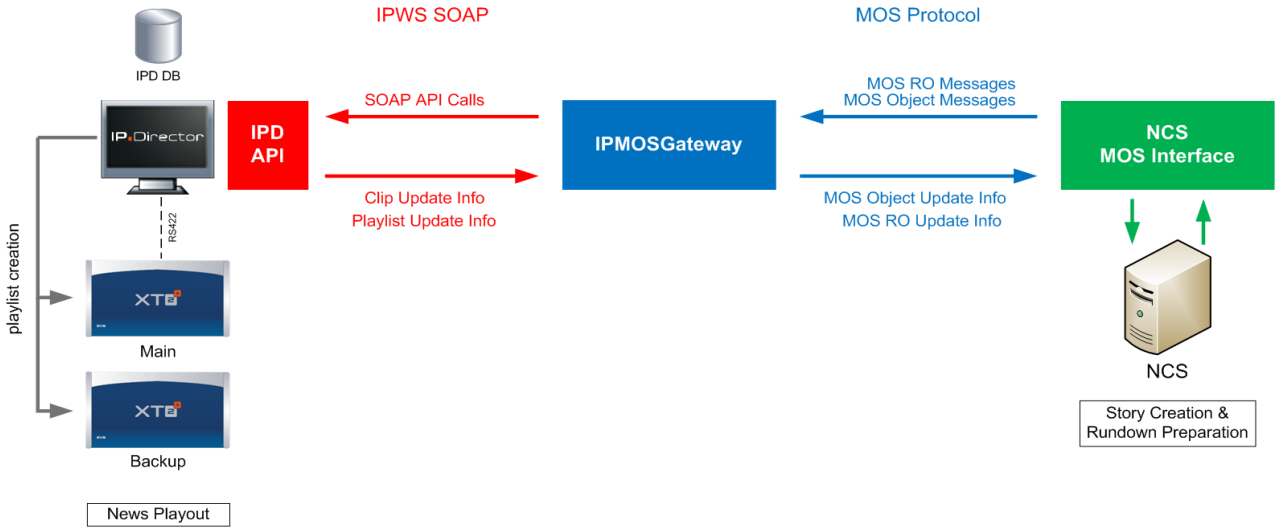
It enables the exchange of the following types of messages:

- **Descriptive Data for Media Objects:** The Media Object Server pushes descriptive information and pointers to the NCS as objects are created, modified, or deleted in the MOS. This allows the NCS to be aware of the contents of the MOS and enables the NCS to perform searches on and manipulate the data the MOS has sent.
- **Playlist Exchange:** The NCS can build and transfer playlist information to the MOS. This allows the NCS to control the sequence that media objects are played or presented by the MOS.
- **Status Exchange:** The MOS can inform the NCS of the status of specific clips or the MOS system in general. The NCS can notify the MOS of the status of specific playlist items or running orders.
- **MOS Object Creation**: The NCS can request the Media Object Server to create a placeholder or virtual element.

IPMOSGateway is compatible with the MOS protocol version 2.8.3.

1.3. Workflow

The schema below illustrates the communication between IPDirector and the NCS through IPMOSGateway.



2. Installing IPMOSGateway

IPMOSGateway can be installed on the following devices:

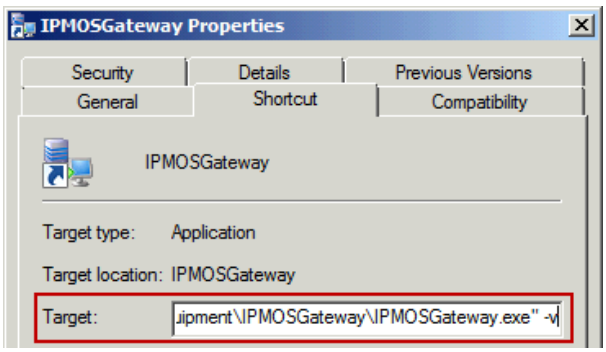
- IPDirector server (not preferred)
- Separate server with minimally Microsoft Windows XP running on it.

To install the IPMOSGateway on the server where you will operate it, proceed as follows:

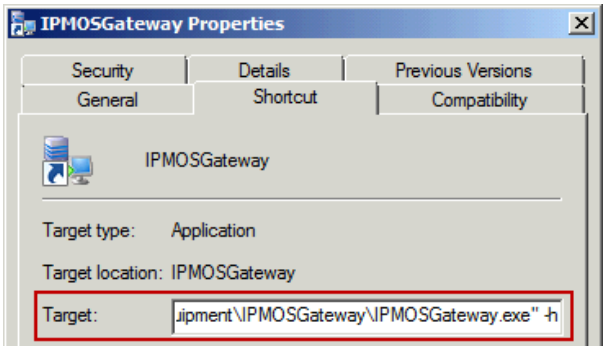
1. Manually create the following directory: `C:\Program Files\EVS Broadcast Equipment\IPMOSGateway`.
2. Copy the file `IPMOSGateway.exe`to this directory.
3. New! Check if the file `XSAdd32.dll` (min. version 0.0.63.0!) is present on the EVS machine. If not, please add the provided dll to the application folder of IPMOSGateway.
4. If needed, create a shortcut of this application on the desktop and/or in the startup menu.
5. Right-click the IPMOSGateway shortcut on the desktop.

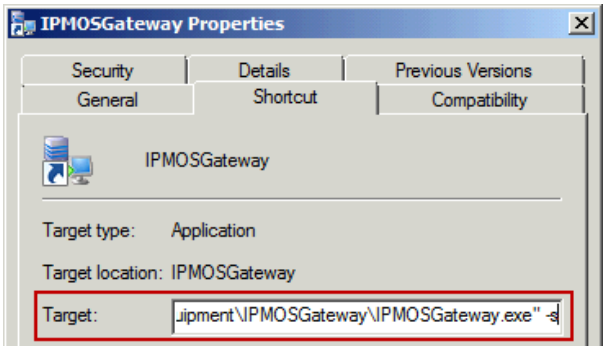
   The IPMOSGateway Properties window appears.
6. (Optional) In the Shortcut tab do one of the following:
   - Add the option **-v** to the shortcut in the **Target** field to start the IPMOSGateway in Visible Mode: `"C:\Program Files\EVS Broadcast Equipment\IPMOSGateway\IPMOSGateway.exe" -v`.

   - Add the option **-h** to the shortcut in the **Target** field to start the IPMOSGateway in Hidden Mode: `"C:\Program Files\EVS Broadcast Equipment\IPMOSGateway\IPMOSGateway.exe" -h`.



- Add the option **-s** to the shortcut in the Target field to start the IPMOSGateway in Setup Mode: `"C:\Program Files\EVS Broadcast Equipment\IPMOSGateway.exe" -s`.



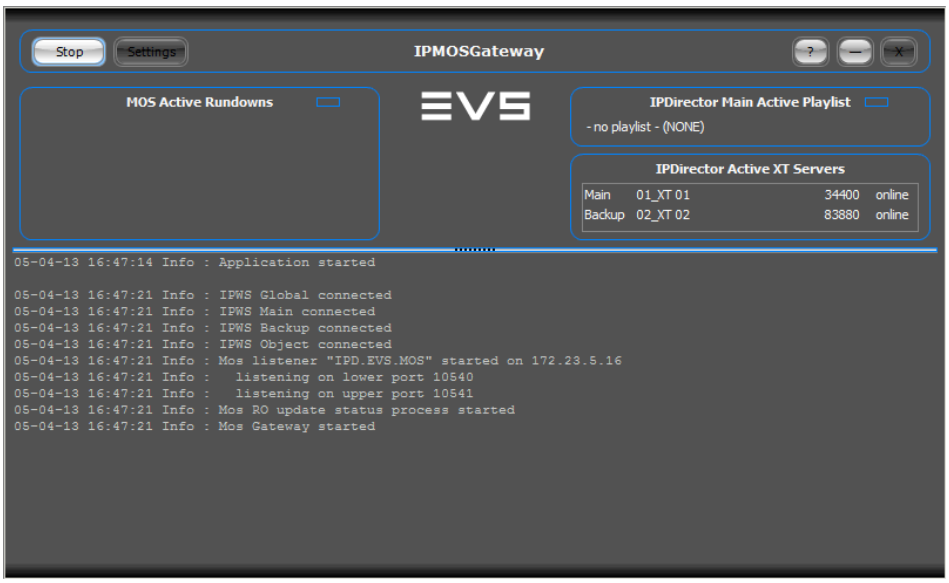
3. Launching and Starting IPMOSGateway

3.1. How to Launch and Start IPMOSGateway

To launch IPMOSGateway, double-click the IPMOSGateway shortcut on the desktop of the server hosting IPMOSGateway.

New!

- In Visible Mode, the main window opens. Depending on the settings, IPMOSGateway will automatically start after a predefined time interval, or you will have to manually start the application. This is the default start-up mode.



In the notification area, at the far right of the Windows taskbar an icon appears.

- In Hidden Mode, the main window does not open. It remains hidden. Only the icon appears in the notification area. Double-click the icon to open the main window. Depending on the settings, IPMOSGateway will automatically start after a predefined time interval, or you will have to manually start the application.
- In Setup Mode, the main window opens, but IPMOSGateway does not start automatically. You have to click the **Start** button.

3.2. Troubleshooting Launch and Start Issues

Errors When Launching the Application

When launching IPMOSGateway, the following error messages can appear:

Error Message	Solution
Error : [IPWSSoap] : Exception when calling "Connect_V01_01" : Unable to load WSDL File/Location: http://IPDIRETCOR:31016/IPWS?wsdl. Error [Empty document]	Check the IPWS Soap settings or check that the IPD API is running and can be reached. See section "IPWS Tab" on page 12 and section"Starting an IP API Service on IPDirector" on page 78
Error : Could not connect to the IPWS Soap server. Please check the Soap login settings.	Check the IPWS Soap settings or check that the IPD API is running and can be reached. See section "IPWS Tab" on page 12 and section"Starting an IP API Service on IPDirector" on page 78
Error : could not load license dll.	Check that the license dll "XSAdd32.dll" is on the machine and can be loaded.
Warning : NO LICENSE FOUND!	Check that there is a valid license for the IPMOSGateway installed on the machine.
Warning: LICENSE IS NOT VALID!	Check that there is a valid license for the IPMOSGateway installed on the machine.
Error: server "SERVER_NAME" with serial xxxxx could not be set as online	If the server mention is not to be used by this IPMOSGateway the error can be ignored.
Error : Log File error: Cannot open file "C:\EVSLogs\IPMOSGateway\IPMOSGateway_yyyymmdd_hh00.log". The process cannot access the file because it is being used by another process [1]	Check that the log file location exists, and that the log file is not opened by another process.

Errors When Starting the Application

When starting IPMOSGateway, the following error messages can appear:

Error Message	Solution
Error : error starting the mos agent: 10049: [10049] Can't assign requested address.	Check the MOS Local Settings and make sure the MOS local host address and ports are correct. See section "MOS Tab" on page 14 for more information.
Error : Status Mos client not connected to ncs "NCS_ID" (NCS IP)	Check the MOS NCS Settings and make sure that the NCS is running and can be reached. See section "MOS Tab" on page 14 for more information.
Error : Objects Mos client not connected to ncs "NCS_ID" (NCS IP)	Check the MOS NCS Settings and make sure that the NCS is running and can be reached. See section "MOS Tab" on page 14 for more information.
Error : Status All Mos client not connected to ncs "NCS_ID" (NCS IP)	Check the MOS NCS Settings and make sure that the NCS is running and can be reached. See section "MOS Tab" on page 14 for more information.
Error: Status Mos Secondary client not connected to ncs "STATUS_ NCS_ID" (STATUS NCS IP)	Check the Secundary MOS Status Settings and make sure that the Secundary Status NCS is running and can be reached. See section "MOS Extended Tab" on page 16 for more information.
Error : Objects Mos Secondary client not connected to ncs "STATUS_NCS_ID" (STATUS NCS IP)	Check the Secundary MOS Status Settings and make sure that the Secundary Status NCS is running and can be reached. See section "MOS Extended Tab" on page 16 for more information.
Error : Status All Mos Secondary client not connected to ncs "STATUS_NCS_ID" (STATUS NCS IP)	Check the Secundary MOS Status Settings and make sure that the Secundary Status NCS is running and can be reached. See section "MOS Extended Tab" on page 16 for more information.

Error Message	Solution
Error : Status MosAgent : Failed to connect Buddy ncs (BUDDY NCS IP) lower port	Check the ENPS Buddy Server Settings and make sure that the Buddy Server is running and can be reached. See section "MOS Extended Tab" on page 16 for more information.
Error : Status MosAgent : Failed to connect Buddy ncs (BUDDY NCS IP) upper port	Check the ENPS Buddy Server Settings and make sure that the Buddy Server is running and can be reached. See section "MOS Extended Tab" on page 16 for more information.
Error : ERROR: failed to subscribe IPWS Notification Server to event type "01/01/2001 10:00:00 - EventObserverNotAccessible - The observer client does not respond."	Check the IPWS Notification Host and Port settings. See section "IPWS Tab" on page 12 for more information.

3.3. Main Window Overview

General Description

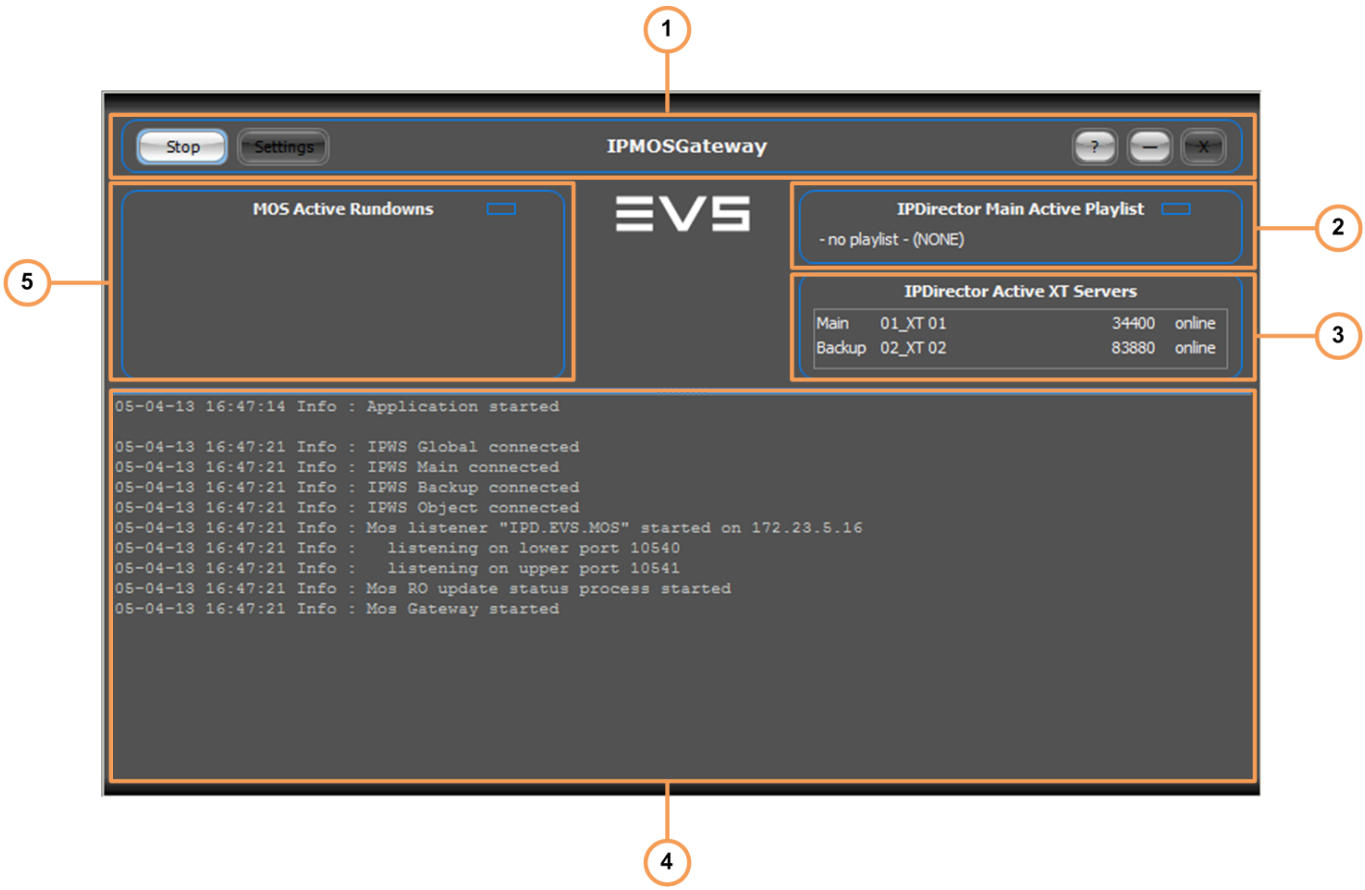
The main window of IPMOSGateway allows you to monitor the communication (object and running order status updates, playlist information, media object information) between the newsroom computer system (NCS) and the EVS playout system and troubleshoot if errors occur.

It displays the running orders that have been published in the NCS (if any), the playlist that has been loaded on the EVS XT/XS playout server (if any) and the status (online/offline) of the main and backup XT/XS server (if any).

It also gives access to the Settings window which allows you to configure IPMOSGateway.

Illustration

The main window contains the areas highlighted on the screenshot below:



Area Description

The table below describes the various parts of the main window:

Part	Name	Description
1.	Toolbar	The toolbar allows you to manually start and stop IPMOSGateway, open the Settings window and close or minimize the main window. It also allows you to check the software version. The toolbar is highlighted in red if there is no valid licence for IPMOSGateway.
2.	IPDirector Main Active Playlist Pane	This pane displays the name and VarID of the playlist that is loaded on the main XT/XS playout server (if any).
3.	IPDirector Active XT Servers Pane	This pane displays the XT/XS servers (main/backup) that have been set in the settings as 'active'. It shows if the servers are online or offline. When offline, they are highlighted in red.
4.	Logs Pane	The Logs pane lists the application events (= logs) and can be useful. The date and time of each event is displayed. These logs are also saved in the log files.
5.	MOS Active Rundowns Pane	This pane displays the name and ID of the running orders that have been published to IPDirector by the NCS.

4. Configuring IPMOSGateway

4.1. Configuring IPMOSGateway (EVS Side)

4.1.1. Settings Window

How to Open the Settings Window

To open the Settings window, proceed as follows:

- If IPMOSGateway has been launched in Setup Mode, click the **Settings** button to open the Settings window.
- If IPMOSGateway has been launched in Hidden Mode, double-click the IPMOSGateway icon in the Windows notification area to open the main window. If IPMOSGateway has been configured to start automatically , click the **Stop** button first, and then click the **Settings** button to open the Settings window. If not, just click the **Settings** button.
- If IPMOSGateway has been launched in Visible Mode and it has been configured to start automatically, click the **Stop** button first, and then click the **Settings** button to open the Settings window. If not, just click the **Settings** button.

Overview Setup Categories

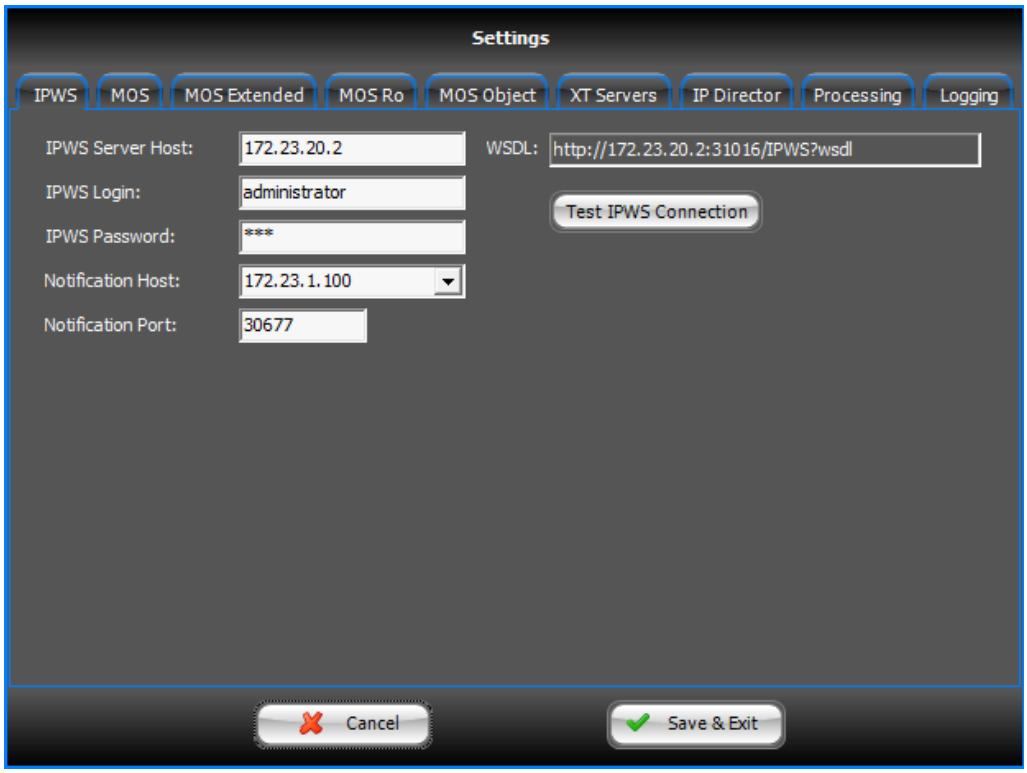
The Settings window contains the following setup categories:

- IPWS
- MOS
- MOS Extended
- MOS Object
- XT Servers
- IP Director
- Processing
- Logging

For each setup category a tab is provided.

IPWS Tab

The IPWS tab allows you to configure the communication with the IPDirector SOAP API.



The table below describes the various settings:

Setting	Description
IPWS Server Host	The IP address or name of the server that hosts the IPDirector SOAP API service. If you enter this address, the service address of the hosted IPDirector Web Services WSDL is automatically generated. To test the IPDirector Web Services WSDL address, click it.
IPWS Login	The login name used to log into the IPDirector SOAP API. The login name must be that of a valid IPDirector user having the rights to create playlists and list the clips on the EVS server system.
IPWS Password	The password used to log into the IPDirector SOAP API. The password must be the password associated to the user that was created in IPDirector.

Setting	Description
Notification Host	The hostname or the IP address of the local computer hosting the IPMOSGateway. This will be the location of a locally started service to receive notifications from the IPWS. By default, this is the hostname of the local computer.
Notification Port	The TCP port used for the locally started service that will receive notifications from the IPWS. The default notification port number is '30677'.

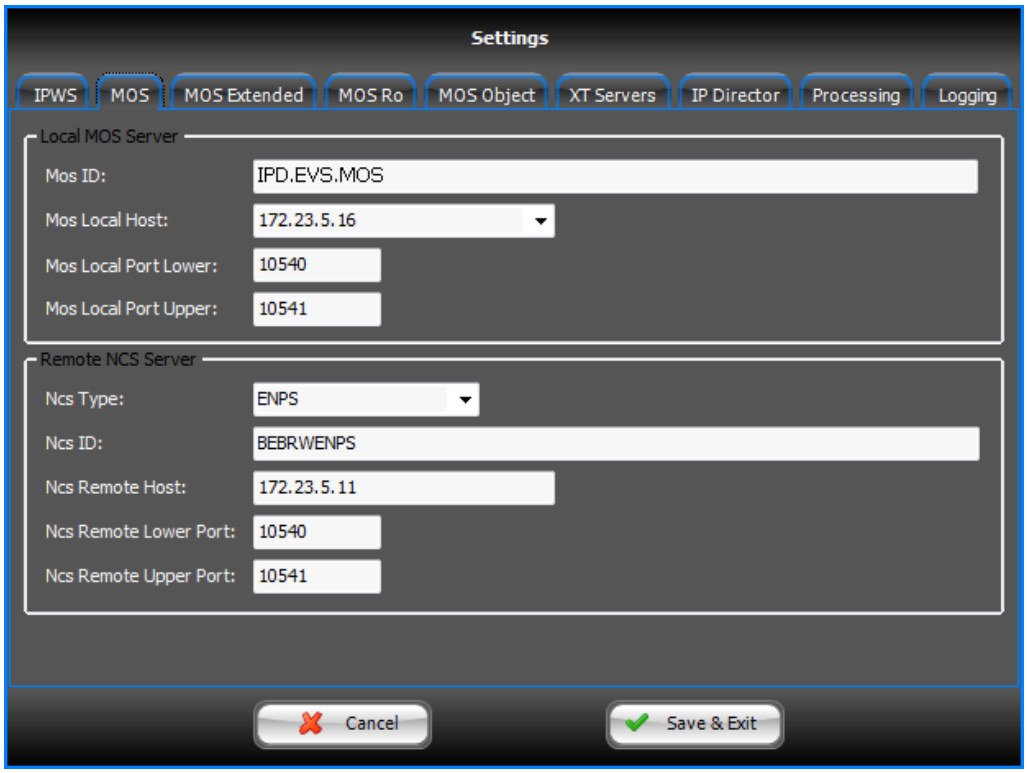
To test the connection with the IPDirector SOAP API service, click the Test IPWS Connection button. If the connection was successful, the message 'connection succeeded' will appear. If the connection was not successful, because the login information or the WSDL address is not correct, an error message will appear.

Tip

If you have changed something in the IPDirector SOAP API login name or password, save your settings and restart the IPMOSGateway application before going to the other settings.

MOS Tab

The MOS tab allows you to configure the MOS link between the NCS (Newsroom Computer System) and the IPMOSGateway.



Local MOS Server

In the Local MOS Server group box you have to enter the data the NCS needs to be able to communicate with IPMOSGateway. The table below describes the various settings:

Setting	Description
Mos ID	The name used to identify your IPMOSGateway in the NCS. The default MOS ID is 'IPD.EVS.MOS'.
Mos Local Host	The IP address of the server on which IPMOSGateway is installed. It is used to communicate with the NCS.
Mos Local Port Lower	The default TCP/IP port on which the NCS will accept connections from MOS devices. This socket is referred to as the Media Object Metadata port. The default port number is '10540'.
Mos Local Port Upper	The default TCP/IP port on which MOS will accept connections from the NCS. This socket is referred to as the Running Order port. The default port number is '10541'.

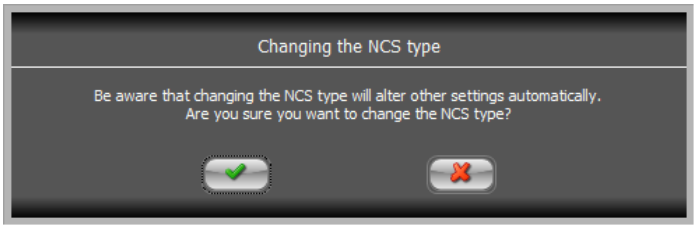
Remote NCS Server

In the Remote NCS Server group box you have to enter the data IPMOSGateway needs to be able to communicate with the NCS.

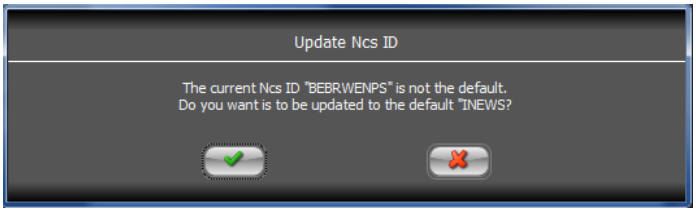
Setting	Description
NCS Type	Defines the type of NCS that IPMOSGateway is communicating with. This is used to change some variables which are specific to each system.
NCS ID	The name used to identify the NCS.
NCS Remote Host	The IP address of the computer that hosts the NCS.
NCS Remote Lower Port	The TCP/IP port on which the NCS will accept connections from MOS devices. This socket is referred to as the Media Object Metadata port. The default port number is '10540'.
NCS Remote Upper Port	The TCP/IP port on which IPMOSGateway will accept connections from the NCS. This socket is referred to as the Running Order port. The default port number is '10541'.

Note

If you change the NCS type, you will be notified that some settings will be automatically changed.

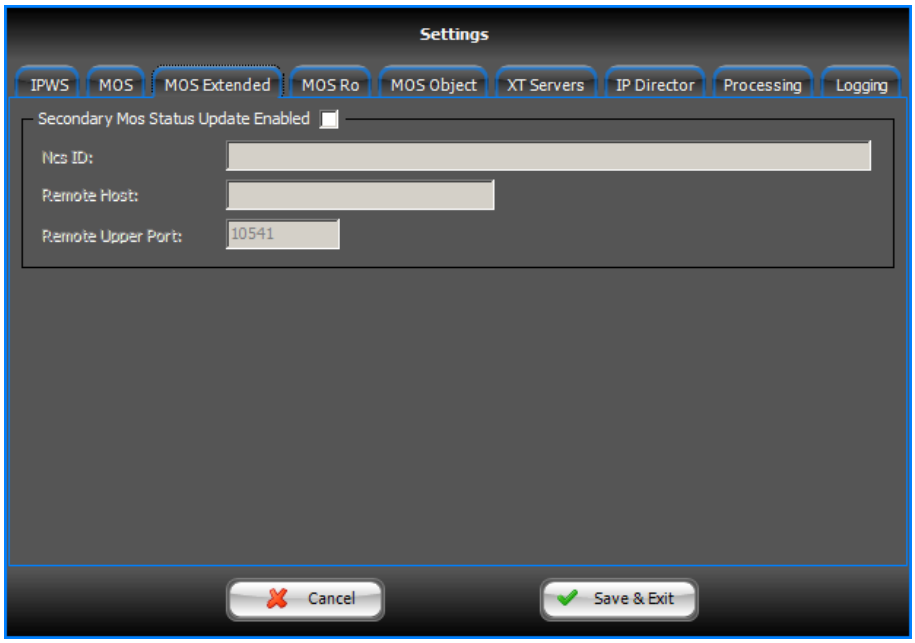


If the current NCS ID is not the default NCS ID, you will be notified about this.



MOS Extended Tab

The MOS Extended tab contains settings that only apply when a secondary NCS server or an ENPS Buddy Server is used in the setup.



The settings to configure an ENPS Buddy Server only appear if you selected ENPS as NCS type in the MOS tab. See section "MOS Tab" on page 14.

Secondary Mos Status Update

The Secondary Mos Status Update Enabled group box is used when it is necessary to update a secondary server with the playout status of the IPMOSGateway. To activate the settings, select the corresponding check box. If activated the roItemStat messages send to the NCS will also be sent to this secondary configured server

The table below describes the various settings:

Setting	Description
NCS ID	The name used to identify the secondary server.
Remote Host	The IP address of the server that hosts the NCS.
Remote Upper Port	The TCP/IP port on which the MOS will accept connections from the NCS. This socket is referred to as the Running Order port. The default port number is '10541'.

ENPS Buddy Server

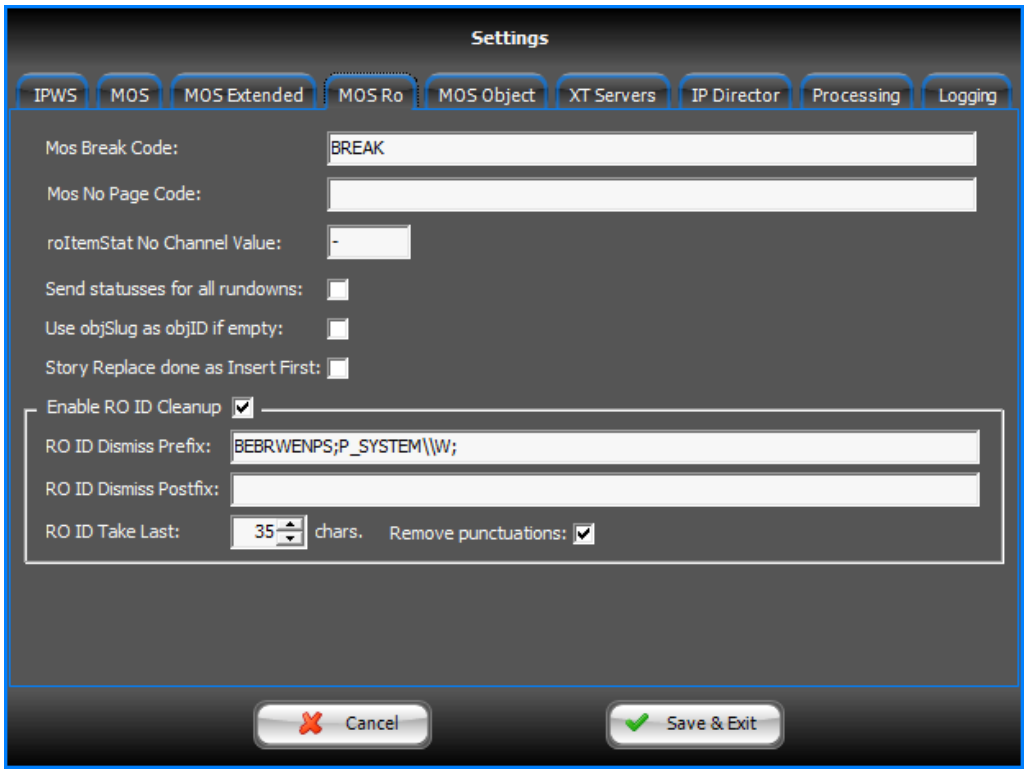
The ENPS Buddy Server Enabled group box is used in case of an ENPS system when an ENPS Buddy server is used for backup purposes. To activate the settings, select the corresponding check box.

The table below describes the various settings:

Setting	Description
NCS ID	The name used to identify the buddy server.
Remote Host	The IP address of the backup server that hosts the NCS.
Remote Lower Port	The TCP/IP port on which the NCS will accept connections from MOS devices. This socket is referred to as the Media Object Metadata port. The default port number is '10540'.
Remote Upper Port	The TCP/IP port on which IPMOSGateway will accept connections from the NCS. This socket is referred to as the Running Order port. The default port number is '10541'.

MOS RO Tab

The MOS RO tab contains settings that apply to the Running Order in the NCS.



The table below describes the various settings:

Setting	Description
Mos Break Code	If an “empty” story, i.e. a story with no video item attached to it, has the Mos Break Code string (default “**—BREAK—**“) in its Story Slug, it will be converted into a break and seen as a comment in the IPDirector playlist. This setting is used if the NCS MOS Gateway does send empty stories.
Mos No Page Code	This setting only applies to iNews. If no page code has been entered for a story in iNews, this has to be reflected in the playlist in IPDirector. The **Page Code** playlist custom field in the IPDirector playlist has to remain empty. In the **Mos No Page Code** field you can enter the value (by default "NO PAGE") that will be used by IPMOSGateway to notify that no page code has been entered in iNews for a story and so that no page code has to be displayed in the IPDirector playlist.

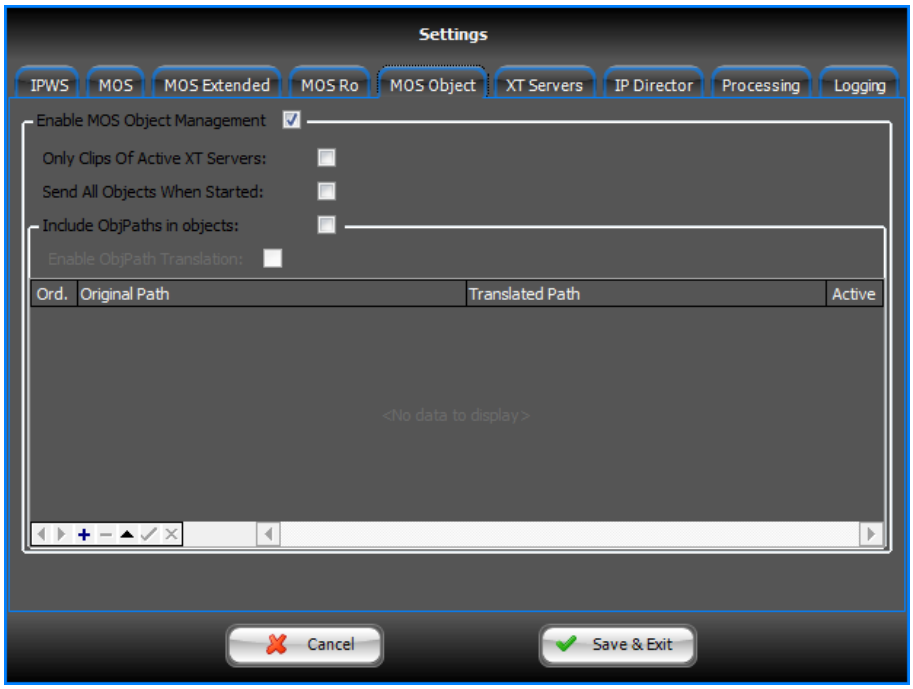
Setting	Description
roItemStat No Channel Value	Once a clip in a playlist has been played out on a particular server channel, it is no longer assigned to this channel. In the **roItemStat No Channel Value** field a value can be entered that should be displayed in the RO (Running Order) of the NCS to indicate that clip is not assigned to a channel. The default value is -.
Send statuses for all rundown	If enabled, IPMOSGateway will send the status (READY, NOT READY) of the items for all the rundowns that are published in the NCS. If disabled, IPMOSGateway will only send statuses for the playlists actively loaded on the main XT server. In both cases, the statuses for the actively loaded playlist will also include PLAY, STOP, PAUSE, ...
Use objSlug as objID if empty	If the NCS system passes a RO with an object that does not contain an ObjectID value, the IPMOSGateway can be enabled to utilize the Object Slug as the varID for the playlist element. By default, this setting is not enabled.
Story Replace Done as Insert First	Defines if a story replace is translated in a “delete old story” then “insert new story” (if option is not enabled) or a “insert new story before the old one” then “delete the old story”. By default, this setting is not enabled.
Enable RO ID Cleanup	Enables the RO ID Cleanup settings or not.
RO ID Dismiss Prefix	Truncates the RO ID sent by the NCS by removing the defined prefix and only keep the rest as the playlist VarID. This is useful if the RO ID has more than 32 characters. This setting is mainly necessary for ENPS and iNews to cut off the NCS ID. Example: BEBRWENPS;P_SYSTEM\\W;

Setting	Description
RO ID Dismiss Postfix	Truncates the RO ID sent by the NCS by removing the defined postfix and only keep the rest as the playlist VarID. This is useful if the RO ID has more than 32 characters. This setting is mainly necessary for iNews to cut off the "RUNDOWN".
RO ID Take Last	Takes only the given number of last characters of the RO IDs. This is necessarry if the RO ID is longer then 32 characters and that the relevant unique ID is at the end of the RoID. This setting is mainly necessary for ENPS. By default, this is set to 35 characters. Example: BEBRWENPS;P_SYSTEM\W;8BEBA3EE-4422-44FA-B280495484F0B681 (= [NCS SERVER];[FOLDER];[GUID]) Last 35 = GUID = 8BEBA3EE-4422-44FA-B280495484F0B681 Remove punctuations = 32 character Playlist VarID = 8BEBA3EE442244FAB280495484F0B681
Remove Punctuations	If enabled, the punctuation (‘-‘,’.’, ‘’ ,…) will be removed from the RO ID after dismissing all parts in previous settings if configured.

MOS Object Tab

New!

The MOS Object tab contains settings that relate to the management of MOS objects.

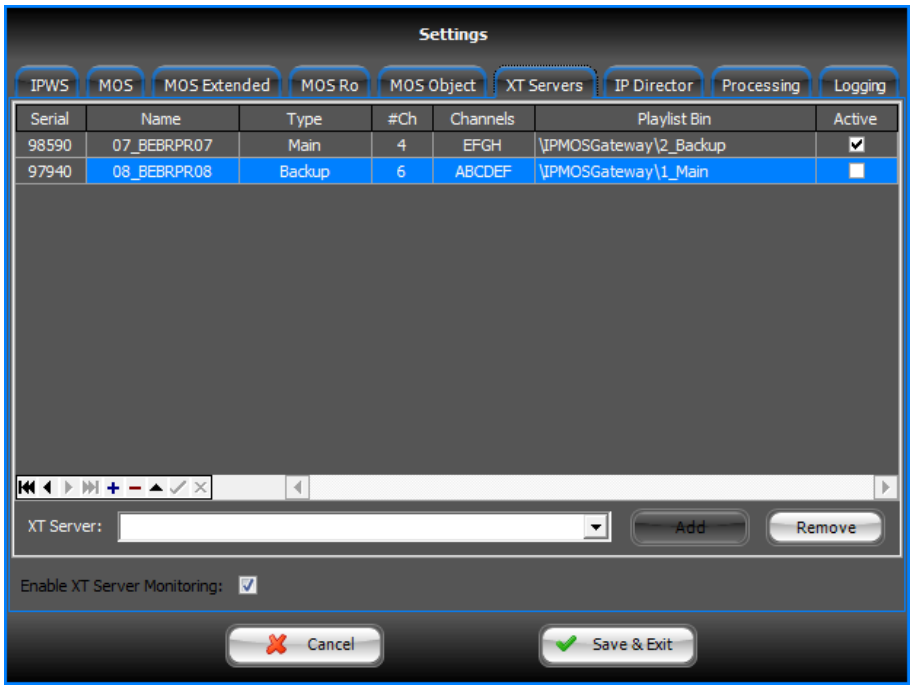


The table below describes the various settings:

Setting	Description
Enable MOS Object Management	If this settings is enabled, IPMOSGateway sends the clip object definition to the NCS. This settings is not used with iNews. This setting is useful with ENPS.
Only Clips of Active XT Servers	If this settings is enabled, only the status of clip objects for the servers defined and activated in the IPMOSGateway XT Servers tab will be communicated. This settings is useful when there are more XT servers on the SDTI network that need to be ignored.
Send All Objects When Started	If this settings is enabled, IPMOSGateway will pass the information for all online clips to the NCS at start-up. Offline files are not published as MOS objects. This is useful when the NCS system can accept the clips into its database for user searching.
Include ObjPaths in objects	If this setting is enabled, the path to the high- and low-resolution video files and the path to the thumbnail is included in the object definition. If the video files do not exist, the object path will be empty. In the NCS it will be possible to play back the video files.
Enable ObjPath Translation	If this setting is enabled, you can translate the UNC path of the video file that is linked to an object to an HTTP or FTP path. This setting especially applies to ENPS. These settings are only available with IPDirector version 6.

XT Servers Tab

The XT Servers tab allows you to add XT servers and activate them.



Adding an XT Server

To add an XT server to the XT Servers tab, proceed as follows:

1. In the **XT Server** list at the bottom of the window, select the desired XT server and add it to the server list.

   The name and serial number are automatically entered. This information comes from the IPDirector API.

Tip

If a server is missing or if you find nothing in the list, verify that the server is seen by IPDirector and verify you connections to the API.

2. Select the type of server: **Main** or **Backup**.
3. Define the number of playout channels where the rundown will be played:

- **1** : If the rundown will be loaded in a Playlist panel.
- **2->6**: If the rundown will be loaded in the AB Roll Playlist panel (depending on the ABRoll configuration).

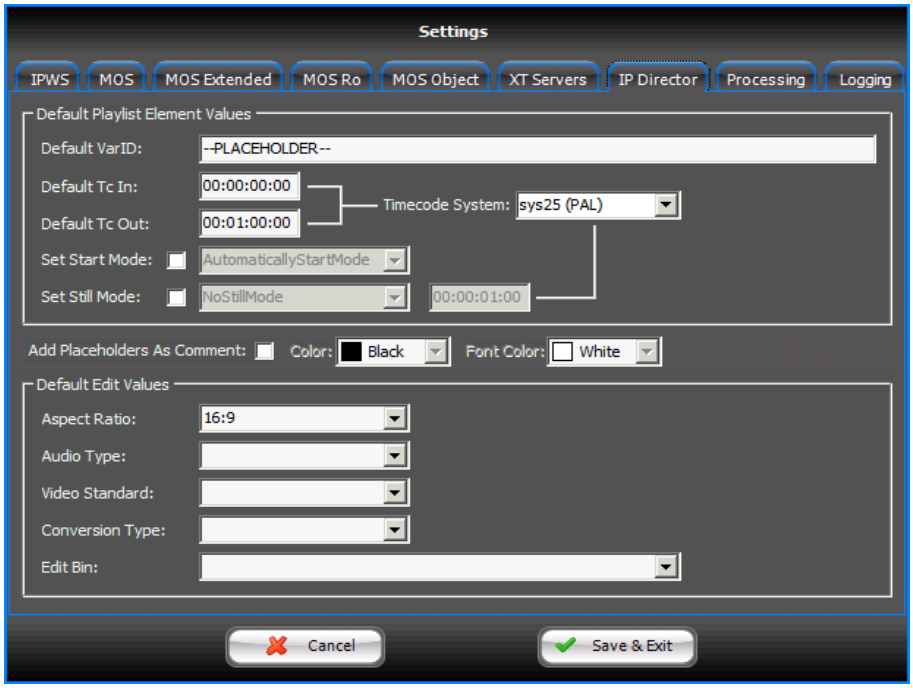
4. Define the channel name letters associated to the playout channels in the NCS. Choosing 'A' will define the stating letter, and sequence through based on the channel number defined.
5. Select the existing IPDirector bin where the rundown playlist will be put upon creation.
6. Activate the server.

If checked the rundown will be created on the server. If unchecked, the server is disabled and playlists will not be created or updated on the server.

Enable XT Server Monitoring

If this setting is enabled, IPMOSGateway will monitor if the XT servers are running or not. If an XT server is no longer running, IPMOSGateway will no longer update the playlists on the XT server that has stopped.

IPDirector Tab



Default Playlist Element Values

The table below describes the various settings:

Setting	Description
Default VarID	The VarID used in the virtual element associated to empty stories. This value can be defined as **--PLACEHOLDER--** or whatever value you want to be displayed for the user.
Default TC In	The default TC In used in the virtual element associated to empty stories.
Default TC Out	The default TC Out used in the virtual element associated to empty stories.

Setting	Description
Timecode System	Must match the Timecode base being used in the facility.
Set Start Mode	Is set if the IPMOSGateway must explicitly specify the start mode for each playlist element. You can choose between the following start modes: • GPIStartMode • AutomaticallyStartMode • ManuallyStartMode • This setting only applies for single playout, not for ABRoll playout.
Set Still Mode	Is set if the MOS gateway must explicitly specify the still mode for each playlist element. You can choose between the following still modes: • StopOnLastFrame • NoStillMode • StopOnFirstFrame • StopOnTransitionTimer • For the StopOnTransitionTimer still mode a time interval can be set after which the next element in the playlist may start. • This setting only applies for single playout, not for AB Roll playout.

Add Placeholders As Comment

If the option **Add Placeholders As Comment** is selected, an empty story in the RO is not replaced by a virtual element in the IPDirector playlist, but by a playlist comment. You can select the background color of the comment and the font color of the comment text.

Default Edit Values

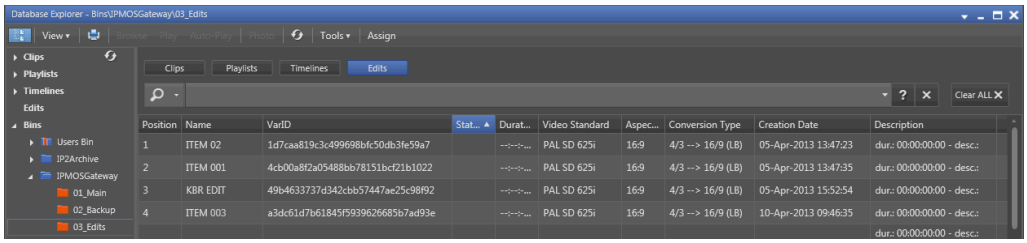
In the Default Edit Values area you can set a number of default edit info values. IPMOSGateway will automatically select these values when creating a new edit in IPDirector. IPMOSGateway will create a new edit when receiving a MOS Object Create command from the NCS.

The default value of the following edit metadata fields can be set:

- Aspect Ratio
- Audio Type
- Video Standard
- Conversion Type

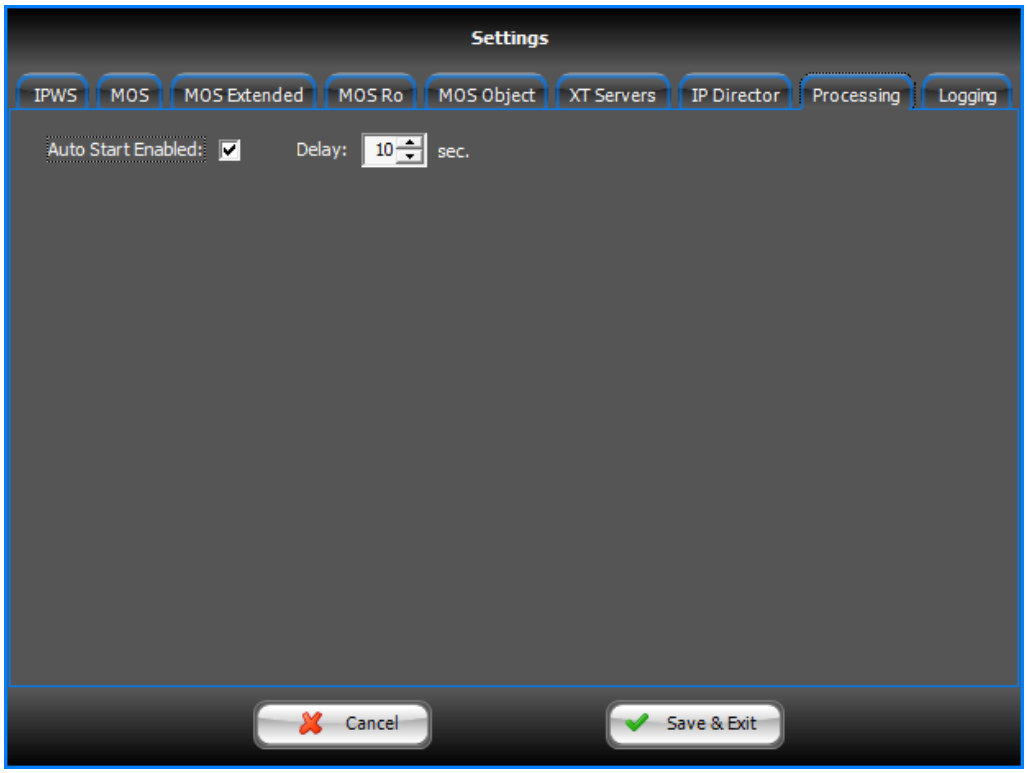
In the **Edit Bin** field you can select the IPDirector bin where the edits have to be placed. Note that the bin first has to be created in IPDirector. See section "(Optional) Creating an IPMOSGateway Bin " on page 84 for more information.

IPMOSGateway will add the planned duration and a description to the **Description** field of the Edit.



Processing Tab

The Processing tab allows you to configure some automatic processing tasks.

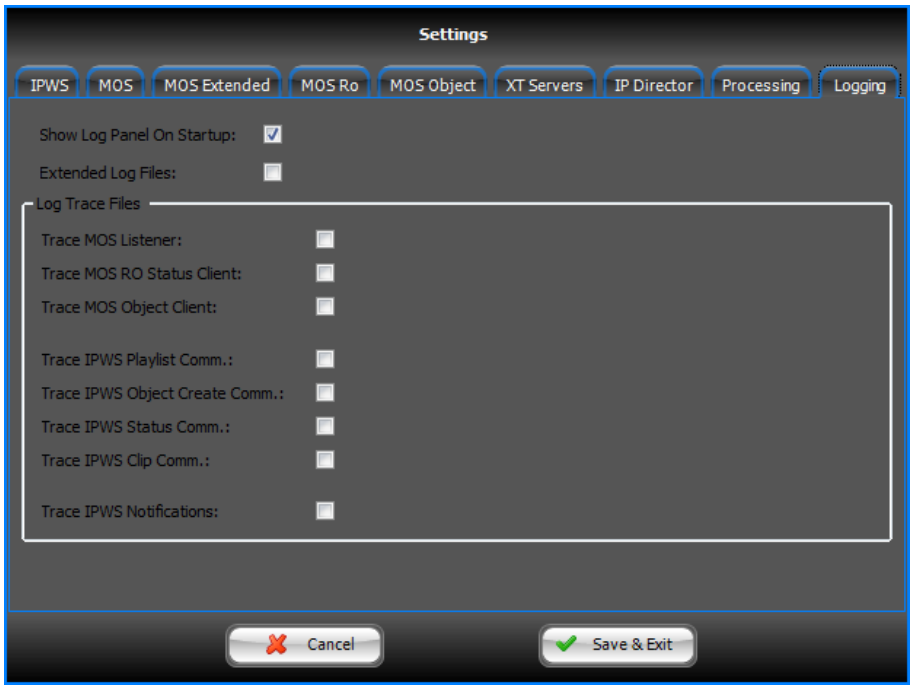


The table below describes the various settings:

Setting	Description
Auto Start Enabled	Select this setting if you want the communication with the IPMOSGateway automatically started a few seconds after the application start-up.
Delay	In this field you can set the amount of time between the application start and the MOS communications autostart.

Logging Tab

This Tab allows the EVS representative to enable and elevate logging status of the application during testing and install.



The table below describes the various settings:

Setting	Description
Show Log Panel on Startup	If selected, the Log panel will be displayed at start-up.
Extended Log Files	If selected, more detailed logs will be displayed in the Log panel.
Trace MOS Listener	If selected, the Running Order commands originating from the NCS will be displayed in the Log panel.
Trace MOS RO Status Client	If selected, the communication between the NCS and IPMOSGateway about the status of the Running Order will be displayed in the Log panel.
Trace MOS Object Client	If selected, the communication between the NCS and IPMOSGateway about created and updated MOS Objects will be displayed in the Log panel.
Trace IPWS Playlist Comm.	If selected, the communication between IPDirector and IPMOSGateway about the creation of playlists in IPDirector will be displayed in the Log panel.
Trace IPWS Object Create Comm.	If selected, the communication between IPDirector and IPMOSGateway about the creation of edits in IPDirector will be displayed in the Log panel.

Setting	Description
Trace IPWS Status Comm.	If selected, the communication between IPDirector and IPMOSGateway about the playout status of playlists will be displayed in the Log panel.
Trace IPWS Clip Comm.	If selected, the between IPDirector and IPMOSGateway about clip information will be displayed in the Log panel.
Trace IPWS Notifications	If selected, the notifications of the IPDirector SOAP API will be displayed in the Log panel.

4.1.2. Registry

Introduction

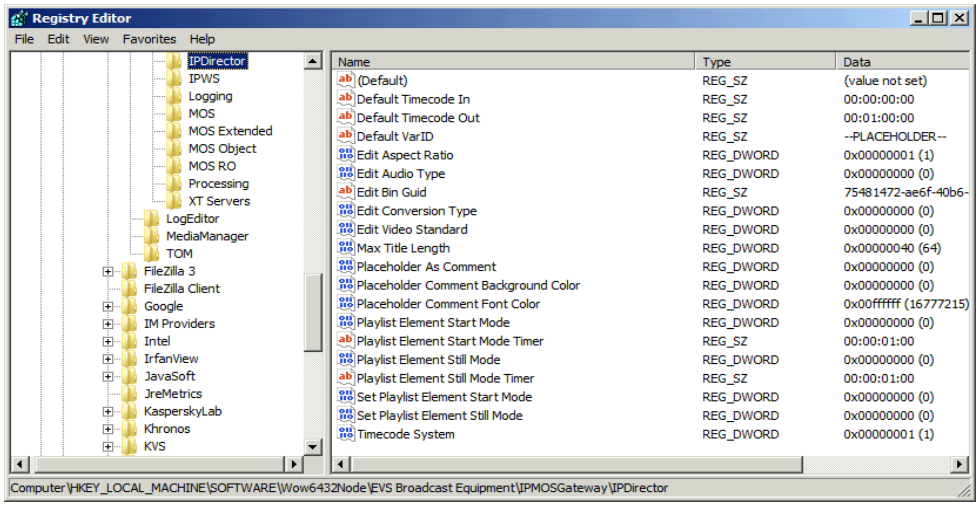
On a 32-bit machine you can find the registry settings of IPMOSGateway in the registry key `HKEY_LOCAL_MACHINE\SOFTWARE\EVS Broadcast Equipment\IPMOSGateway`.

On a 64-bit machine you can find the registry settings of IPMOSGateway in the registry key `HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\EVS Broadcast Equipment\IPMOSGateway`.

The registry key IPMOSGateway has the following subkeys:

- IPDirector
- IPWS
- Logging
- MOS
- MOS Extended
- MOS Object
- MOS RO
- Processing
- XT Servers

IPDirector Subkey



The table below describes the registry values you can manually edit.

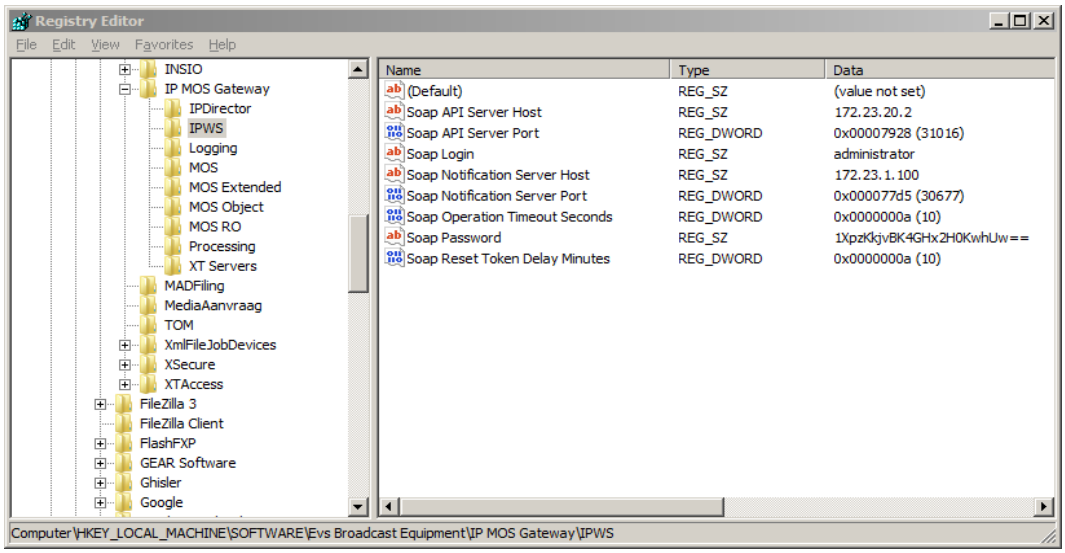
Registry Value	Description
Default Timecode In	The default TC In used in the virtual element associated to empty stories.
Default Timecode Out	The default TC Out used in the virtual element associated to empty stories.
Default VarId	The VarID used in the virtual element associated to empty stories. This value can be defined as --PLACEHOLDER-- or whatever value you want displayed for the user.
Edit Aspect Ratio	The default aspect ratio of an edit created by IPMOSGateway in IPDirector. • 0 = 4:3 Letter Box • 1 = 16:9
Edit Audio Type	The default audio type of an edit created by IPMOSGateway in IPDirector. • 0 = All stereo • 1 = 5.1 + 5x stereo • 2 = 2x 5.1 + 2x stereo
Edit Bin Guid	The GUID of the IPDirector bin where the edits are placed.
Edit Conversion Type	The default conversion type of an edit created by IPMOSGateway in IPDirector. • 0 = 16/9 --> 4/3 (LB) • 1 = 16/9 --> 4/3 (PS)
Edit Video Standard	The default video standard for an edit created by IPMOSGateway in IPDirector. • 0 = PAL SD 625i • 1 = NTSC SD 525i

Registry Value	Description
Max Title Length	The maximum title length of a playlist element.
Placeholder As Comment	Enables or disables the setting **Add Placeholders As Comment**. If enabled, an empty story in the running order is not replaced by a virtual element in the IPDirector playlist, but by a playlist comment.
Placeholder Comment Background Color	The background color of the placeholder comment. • 0 = black • 1 = maroon • 2 = green • 3 = olive • 4 = navy • 5 = purple • 6 = teal • 7 = gray • 8 = silver • 9 = red • 10 = lime • 11 = yellow • 12 = blue • 13 = fuchsia • 14 = aqua • 15 = white
Placeholder Comment Font Color	The font color of the placeholder comment text. • 0 = black • 1 = maroon • 2 = green • 3 = olive • 4 = navy • 5 = purple • 6 = teal • 7 = gray • 8 = silver • 9 = red • 10 = lime • 11 = yellow • 12 = blue • 13 = fuchsia • 14 = aqua • 15 = white
Playlist Element Start Mode	Is set if the IPMOSGateway must explicitly specify the start mode for each playlist element. • 0 = AutomaticallyStartMode • 1 = GPIStartMode • 2 = ManuallyStartMode
Playlist Element Still Mode	Is set if the IPMOSGateway must explicitly specify the still mode for each playlist element. • 0 = NoStillMode • 1 = StopOnLastFrame • 2 = StopOnFirstFrame • 3 = StopOnTransitionTimer
Playlist Element Still Mode Timer	Defines when the next element in the playlist may start after the previous element has stopped. The default value is 1 second.

Registry Value	Description
Set Playlist Element Start Mode	Enables or disables the Playlist Element Start Mode setting.
Set Playlist Element Still Mode	Enables or disables the Playlist Element Still Mode setting.
Timecode System	Must match the Timecode base being used in the facility. • 0 =undefined • 1 = sys25 (PAL) • 2 = sys29.97 (NTSC) • 3 = sys30 (NTSC No Drop)

IPWS Subkey

This subkey contains the registry values IPMOSGateway uses to configure the communication with the IPDirector SOAP API.



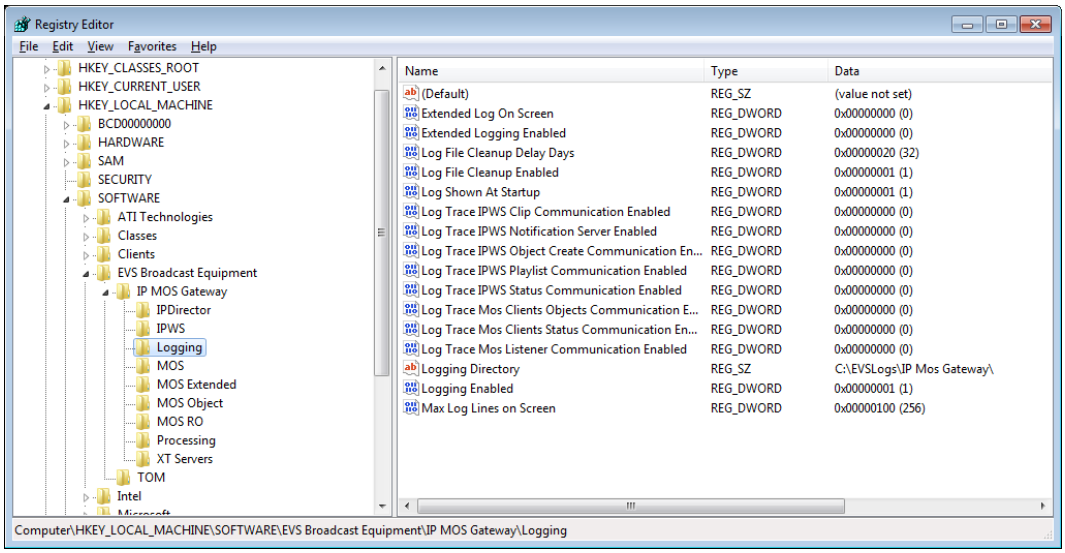
The table below describes the registry values you can manually edit.

Registry Value	Description
Soap API Server Host	The hostname or the IP address of the local computer hosting the IPMOSGateway. This will be the location of a locally started service to receive notifications from the IPWS. By default, this is the hostname of the local computer.
Soap API Server Port	The TCP port used by the IPWS to send notifications. The default port number is '31016'.
Soap Login	The login name used to log into the IPDirector SOAP API. The default value is 'administrator'.
Soap Notification Server Host	The hostname or the IP address of the server hosting the service that will receive notifications from the IPWS.
Soap Notification Server Port	The TCP port used for the locally started service that will receive notifications from the IPWS. The default notification port number is '30677'.

Registry Value	Description
Soap Operation Timeout Seconds	Specifies the amount of time, in seconds, IPMOSGateway will wait for a response of the IPDirector API before giving a timeout. The default value is ‘10’.
Soap Password	The password used to log into the IPDirector SOAP API. The password must be the password associated to the user that was created in IPDirector.
Soap Reset Token Delay Minutes	Specifies the amount of time, in minutes, after which the SOAP authentication token is reset. The default value is ‘10’.

Logging Subkey

This subkey contains the registry values IPMOSGateway uses to configure the logging of the various communication processes.



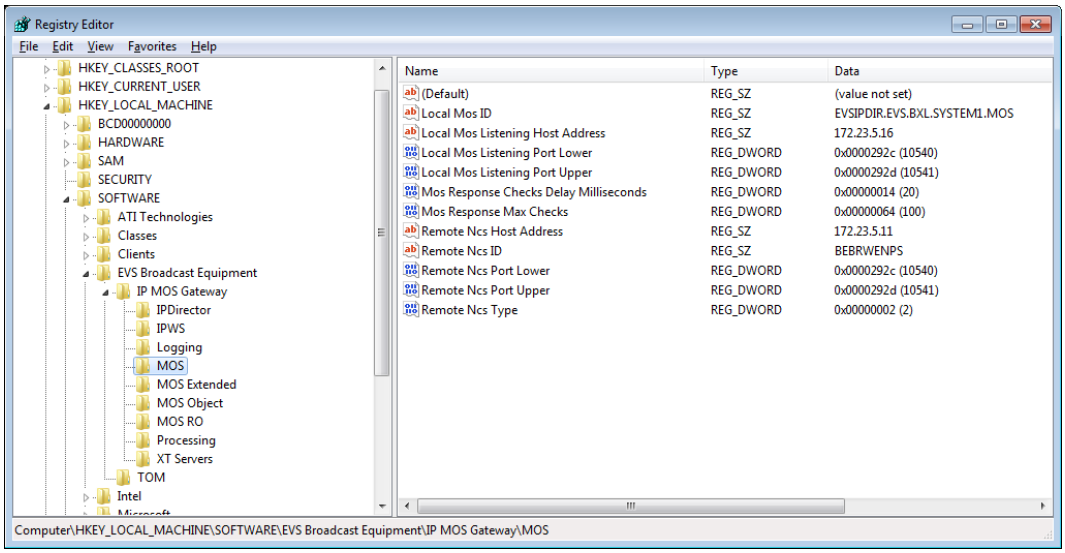
The table below describes the registry values you can manually edit.

Registry Value	Description
Extended Log On Screen	Enables or disables the display of extended logs on screen. By default, this option is disabled.
Extended Logging Enabled	Enables or disables the display of detailed logs in the log files. By default, this option is disabled.
Log File Cleanup Delay Days	Specifies the time interval, in days, after which the log files are automatically deleted from the logging directory. The default value is '32'.
Log File Cleanup Enabled	Enables or disables the automatic clean up of the log files from the logging directory. By default, this option is enabled.
Log Shown At Startup	Enables or disables the display of the Log pane at start-up. By default, this option is enabled.
Log Trace IPWS Clip Communcation Enabled	If enabled, the communication between IPDirector and IPMOSGateway about clip information will be displayed in the Log panel. By default, this option is disabled.
Log Trace IPWS Notification Server Enabled	If enabled, the notifications of the IPDirector SOAP API will be displayed in the Log panel. By default, this option is disabled.
Log Trace IPWS Object Create Communciation Enabled	If enabled, the communication between IPDirector and IPMOSGateway about the creation of edits in IPDirector will be displayed in the Log panel. By default, this option is disabled.

Registry Value	Description
Log Trace IPWS Playlist Communication Enabled	If enabled, the communication between IPDirector and IPMOSGateway about the creation of playlists in IPDirector will be displayed in the Log panel. By default, this option is disabled.
Log Trace IPWS Status Communication Enabled	If enabled, the communication between IPDirector and IPMOSGateway about the playout status of playlists will be displayed in the Log panel. By default, this option is disabled.
Log Trace Mos Clients Objects Communication Enabled	If enabled, the communication between the NCS and IPMOSGateway about created and updated MOS Objects will be displayed in the Log panel. By default, this option is disabled.
Log Trace Mos Clients Status Communication Enabled	If enabled, the communication between the NCS and IPMOSGateway about the status of the RO will be displayed in the Log panel. By default, this option is disabled.
Log Trace Log Listener Communication Enabled	If selected, the RO commands originating from the NCS will be displayed in the Log panel. By default, this option is disabled.
Logging Directory	The directory where the log files are stored. The default directory is C:\EVSLogs\IP Mos Gateway\.
Logging Enabled	If enabled, log files are created and kept.
Max Log Lines On Screen	The maximum number of lines retained by the Log pane. The default value is ‘256’.

MOS Subkey

This subkey contains the registry values IPMOSGateway uses to configure the communication between IPMOSGateway and the NCS.



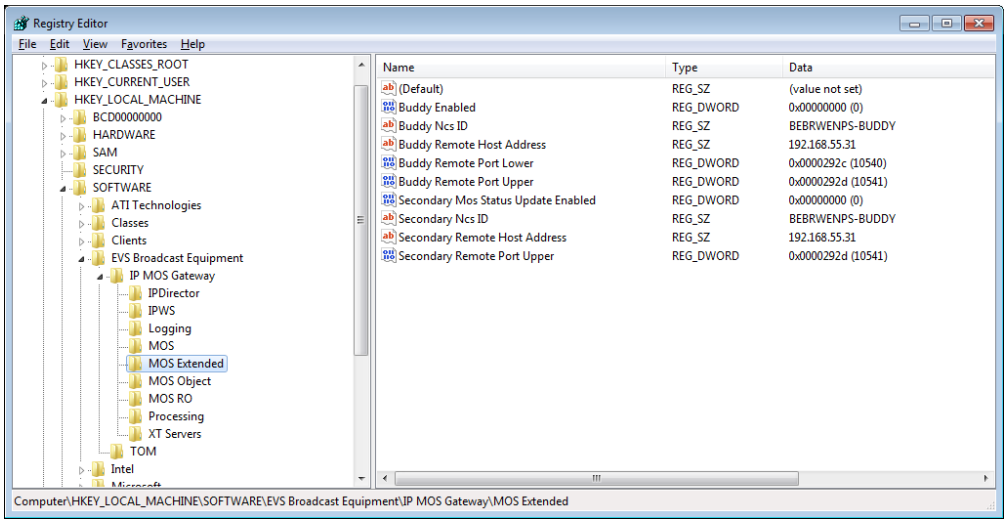
The table below describes the registry values you can manually edit.

Registry Value	Description
Local Mos ID	The name used to identify your IPMOSGateway in the NCS. The default MOS ID is 'ipd.evs.mos'.
Local Mos Listening Host Address	The IP address of the server on which IPMOSGateway is installed. It is used to communicate with the NCS.
Local Mos Listening Port Lower	The TCP/IP port on which the NCS will accept connections from MOS devices. This socket is referred to as the Media Object Metadata port. The default port number is '10540'.
Local Mos Listening Port Upper	The TCP/IP port on which MOS will accept connections from the NCS. This socket is referred to as the Running Order port. The default port number is '10541'.
Mos Response Checks Delay Milliseconds	The time interval, in milliseconds, after which IPMOSGateway will check for a response of the NCS. The default value is '20'.
Mos Response Max Checks	The maximum number of times IPMOSGateway will check for a response of the NCS. The default value is '100'.
Remote NCS Host Address	The IP address of the server that hosts the NCS.
Remote NCS ID	The name used to identify the NCS.

Registry Value	Description
Remote NCS Port Lower	The TCP/IP port on which the NCS will accept connections from MOS devices. This socket is referred to as the Media Object Metadata port. The default port number is '10540'.
Remote NCS Port Upper	The TCP/IP port on which IPMOSGateway will accept connections from the NCS. This socket is referred to as the Running Order port. The default port number is '10541'.
Remote NCS Type	Defines the type of NCS that IPMOSGateway is communicating with. This is used to change some variables which are specific to each system.

MOS Extended Subkey

The MOS Extended subkey contains registry values that only apply when a secondary NCS server or an ENPS Buddy Server is used in the setup.



The table below describes the registry values you can manually edit.

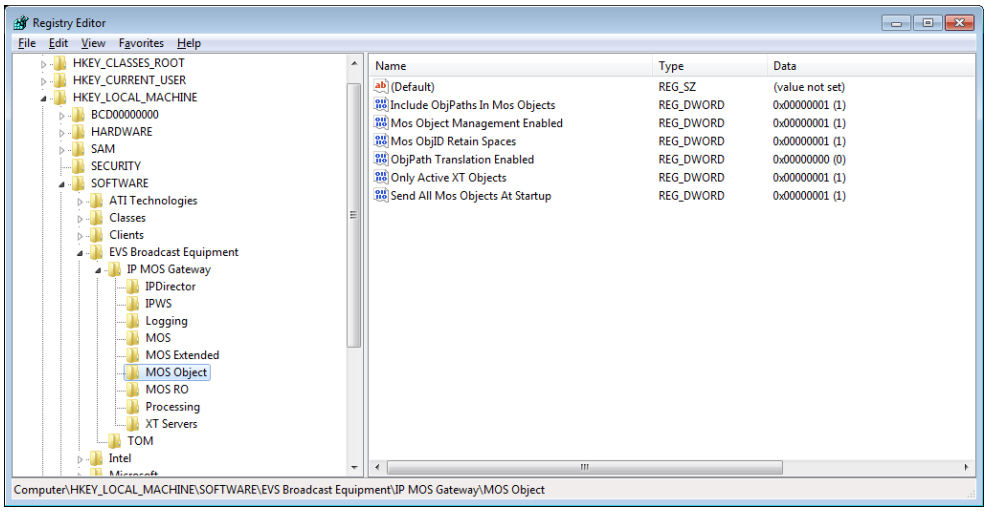
Registry Value	Description
Buddy Enabled	Enables or disables the settings that relate to the use of a ENPS Buddy Server for backup purposes. By default, this setting is disabled.
Buddy NCS ID	The name used to identify the buddy server itself.
Buddy Remote Host Address	The IP address of the NCS MOS Gateway.
Buddy Remote Port Lower	The default TCP/IP port on which the NCS will accept connections from MOS devices. This socket is referred to as the Media Object Metadata port. The default port number is '10540'.
Buddy Remote Port Upper	The default TCP/IP port on which IPMOSGateway will accept connections from the NCS. This socket is referred to as the Running Order port. The default port number is '10541'.
Secondary Mos Status Update Enabled	Enables or disables the update of a secondary server with the playout status of the IPMOSGateway.

Registry Value	Description
Secondary NCS ID	The name used to identify the secondary server itself.
Secondary Remote Host Address	The IP address of the backup server that hosts the NCS.
Secondary Remote Port Upper	The TCP/IP port on which IPMOSGateway will accept connections from the NCS. This socket is referred to as the Running Order port. The default port number is '10541'.

MOS Object Subkey

New!

This subkey contains the registry values that relate to the management of MOS objects.

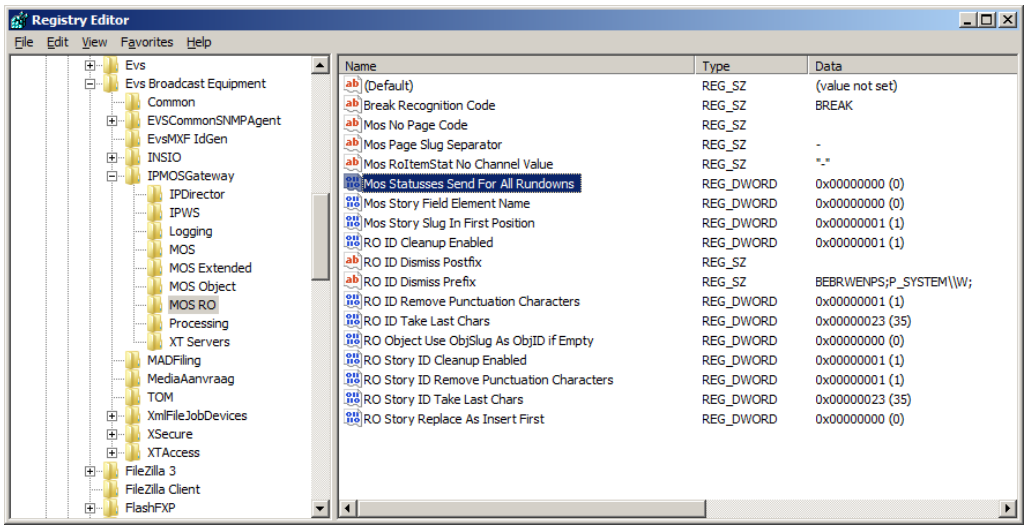


The table below describes the registry values you can manually edit.

Registry Value	Description
Include ObjPaths in Mos Objects	If this setting is enabled, the path to the high- and low-resolution video files and the path to the thumbnail are included in the object definition. If the video files do not exist, the object path will be empty. In the NCS it will be possible to play back the video files. This setting is not used with iNews.
Mos Object Management Enabled	If this settings is enabled, IPMOSGateway sends the clip object definition to the NCS. This settings is not used with iNews.
Mos ObjID Retain Spaces	If enabled, the trailing spaces before and after the MOS objectID will be retained. If disabled, the spaces will be removed.
ObjPath Translation Enabled	If this setting is enabled, you can translate the UNC path of the video file that is linked to an object to an HTTP or FTP path. This setting especially applies to ENPS.
Only Active XT Objects	If this settings is enabled, only the status of clip objects for the servers defined in the IPMOSGateway XT Servers tab will be passed on. This settings is useful when there are more XT servers on the SDTI network that need to be ignored.
Send All Mos Objects At Startup	If this settings is enabled, IPMOSGateway will pass the information for all online clips to the NCS at start-up. Offline clips are not published as MOS objects. This is useful when the NCS system can accept the clips into its database for user searching.

MOS RO Subkey

This subkey contains the registry values that apply to the Running Order in the NCS.



The table below describes the registry values you can manually edit.

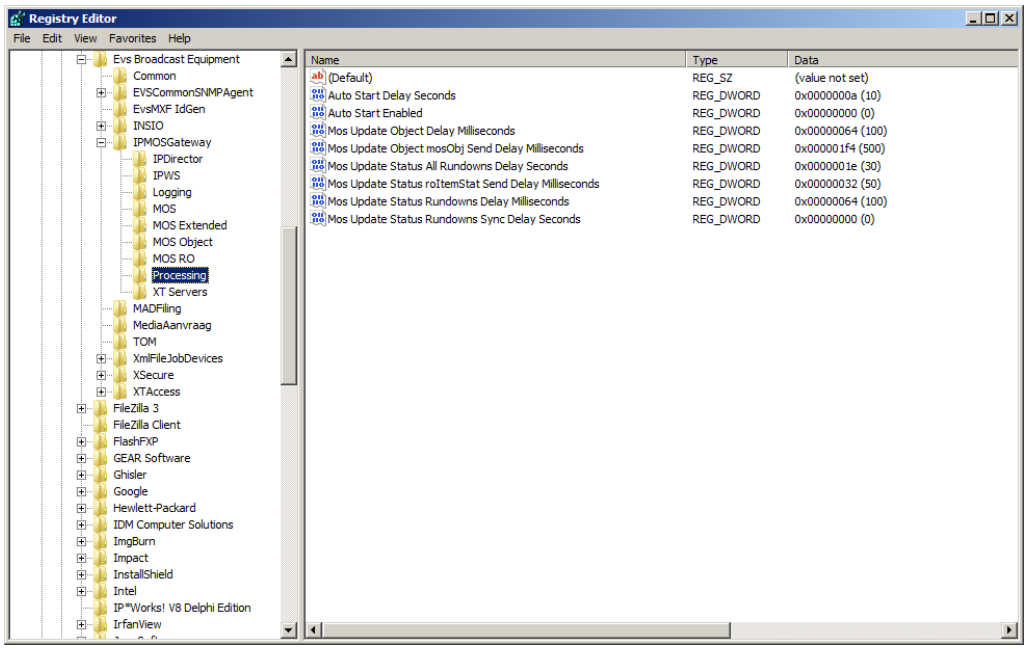
Registry Value	Description
Break Recognition Code	If a story has the string **--BREAK--** in its Story Slug it will be converted into a break and seen as a comment in the IPDirector playlist. This setting is used if the NCS MOS Gateway does not send empty stories and does not send real rundown breaks.
Mos No Page Code	This setting only applies to iNews. If no page code has been entered for a story in iNews, this has to be reflected in the playlist in IPDirector. The **Page Code** playlist custom field in the IPDirector playlist has to remain empty. In the **Mos No Page Code** field you can enter the value (by default "NO PAGE") that will be used by IPMOSGateway to notify that no page code has been entered in iNews for a story and so that no page code has to be displayed in the IPDirector playlist. The default value is 'Q'.
Mos Page Slug Separator	The default separator used in the Story ID in the Story Slug received trough the MOS protocol from the NCS between the Page Code (iNews) / Segment (ENPS) and Story Slug. The default value is '-'.
Mos RoItemStat No Channel Value	Once a clip in a playlist has been played out on a particular server channel, it is no longer assigned to this channel. In the **roItemStat No Channel Value** key a value can be entered that should be displayed in the Running Order of the NCS to indicate that clip is not assigned to a channel. The default value is '-'.

Registry Value	Description
Mos Statusses Send for All Rundowns	If enabled, IPMOSGateway will send the status (READY, NOT READY) of the items for all the rundowns that are published in the NCS. If disabled, IPMOSGateway will only send statuses for the playlists actively loaded on the main XT server. In both cases, the statuses for the actively loaded playlist will also include PLAY, STOP, PAUSE, ...
Mos Story Slug In First Position	If enabled, IPMOSGateway will treat the element before the separator in the Story ID in the Story Slug received trough the MOS protocol from the NCS as the actual Story Slug. If disabled, it will the treat the element after the separator as the Story Slug. For ENPS, this setting is enabled, for iNews it is disabled.
RO ID Cleanup Enabled	Enables the RO ID Cleanup settings or not.
RO ID Dismiss Postfix	Truncates the RO ID sent by the NCS by removing the defined postfix and only keep the rest as the playlist VarID. This is useful if the RO ID has more than 32 characters. This setting is mainly necessary for iNews to cut off the "RUNDOWN".
RO ID Dismiss Prefix	Truncates the RO ID sent by the NCS by removing the defined prefix and only keep the rest as the playlist VarID. This is useful if the RO ID has more than 32 characters. This setting is mainly necessary for ENPS and iNews to cut off the NCS ID. Example: BEBRWENPS;P_SYSTEM\\W;
RO ID Remove Punctuation Characters	If enabled, the punctuation (‘-‘,’.’, ‘’ ,…) will be removed from the RO ID after dismissing all parts in previous settings if configured.
RO ID Take Last Characters	Takes only the given number of last characters of the RO IDs. This is necessarry if the RO ID is longer then 32 characters and that the relevant unique ID is at the end of the RoID. This setting is mainly necessary for ENPS. By default, this is set to 35 characters. Example: BEBRWENPS;P_SYSTEM\W;8BEBA3EE-4422-44FA-B280495484F0B681 (= [NCS SERVER];[FOLDER];[GUID]) Last 35 = GUID = 8BEBA3EE-4422-44FA-B280495484F0B681 Remove punctuations = 32 character Playlist VarID = 8BEBA3EE442244FAB280495484F0B681
RO Object Use ObjSlug As ObjID if Empty	If the NCS system passes a RO with an object that does not contain an ObjectID value, the IPMOSGateway can be enabled to utilize the Object Slug as the varID for the playlist element. By default, this setting is not enabled.

Registry Value	Description
RO Story Cleanup Enabled	Enables the Story ID Cleanup settings or not.
RO Story ID Remove Punctuation Characters	If enabled, the punctuation (‘-‘,’.’, ‘’ , …) will be removed from the RO Story ID.
RO Story ID Take Last Characters	Takes only the given number of last characters of the story IDs. This is useful if the story ID is rather long and always has the same length prefix. This setting is recommended for ENPS. By default, this is set to 35 characters. Example: Story ID: BEBRWENPS;P_SYSTEM\W\R_ 8BEBA3EE-4422-44FA-B280495484F0B681;469E75B5-31A3-4030-AFF9F3695746BE0B (= [RO_ ID];[GUID]) Last 35 = GUID = 469E75B5-31A3-4030-AFF9F3695746BE0B Remove punctuations = 32 character Playlist Elem Third Party ID = 469E75B531A34030AFF9F3695746BE0B
RO Replace As Insert First	Defines if a story replace is translated in a “delete old story” then “insert new story” (if option is not enabled) or a “insert new story before the old one” then “delete the old story”. By default, this setting is not enabled.

Processing Subkey

This subkey contains the registry values used to configure some automatic processing tasks.

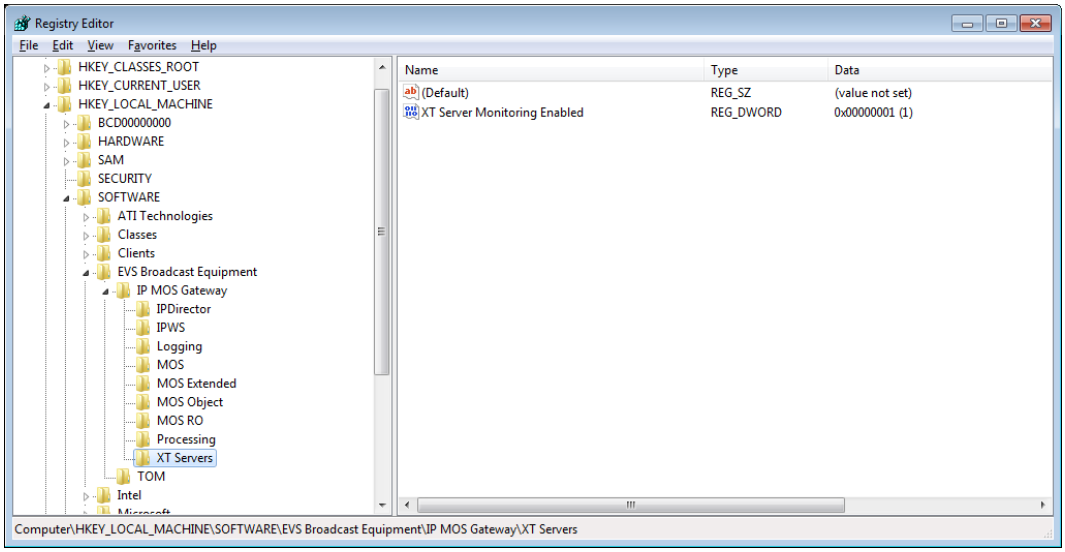


The table below describes the registry values you can manually edit.

Registry Value	Description
Auto Start Delay Seconds	The amount of time between the application start and the MOS communications autostart. The default value is ‘5’.
Auto Start Enabled	If enabled, the communication with the IPMOSGateway automatically starts a few seconds after the application startup. By default, this setting is enabled.
Mos Update Object Delay Milliseconds	The frequency, in milliseconds, with which IPMOSGateway will process IPWS events. The default value is ‘100’.
Mos Update Object mosObj Send Delay Milliseconds	The frequency, in milliseconds, with which IPMOSGateway will send Object updates to the NCS. The default value is ‘500’.
Mos Update Status All Rundowns Delay Seconds	The frequency, in seconds, with which IPMOSGateway will update the status of the items in the rundowns that are not actively loaded on the main XT server. The default value is '30'.

Registry Value	Description
Mos Update Status roItemStat Send Delay Milliseconds	The frequency, in milliseconds, with which IPMOSGateway will send RO Item status updates to the NCS. The default value is '50'.
Mos Update Status Rundowns Send Delay Milliseconds	The frequency, in milliseconds, with which IPMOSGateway will send an update of all loaded rundowns. The default value is '500'.
Mos Update Status Rundowns Sync Send Delay Milliseconds	The frequency, in milliseconds, with which IPMOSGateway will send an update of all rundowns to the NCS. This should be set to '0' for ENPS.

XT Servers Subkey



The table below describes the registry values you can manually edit.

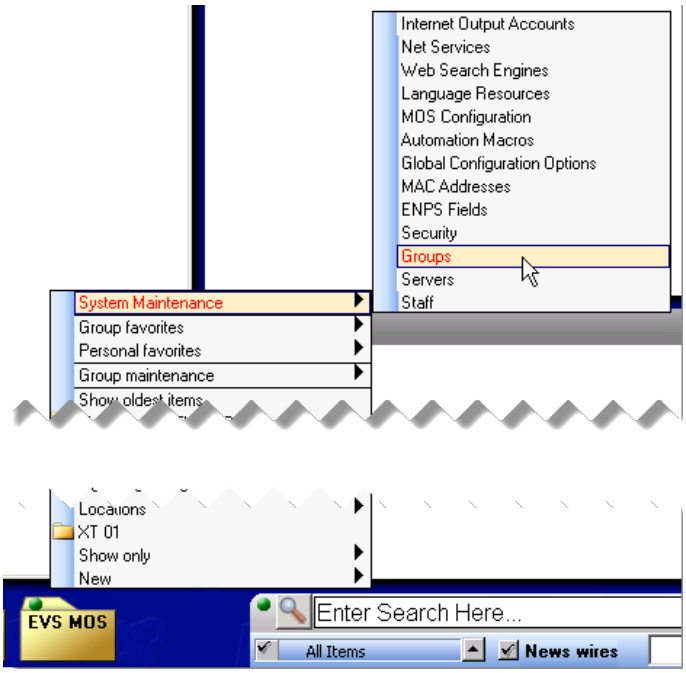
Registry Value	Description
XT Server Monitoring Enabled	If this setting is enabled, IPMOSGateway will monitor if the XT servers are running or not. If an XT server is no longer running, IPMOSGateway will no longer update the playlists on the XT server that has stopped. By default, this value is enabled.

4.2. Configuring for IPMOSGateway (ENPS Side)

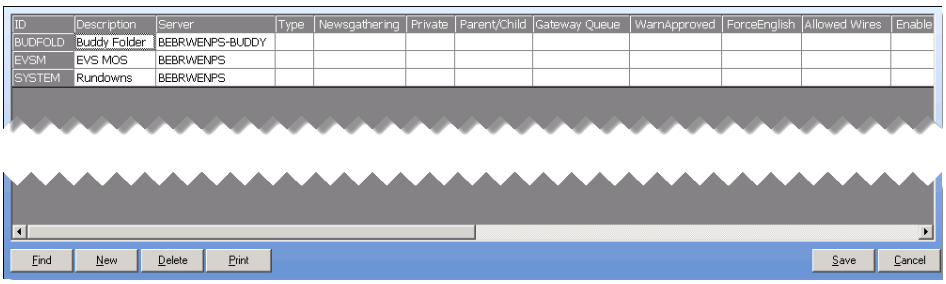
4.2.1. Creating a New Group/Program

To create a folder in ENPS in which MOS Object messages from IPMOSGateway will be stored, proceed as follows:

1. In ENPS, click the rover (green dot) of the fourth folder at the bottom of the ENPS desktop and select **System Maintenance** > **Groups**.



The window that allows you to manage groups in ENPS appears.



2. Click **New** to create a new group.

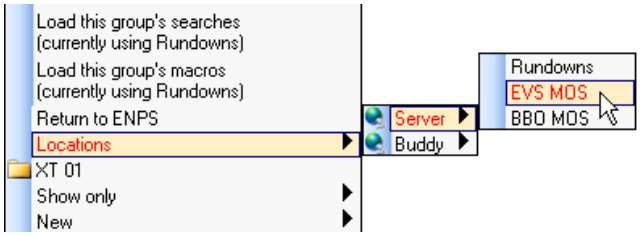
   The following dialog box appears.

3. Enter a unique identifier for the group. Spaces are not allowed. For example, 'EVSM'.
4. Enter the following information:
   - **Description**: Group name that will appear to the users. For example, 'EVS MOS'.
   - **Server**: Local or remote Primary Server that will host the group.
5. After you set the group options click **Save**. Exit the ENPS client and restart it to see the new group.

   No other options need to be defined for the group.

4.2.2. Navigating to the Group

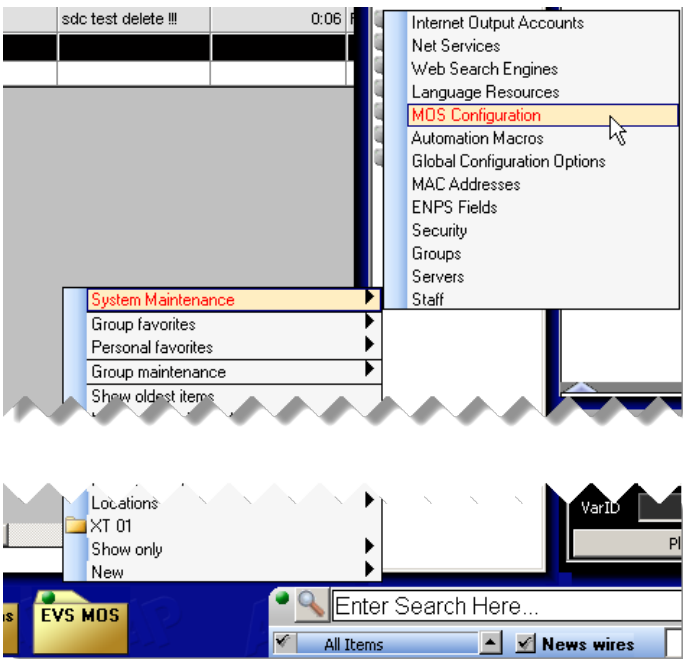
To navigate to the new group in ENPS, click the rover (green dot) of the fourth folder at the bottom of the ENPS desktop and select **Locations** Then, select the server name and the name of the group.



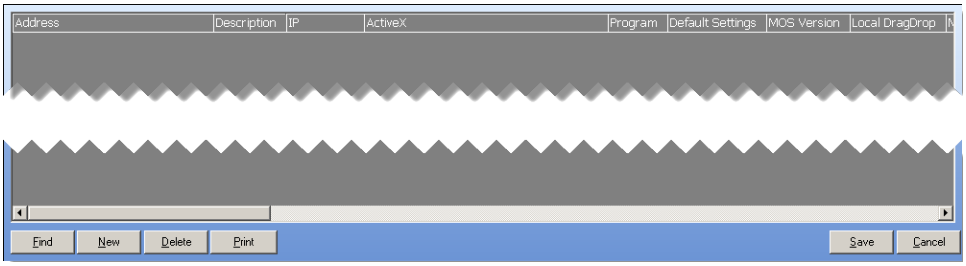
4.2.3. Adding IPMOSGateway and IPMOSBrowser

To add IPMOSGateway and the IPMOSBrowser to ENPS, proceed as follows:

1. In ENPS, click the rover (green dot) of the fourth folder at the bottom of the ENPS desktop and select **System Maintenance** > **MOS Configuration**.



The configuration window appears.



2. Click **New** to create a new configuration line.

   The following dialog box appears.

3. Enter the name of the IPMOSGateway server and click **OK**.

   This name is case-sensitive (preferably upper case) and must follow the following naming convention: <family>.<machine>.<location>.<enterprise>.<mos>

   Both `<location>` and `<enterprise>` are optional.

   For example, 'EVSIPDIR.EVS.BXL.SYSTEM1.MOS'.

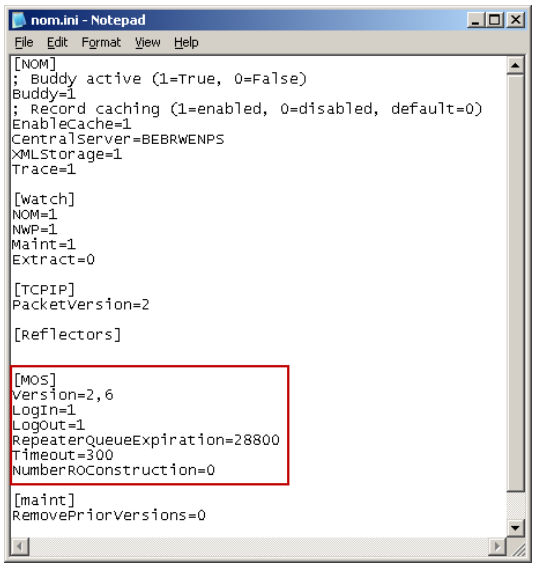
4. Enter the following information:
   - **Description**: Description of your IPMOSBrowser as it will appear in ENPS menus, for example 'IPDirector'.
   - **IP**: IP address of the IPMOSGateway server.
   - (optional) **ActiveX**: Name of the IPMOSBrowser. This name can be found in the registry. By default, this is 'MOSBROWSERMFC.MosBrowserMFCCtrl.1'.
   - **Program**: Name of the Group/Program Folder within ENPS in which MOS Object messages will be stored. For example: Define it to the 'EVSM' instance. See section "Creating a New Group/Program" on page 49.
   - **MOS Version**: The version of the MOS protocol to use with this device, i.e. version 2.8.
   - **Auto Create**: Determines whether IPMOSGateway is allowed to create MOS objects automatically. This setting must be enabled for a Rundown's AutoCreate feature to work. This should be disabled with IPDirector 5.
   - **Story Send**: Determines if IPMOSGateway is included in a list of MOS StorySend devices. This setting should be enabled. The **MOS Story Send** field must be enabled in the Rundown by the System Administrator.
   - **Local Drag/Drop** : This setting should typically be off.
5. Click **Save** to save your changes.
6. Restart the ENPS client and the News Object Manager any time you add a MOS entry.

4.2.4. Modifying the MOS Timeout

If an active link between ENPS and IPMOSGateway times out due to no response from IPMOSGateway, MOS control is deactivated, a DISCONNECTED indicator appears in the MOS Status column of a Rundown, and the Rundown is queued for a complete refresh when the connection is re-established.

The timeout is configurable in the `[MOS]` section of the `NOM.INI` file in the NOM folder on the server. Timeout values can be assigned to specific devices. The timeout values for specific MOS servers are set in the `MOS Timeout` section of the `NOM.INI` file.

Change the value to 300 (seconds).



Define this also on the Buddy Server when using a Buddy Server.

4.3. Configuring for IPMOSGateway (iNews Side)

4.3.1. Editing iNews MOS Gateway Configuration File

Introduction

The iNews MOS Gateway must be configured with information about IPMOSGateway that will connect to it. This is done by editing the iNews MOS Gateway configuration file, which is installed on the MOS Gateway Server.

The configuration file, which is named `mosconfig.xml`, is placed, by default, in the following location: `C:\Program Files\Avid\MOSGateway`.

While MOS Gateway is running, the configuration file is locked. Before editing the configuration file, ensure that the iNews MOS Gateway is stopped.

The configuration file can be edited in an editor that can process Unicode files, for example Windows Notepad.

The <listDevices> element of the iNews MOS Gateway configuration file contains device-specific configurations. It contains one or more <mosDevice> elements. The <mosDevice> element contains configuration settings that are specific to a particular MOS device.

Parameters

<Names> Group

In the <Names> group you have to enter the following information:

Element	Information
<mos></mos>	The MOS ID of IPMOSGateway. By default, this is 'EVS MOS'.
<amcp></amcp>	The name assigned to IPMOSGateway in iNews. It is the same name that appears in the SYSTEM.MOS-MAP story located in the iNEWS database.
<network></network>	The network name of the server that hosts IPMOSGateway.

<roChannels> Group

In the <roChannels> group you have to map the names of iNEWS channels used to the channel names accepted by IPMOSGateway. The following information has to be entered:

Element	Information
<iNewsChannel></iNewsChannel>	Name assigned to a channel in iNews.
<MosDevChannel></MosDevChannel>	Channel name accepted by IPMOSGateway.

<handlesEmptyStories> Group

Set the <handlesEmptyStories>YES/NO</handlesEmptyStories> group to YES, to send empty stories to see virtual elements in the IPDirector playlist.

<handlesRoStoryMoveMultiple> Group

Set the <handlesRoStoryMoveMultiple>YESNO</handlesRoStoryMoveMultiple> group to NO.

<handlesRoItemLevelCommands> Group

Set the <handlesRoItemLevelCommands>YESNO</handlesRoItemLevelCommands> group to NO.

<prependPageNumber> Group

Set the <prependPageNumber>YESNO</prependPageNumber> group to YES. The iNEWS story's page number is prepended to the story slug.

<prependSeparator> Group

Enter a character used to separate the story slug and the page number. The default is a hyphen.

<prependStringForEmptyPageNumber> Group

Enter the character string which is used in place of an empty page number. The default is 'NO PAGE'.

<sendRoCreateOnStartLoad> Group

Set the <sendRoCreateOnStartLoad>YESNO</sendRoCreateOnStartLoad> group to NO.

<handlesSpecMosReqAll> Group

Set the <handlesSpecMosReqAll>YESNO</handlesSpecMosReqAll> group to YES.

<ignoreItemStatusInRoAck> Group

Set the <ignoreItemStatusInRoAck>YESNO</ignoreItemStatusInRoAck> group to NO.

<handlesRoListAll28> Group

Set the <handlesRoListAll28>YESNO</handlesRoListAll28> group to NO.

<handlesRoStorySendNSMLX> Group

Set the <handlesRoStorySendNSMLX>YESNO</handlesRoStorySendNSMLX> group to NO.

<retryTimeout> Group

Set the <retryTimeout> group to '0'.

<statusTranslations> Group

The iNews Server expects one of ten event status codes to be returned as the status of a MOS item. Since the MOS Protocol specifies a string as the status of a MOS item in the roItemStat MOS command, MOS Gateway must map these strings to the iNEWS event status codes.

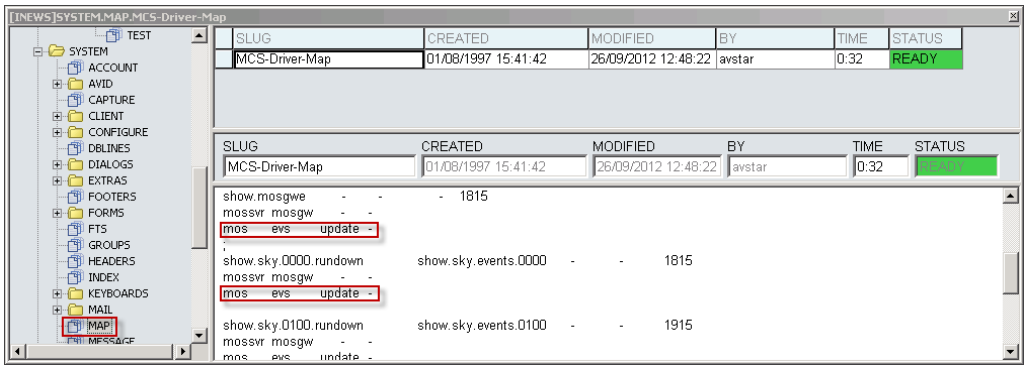
Furthermore, IPMOSGateway uses different strings to mean the same concept. The <statusTranslations> group specifies which string to map to each event status code.

iNews Event Status Code	IPMOSGateway Event Status Code
<statusUnknown>	UNKNOWN
<statusUnavailable>	NOT READY
<statusUnavailable>	DELETED
<statusAvailable>	READY
<statusAvailable>	NEW
<statusCued>	CUED

iNews Event Status Code	IPMOSGateway Event Status Code
<statusPlaying>	PLAY
<statusPaused>	PAUSE
<statusStopped>	STOP
<statusTensionReleased>	-
<statusPlayRequested>	-
<statusRewinding>	-
<statusTranslations>	-

4.3.2. Adding IPMOSGateway to System.MAP

When an entry is made of a particular show in the system.map story, the IPMOSGateway has to be added to the list of production devices.



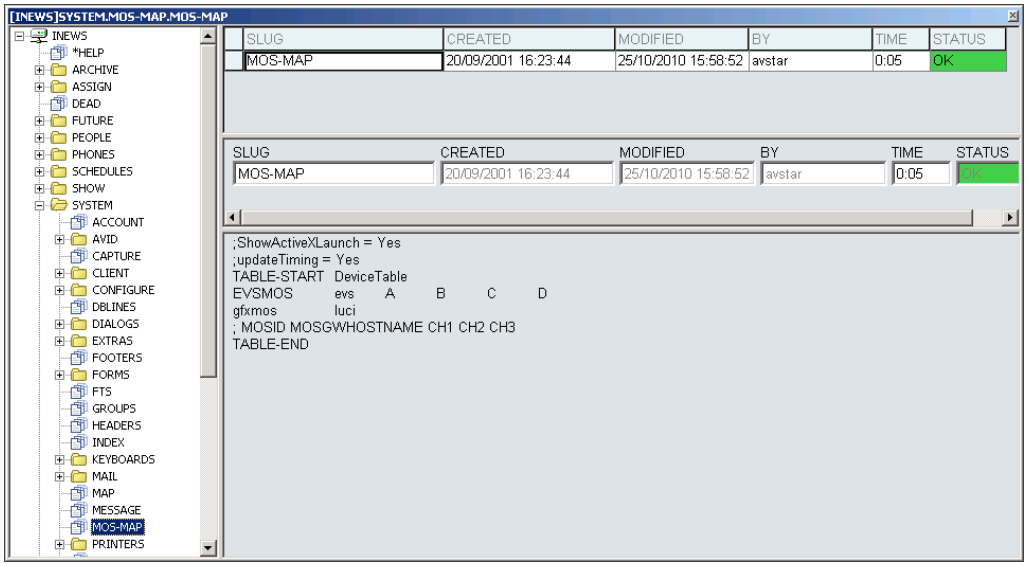
The following information has to be added:

- type of production device = mos
- name of the production device = name that corresponds to the value entered in mosconfig.xml file in the <amcp> tag.
- update = whether the monitor updates the playlist of IPMOSGateway.

4.3.3. Adding IPMOSGateway to the SYSTEM.MOS-MAP Story

The iNEWS system must associate the MOS ID of IPMOSGateway with an iNEWS device name. This is because machine control commands in a story must be associated with an iNEWS device name, so the monitor server can load them to IPMOSGateway. The iNEWS Workstation uses the association to create machine control commands from MOS items that it receives from IPMOSBrowser associated with IPMOSGateway.

The iNEWS system administrator creates the association by creating a table in the SYSTEM.MOS-MAP story, located in the System directory of the iNEWS database.



The table contains at least two columns of names separated by white space. The first column is the MOS ID of IPMOSGateway, by default EVS MOS. This must match the name that appears for IPMOSGateway in the MOS Gateway configuration file between the <mos> and </mos> tags. See section "Editing iNews MOS Gateway Configuration File" on page 53.

The second column is an iNEWS device name, which can have no more than eight characters. This must match the name that appears for that device in the MOS Gateway configuration file between the <amcp> and </amcp> tags. See section "Editing iNews MOS Gateway Configuration File" on page 53.

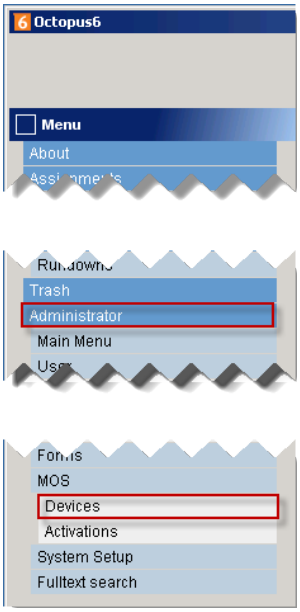
All available channels for IPMOSGateway must be listed in additional columns on the line for IPMOSGateway.

4.4. Configuring for IPMOSGateway (Octopus Side)

4.4.1. Adding IPMOSGateway to Octopus

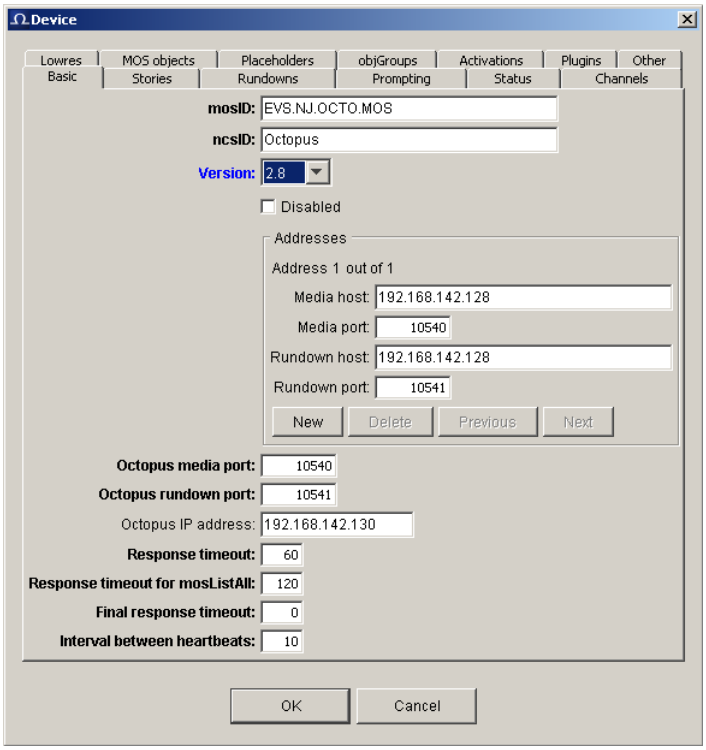
To add IPMOSGateway to Octopus, proceed as follows:

1. On the left menu, click **Administrator > MOS > Devices**.

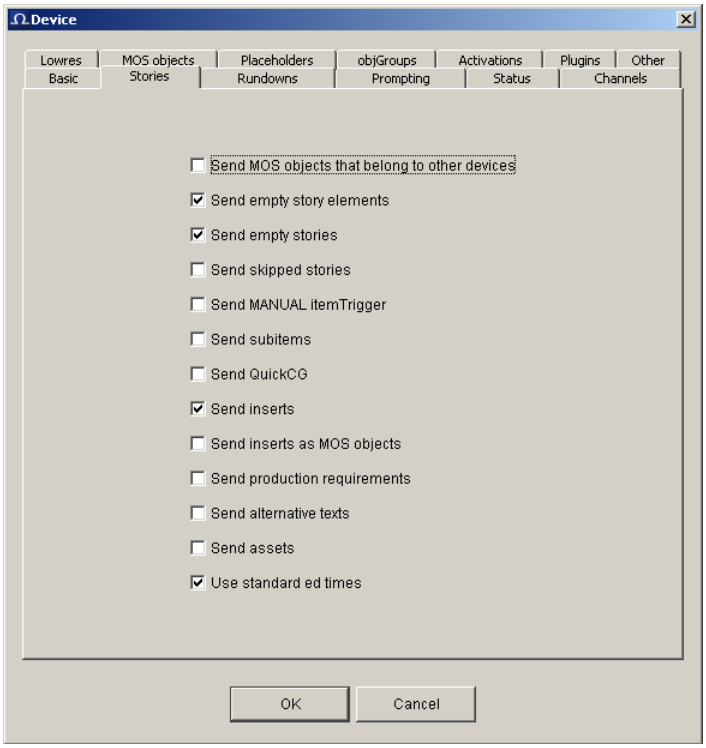


2. In the Devices pane, click **New**.

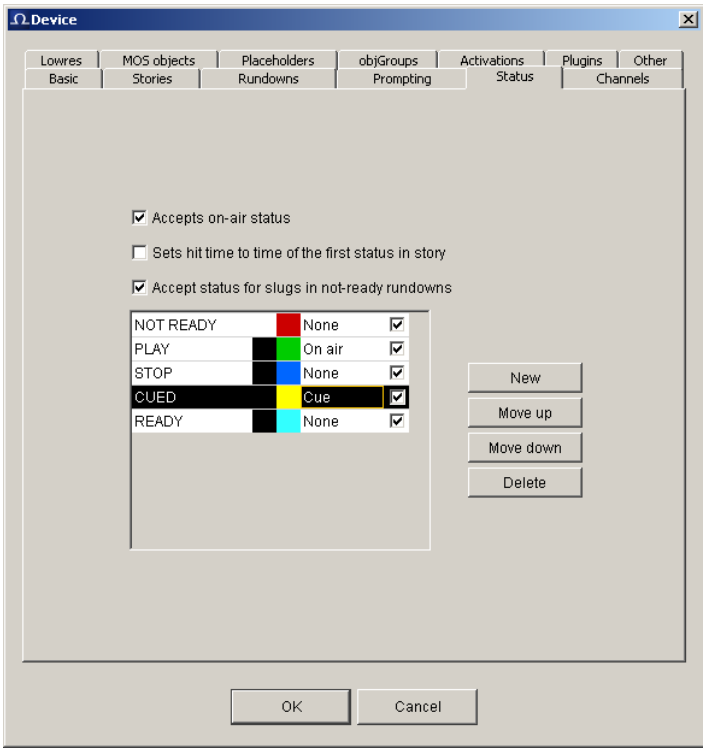
   A dialog box appears that allows you to add a new device to Octopus.



3. In the Basic tab, enter the following information:
   - IPMOSGateway MOS ID in the **mosID** field. By default 'EVS MOS'.
   - MOS protocol version in the **Version** field. By default, version 2.8.
   - IP address of the server that hosts IPMOSGateway in the **Media Host** and **Rundown Host** field.
4. In the Stories tab, select the following check boxes:
   - **Send empty story elements**: If selected, empty items are sent in rundown create messages.
   - **Send empty stories**: If selected, stories with no visible items are sent to IPMOSGateway.
   - **Send inserts**: If selected, a proprietary message is sent for commercial breaks.
   - **Use standard ed times**: If checked, Octopus uses standard MOS protocol meaning for itemEdStart and itemEdDur, otherwise the meaning is proprietary.

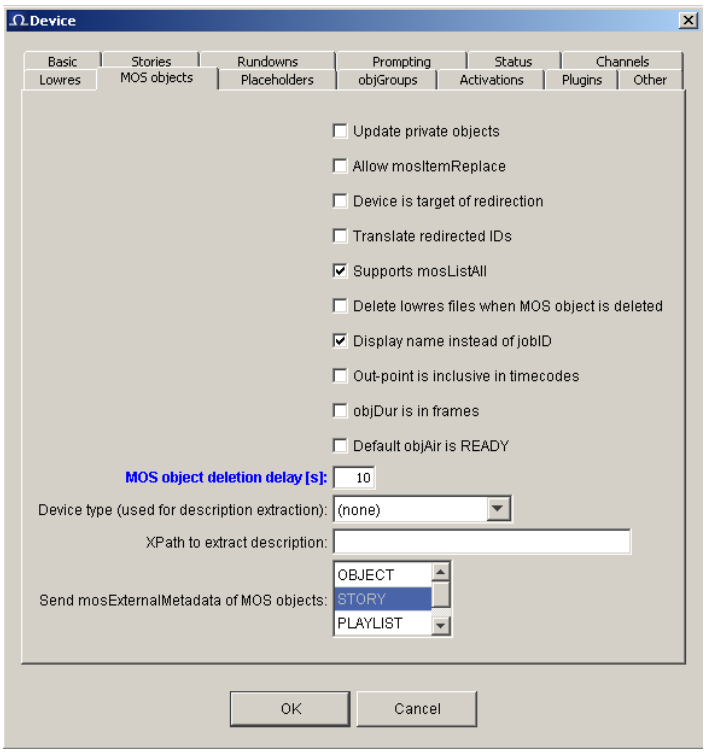


5. In the Status tab, do the following:
   - Select the **Accepts on-air status** check box. If selected, Octopus accepts <roItemStat> message from IPMOSGateway.
   - Select the **Accept status for slugs in not-ready rundowns** check box. If selected, <roItemStat> is accepted even for stories in rundowns not marked as ready-for-air.
   - Add all possible values for roItemStat message into the first column by clicking the **New** button and then pressing **F2** to edit the field. Clicking on the coloured squares allows selection of a background and text colour for slugs with this status to be displayed. The Octopus status column has three possible values **None**/**OnAir**/**Cue**. Press **F2** to edit the field.

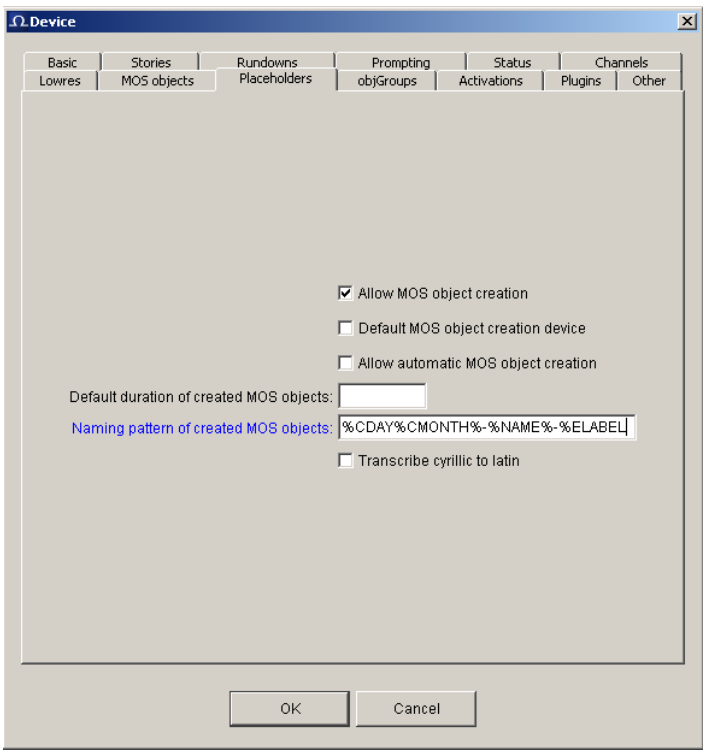


6. In the MOS Objects tab, select the following check boxes:
   - **Supports mosListAll**:If selected, this will allow IPMOSGateway to send MOS object descriptions in a format similar to mosObj messages from the MOS to the NCS.
   - **Display name instead of jobID**: Proprietary settings.

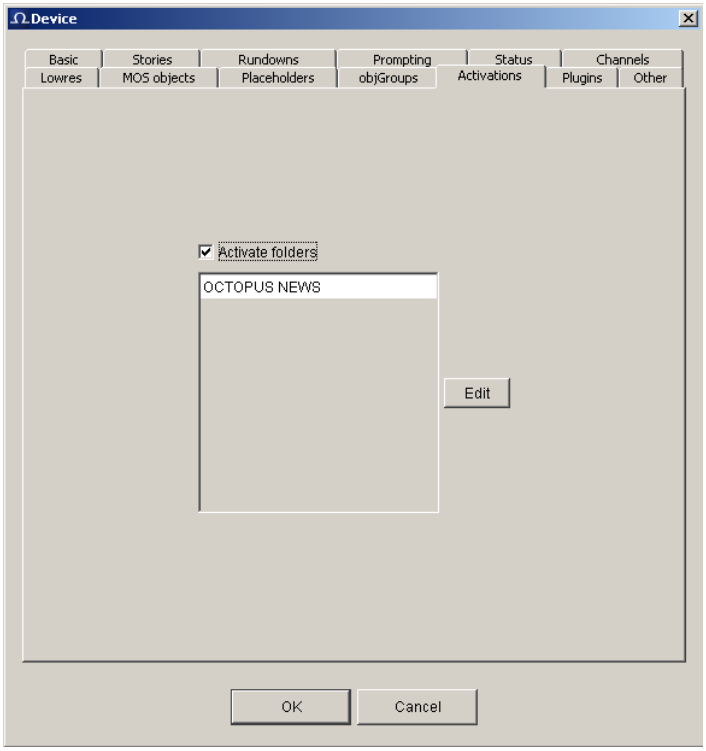
   In the **MOS object deletion delay(s)** field, enter '10'.



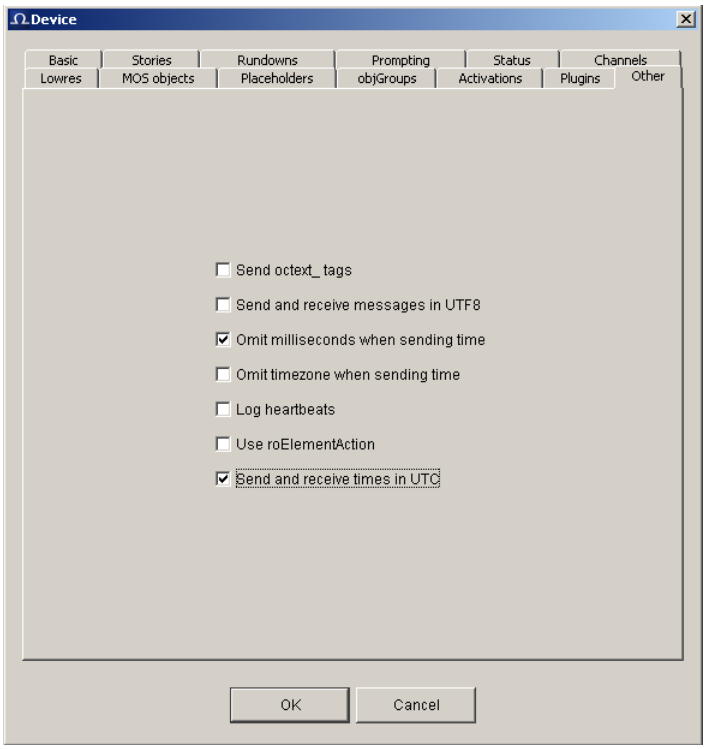
7. In the Placeholders tab,do the following:
   - Select the **Allow MOS object creation** check box: If selected, the support for mosObjCreate message is set in the scripts.
   - In the **Naming pattern of created MOS objects** field, enter the automatic naming pattern for placeholders. By default, this is %CDAY%CMONTH-%NAME%-%ELABEL.



8. In the Activations tab, select the check box **Activate folders** to allow manual activation of stories in story folders.



9. In the Other tab, select the following check boxes:
   - **Omit milliseconds when sending time**: If checked, milliseconds of timestamps are not sent by Octopus.
   - **Send and receive time in UTC**: Enables/disables UTC or local time.



10. Click **OK** to save your settings.

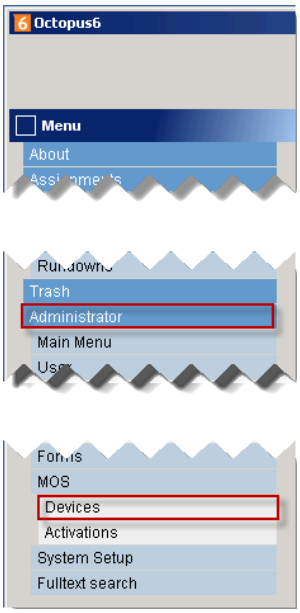
    The dialog box closes. IPMOSGateway is added to the list of devices.

11. A restart of the MOS agent service is required after changing the configuration of a MOS device in the Octopus client.

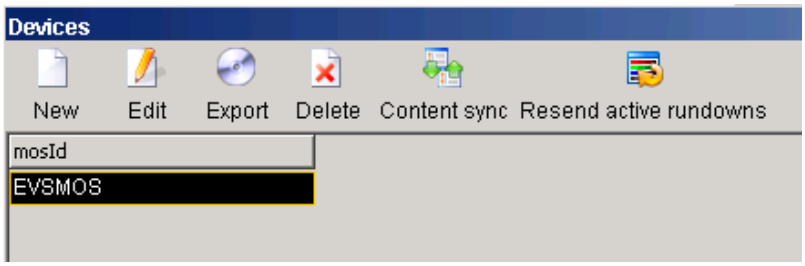
4.4.2. Adding the IPMOSBrowser to Octopus

To add the IPMOSBrowser to Octopus, proceed as follows:

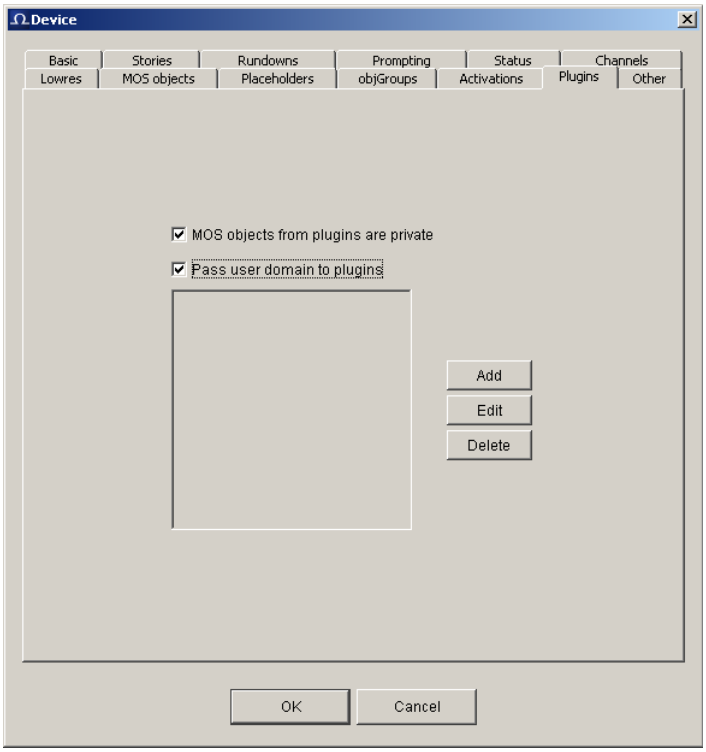
1. On the left menu, click **Administrator > MOS > Devices**.



2. In the Devices pane, double-click the entry you created for IPMOSGateway.

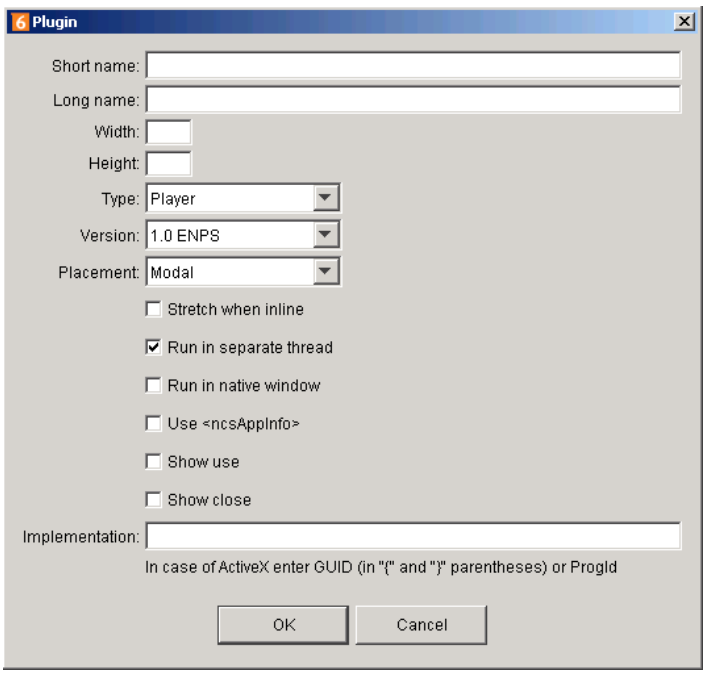


3. Open the Plugins tab.



4. Select the **Pass user domain to plugins** check box.
5. Click the **Add**button.

   A dialog box appears that allows you to add the IPMOSBrowser.



6. Enter the following information:
   - **Short name**: User preference (e.g. IP Director)
   - **Long name**: User preference (e.g. EVS IP Director Browser)
   - **Width**: Width of the IPMOSBrowser pane in Octopus. By default, 800.
   - **Height**: Height of the IPMOSBrowser pane in Octopus. By default, 600.

7. Select the following data in the following fields:
   - **Type**: **Browser**
   - **Version**: **2.8**
   - **Placement**: **Horizontal split**
8. Select the following check boxes:
   - **Show use**
   - **Show case**
9. In the **Implementation** field, enter the GUID of the IPMOSBrowser. By default, MOSBROWSERMFC.MosBrowserMFCCtrl.1.
10. Click **OK**.

4.4.3. Editing the MOSAgent.xml File

Edit the MOSAgent.xml file in the folder `C:\octopus\services\MOSAgent` and change the MOS ID to whatever MOS ID you configured in Octopus client.

```
<service>
    <id>OctopusMOSAgentService</id>
    <name>Octopus MOS Agent</name>
    <description>Octopus6 MOS Agent</description>
    <mainClass>octopus.agents.mosagent.Main</mainClass>
    <javaArguments>-Xms128m -Xmx400m -XX:MinHeapFreeRatio=10 -
     Djava.class.path=MOSAgent.jar</javaArguments>
    <arguments>O6SERVER EVS.NJ.OCTO.MOS octopus</arguments>
    <javaHome>C:\Java\jre6</javaHome>
</service>
```

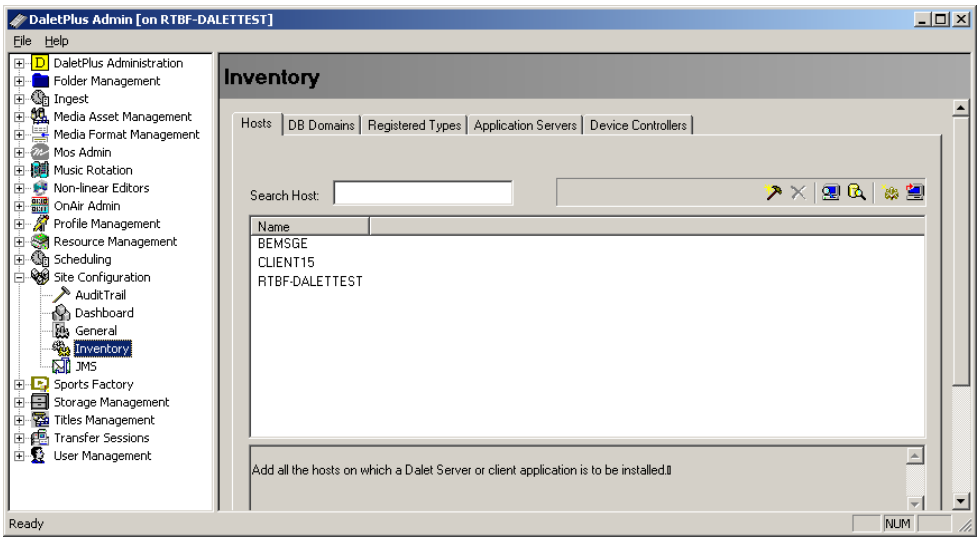
Restart the MOSAgent service and devices should be connected. Logs of the MOSAgent can be found in `C:\octopus\services\mosagent\log\<date>`.

4.5. Configuring for IPMOSGateway (Dalet Side)

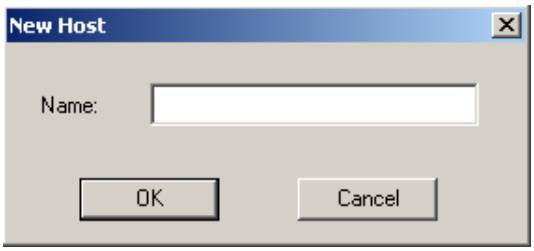
4.5.1. Creating the IPMOSGateway Host

To create the IPMOSGateway host, proceed as follows:

1. In the DaletPlus Admin module, open the Site Configuration branch and select Inventory.



2. Open the Host tab.
3. Click the hammer icon to create a new host.
4. Enter the name of the machine that hosts IPMOSGateway, and then click **OK**.

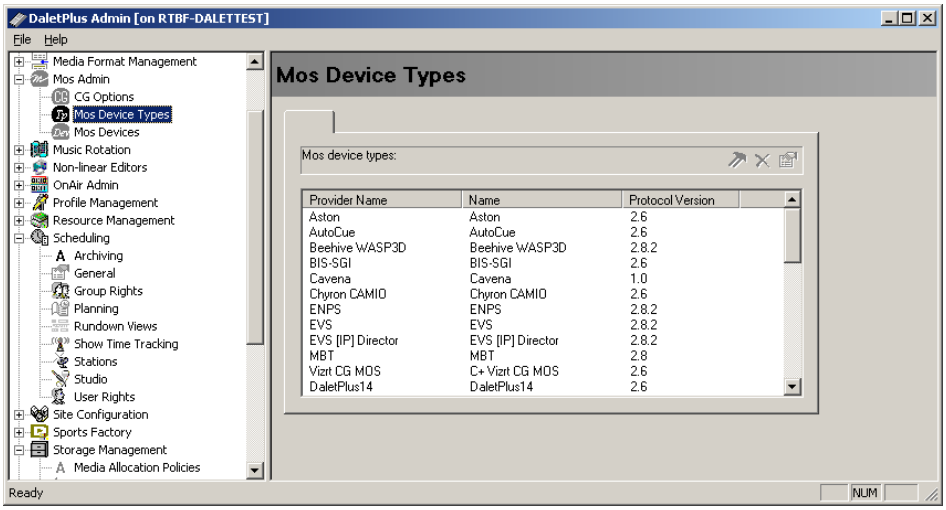


4.5.2. Defining a Title Type and Target Category

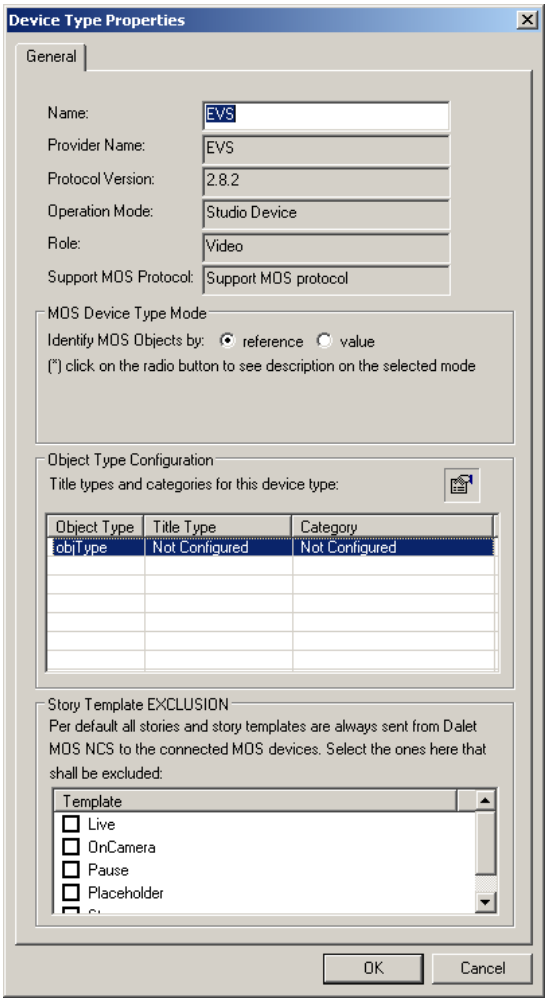
To define a title type and target category for IPMOSGateway, proceed as follows:

1. In the DaletPlus Admin module, open the Mos Admin branch and select Mos Device Types.

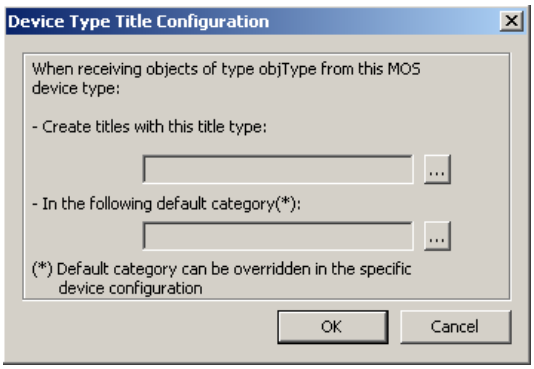
   The Mos Device Types screen contains all device types that Integration Gateway supports.



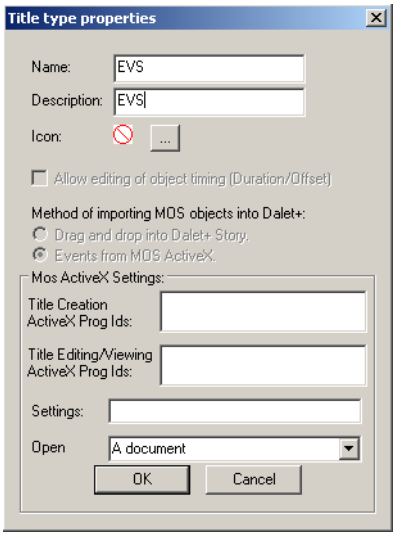
2. Select the EVS device type from the list and click  to view the properties.



3. In the Object Type Configuration area, select the record in the grid and click  .
   The Device Type Title Configuration dialog box appears.

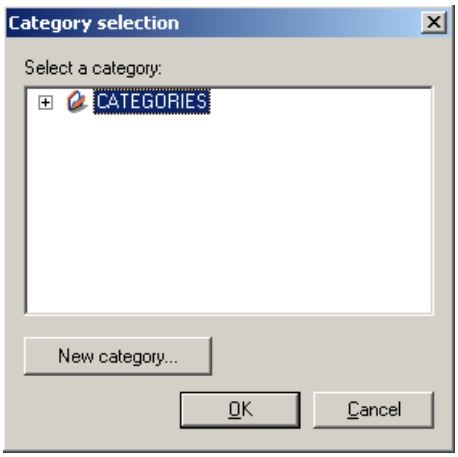


4. Click  next to the **Create Titles with This Title Type** field.
   The Title Type Properties dialog box appears.

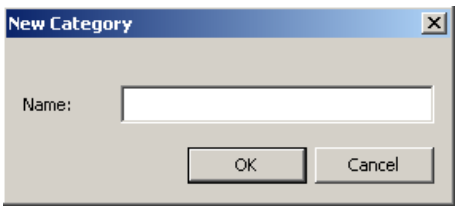


5. In the Title Editing/Viewing ActiveX Prog Ids field enter the name of the IPMOSBrowser: 'ACTMOS.ActMOSObjCtrl.1'.
6. Click **OK**.
7. Click … next to the **In the following default category (*)** field.

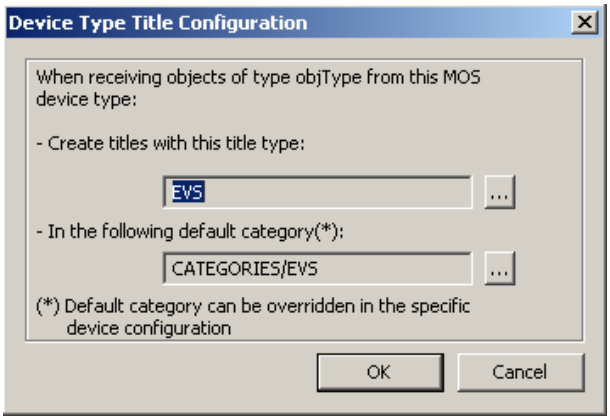
   The Category Selection dialog box appears.



8. Click the **New Category** button.
9. Enter a name for the new category and click **OK**, for example 'EVS'.



In the Device Type Title Configuration dialog box the selected title type and default category appear.


Device Type Title Configuration
When receiving objects of type objType from this MOS device type:
- Create titles with this title type:
EVS
...
- In the following default category(*):
CATEGORIES/EVS
...
(*) Default category can be overridden in the specific device configuration
OK
Cancel

10. Click **OK**.

4.5.3. Creating an Instance of IPMOSGateway

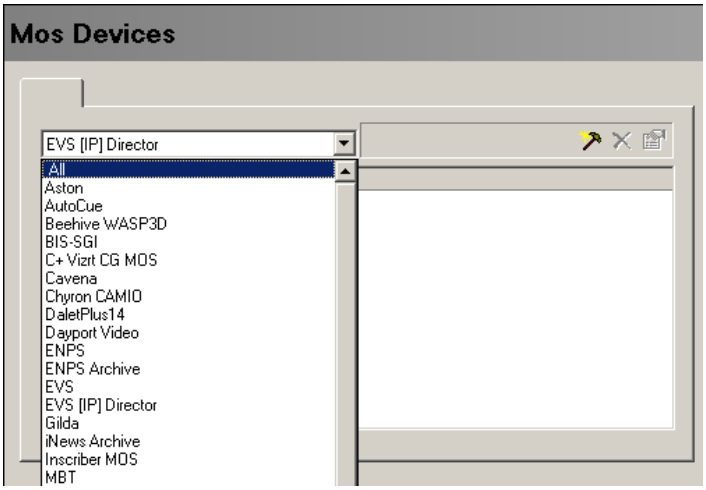
If you want to create an instance of IPMOSGateway, you have to configure the instance of IPMOSGateway in order to ensure its functionality. This is done in the MOS Device section.

To create an instance of the IPMOSGateway, proceed as follows:

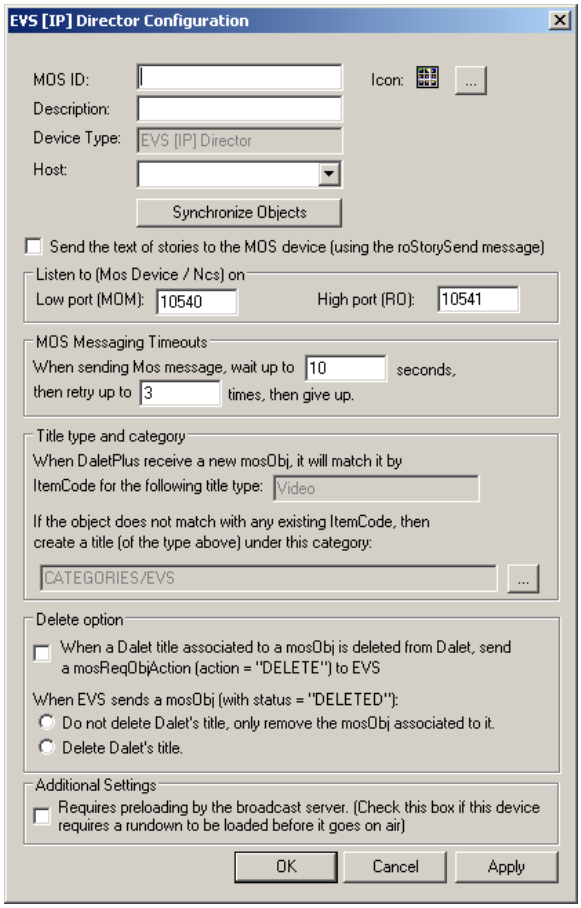
1. In the DaletPlus Admin module, open the MOS Admin branch and select Mos Devices.

   The Mos Devices screen appears.

2. Select the 'EVS [IP] Director' device from the drop-down list.



3. Click the hammer icon to create a new device instance. The following dialog box appears:

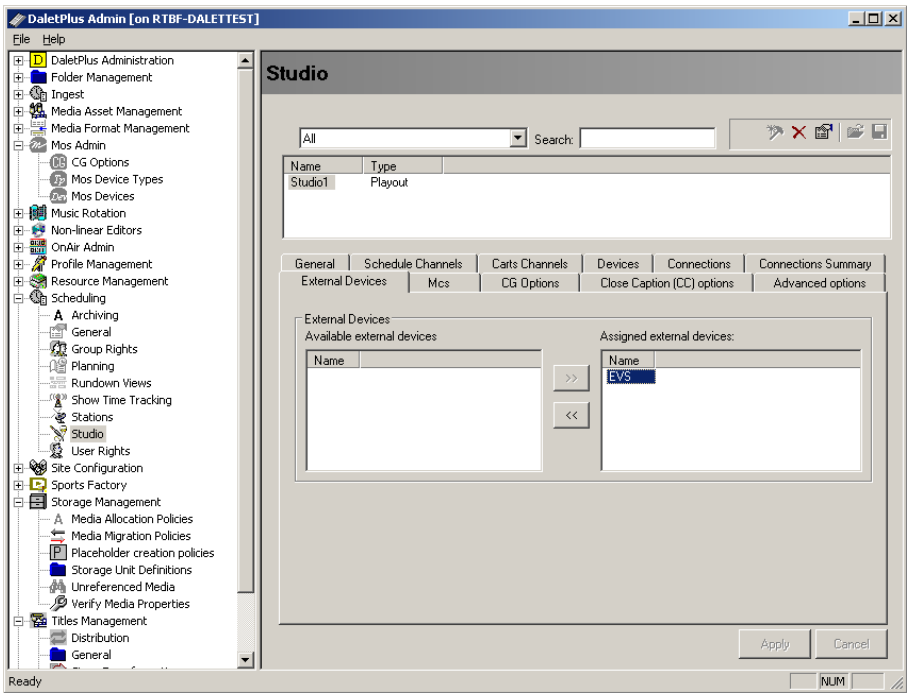


4. Enter the MOS ID of IPMOSGateway, by default 'IPD.EVS.MOS', and select the name of the machine that hosts IPMOSGateway. (Optional) Enter a description.
5. In the **Low Port (MOM)** field, enter the TCP/IP port on which the NCS will accept connections from MOS devices. The default port number is '10540'.
6. In the **High port (RO)** field, enter the TCP/IP port on which MOS will accept connections from the NCS. The default port number is '10541'.
7. Click **Apply** and then **OK**.

4.5.4. Assigning IPMOSGateway to a Studio

In order to use IPMOSGateway for playout, it must be assigned to a Studio. To do this, proceed as follows:

1. In the DaletPlus Admin module, open the Scheduling branch and select Studio.
2. Open the External Devices tab.
3. Move the respective device from the available grid (left) to the assigned grid (right) using the right arrow button.



4. Click the **Apply** button.

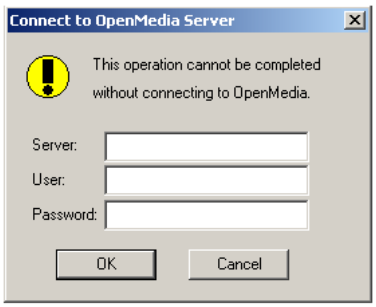
4.6. Configuring for IPMOSGateway (Open Media Side)

4.6.1. OMIS (MOS) Configuration

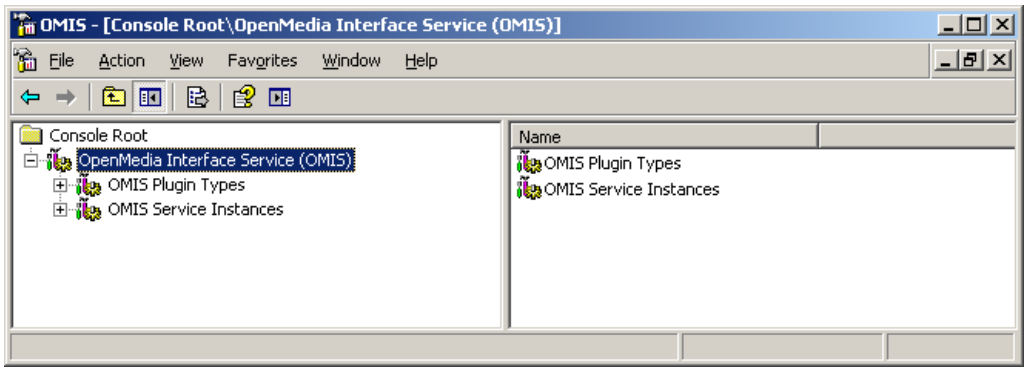
The OMIS console allows you to change the configuration of the OpenMedia MOS gateway.

Double-click the OMIS icon on the desktop of the Open Media server.

Log into the OpenMedia server.



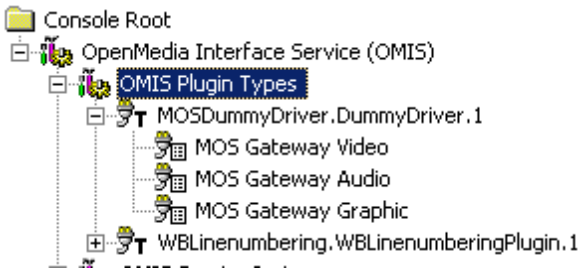
The OMIS configuration tree consists of two branches, one for the plugin configurations and one for the services.



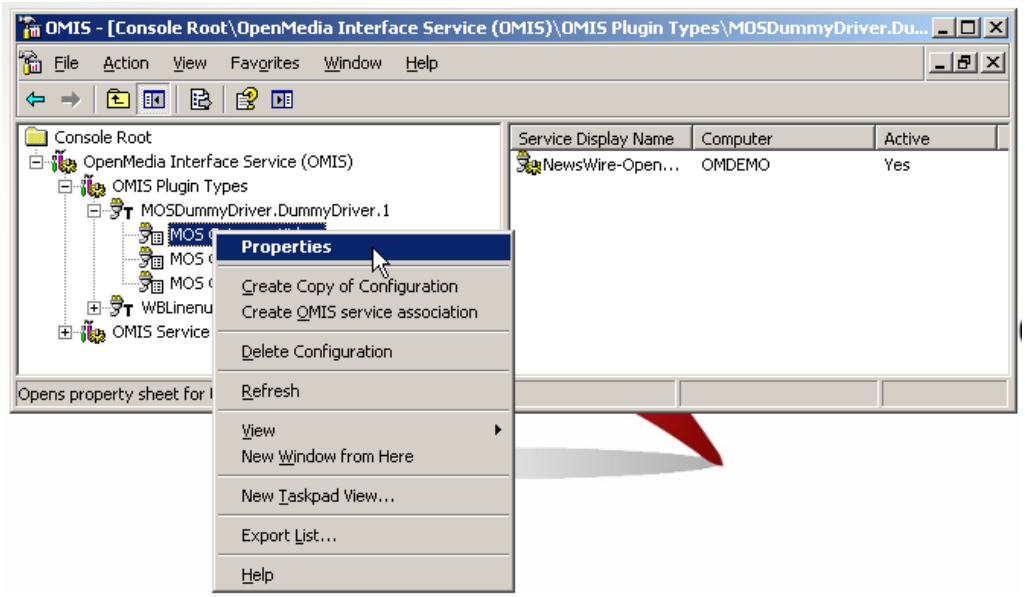
The services branch allows you to start and stop OMIS services directly from the console.

The plugin configuration branch allows you to change the properties of a plugin, especially the MOS plugin.

There are three preconfigured MOS plugins depending on the type of integration; video, audio or graphic. The default integration is the video type, for other types you have to exchange the active plugin in the OMIS MOS service.

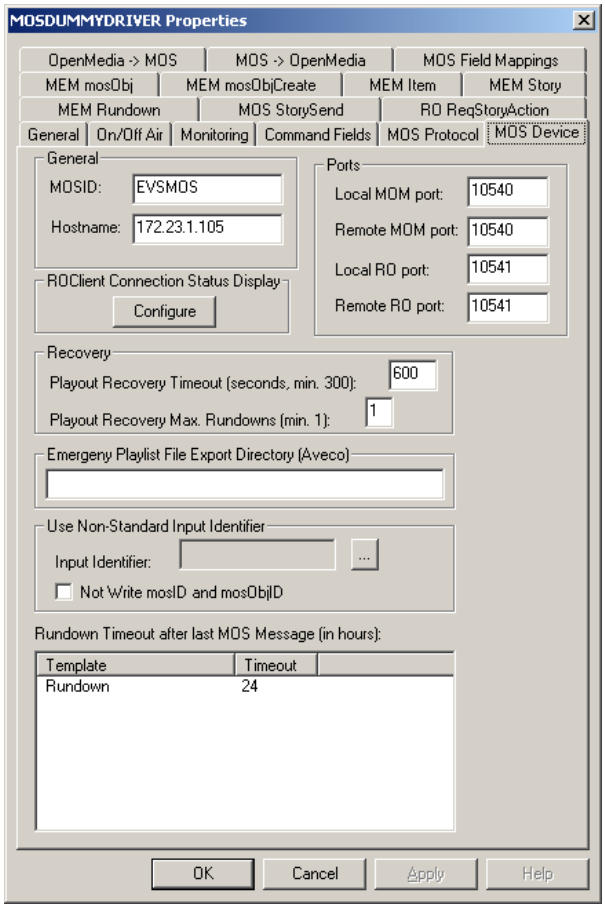


To change the values of the MOS plugin, you have to stop the OMIS MOS service running respective plugin first. Then open the properties of the plugin from the context menu.



The dialog offers some property pages to configure the OpenMedia MOS gateway. Open the MOS Device tab. Here, you will find the relevant settings to configure IPMOSGateway, especially the MOS ID and the ports to use.

After making the necessary changes to the configuration, you can re-start the OMIS MOS service.


MOSDUMMYDRIVER Properties
OpenMedia -> MOS
MOS -> OpenMedia
MOS Field Mappings
MEM mosObj
MEM mosObjCreate
MEM Item
MEM Story
MEM Rundown
MOS StorySend
RO ReqStoryAction
General
On/Off Air
Monitoring
Command Fields
MOS Protocol
MOS Device
General
MOSID:
EVSMOS
Hostname:
172.23.1.105
ROClient Connection Status Display
Configure
Ports
Local MOM port:
10540
Remote MOM port:
10540
Local RO port:
10541
Remote RO port:
10541
Recovery
Playout Recovery Timeout (seconds, min. 300):
600
Playout Recovery Max. Rundowns (min. 1):
1
Emergeny Playlist File Export Directory (Aveco)
Use Non-Standard Input Identifier
Input Identifier:
...
Not Write mosID and mosObjID
Rundown Timeout after last MOS Message (in hours):
Template
Timeout
Rundown
24
OK
Cancel
Apply
Help

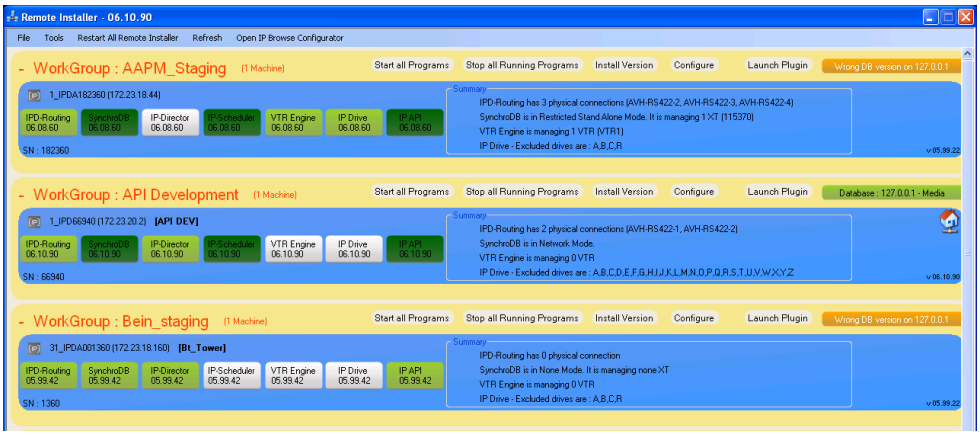
4.7. Configuring IPDirector

4.7.1. Preparing the IPDirector API

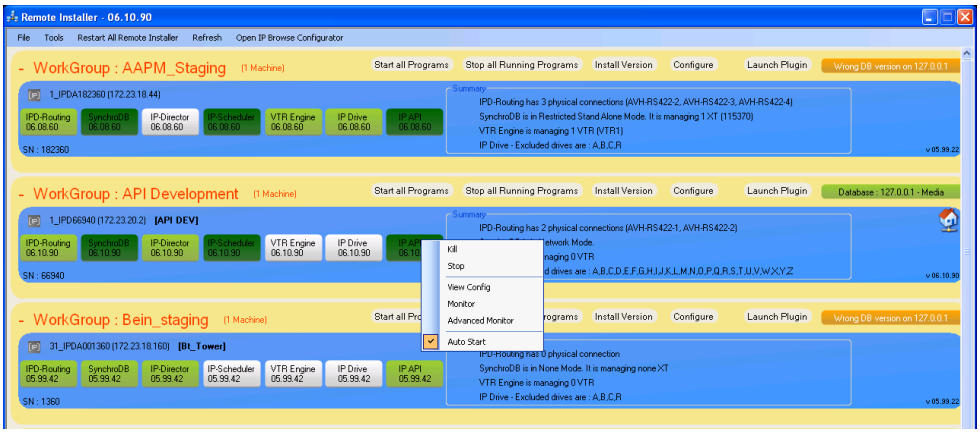
Starting an IP API Service on IPDirector

To start an IP API Service on IPDirector, proceed as follows:

1. Open the IPDirector Remote Installer and start the IP API Service on at least one IP Director.



2. Set the service to **Auto Start** to be sure that the service will always be available.

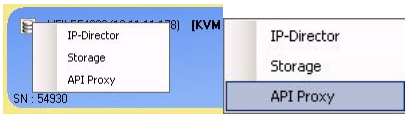


Starting an IP API Proxy

An API Proxy can be used if you have one or two dedicated database servers and you want to use multiple APIs (for load balancing and fault-tolerance).

To start an IP API Proxy, proceed as follows:

1. Install the Remote Installer on each IPDirector database server.
2. Assign them the **API Proxy** mode.



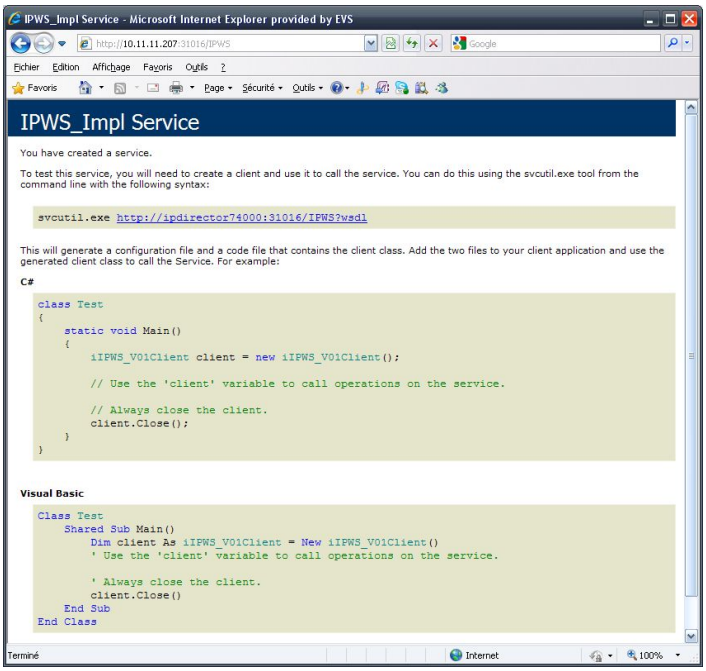
3. Deploy the IPDirector package on the IPDirector database servers.
4. Start the IP API Service and set it to **Auto Start**.

Checking the API Connection

To check the API connection, proceed as follows:

1. Start a web browser.
2. Type the address `http://ApiIPAddress:31016/IPWS` where the API IPAddress is the IP address of the IPDirector where you have started your API or the IP address of the database server if you have installed a proxy (dedicated or virtual IP address).

You should get a web page similar to the following screenshot.



4.7.2. Create a User for the IPMOSGateway

It is advised to consider adding a custom user to the IPDirector database to allow the IPMosGateway to log into the Web Service API with a limited user instance.

To create a user, proceed as follows:

1. Launch the IP-Director User Manager.

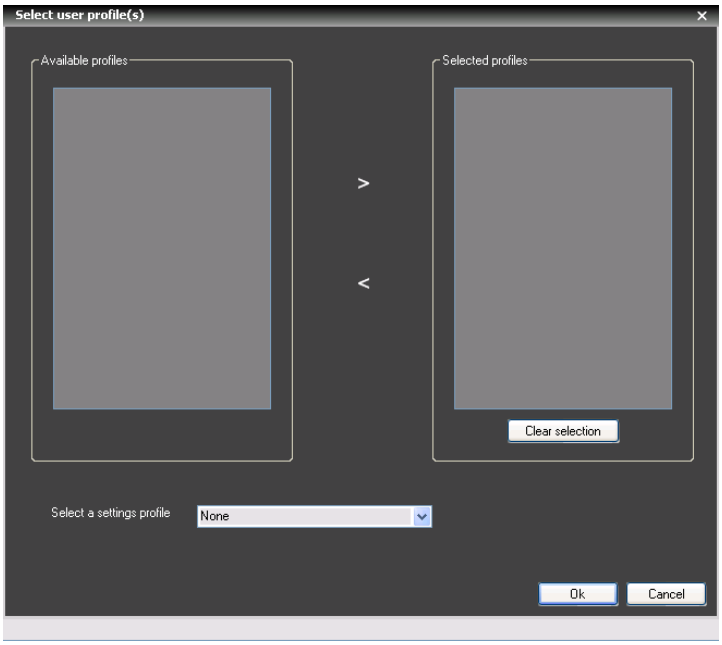
   The login window is opened.

2. Enter the administrator login and password. Then click **OK**.

   The main interface of IP-Director User Manager opens.

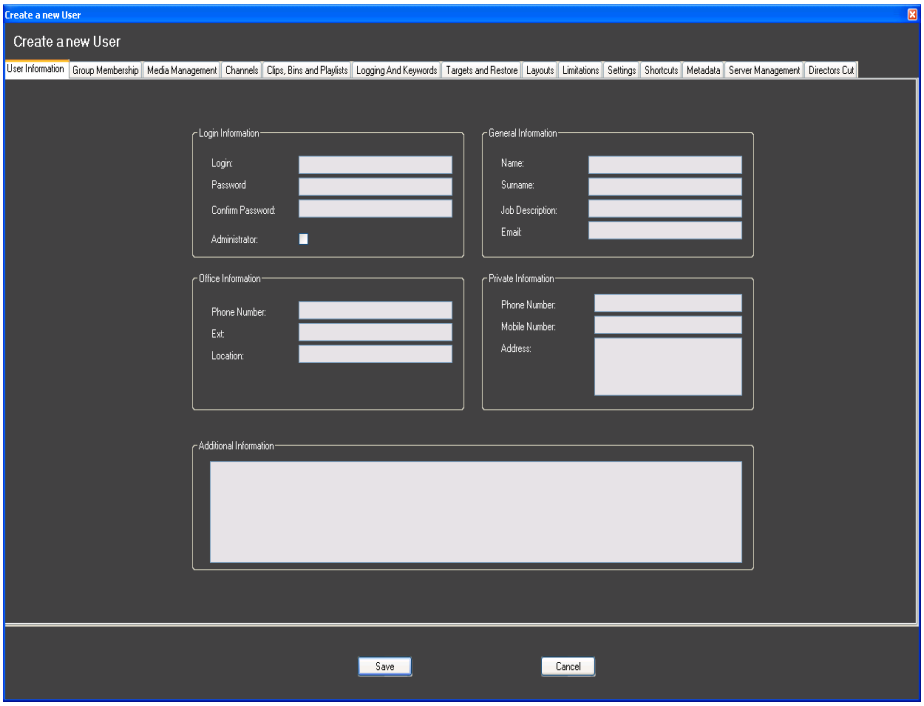
3. In the **Users** menu select **New**.

   The 'Select user profile(s)' window is opened.

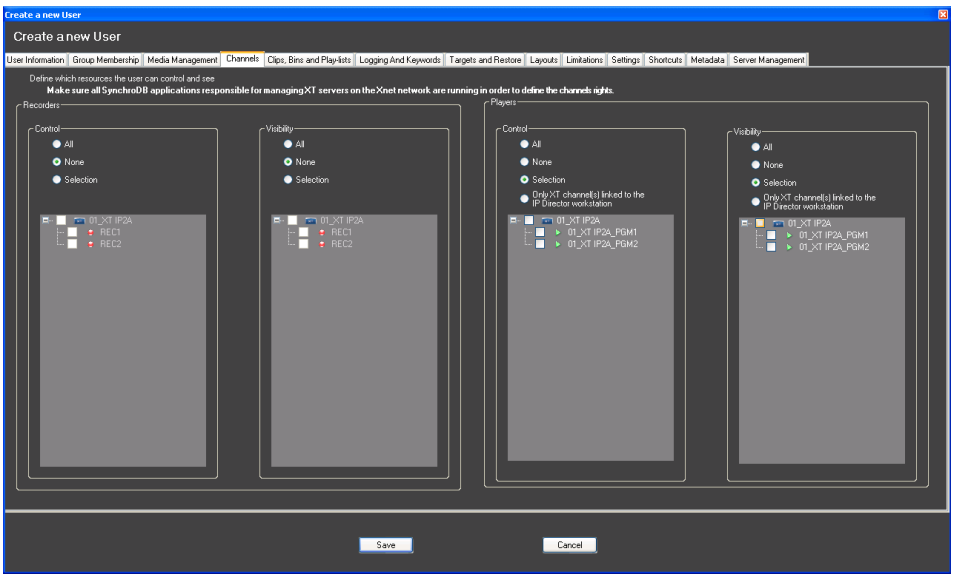


4. Use the **<** button to remove the profiles from the selected list. Click **OK** when you're done.

   The Create a New User window opens.

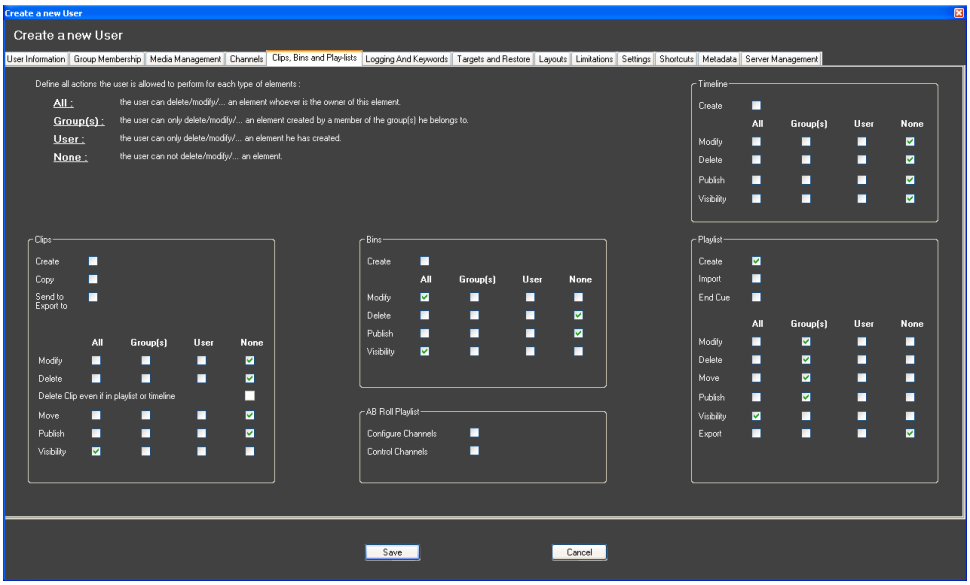


5. Enter a login and a password for the new user. Confirm the password.
6. Click **Save**.
7. Open the Channels tab.
8. In the Visibility group box of the Players area, select **Selection** and then select the channels used for playout.



9. Click the **Save** button.
10. Open the Clip, Bins and Playlists (Timeline) tab and do the following:
    - In the Clips group box, select the check box **Visibility All**.
    - In the Bins group box, select the check boxes **Modify All** and **Visibility All**.
    - In the Edits group box, select the check boxes **Create**, **Modify Group(s)**, **Delete Group(s)**, **Publish Group(s)** and **Visibility All**.

- In the Playlist group box, select the check boxes **Create**, **Modify Group(s)**, **Delete Group(s)**, **Move Group(s)**, **Publish Group(s)** and **Visibility All**.



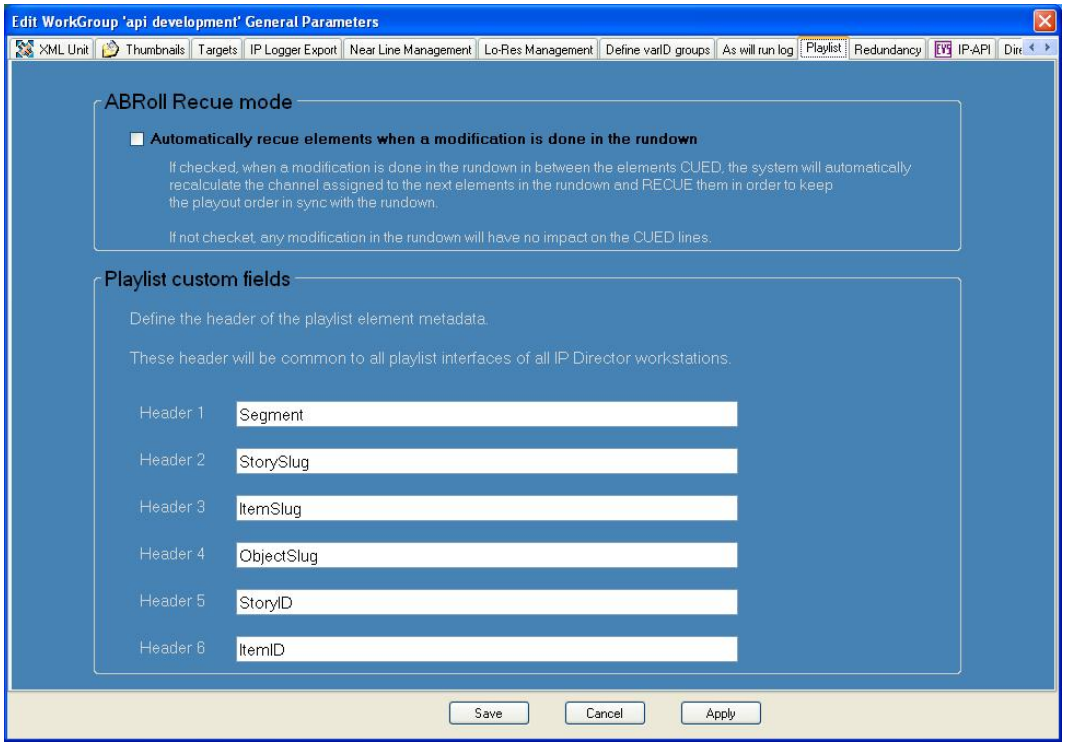
11. Click the **Save** button.

4.7.3. Playlist Custom Fields

Defining Playlist Custom Fields

The following 6 playlist custom fields should be defined in the IPDirector Remote Installer to allow for better rundown metadata to be visible to the playout user:

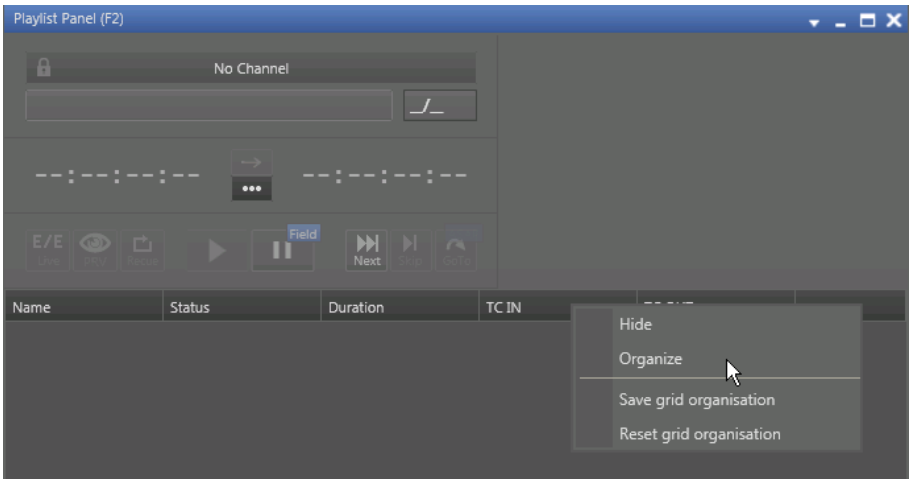
- Header 1: Segment (for ENPS) or Page Code (for iNews)
- Header 2: StorySlug
- Header 3: ItemSlug
- Header 4: ObjectSlug
- Header 5: StoryID
- Header 6: ItemID



Adding Playlist Custom Fields to (AB Roll) Playlist Panel

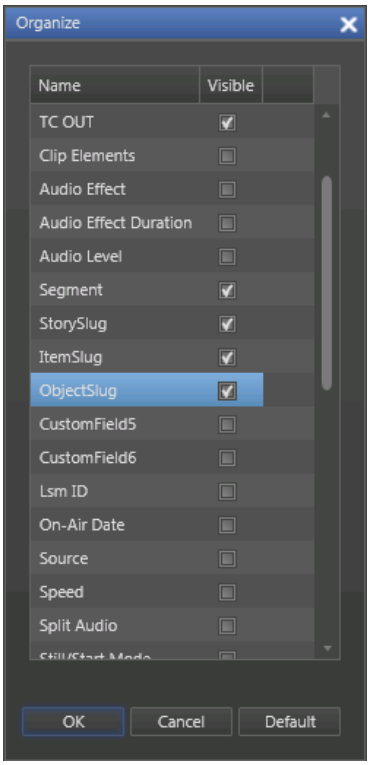
To add the playlist custom fields to the Playlist or the AB Roll Playlist Panel in IPDirector, proceed as follows:

1. Open the Playlist Panel or the AB Roll Playlist Panel.
2. Right-click the Playlist Panel or the AB Roll Playlist Panel and select the option **Organize**.



3. Select the playlist custom fields you have defined in the IPDirector Remote Installer, and then click **OK**

Afterwards, right click and choose to Save Grid Organization to retain the defined columns for new instances of the window opened in the future.

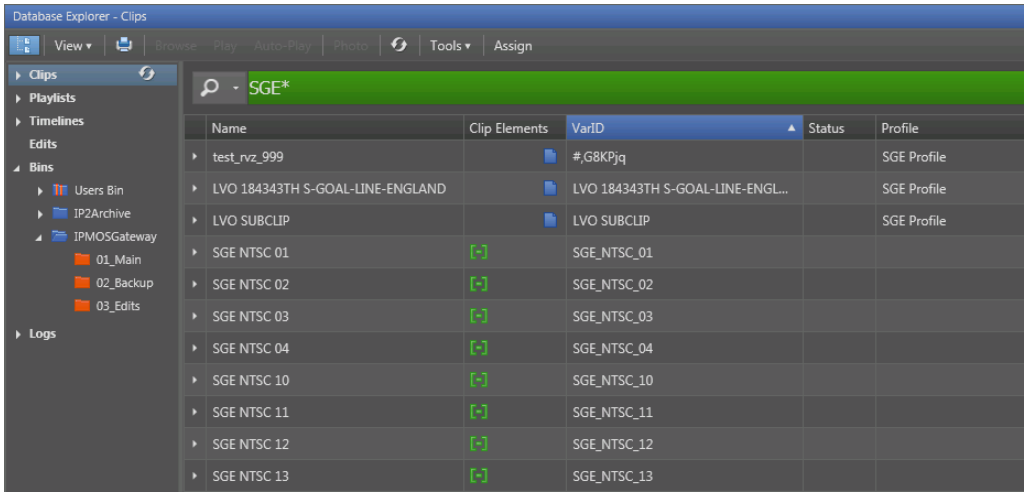


The custom fields will now be visible in the Playlist Panel or in the AB Roll Playlist Panel. IPMOSGateway will update the content of these fields with the information coming from the Running Order in the NCS.

4.7.4. (Optional) Creating an IPMOSGateway Bin

In the IPDirector Database Explorer, under the Bins Node, create an IPMOSGateway Directory. This directory will hold all the playlists and edits originating from IPMOSGateway. In this directory you can create three bins:

- Main: for all the playlists created on the main playout XT server.
- Backup: for all the playlists created on the backup playout XT server.
- Edits: for all the edits.



This bin will have to be selected in the XT Servers tab of the IPMOSGateway Settings window. See section "XT Servers Tab" on page 22

4.7.5. (Optional) Initiate ABRoll Playlist

Introduction

The AB Roll Playlist application is used to control and play material on up to 4 channels (A to D) at the same time.

Rundowns from NCS (Newsroom Computer Systems) can be used as input for the AB Roll Playlist application.

Before you can use the AB Roll Playlist, you need to define a channel group and associate that channel group to the AB Roll Playlist.

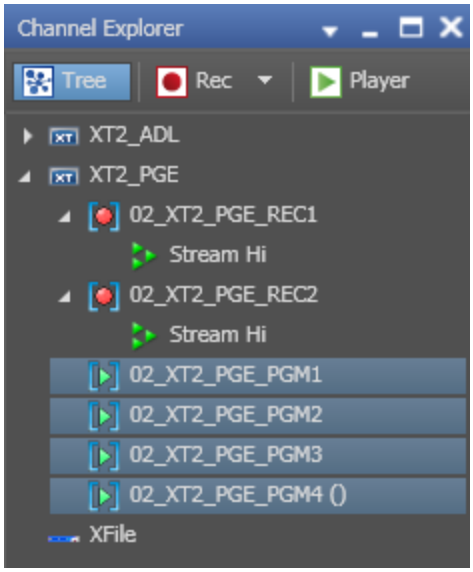
Defining a Channel Group

The AB Roll Playlist can be associated to 2, 3 or 4 channels. Before you can use the AB Roll Playlist, you need to define this channel group in the Channel Explorer.

To define a channel group, proceed as follows:

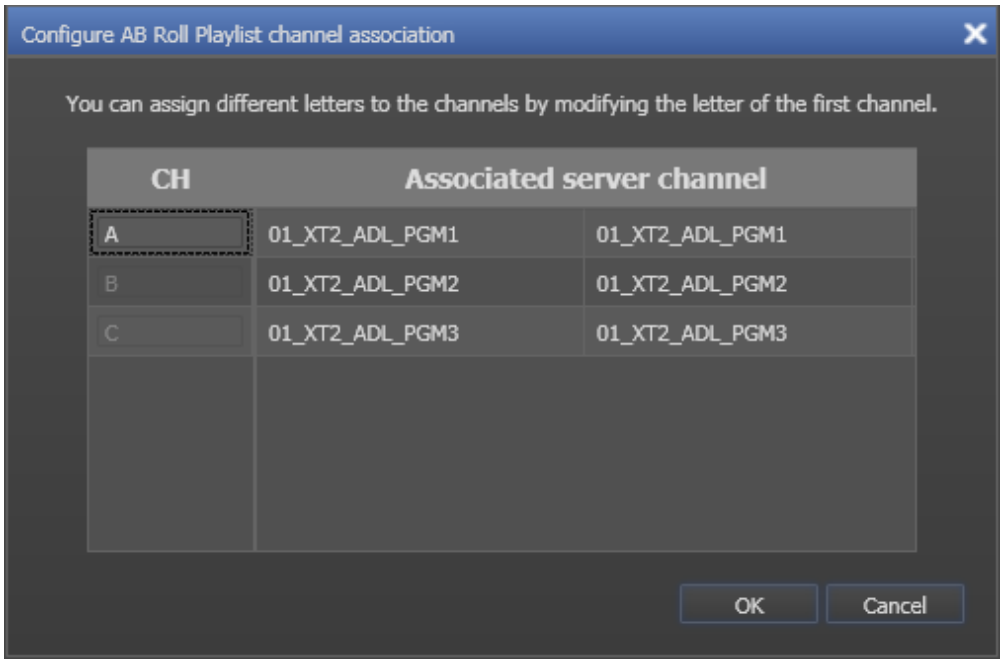
Open the Channel Explorer and browse to the desired channels.

Select the channels that need to be associated to the AB Roll Playlist application.



Right-click the selected channel group and click the **AB Roll Playlist** command from the contextual menu.

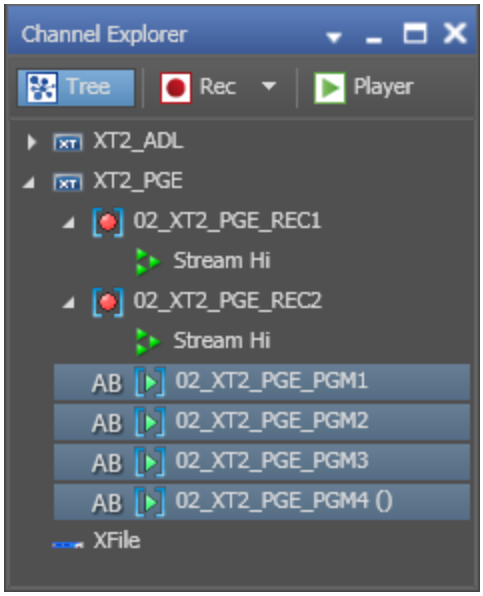
The Configure AB Roll Playlist channel association window appears:



In this window you can edit the channel letters in the left column of the table, if so desired.

Click **OK** to accept the presented allocation.

The selected channels are now marked with the 'Ganged' icon and ready to be used as an AB Roll Playlist channel group:



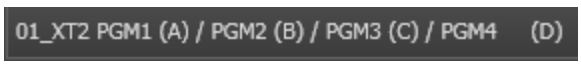
Associating Channels to the AB Roll Playlist

Once the channel group is defined, it can be associated to the AB Roll Playlist.

If no channel is associated to the interface yet, the system will display the following message in the AB Roll Playlist status bar:

To associate the channels to the AB Roll Playlist, proceed as follows:

Right-click the status bar and select the desired channel group previously defined in the Channel Explorer.The status bar content will change and show the associated channels:



The AB Roll Playlist is now ready to use with these channels.

Corporate
+32 4 361 7000

North & Latin America
+1 973 575 7811

EVS Headquarters
Liège Science Park
16, rue Bois St Jean
B-4102 Seraing
Belgium

Asia & Pacific
+852 2914 2501

Other regional offices
www.evs.com/contact

To learn more about EVS go to **www.evs.com**