Cinegy Traffic Gateway 5

© Cinegy GmbH

Built 06.11.2026

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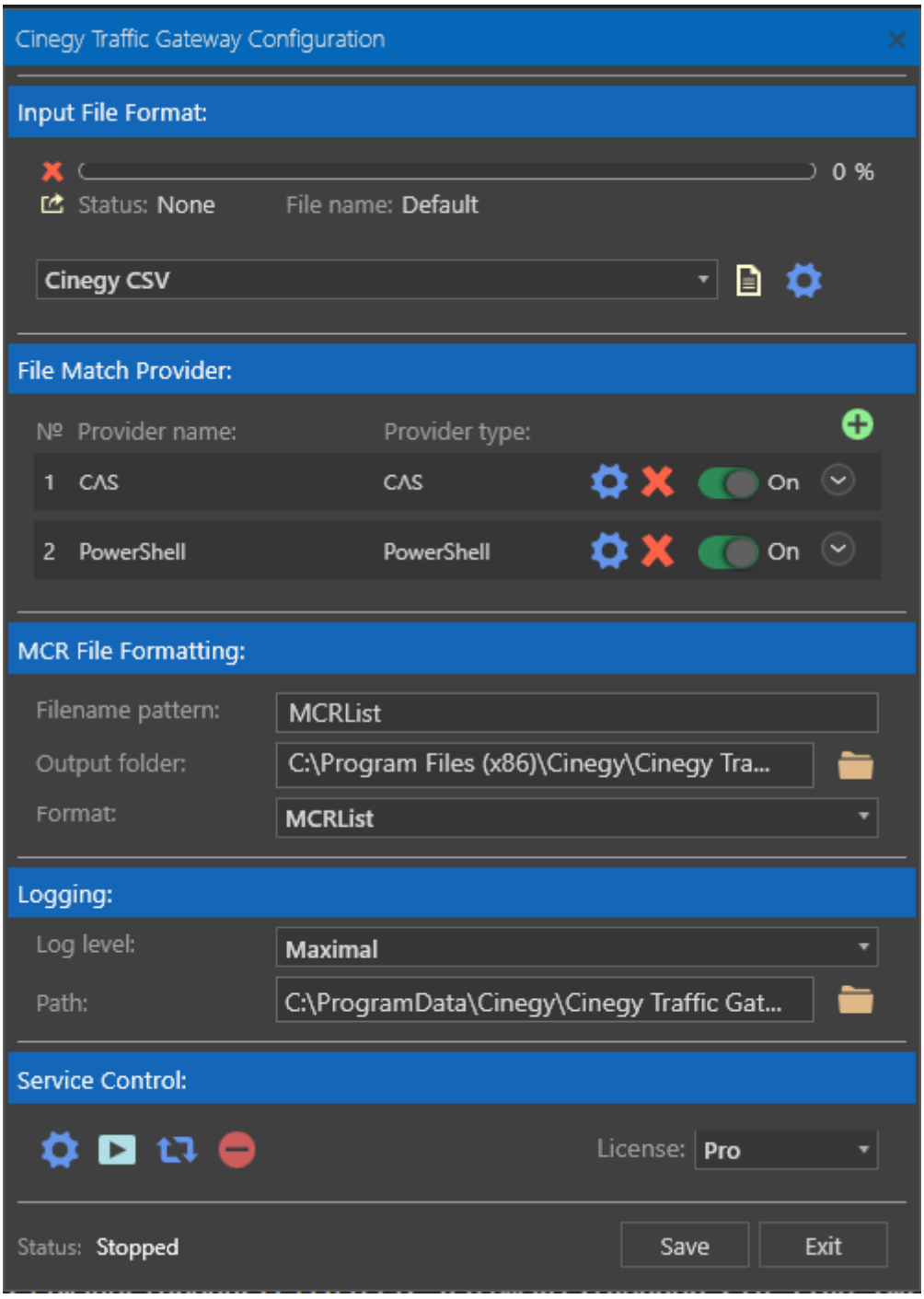
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Preface

Cinegy Traffic Gateway is an automated system that is designed to compose Cinegy Air playlists from externally generated “traffic” lists, as well as create MCRItems and MCRLists, which can further be added to an existing playlist.

Running as a service, Cinegy Traffic Gateway supports traffic lists provided as a standard SMPTE BXF XML format, or as a simple yet powerful Cinegy-defined CSV (comma-separated-values) files. Lists can be sent to Cinegy Traffic Gateway via watch-folders, or in case of BXF files via SOAP web service interfaces.

Most user interaction takes place within the Cinegy Traffic Gateway service configuration tool, where the parameters for processing input data into resulting Cinegy Air playlists are specified.



User Manual

Chapter 1 Cinegy Traffic Gateway Installation

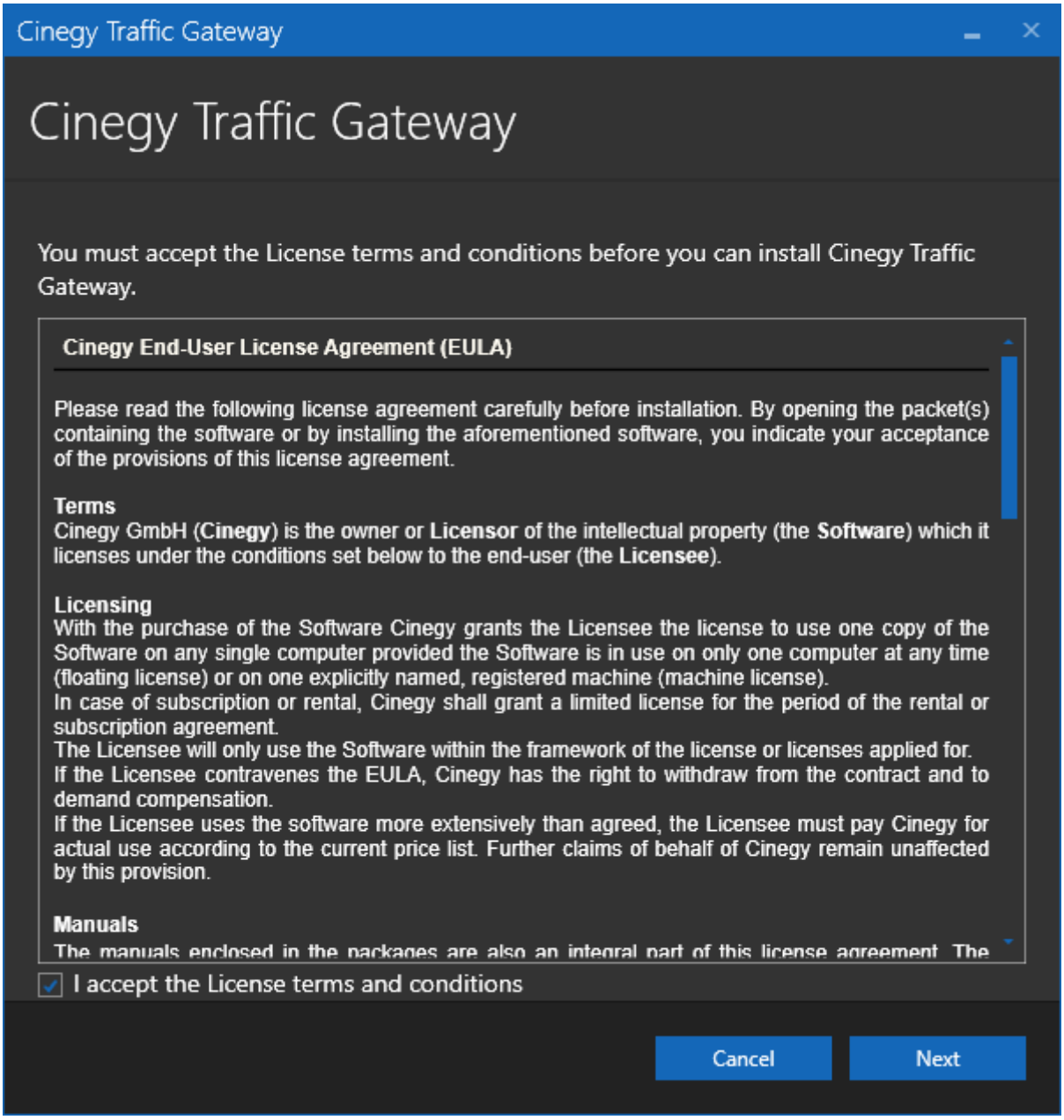
1.1 Installation

Download the latest Cinegy Traffic Gateway installation package from **my.cinegy.com**. Copy the installer to a shared location in your network so that all client machines can access the package for convenient installation.

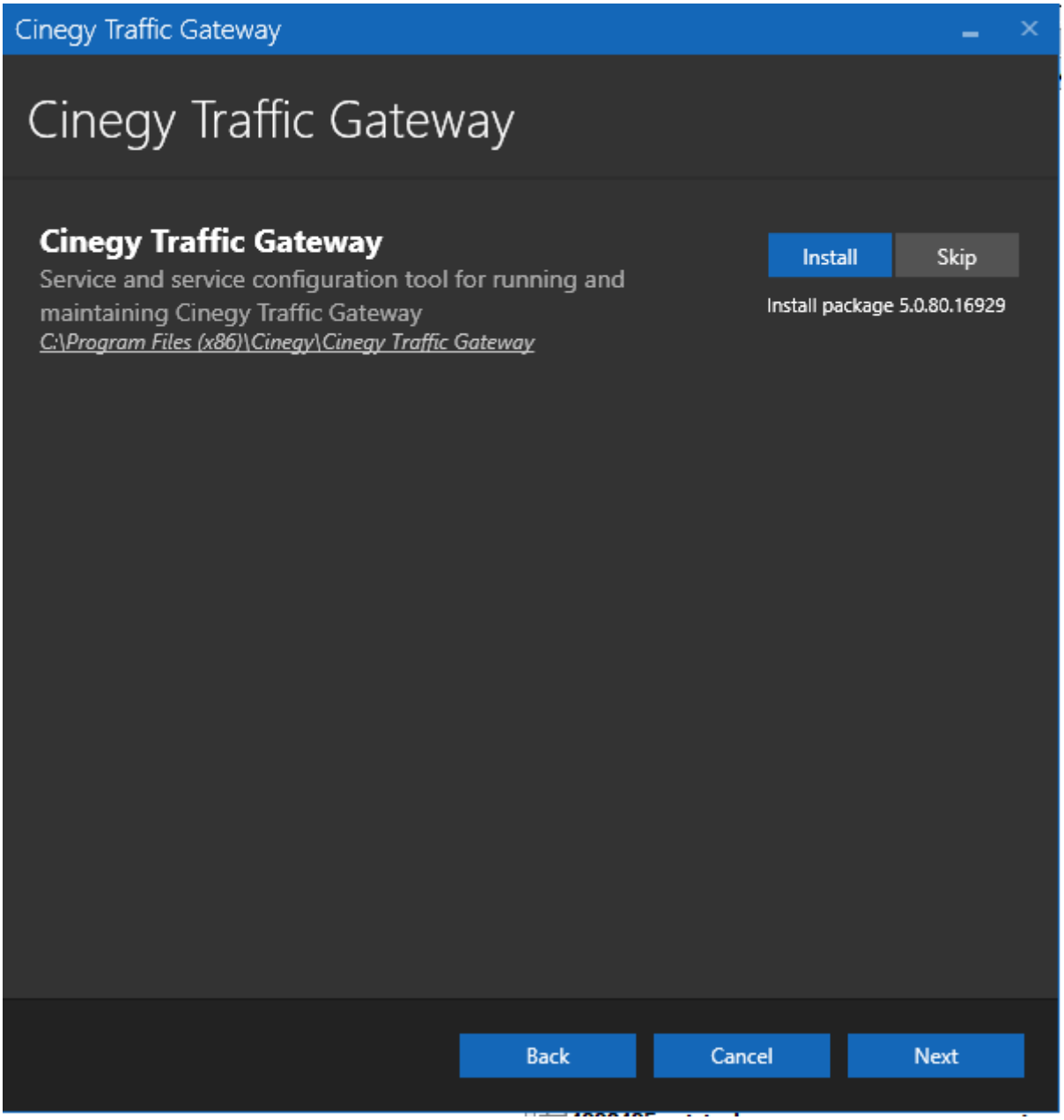
	You must have local administrator rights to install Cinegy Traffic Gateway.

	Prior to the installation of Cinegy Traffic Gateway 5.x you need to completely uninstall Cinegy Traffic Gateway 4.x to avoid configuration conflicts.

To begin the installation of Cinegy Traffic Gateway on your computer, run the "Cinegy.TrafficGateway.Setup.exe" file. The **Cinegy License Service** will be automatically installed, then the setup wizard will be launched:



Read and accept the license agreement and press "Next" to proceed with the installation process:

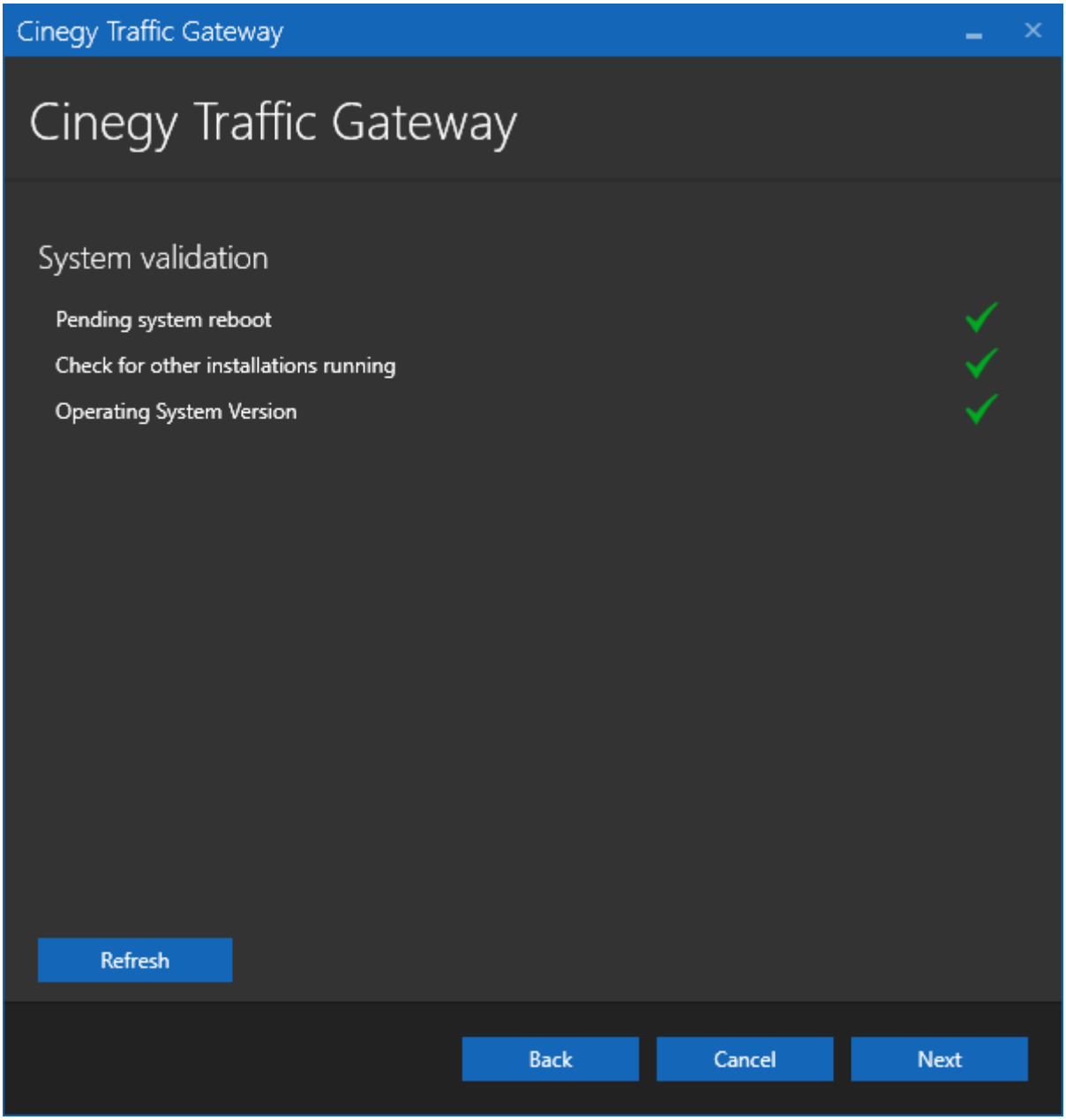


Enabled installation of the Cinegy Traffic Gateway package is indicated by the "Install" option selected and highlighted with blue.

The default installation directory, which is indicated underneath the package component name, can be changed by clicking the path and browsing for new destination folder.

Press "Next" to proceed with installation.

Check whether your system is ready for installation in the following dialog:



The green tick indicates that the system resources are ready and no other processes may prevent installation. Clicking the validation entry field displays its detailed information.

While the system performs verification of any parameter, the checking progress is displayed.

If any validation reveals that installation cannot be started, the respective field becomes highlighted and the red cross is displayed with the detailed information on the failure reason below.

The explanation differs depending on the reason why the installation cannot be proceeded.

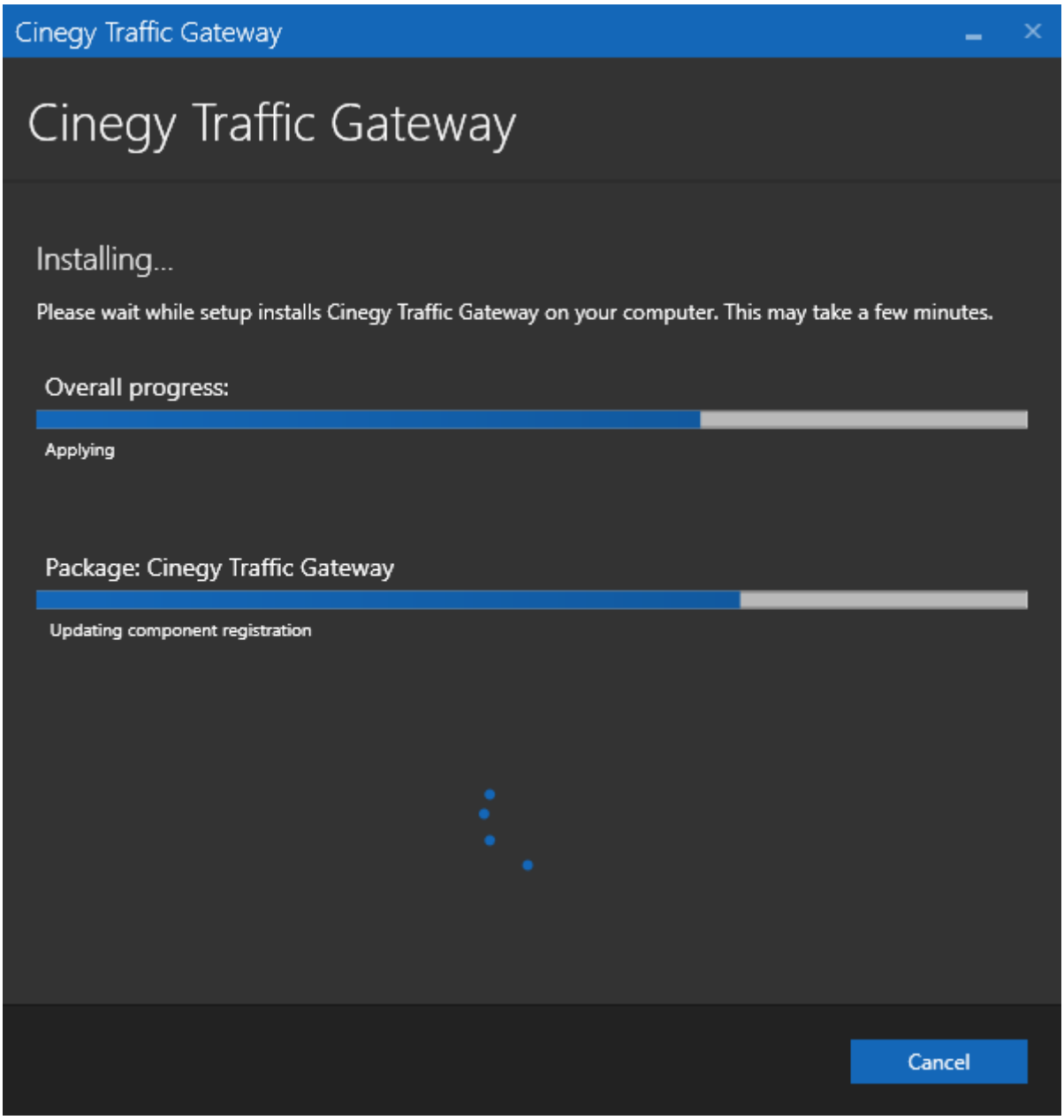
Refresh

Press the "Refresh" button for the system to recheck installation availability. Once the reason of prevention is excluded, you can proceed with installation.

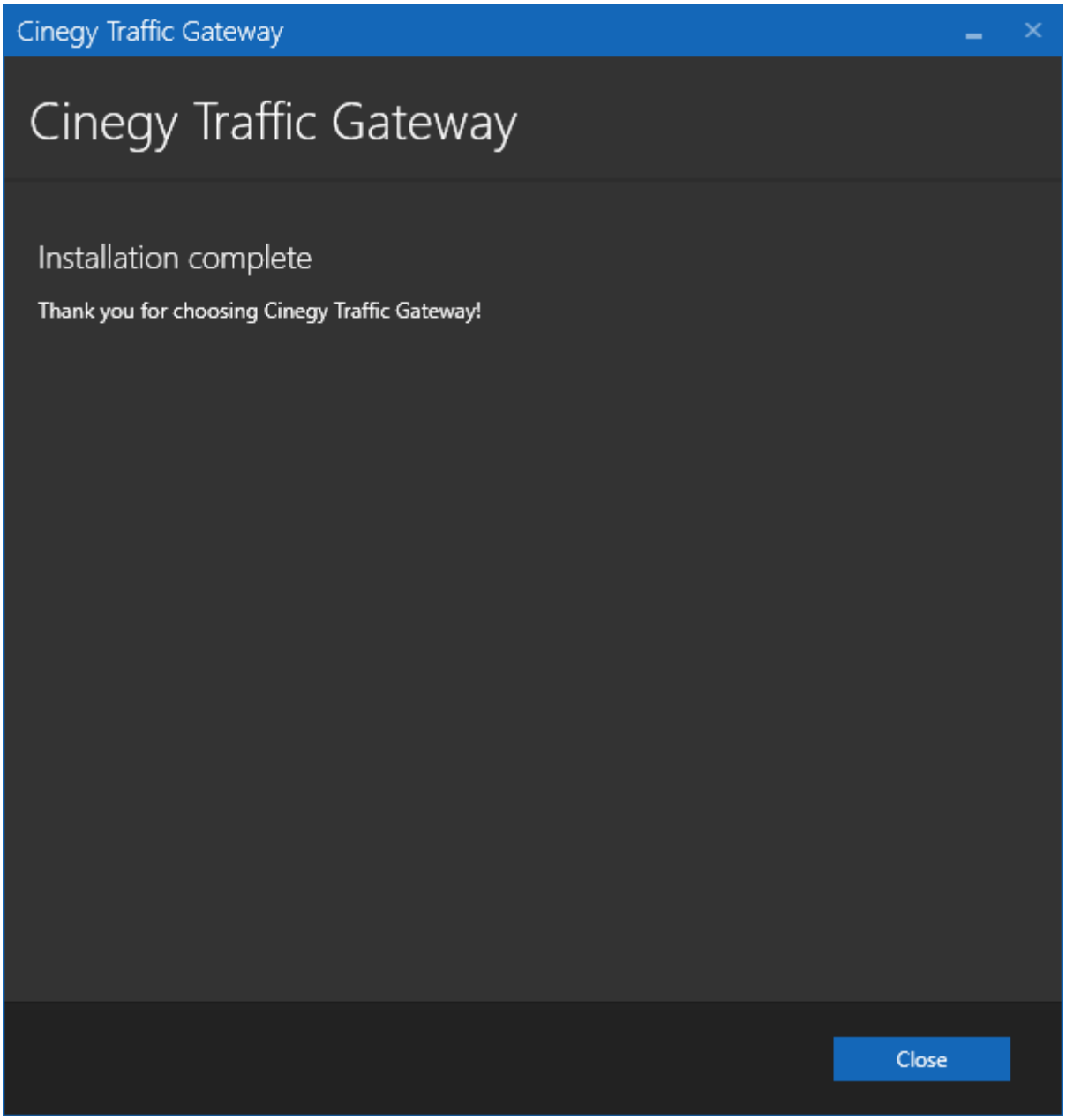
Press "Back" to change the installation settings or "Cancel" to abort and exit the setup wizard.

Next Press the "Next" button to begin the installation.

The progress bar indicates the progress of the installation process:



The following dialog informs that installation is completed successfully:



Press "Close" to finish the Cinegy Traffic Gateway installation.



After the installation, the Cinegy Traffic Gateway icon appears on your Windows desktop.

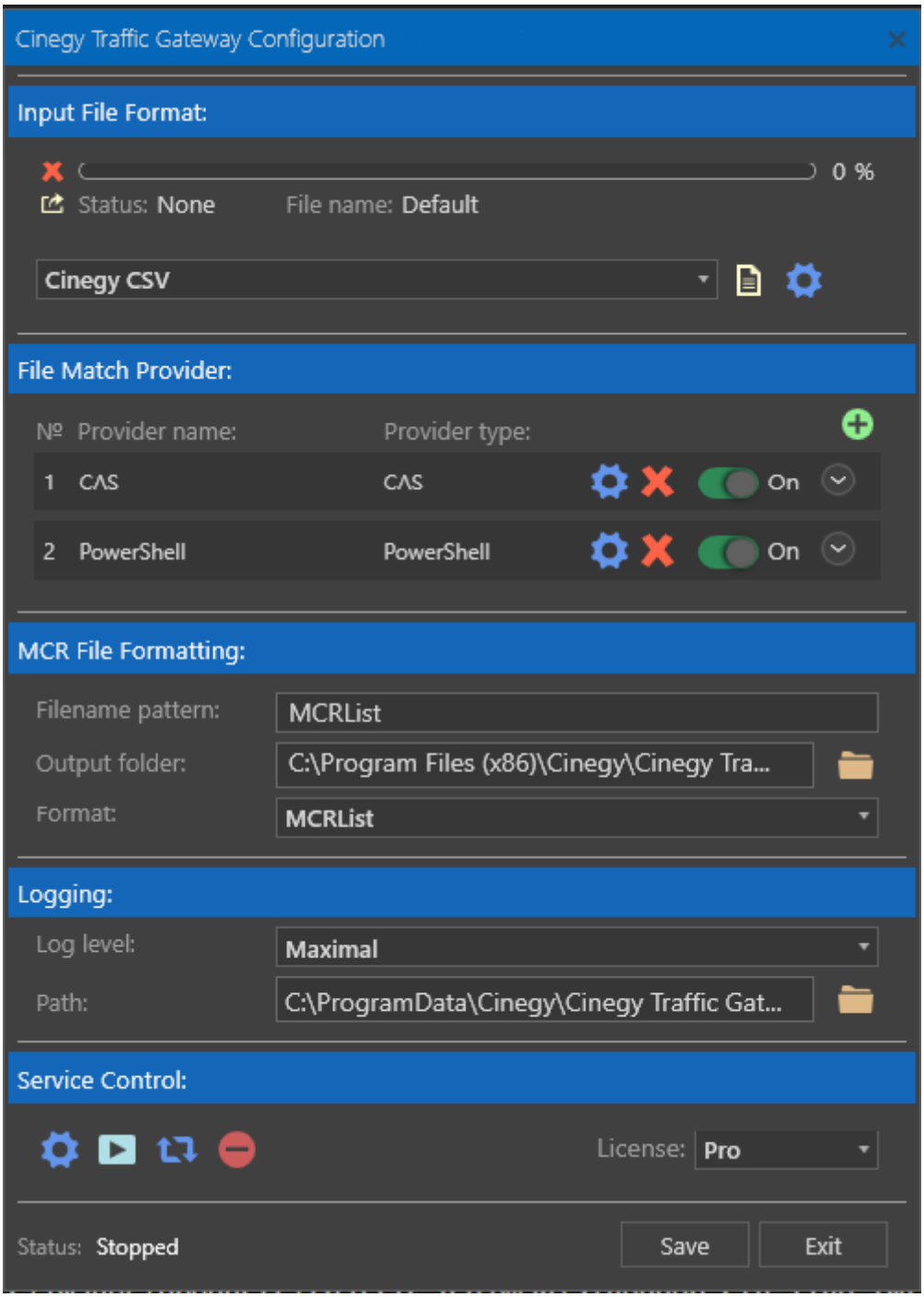
1.2 Licensing

Please note that a Cinegy dongle key with a corresponding license is required. If the requested license is not detected, then the Cinegy Traffic Gateway service will work in demo mode: only 5 items from the source playlist will be processed fully and correctly. Media information from the rest of items will be stripped while preserving other metadata (name, comment, start time and duration, etc.).

Chapter 2 Configuration

2.1 Introduction

Since the core of Cinegy Traffic Gateway runs without a user interface as a background service, most user configuration operations take place using a configuration utility. This can be started by double-clicking the "Traffic Gateway" icon on the Windows Desktop:



The configuration client is arranged in top-to-bottom order representing the logical flow of operations as they pass through the Cinegy Traffic Gateway processes. There are 3 main stages that a loaded list passes through: input, processing and output.

The input stage involves detection or submission of a file, and matching of that file to a defined channel and the related resources that will be used when converting the input abstract list to a concrete, complete Cinegy Air playlist ready for

loading.

The processing stage involves digestion of the input elements, organizing the defined input events into Cinegy application specific events and activities, as well as matching of indicated material for playout (via the 'house ID' key) to some distinct media. This matching can be performed via scripting (using Microsoft PowerShell scripts) to perform custom matching actions – for example, against a file share containing MXF files, or it can be performed using a running instance of the Cinegy Archive Service to look up media within the Cinegy Archive database.



The Cinegy Archive Service lookup provider is only available with the Cinegy Traffic Gateway PRO license.

The final stage involves the creation of an actual output file. Currently, Cinegy Traffic Gateway supports creating complete playlist outputs that will be used by Cinegy Air (MCRList or MCRActiveApproved files) which may be inserted into existing Cinegy Air playlists.

In order to apply configuration changes made at any of the stages, the Cinegy Traffic Gateway service should be restarted. You will be prompted about this upon changes saving operation.

The following articles describe configuration settings for each of these stages in detail.

2.2 Input File Format

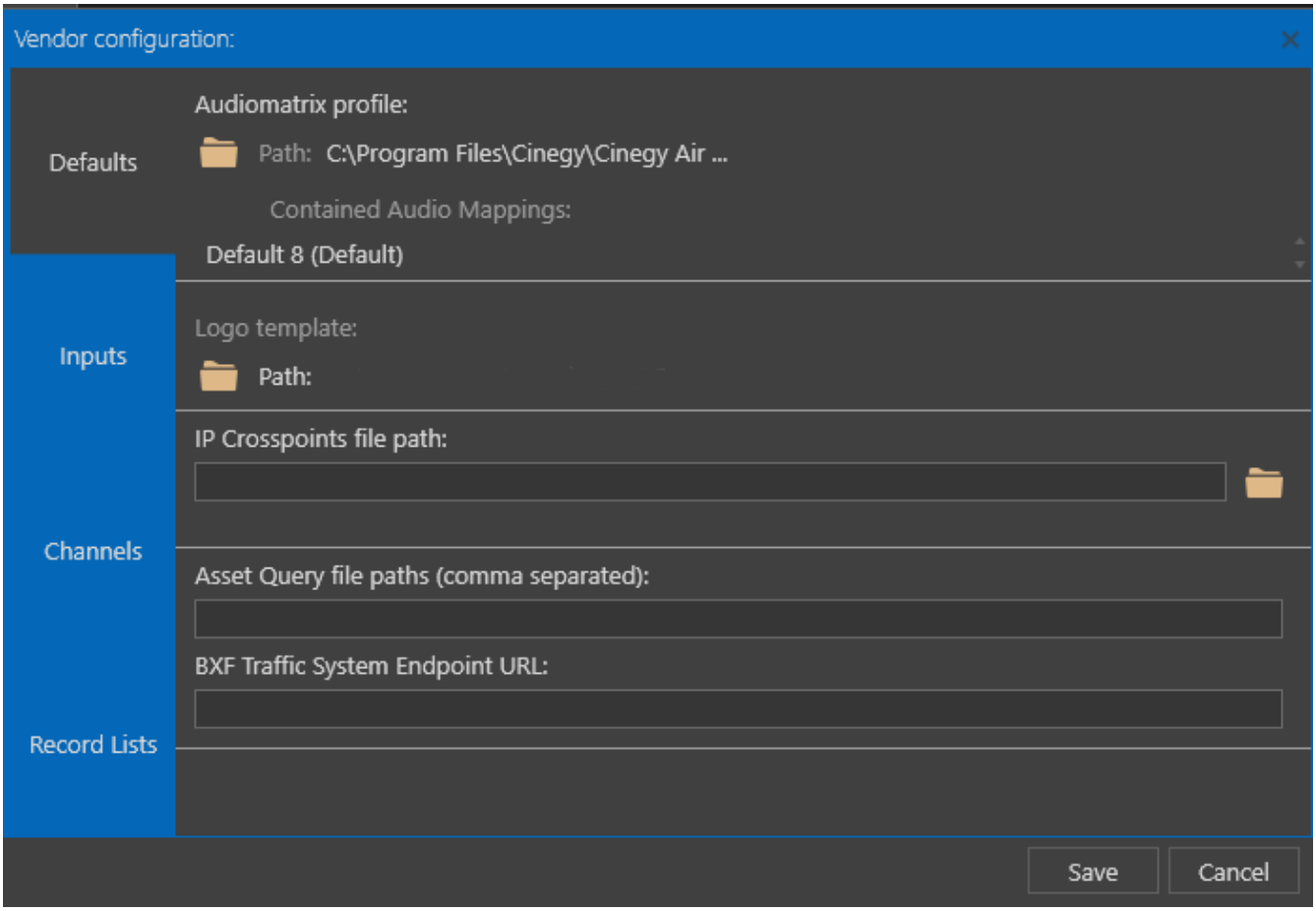
In the "Input File Format" section the input playlist format to be processed by Cinegy Traffic Gateway is defined. Currently only "Cinegy CSV" and "BXF Myers" are provided. The BXF module should work with any standard BXF list, although it has been tested specifically with Myers software. Custom developed plug-ins will also be detected and displayed in this list.

Configuration



Press this button to set the selected vendor configuration.

Defaults



Here the default vendor configuration settings can be defined. The parameters presented on this tab are global, but can be set on a per channel basis individually.

Audiomatrix Profile

Audiomatrix profile configuration allows you to define the folder location where the audio matrix presets in XML format are stored.

To do this, click the "Path" field and select the required location; the profiles list by adding or removing the encoding profiles.

	This setting is topical only for BXF vendor plug-in.

Logo Template

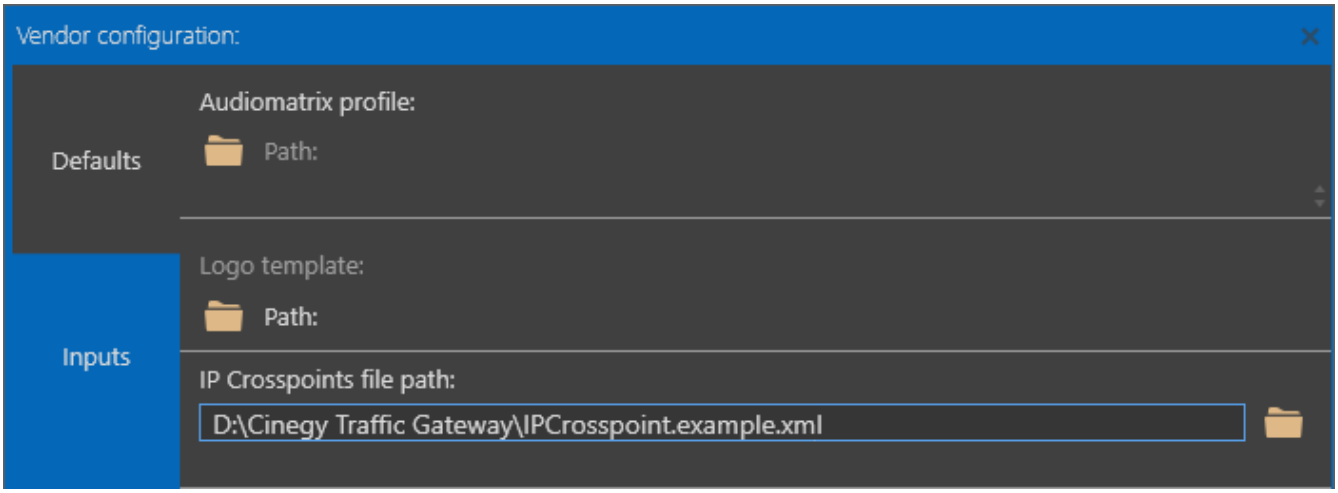
Define the directory where Cinegy Titler templates are stored. When secondary events are detected for graphics insertion, this directory will be checked for matching templates to use for generating output.

Live

Live items may be marked up within an input playlist. No media is played in live items, a live input stream is passed through the playout engine instead. While no media identifiers would exist for live items, a key may still be provided to indicate what live source should be selected. This key is matched against a list of values assigned against the current TV channel, as well as against a global list of IP sources.

SDI routing commands for live items are defined on the "Channels" tab, and must be defined for each channel as SDI input ports have a strong relationship with a specific engine. IP sources have no such relationship so may be specified globally.

This global specification is carried out within an XML file, and the IP Crosspoints file path field shown below allows specification of the file to load IP sources from:



The XML format of the IP Crosspoints file is a simple set of name / value pairs, as shown below:

```
<xml>
  <RouterSource>
      <Name>TEST</Name>
      <CrossPoint>rtp://@239.1.1.1:1234</CrossPoint>
  </RouterSource>
  <RouterSource>
    <Name>STREAMSWITCHED-HD01</Name>
    <CrossPoint>STREAMSWITCHED-HD01.SSX</CrossPoint>
  </RouterSource>
</xml>
```

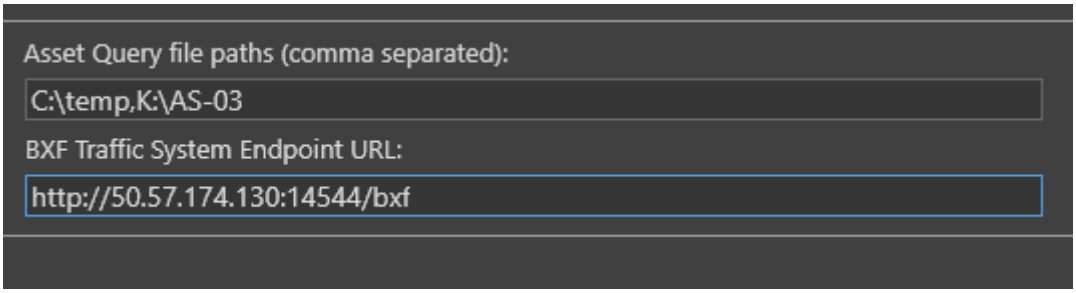
Within the XML, the CrossPoint tag value must be either a valid Cinegy RTP / UDP URL, or the name of an existing Cinegy Stream Switcher settings profile (.SSX) file.

Asset Query

With SOAP services enabled, a specific BXF message may be submitted allowing a BXF Asset Query message to be sent to Cinegy Traffic Gateway.

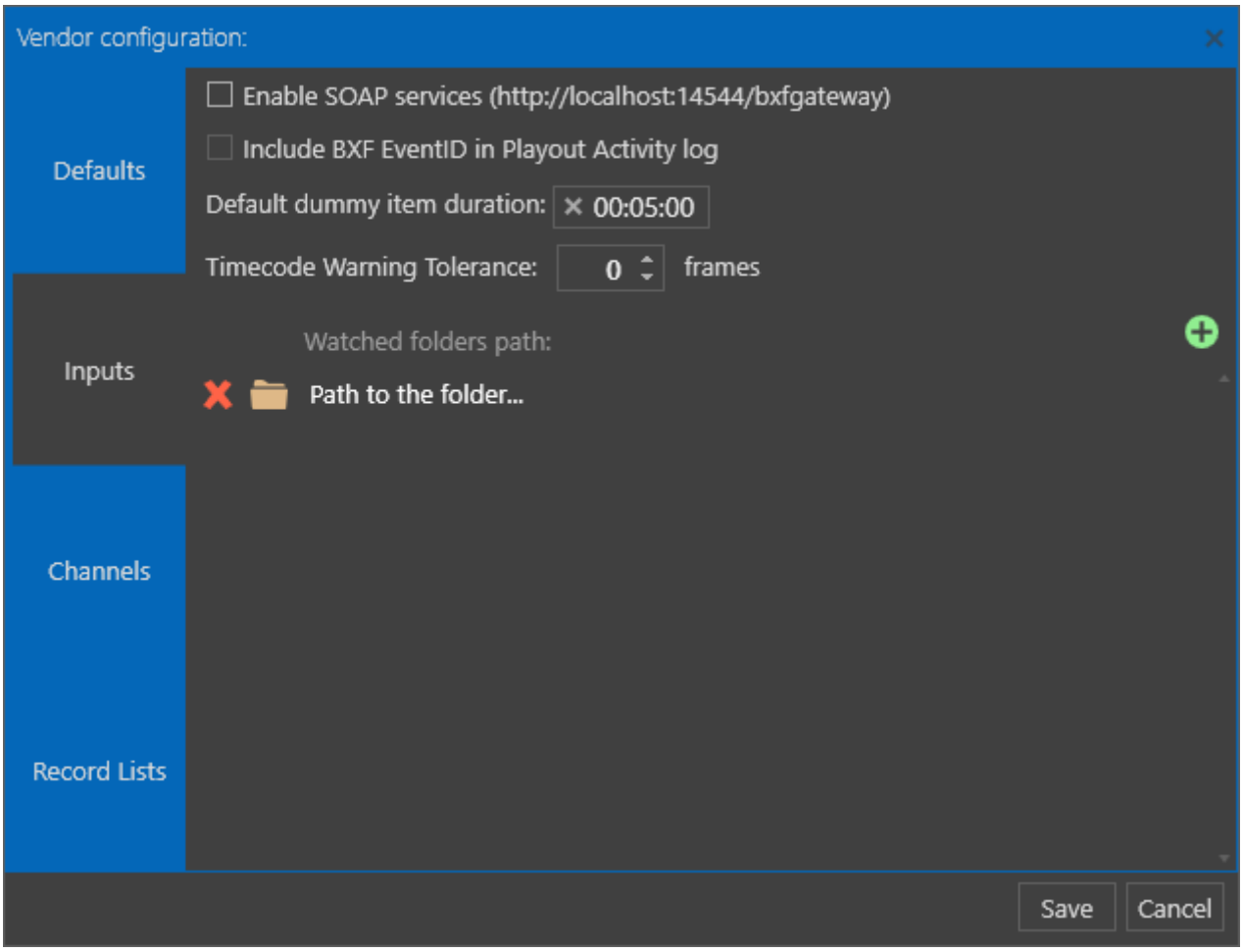
This feature allows a very limited query, where a set of paths may be specified for searching files matching the inbound search query contained within the BXF message.

Since BXF messages are generally asynchronous, any reply to the query needs to be sent to a specific address. The BXF Traffic System Endpoint URL should be set to an accessible address that will accept BXF messages and route them to the appropriate destination. The provider of a system sending any BXF Asset Query messages should be able to provide a valid address for messages returned from the Cinegy Traffic Gateway service.



Inputs

Here you can define folder(s) that will be watched for new files appearing. The configured directories will be monitored and as soon as a new file is added, it will be queued for processing.



The account that the Cinegy Traffic Gateway service is running under must have permission to access with read/write permissions any directory referenced here. Mapped network drives are not supported as a valid locations for watched folders, and any network areas must be referenced via UNC paths.

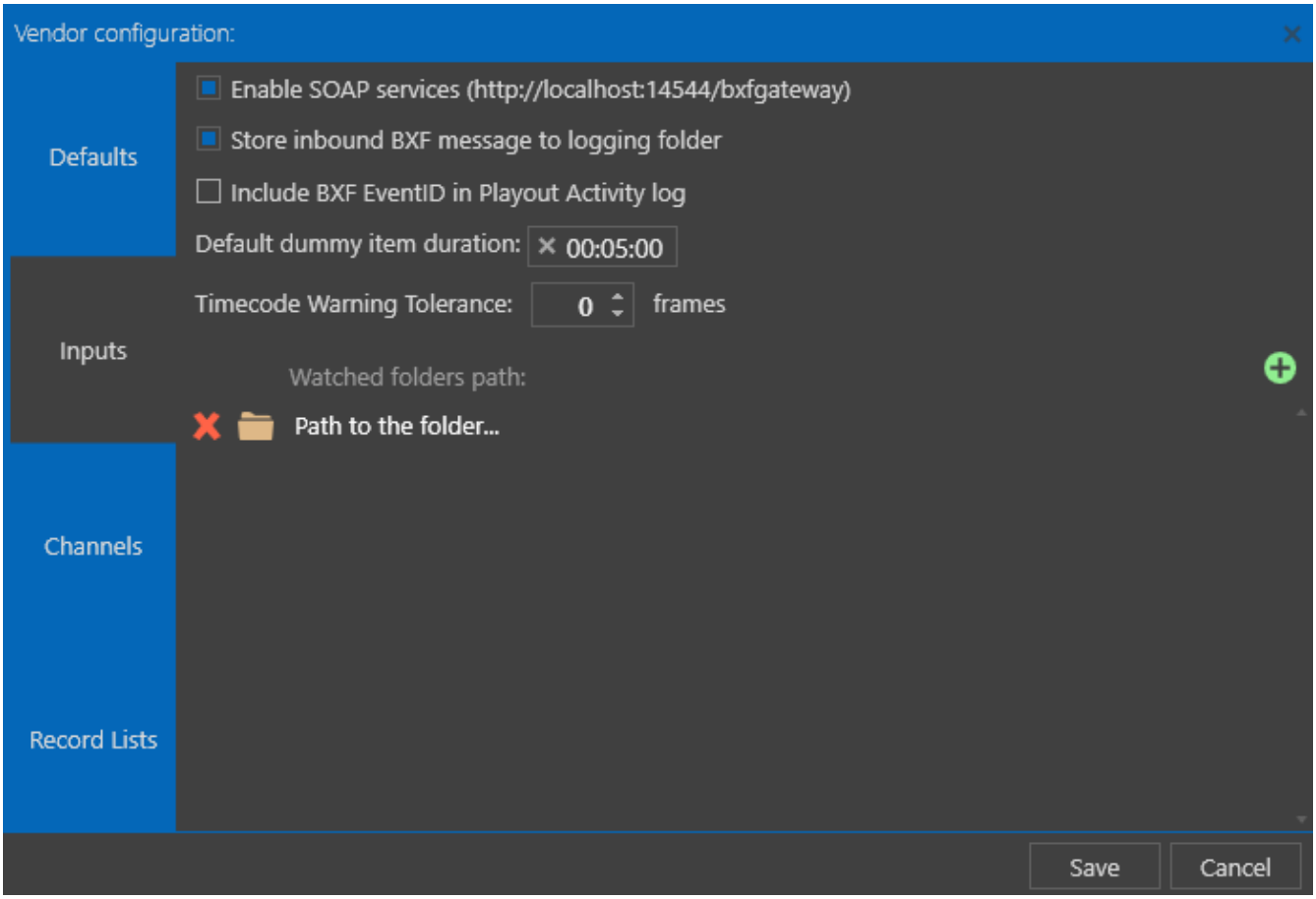
SOAP Services

SOAP services may be optionally enabled, which will allow BXF messages to be submitted to the Traffic Gateway service as a SOAP webservice message as an alternative to a watch-folder submission. SOAP services use the SMPTE specified TCP port (14544) and are accessible from the Traffic Gateway machine via the HTTP protocol.

In order to access SOAP service via remote machines, please ensure the firewall permissions are configured to allow inbound traffic on this port.

Inbound BXF Messages

If SOAP services are enabled, storage of any inbound BXF messages may be specified. Any received messages will be saved in the same location as configured for general logging within Traffic Gateway. This is primarily useful for testing and debugging, and should not be needed during general operations.



SOAP services are only usable with BXF messages and are primarily used by Myers ProTrack systems.

BXF EventID in Activity Log

Cinegy Traffic Gateway uses the BXF EventID values as playlist item GUIDs by default on BXF playlist processing instead of generating a random one. If the "Include BXF EventID in Playout Activity log" option is enabled, the SubtitleID field of a playlist item will be populated with a corresponding BXF EventID in resulting MCRlist/MCRActive.approved playlist. As a result, this field will be displayed in Activity log in Cinegy Playout.

Refer to the Activity logging paragraph within the **Cinegy Playout Manual** to learn about logging configuration.

Default Dummy Item Duration

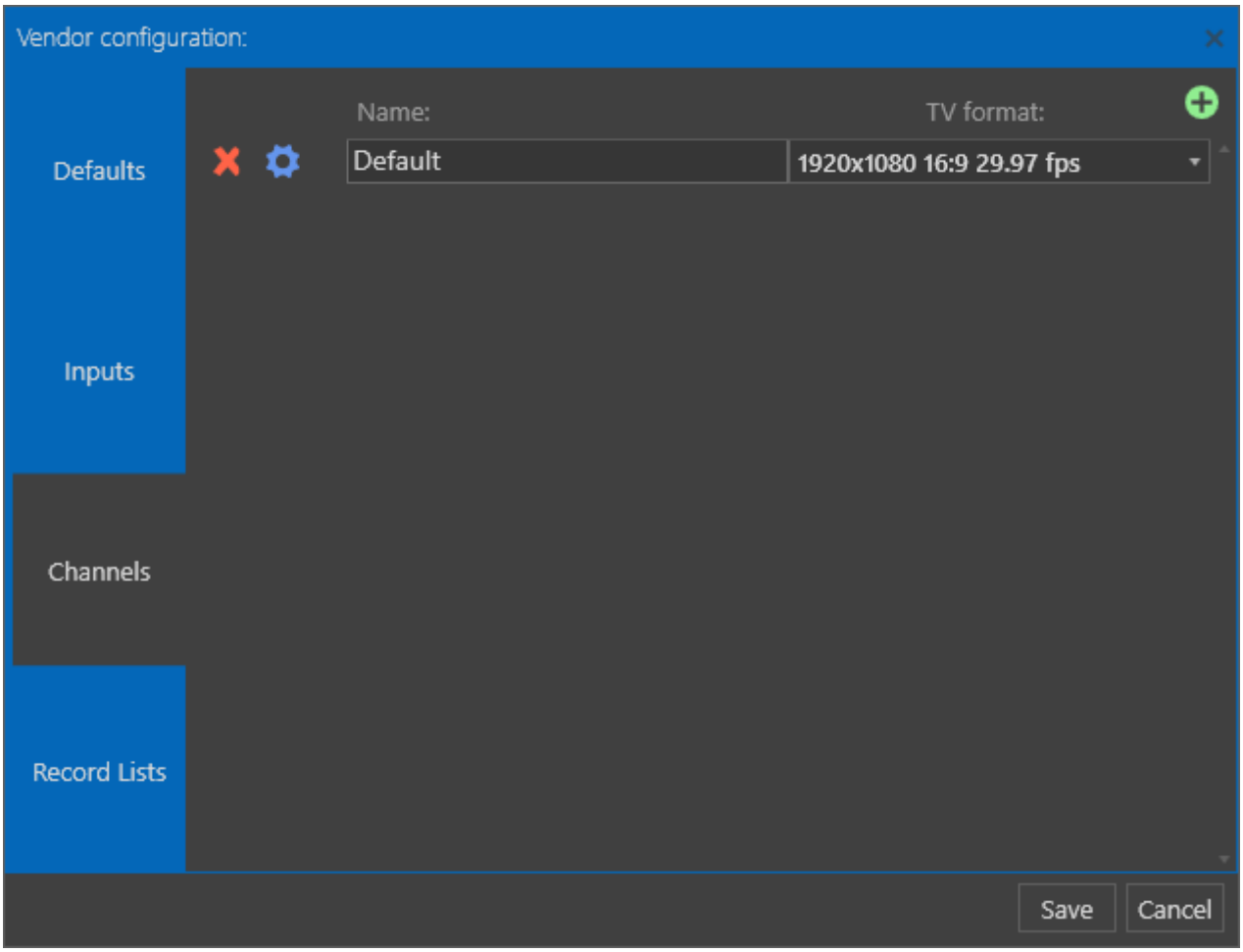
The dummy item is a reserved "blank" item inserted into a playlist in case the item information in the original BXF/CSV playlist is missing. For instance, no IN/OUT timecode points, no specified duration and the corresponding media file could not be located on a specified media storage. Use the "Default dummy item duration" field to specify the default duration of these items in the hh:mm:ss format. Otherwise, the default value of 00:05:00 minutes will be applied if neither duration nor IN/OUT points are available for the item in CSV file.

Timecode Warning Tolerance

In case the duration calculated from In/Out points and specified in CSV/BXF files exceeds the actual duration of a media clip, Cinegy Traffic Gateway adds a corresponding warning message into comments for a resulting playlist item. "Timecode warning tolerance" is a threshold defined in frames exceeding which will invoke the warning message informing about out-of-bound timecode values.

Channels

Setting the channels parameters is obligatory. Create the TV format list using the button. The TV formats should correspond to the processed items format.



The basic CSV file format assumes that all inputs are for a single defined channel, but BXF files require specifically identified channels inside their data, as this allows Cinegy Traffic Gateway to maintain different settings for different channels within one service. For example, a single Traffic Gateway service may be defined to support two channels, named "Cinegy HD" and "Cinegy SD". These channels may have different TV formats defined in this configuration section.

⚠	When using BXF, the full value of the <pmcp:channel> tag representing the channel name in the BXF message must exactly match the channel name string defined in this configuration.

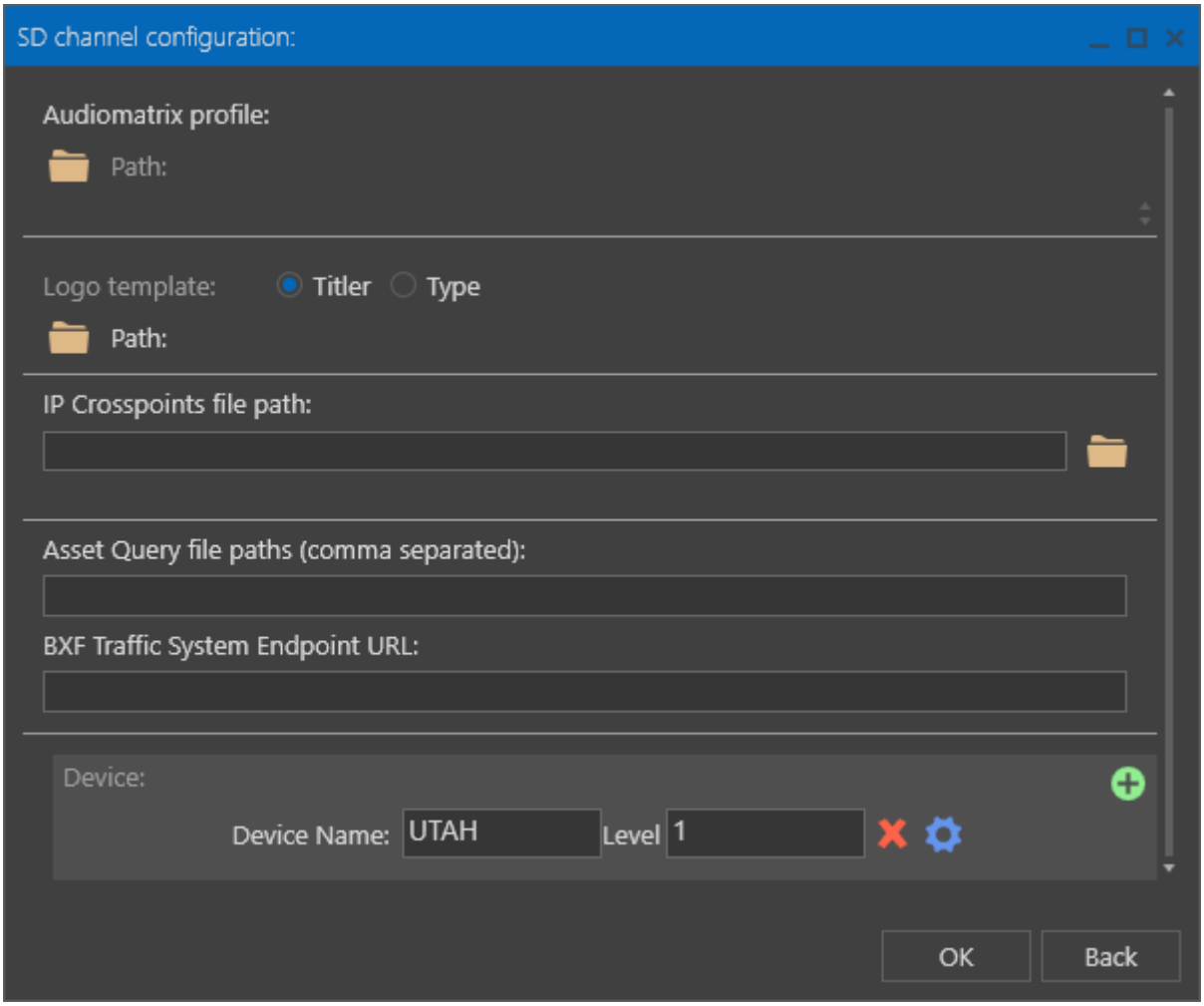
🗎	Please note, Cinegy Traffic Gateway is licensed on a per-defined-channel basis, and enough licenses must be available for each defined channel for the Traffic Gateway service to operate correctly.

Within a specific channel, relationship of key words can be made to port numbers and device names. These key words will be used in the event of a live item being scheduled within the playlist. If a scheduled live item contains an ID that corresponds to an entry for that channel, Cinegy Traffic Gateway will configure an SDI routing event prior to the live item that will ensure the resulting playout is the expected source.

Traffic Gateway will try and match SDI sources defined against a specific channel first, before checking for matches in the live IP file. If it does not find any match, the live item will just use the default input configured.

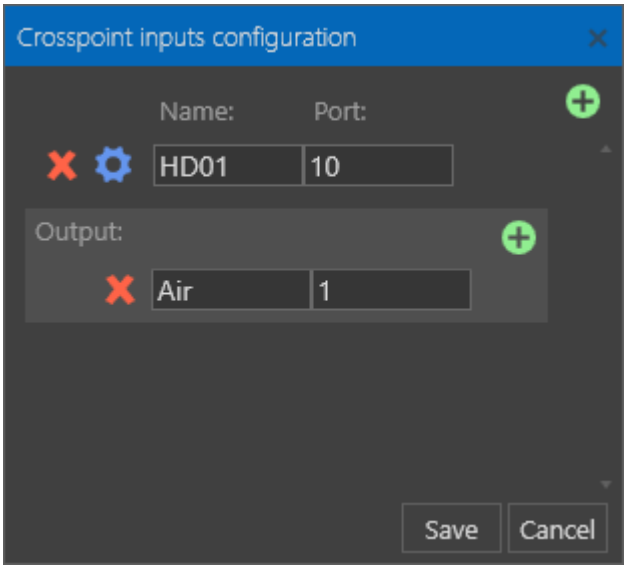
Each configured channel should define the targeted SDI routing device and the default level on that router to use. To start configuring channel, press the button next to the required channel.

The following channel configuration window allows you configuring general settings as well as adding inputs you are intending to use:



Please note that the Audiomatrix profile, Logo templates path, IP crosspoints configuration file, Asset query file paths settings have priority over that ones defined via "Defaults" tab; it is possible to define these settings individually for each channel you are configuring.

For each input, define the expected output. To do this, press the The "Name" parameter for the output is just used descriptively in the metadata, the critical value is the PORT number:



An input can have multiple outputs, which is primarily for when running in cluster mode, since each playout engine will likely be independently routed. Pressing the button will add the desired number of inputs.

Records List

With SOAP services enabled, a specific BXF message may be submitted allowing a BXF Record List message to be sent to Cinegy Traffic Gateway.

This feature allows instructions to be sent to Cinegy Traffic Gateway describing recordings that shall be scheduled. Cinegy Traffic Gateway then converts these instructions into discreet recording tasks, which are passed onto the Cinegy Capture Planner service. Once registered within the Cinegy Capture Planner service, the recording tasks will be visible to operators inside the Cinegy Capture Planner interface and the allocated Cinegy Capture Engines will run at the appropriate times to record the specified incoming stream.

Recordings may include instructions to target specific placeholder items that already exist within the Cinegy Archive MAM, so when the relevant Cinegy Capture Engine runs the task, an item is registered and fulfills the asset.

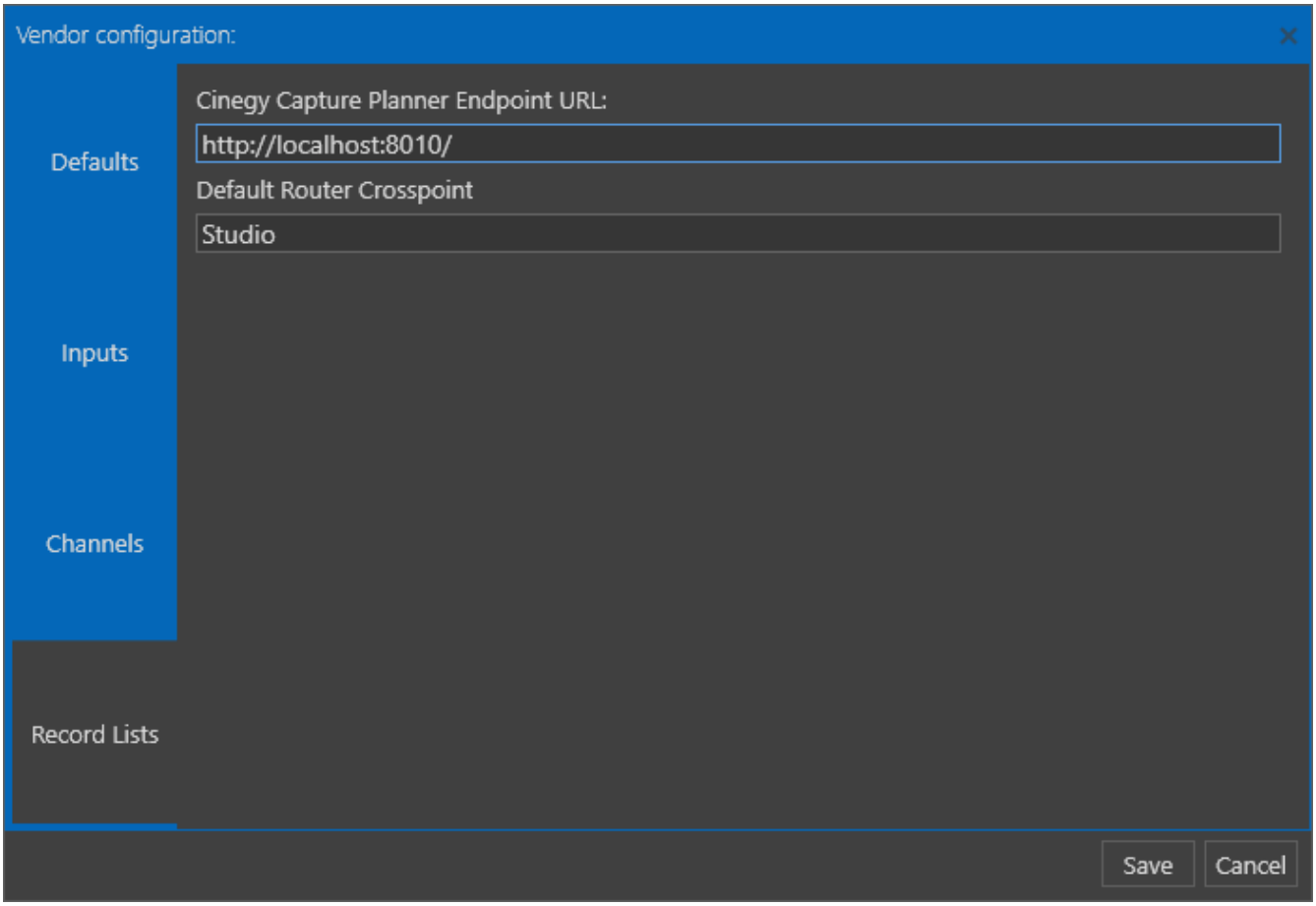
To successfully configure this feature, the HTTP URL for the Cinegy Capture Planner service should be entered correctly. This allows the Cinegy Traffic Gateway service to interact with the Cinegy Capture Planner system. Please see the paragraph describing configuration of Cinegy Capture Planner for more information.

Recording tasks may optionally specify a routing source for the Cinegy Capture Engine to use when performing a recording job. If the task specifies a valid crosspoint routing name that is configured within the Cinegy Capture system, then the recording action will include the selection of the needed source.

Refer to the Event Presets article in the **Cinegy Capture Manager Manual** to learn about events configuration.

The converted by Cinegy Capture Planner incoming router events will be applied five seconds before the recording session start. This default value can be changed in the respective field through the Scheduler.Host.exe.config XML configuration file found at the following location C:\Program Files (x86)\Cinegy\Cinegy Capture Planner\.

If the specified crosspoint does not exist, or if no crosspoint is specified in the task, a default value can be entered that will be used instead.

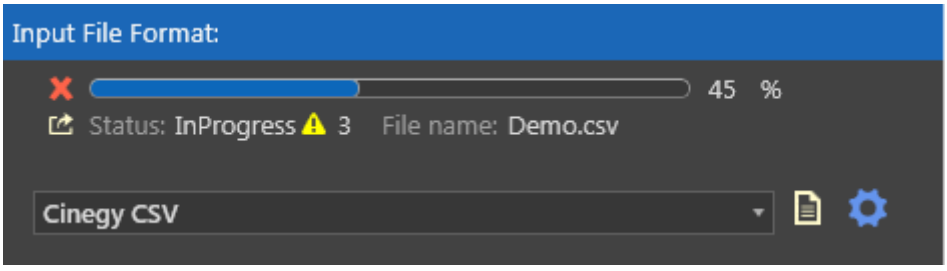


File Processing

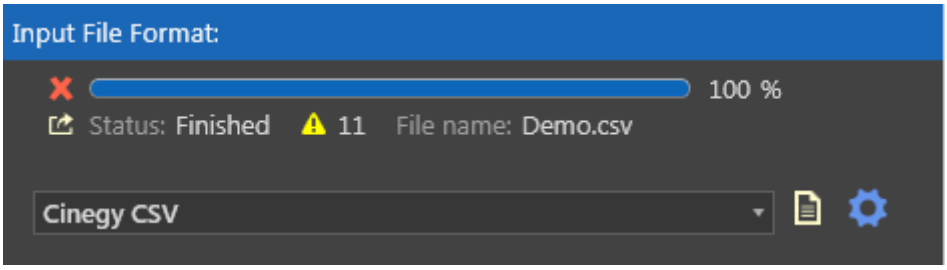


A playlist file may be manually submitted for processing using this icon. This does not require any watch folder configuration, although other settings for the channel must be configured. To add a new input file for processing, press the "Select file" button and define the necessary file in the common file selection dialog that will open. Record lists or query messages are not supported with this mechanism.

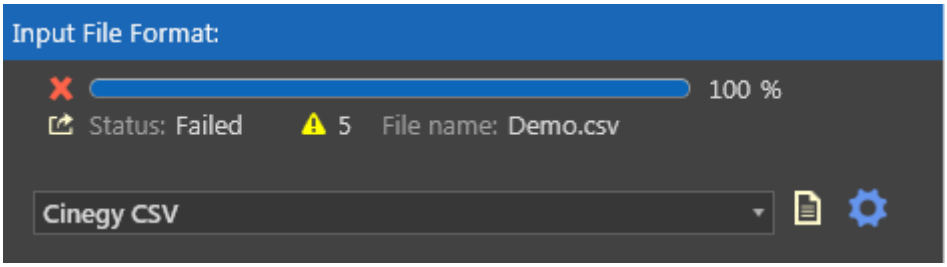
The file processing progress bar is displayed:



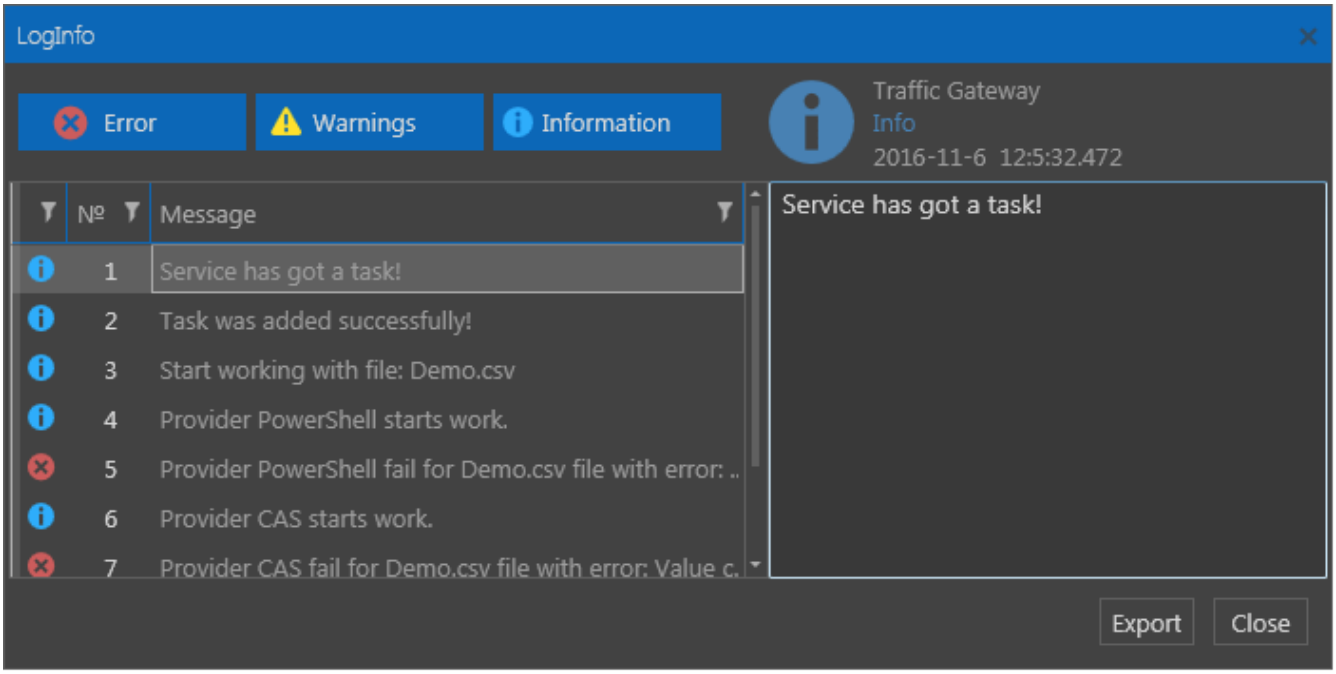
The successful file processing completion:



If the file processing fails, the corresponding status will be displayed:



Press the ⚠ icon to view the log:



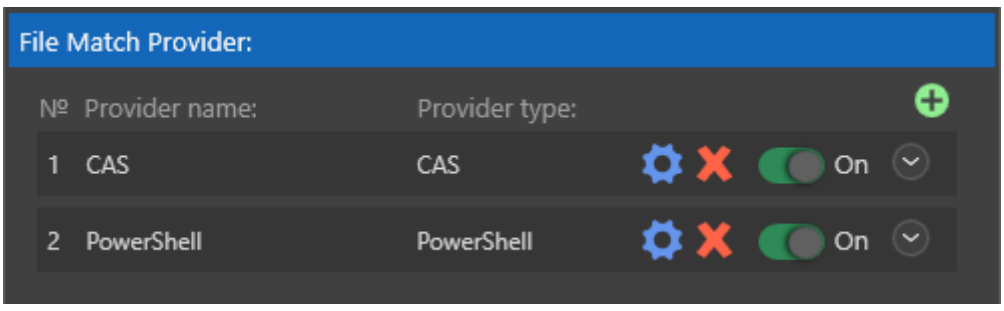
The "LogInfo" window provides the possibility to sort messages by importance and view the detailed information about each item. To export a full log to XML file, press the "Export" button.

2.3 File Match Provider

In the "File Match Provider" section specify the method for resolving the House_ID / Traffic_ID into actual file names to be referenced inside the resulting playlists. SOLO mode allows you to select the default PowerShell script provider. In PRO mode the Cinegy Archive Service provider can be used to fetch items from the Cinegy Archive database.

PowerShell

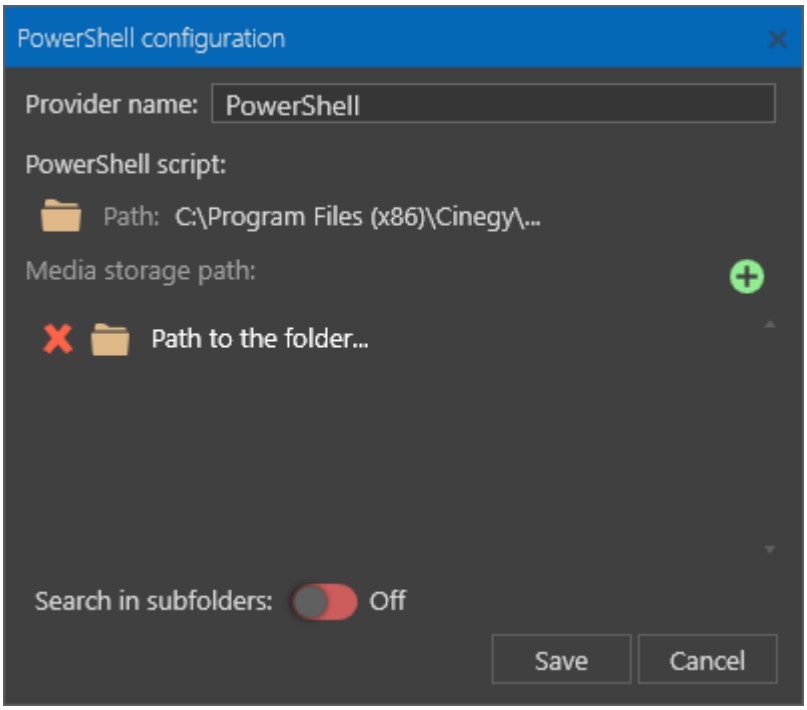
Activate the PowerShell provider by setting the switcher to the "On" position and press the folder button to specify the script file:



Custom PowerShell scripts may be created to process input playlists, although a default is provided to search for appropriately named files in a list of directories. When performing upgrades, customers are strongly advised to carefully

check what changes have been made to the updated PowerShell script that ships with the newer version of Traffic Gateway.

 Press this button to set the PowerShell provider configuration. The following dialog will be open:



Define the custom caption for the PowerShell provider in the "Provider name" field.

In the "PowerShell script" section press the folder button and specify the path to the script file.

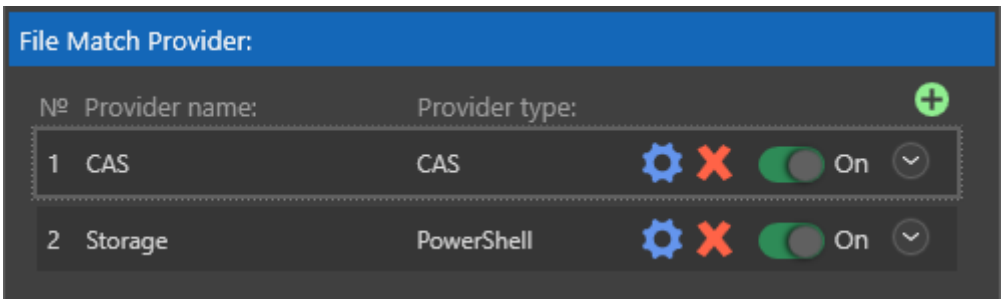
In the "Media storage path" section create the list of folders where the media files are searched for. To add a folder, press the button. To remove the folder from the list, press the button near the corresponding folder in the list. Enable the "Search in subfolders" option for the media files to be searched also in the subfolders of the defined folders.

Cinegy Traffic Gateway PowerShell file match provider requires Windows PowerShell 4.0 or later. Previous PowerShell versions are not supported. PowerShell should be manually upgraded on the machines running Windows 8, Windows Server 2012. A required installer upgrade package can be downloaded from **Microsoft TechNet website**.

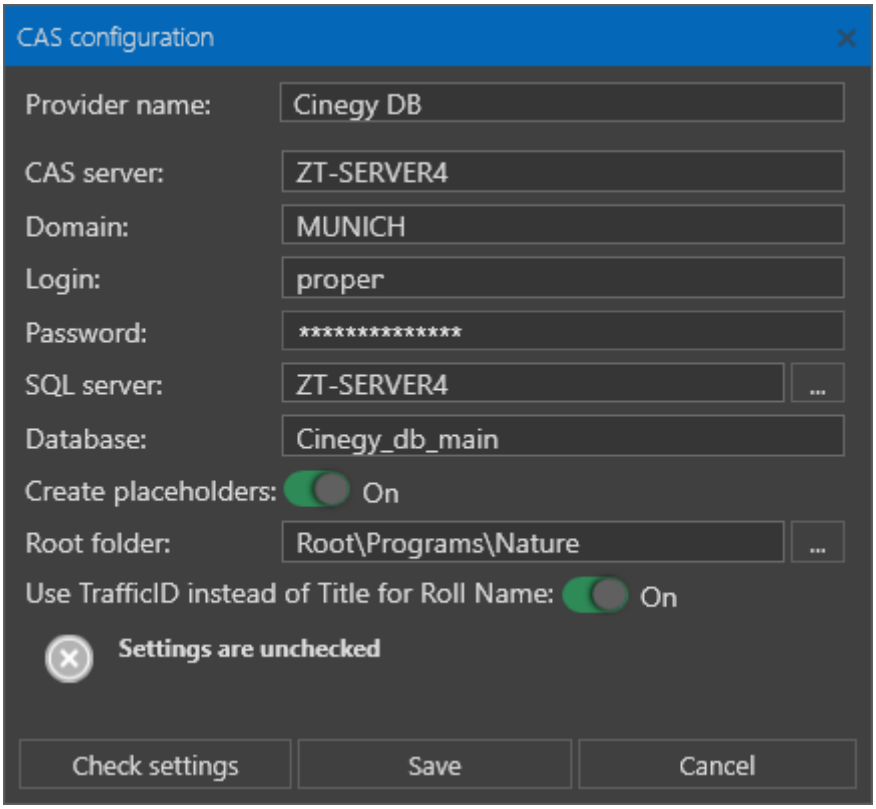
Cinegy Archive Service

Make sure the Cinegy Archive Service is installed on your machine.

Activate the Cinegy Archive Service provider by setting the switcher to "On" position:



Press the "Configure" button to define the Cinegy Archive Service settings:

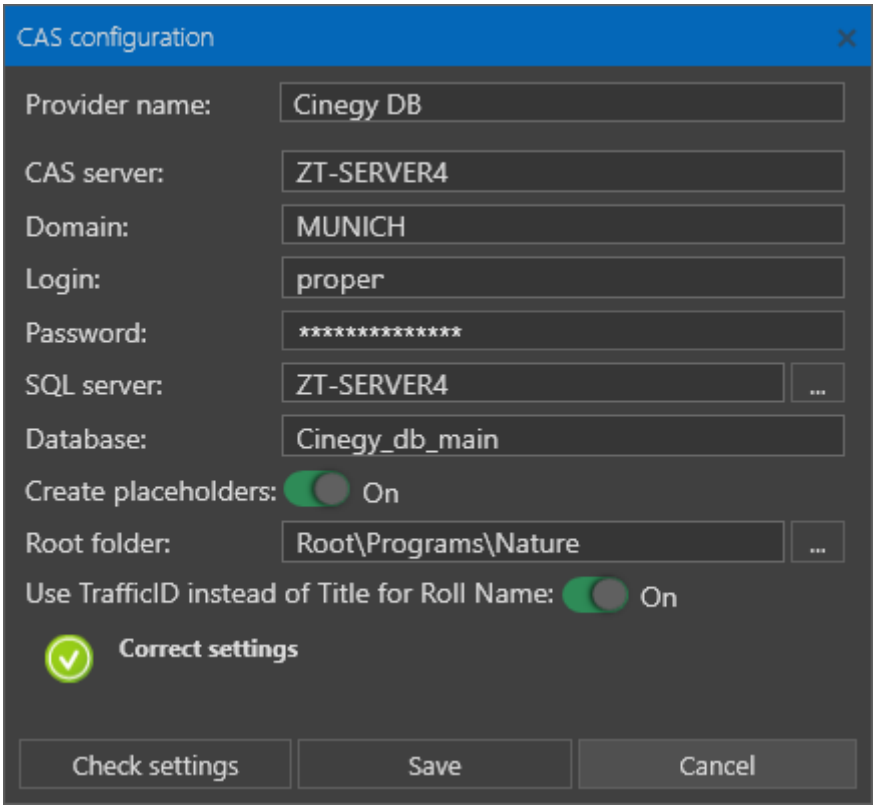


Filling in all fields is obligatory.

The "Create placeholders" option defines whether placeholders should be created in the database for incoming items that have no media.

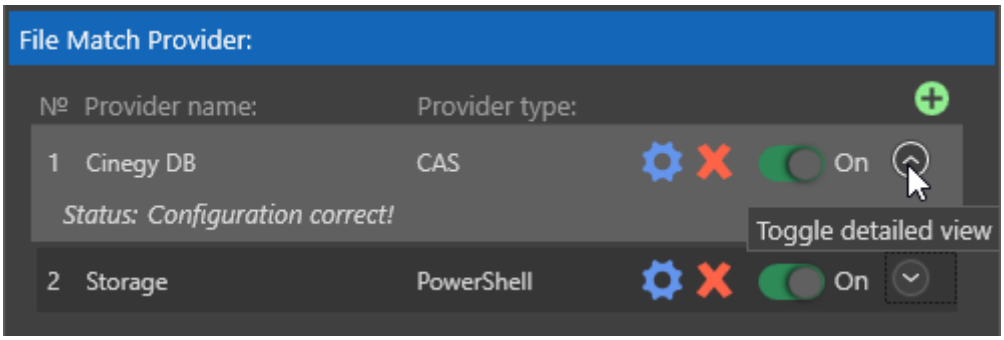
Newly created Rolls in Cinegy Archive are named after the traffic list item name by default. Select the "Use TrafficID instead of the Title for Roll Name" option to use the associated TrafficID value for the Roll name.

Having filled in all fields, press the "Check settings" button. The service will connect to the specified database and will display the corresponding success message.



In case the specified settings are invalid, an error message will appear.

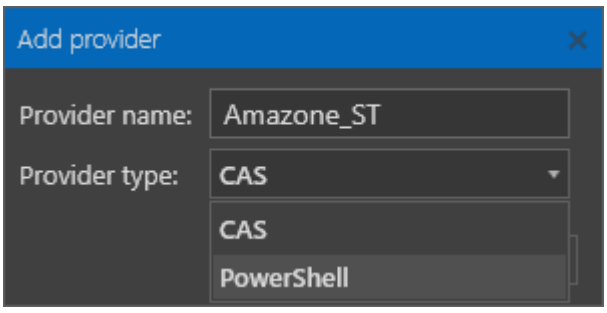
The configuration status is shown when clicking the button next to the Cinegy Archive Service provider:



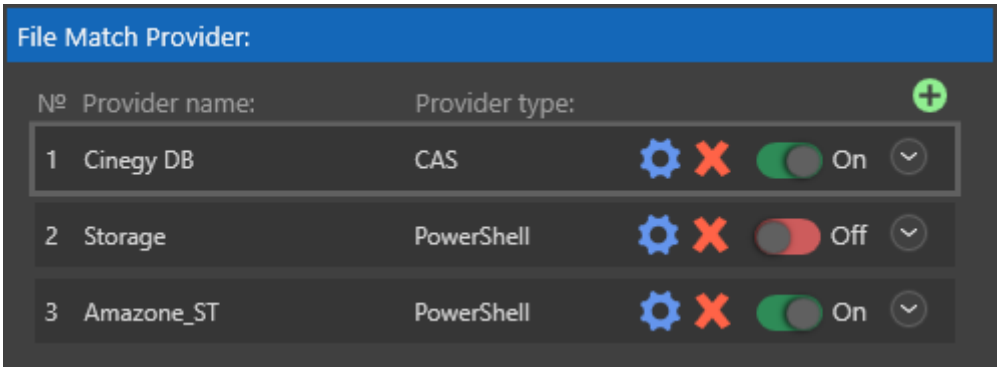
Extra Providers

Adding multiple file match providers is available only with Traffic Gateway PRO license.

Additional file match providers can be added and configured if needed. To do this, press the button located in the top left corner of "File Match Provider" section. The "Add provider" configuration window will appear allowing you to select the desired provider by choosing between the CAS or PowerShell providers:

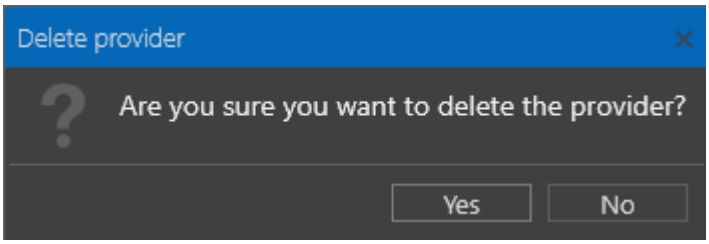


Press "OK"; the added provider will become available in the list and can be further configured:



To delete the unnecessary file match provider press the  button located next to it.

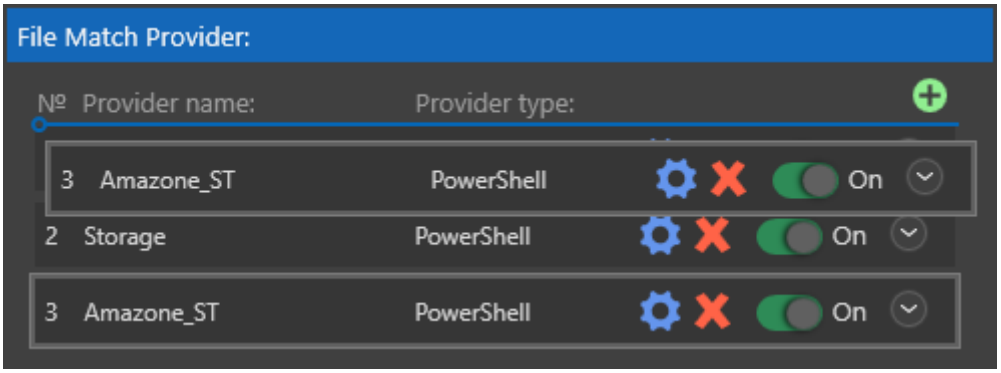
The following confirmation dialog appears:



Press the "Yes" button to confirm the deletion or cancel the operation with the "No" button.

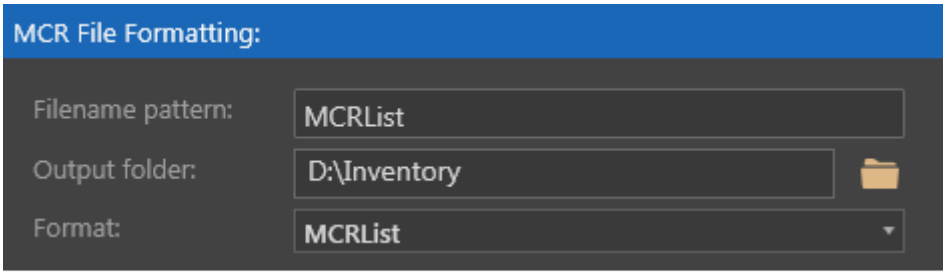
Provider Execution Order

The file match provider execution order is defined by its position in the "Provider type" window; the provider listed in the top will be the first to execute. To change the execution order, simply drag-and-drop the desired provider on the first place:



2.4 MCR File Formatting

The final stage of the Traffic Gateway process is the file output stage, and various parameters for this stage are configured in this section.



First, the file name prefix to be used for files generated by the service should be configured. The file name prefix supports

macro insertion, which will be evaluated during execution, and allows a single standard prefix to be defined which results in uniquely named files. The available macros are detailed below:

Macro	Meaning
%D	Creation date
%T	Creation time
%O	Item creator
%N	Item name
%V	Name of the video system
%C	Name of selected channel



In case "Filename pattern" field is empty, a resulting playlist will be generated with the default filename pattern: "ChannelName—HH.MM.SS.MS—DD—MM-YYYY"

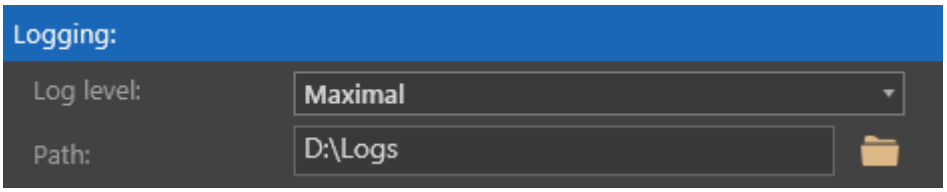
Next, the output folder defines the location where the processed Cinegy Air items will be stored. Care should be taken to ensure the output location is somewhere the user account running the Traffic Gateway Service has permissions to write files to. Mapped network drive locations are not supported.

Then the final output format type must be specified. These are:

- **MCRList** – a single, complete Cinegy Air playlist is created based on the information from the input playlist, with individual input items appearing as elements within that new playlist.
- **MCRActiveApproved** – this output is the same as MCRList, except the file has a different extension. This extension will be read by a Cinegy Air in collaboration mode and automatically replace the current running playlist with the new list delivered from the third-party traffic system.

2.5 Logging

In this section specify the Cinegy Traffic Gateway logging level and the path where log files should be stored.

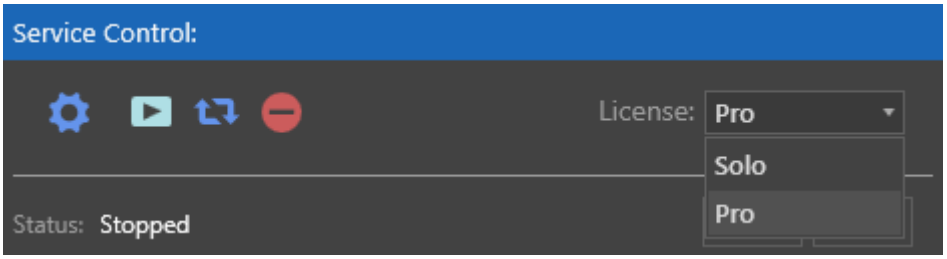




The maximal log level is recommended until a customer workflow is finalized, which helps when troubleshooting issues.

2.6 Service Control

This section provides control for Cinegy Traffic Gateway service parameters.

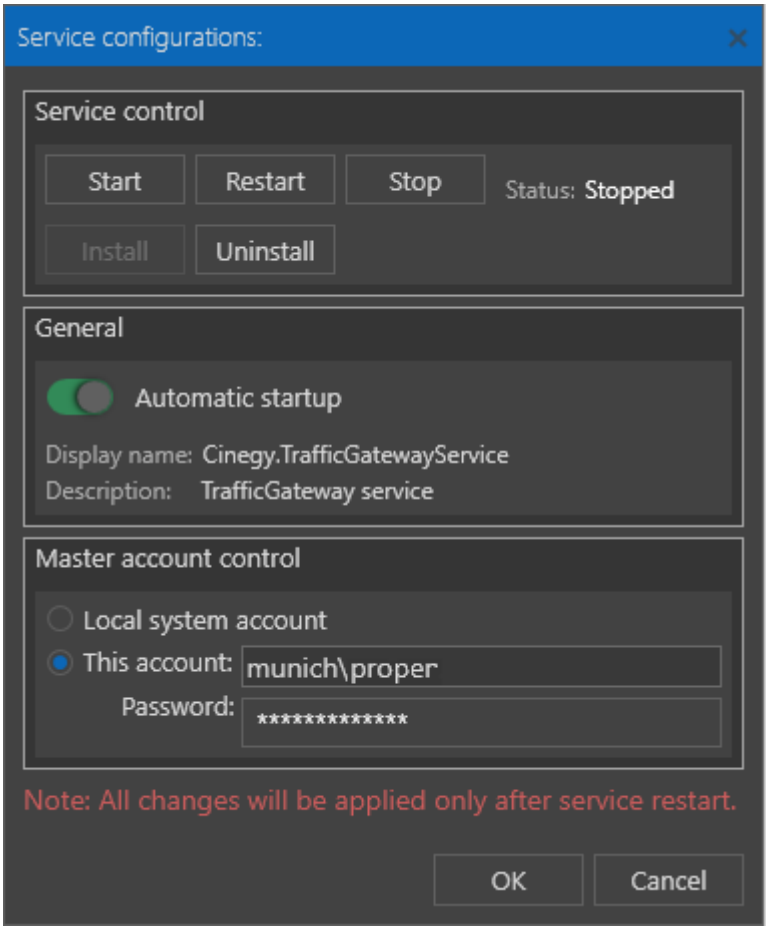


Depending on the license purchased the service can run in SOLO or PRO mode. Select the corresponding mode from the "License" drop-down list.

⚠	Cinegy Archive integration is disabled in SOLO mode.



Press the "Configure" button to set the service configuration.



The "Service control" group provides commands for manual service start/restart/stop.



The corresponding icons are also present on the "Service control" section in the main Cinegy Traffic Gateway Configuration window.

Cinegy Traffic Gateway is installed as a Windows service. The service will automatically launch Cinegy Traffic Gateway after a system restart or in case of an unexpected error. To uninstall the Cinegy Traffic Gateway service, use the "Uninstall" button.

To make the Cinegy Traffic Gateway service automatically start on Windows startup, set the service startup type switcher to "Automatic startup".

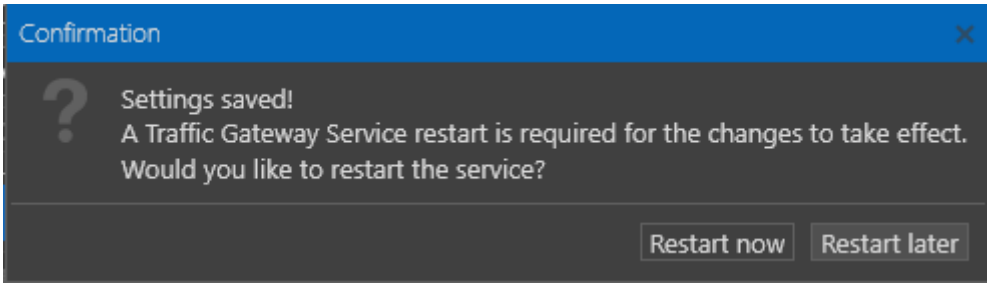
In the "Master account control" section you can specify the account under which the service logs on. You can use the local

system account or a specific account with sufficient permissions (including the ‘log on as a service’ privilege). Using an account without sufficient permissions or rights will cause outright failure or faults, which will be tracked in the diagnostic logs. You need to enter the login name and password for this specific account in the corresponding fields.



Every time you make changes to the Traffic Gateway configuration, the service should be restarted for the changes to be applied.

To apply the changes press the "Save" button on the "Service control" section in the main Cinegy Traffic Gateway Configuration window. In the dialog that pops up you are prompted to restart the Traffic Gateway Service immediately or restart it later.



Chapter 3 Cinegy CSV Input File Format

3.1 Item Format

The full syntax of every input playlist is:

```
//#channel_name

//start,duration,flags,id,name,description,comments,in,out,StartDate,SegmentStart,SegmentStop,SubtitleID
```

Where:

- **Channel name** – the name of the channel;
- **Start** – item start time; optional for "follow" items;
- **Duration** – item duration;
- **Flags** – item flags;
- **ID** – item Traffic ID (used to locate media);
- **Name** – item name; for Dummy and Live items custom names can be specified;
- **Description** – optional; item description;
- **Comments** – optional; item comments;
- **IN** – optional; item In point;
- **OUT** – optional; item Out point;
- **Start Date** – optional; item start date (in dd/mm/yyyy format);
- **SegmentStart** and **SegmentStop** – reserved for future use;
- **SubtitleID** – optional; subtitle ID value.



Please note that it's necessary to define a name of the channel at the beginning of the CSV playlist. The syntax is `#channel_name`. Otherwise Cinegy Traffic Gateway will return an error on CSV processing and fail to convert the playlist into Cinegy XML playlist format. A corresponding warning message will be written into the log file asking the customer to update the configuration.



Optional fields may be skipped (no value assigned).

For example:

```
12;30;00;00,00;01;00;00,C,ITEM001,First item,First item description,First item comments,,,31/12/2015

,00;01;00;00,,ITEM002,Second,,Item with IN point,00;00;10;00

,00;01;00;00,,ITEM003,Third,,Item with OUT point,,00;00;50;00

,00;15;00;00,,ITEM003,Next item,Secondary Event Sample

N,"This is just a comment line you can insert into the playlist. Please note, that you can insert comma in the value when ""double quote"" it"

,00;15;00;00,D,Dummy item
```

Also trailing empty values can be skipped. For example:

```
,00;01;00;00,,ITEM002,Short Item
```

The empty lines and lines with comments are supported in CSV allowing creating better human-readable files. The line starting with `//` will be identified as comments and will be skipped when processing the CSV file.

The complex values can contain commas and quotes. For example:

```
N,"This is just a comment line you can insert into the playlist. Please note, that you can insert comma in the value when ""double quote"" it"
```



Please note, that value with comma inside should be put into quotes.

The quote symbol " inside value should be specified as "" and the entire value should be "quoted".

3.2 Item Flags

Item flags can be any reasonable combination of the following values:

- **C** – clocked (fixed start) item;
- **J** – join-in-progress item;
- **M** – item with manual end;
- **S** – item with loop start;
- **E** – item with loop end;
- **L** – live item (media timeline is ignored);
- **D** – dummy item (media timeline is ignored).

The loop in playlist includes all items between Loop Start and Loop End item inclusively. In case new Program, new Block or join-in-progress item is detected, the loop is terminated automatically.

3.3 Program

The program format is the following:

```
//program,name,description
```

Where:

- **P** – identifies that the line defines program item;
- **Name** – program name;
- **Description** – optional; program description.

For example:

```
P,Explicit Program,Sample Program Description
```



Please note, that in case no programs are defined in CSV, the 'Default' program will be automatically created.

3.4 Block

The block format is the following:

```
//block,name,type,AvailId,skipped
```

Where the block line format is the following:

- **B** – identifies that the line defines block item;
- **Name** – block name;
- **Type** – optional; 'A' identifies block as 'Automatic Opt-Out';
- **AvailId** – optional; avail-id attribute for the block;
- **Skipped** – optional; 'S' identifies the block as 'Skipped'.

For example:

```
B,Auto OptOut Block,A,ID001,S
```



Please note, that in case no blocks are defined in CSV, the 'Default' block will be automatically created.

3.5 Notes and Comments

The format is the following:

```
//note,text
```

Where the note line format is the following:

- **N** – identifies that the line defines Note item;
- **Text** – defines the comment text.

For example:

```
N,"This is just a comment line you can insert into the playlist. Please note, that you can insert comma in the value when ""double quote"" it"
```

3.6 Generic Secondary Events

The format is the following:

```
//type,offset,offsetFrom,name,description,device,command,option1,option2,option3
```

Where the event line format is the following:

- **S** – identifies that the line defines generic secondary event;
- **Offset** – event offset, can be negative;
- **OffsetFrom** – defines the origin point for offset. Can be 'E' for EndOfEvent, empty or 'B' for BeginningOfEvent;
- **Name** – event name;
- **Description** – event description;
- **Device** – device name;

- **Command** – command;
- **Option1..3** – options for command.



Please note, that secondary event should not be the first item in the list. All secondary events are associated to the previous item (clip, live, dummy).

For example:

```
S,00;00;15;00,E,Secondary,,VIKINX,crosspoint,001,015
```

3.7 Predefined Cinegy CG Layer

The explicit support for CG layer events is added. The format is the following:

```
//type,offset,offsetFrom,name,description,id,variables xml
```

Where the CG line format is the following:

- **CG_*** – identifies that the line defines CG event (either Cinegy Type or Cinegy Titler template). The * defines the layer to be applied (0..8 or LOGO);
- **Offset** – event offset, can be a negative value;
- **OffsetFrom** – defines the origin point for offset. Can be 'E' for EndOfEvent, empty or 'B' for BeginningOfEvent;
- **Name** – event name;
- **Description** – event description;
- **ID** – defines Cinegy Titler or Cinegy Type template file name;



Please note that Cinegy Type engine is now considered in legacy support.

- **Variables** – optional; variables XML definition. When empty/not set the defaults from Cinegy Titler template file will be extracted.

For example:

```
CG_1,00;00;15;00,,Demo CG,,CG_FILENAME
```

```
CG_1,-00;00;15;00,E,Hide CG,,*HIDE*
```

```
CG_1,00;00;30;00,B,EXIT_SCENE_LOOP CG_1,This command EXIT_SCENE_LOOP CG_1,*EXIT_SCENE_LOOP*
```



Please note, that the corresponding Cinegy Titler or Cinegy Type template file with the name that equals to ID should exist in the CG repository folder, otherwise the playlist processing will be finished with errors.

Chapter 4 BXF Input File Format

The BXF messages can be transformed into MCRLists used by Cinegy Air and added to an existing playlist.

4.1 Schedule

Cinegy Traffic Gateway parses `Channel` and `ScheduledEvents` attributes from the `Schedule` value.

Channel

From `Channel` attribute Cinegy Traffic Gateway parses only `Name`and `TV format` attributes.

The example of `Channel` attribute:

```
<xml>
 <Channel
    type="digital_television"
    channelNumber="1"
    status="active"
    ca="false"
    shortName="378">
    <Name>History</Name>
</Channel>
</xml>
```

The example above illustrates in what way Cinegy Traffic Gateway gets channel type and name. The `type` attribute is predefined in BXF file and conveys one of the following values: `analog_television`, `digital_television`, `digital_radio`, `data_broadcast`.

ScheduledEvent

The `ScheduledEvent` attribute can be of two types: `Primary` and `NonPrimary`. Primary events are Cinegy Air playlist items. NonPrimary events define additional secondary events associated with playlist item, for example CG. Primary and NonPrimary events in BXF have similar structure, but NonPrimary events are used as supplements of the corresponding Primary events.

Primary scheduled event

The full syntax of supported attributes by scheduled `PrimaryEvent` is:

`EventData, EventId, EventTitle, BroadcastDate, StartDateTime, SmpteDateTime, SmpteTimeCode, LengthOption, Duration, SmpteDuration, SmpteTimeCode, StartMode, Content, HouseNumber, Description, SOM.`

Where:

- **EventData** – defines the type of Cinegy Air playlist item to be created: Placeholder, Live, Clip, etc.
- **EventData/EventId** – a unique event ID used for defining each processing event.
- **EventData/EventTitle** – defines Cinegy Air playlist item name.
- **EventData/StartDateTime/SmpteDate/TimeBroadcastDate** – defines Cinegy Air playlist item start date and will be

used for clocked items in further releases.

- **EventData/StartDateTime, SmpteDateTime, SmpteTimeCode** – defines Cinegy Air playlist item start time parameters, the `Date` attribute will be supported in further releases.
- **EventData/LengthOption, Duration, SmpteDuration, SmpteTimeCode** – defines Cinegy Air playlist item duration.
- **EventData/StartMode** – defines Cinegy Air playlist item start mode, the value of this attribute is predefined:

BXF file attributes	Cinegy Air attributes
Follow	Follow
Fixed	Clocked Flag
Manual	Previous item will have "Manual End" flag
External	The item that precedes the BXF item with "External" start type will get the "Manual end" flag. The start type of the first item in the list with the "External" type will be changed to "Follow"

- **Content/ContentId/HouseNumber** – defines the TrafficID used by Cinegy traffic Gateway for finding media files.
- **Content/Description** – defines Cinegy Air playlist item description (optional).
- **Content/Media/MediaLocation/SOM/SmpteTimeCode** – the `SOM` (Start Of Material) attribute defines the Cinegy Air playlist item "IN" point.

<Ac3Audio> tag processing for primary events

Cinegy Traffic Gateway supports AC-3 audio tag `Ac3Audio` while parsing BXF playlists. The following conditions are analyzed when parsing the `Ac3Audio` tag:

1. `AC3Audio` tag processing is only expected for items marked as primary events:

```
<xml>
  <EventData eventType="Primary" action="add">
</xml>
```

2. If the audio mapping profile contains BXF events with `num_channels="3/2"` values, the AC-3 5.1 profile will be applied:

   The BXF event:

```
<xml>
<DigitalAudio>
     <Ac3Audio surround="true" num_channels="3/2" serviceType="complete_main"
lang="eng" audioId="1"/>
</DigitalAudio>
</xml>
```

   The profile to be applied:

```
<xml>
  <AudioEncoderProfile name="AC-3 5.1 Standard" description="AC-3 5.1">
</xml>
```

3. If audio mapping profile contains BXF events with `num_channels="2/0"` values, the AC-3 2.0 profile will be applied:

   `<AudioEncoderProfile name="AC-3 2.0 Standard" description="AC-3 2.0">` audio mapping profile should be set for the BXF events with `num_channels="2/0"`:

   The BXF event:

   ```
   <xml>
    <DigitalAudio>
     <Ac3Audio surround="false" num_channels="2/0" serviceType="complete_main"
   lang="eng" audioId="1"/>
    </DigitalAudio>
   </xml>
   ```

   The profile to be applied:

   ```
   <xml>
     <DigitalAudio>
      <Ac3Audio surround="true" num_channels="2/0" serviceType="complete_main"
   lang="eng" audioId="1"/>
    </DigitalAudio>
   </xml>
   ```

A sample BXF file with `Ac3Audio` tags can be downloaded from GitHub repos.

NonPrimary scheduled event (optional)

The full syntax of supported attributes by scheduled `NonPrimaryEvent` is:

`EventData, EventId, EventTitle, PrimaryEventId, Offset, OffsetFrom, OffsetTime, SmpteTimeCode, LengthOption, Duration, SmpteDuration, FrameRate, SmpteTimeCode, Content, HouseNumber, Description.`

- **EventData/EventType** – defines the additional information about Cinegy Air playlist item, for instance, CG.
- **EventData/EventId** – defines the unique event ID used for defining each processing event.
- **EventData/NonPrimaryEvent/PrimaryEventId** – defines the corresponding event.
- **EventData/NonPrimaryEvent/Offset** – defines item event offset.
- **EventData/NonPrimaryEvent/Offset/OffsetFrom** – defines the offset point and conveys one of the following values: `BeginningofEvent`, `EndofEvent`.
- **EventData/NonPrimaryEvent/Offset/OffsetTime/SmpteTimeCode** – defines the offset from start of Cinegy Air playlist item for CG.
- **EventData/LengthOption/Duration/SmpteDuration/FrameRate** – defines CG frame rate (optional).

- **EventData/LengthOption/Duration/SmpteDuration/SmpteTimeCode** – defines CG duration.
- **Content/ContentId/HouseNumber** – defines the TraficID used by Cinegy Traffic Gateway for finding media files.
- **Content/Description** – defines CG description.

Chapter 5 Workflow

Cinegy Traffic Gateway's core purpose is to translate a weak reference for a media item into a fully-described, absolute reference that is described in a format Cinegy products can consume directly.

A system can provide a list of media identifiers, along with start time and approximate duration values, for items to playout, and Cinegy Traffic Gateway will be responsible for locating media files based on that identifier. It will also discover the specifics of the media (e.g. such as finding audio tracks, reading the actual media durations and time-code values) before creating an XML-based document which is ready for immediate use by other Cinegy software (most notably Cinegy Air).

Cinegy Traffic Gateway can also translate secondary events indicated against the primary media item into commands, such as displaying a logo, making an SDI route, or any other generic event available via the Cinegy Event Manager plugin sub-system.

Some other workflows can be triggered by Cinegy Traffic Gateway, for example, creating placeholder objects inside a Cinegy Archive database or using the placeholder provider scripts to trigger other custom workflow steps while attempting to find a match.

The standard workflow of a basic playlist submission task is described below:

1. 3rd party application generates XML or CSV traffic playlist.
2. Cinegy Traffic Gateway opens the playlist and parses it.
3. Cinegy Traffic Gateway looks for the media via TrafficID in Cinegy Archive or other file storage.
4. If media cannot be found, Cinegy Traffic Gateway creates a Placeholder Roll in Cinegy Archive and adds a reference to the placeholder in the Cinegy Air playlist.
5. The playlist is loaded into Cinegy Air.
6. Cinegy Air tracks the status of all Placeholder Rolls and updates the playlist with the media once the Rolls are filled.