



# **Cobalt XML Schedule Import User Manual**

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# 1 Support

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## 2 About this document

This document describes the standard Cobalt XML Schedule Importer version 1.28. Note that custom XML Importers can be developed on request.

## 3 Introduction

The Schedule Importer imports XML schedule files into Cobalt POC (Playout Control). Use the Schedule Importer to:

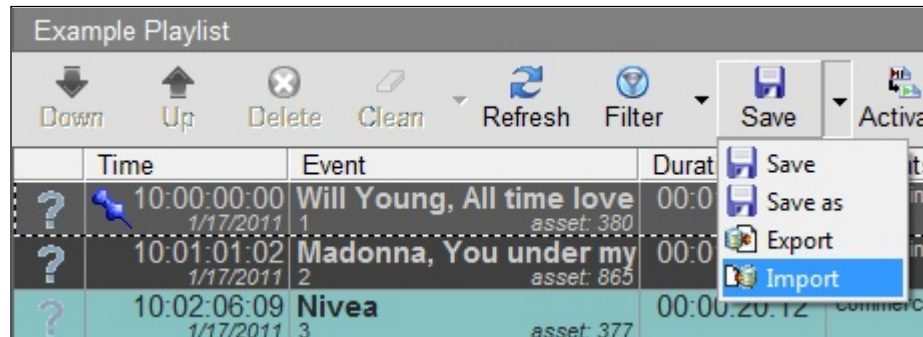
- Import Schedules. After import, Schedules are available for further editing or for playout in POC.
- Import Schedules *and* create or update assets (asset info).
  - If an asset (InternalID) referenced in a Schedule does not exist in the TX/MAM database, a new asset is created in the TX/MAM database, using the Asset information from the Schedule.
  - If an asset already exists, asset info can be updated with the Asset info from the Schedule if this option is enabled as described in chapter 6.



Asset info is stored in the TX/MAM database (empty Assets). Asset files can then be ingested and are linked to the asset info in TX/MAM, based on the asset's InternalID field.

## 4 Starting schedule import

- To open the Schedule Importer:
- In POC, select a playlist in the vertical view.
- Click **(Save/Export) > Import** and select the appropriate file.



*Example playlist with the Import button expanded*



Playlists can be edited and monitored in Cobalt Payout Control (POC).



Schedule files can automatically be read from a predefined directory. For further information please contact Grass Valley.

## 5 The XML-schedule structure

Cobalt schedules are written in XML and are built of a header, records and attributes. Chapter 5 explains the Cobalt XML schedule structure.



### Asset types

Asset types referenced in a Schedule have to be defined in TX/MAM before Schedule import.

### Custom asset metadata

Custom metadata fields for assets (custom\_metadata) in the Schedule, if any, have to be defined in the TX/MAM Asset Type definition before Schedule import.

### Free configurable Event info

Free configurable info can be added to Events (ImportFields and Format). Event info can be displayed in the Playlist, is included in the AsRun log and can be used by templates and applets.

Example Event information:

```
<FIELD name="billing">NONE</FIELD>
```

### Formats

Formats are linked to Asset Types in TX/MAM. A dummy Format is available in the Smart Playout Center installation: DFLT. This Format can be used if you do not want to link a fixed format to an Asset Type. Events will initially be scheduled with this dummy format. Format Control can be used to apply formats when the Playlist is activated.

Formats can also be linked to Events in the Schedule. The format defined in the Schedule will overwrite the format linked to the main Event's Asset Type.

Note that the format(s) referenced in a Schedule have to match the format names as defined in Channel Composer.

```

<?xml version="1.0" encoding="UTF-8"?>
- <Cobalt>
  <!-- Cobalt Elements: Schedule (1 element) -->
  - <Schedule AllowedChannels="Music_channel,Music_channelBackup" ChannelName="Music_channel">
    <!-- Schedule Attributes: ChannelName = name of the channel to import the schedule (mandatory for automatic import) AllowedChannels = names of the allowed channels separated by a , (optional) Elements: Event (1 or more elements) -->
    - <Event EventName="Usher - Love is..." EventType="Fixed" Duration="00:03:16:00" StartDate="2012-05-23" StartTime="14:35:00:00">
      <!-- Event Attributes: StartTime = starttime of event in format hh:mm:ss:ff (mandatory) StartDate = startdate of event in format yyyy-mm-dd (mandatory) Duration = duration of event in format hh:mm:ss:ff (mandatory) EventType = Fixed, Follow or Manual (mandatory) EventName = name of event (optional) EventID = event reference of scheduling system (optional) Flags = number to set 1 or more flags (optional) Elements: ImportFields (0 or 1 elements) Asset (1 element) Formats (0 or 1 elements) -->
      - <ImportFields>
        <!-- ImportFields (optional) can be used to add extra information to the event. Elements: FIELD (0 or more elements) -->
        <FIELD name="extra title">Next Friday, the whole concert</FIELD>
        <FIELD name="event category">SONG</FIELD>
        <!-- FIELD Attributes: name = name of the importfield (mandatory) Value: value of the named importfield -->
      </ImportFields>
      - <Asset AssetType="Videoclips" InternalID="CLP_123">
        <!-- Asset (mandatory) will identify the asset to schedule in this event. If the reference doesn't exist in the Cobalt database, a new asset will be created with the information from the following elements. Attributes: InternalID = reference to the asset, stored in TX/MAM as "external ref" (optional, but recommended) ID = direct reference to an existing Cobalt Asset ID, if available (optional, not used very often) AssetType = asset type where the new asset will be created (mandatory for new asset) TcIn = timecode in for partial playlist of asset in format hh:mm:ss:ff (optional) TcOut = timecode out for partial playlist of asset in format hh:mm:ss:ff (optional) Elements: type_metadata (0 or 1 elements) custom_metadata (0 or 1 elements) -->
        - <type_metadata>
          <!-- type_metadata (optional) will be used if a new asset has to be created. The type metadata fields can be used to set the duration of an asset in TX/MAM. This can be used if the asset duration differs from the event duration. Elements: FIELD (0 or more elements) -->
          <FIELD name="use duration">00:03:16:00</FIELD>
          <!-- FIELD Attributes: name = name of the type metadata field (mandatory) Value: value of the named type metadata field -->
        </type_metadata>
        - <custom_metadata>
          <!-- custom_metadata (optional) will be used if a new asset has to be created. The custom metadata fields have to match to the configured metadata fields from this asset type in TX/MAM. Elements: FIELD (0 or more elements) -->
          <FIELD name="artist">Usher</FIELD>
          <FIELD name="track">Love Is A Deserter</FIELD>
          <FIELD name="album">Confessions</FIELD>
          <FIELD name="label"/>
          <!-- FIELD Attributes: name = name of the custom metadata field (mandatory) Value: value of the named custom metadata field -->
        </custom_metadata>
      </Asset>
      - <Formats>
        <!-- Formats (optional) specifies all the format(s) which will be used to play out the event. If no formats are specified, the default format can be applied. Elements: Format (0 or more elements) -->
        <Format name="videoclip"/>
        - <Format name="clip_logo" duration="00:02:56:00" offset="00:00:10:00">
          <!-- Format (optional) specifies the format which will be used to play out the event. Extra format information can be added with the FIELD element. Attributes: name = name of the format, the format has to exist in the Cobalt db (mandatory) offset = offset of the start of the format (optional) duration = duration of the format (optional) Elements: FIELD (0 or more elements) -->
          <FIELD name="rated">NONE</FIELD>
          <!-- FIELD Attributes: name = name of the format field (mandatory) Value: value of the named format field -->
        </Format>
      </Formats>
    </Event>
    - <Event EventType="Follow" Duration="00:02:12:12" StartDate="2006-05-23" StartTime="14:38:16:00">
      - <Asset AssetType="Videoclips" InternalID="CLP_456">
        - <type_metadata>
          <FIELD name="use duration">00:02:12:12</FIELD>
        </type_metadata>
        - <custom_metadata>
          <FIELD name="artist">Madonna</FIELD>
          <FIELD name="track">Somethings</FIELD>
        </custom_metadata>
      </Asset>
      - <Formats>
        <Format name="videoclip"/>
      </Formats>
    </Event>
    - <Event EventName="Usher - Love is (partial)" EventType="Follow" Duration="00:02:46:00" StartDate="2006-05-23" StartTime="14:40:28:12">
      - <Asset AssetType="Videoclips" InternalID="CLP_123" TcOut="00:03:01:00" TcIn="00:00:15:00">
        - <type_metadata>
          <FIELD name="use duration">00:03:16:00</FIELD>
        </type_metadata>
        - <custom_metadata>
          <FIELD name="artist">Usher</FIELD>
          <FIELD name="track">Love Is A Deserter</FIELD>
          <FIELD name="album">Confessions</FIELD>
          <FIELD name="label"/>
        </custom_metadata>
      </Asset>
      - <Formats>
        <Format name="videoclip"/>
      </Formats>
    </Event>
  </Schedule>
</Cobalt>

```


*Example Schedule*

## 6 XML-schedule records and attributes

item	type	o/m	explanation
header	-	-	-
Cobalt	Record	Mandatory	Fixed. Contains: Schedule (1).
<b>Schedule</b>			
Specifies a Schedule and contains zero or more Events.			
Schedule	Record	Mandatory	Specifies a Schedule. Contains: Event (0 or more).
<b>Schedule attributes:</b>			
ChannelName	Attribute	Mandatory for automatic schedule imports.	The Channel name as defined in Cobalt/TX/MAM. This field is used for automatic imports.
AllowedChannels	Attribute	Optional	Names of allowed Channels, separated by a comma. When using this option, in POC the Schedule can only be activated on the Channels that have been specified here.
<b>Event</b>			
Specifies an Event.			
Event	Record	Mandatory	Specifies an Event. Contains: <ul style="list-style-type: none"> <li>• ImportField (0 or 1)</li> <li>• Asset (1)</li> <li>• Formats (0 or 1)</li> </ul>
<b>Event attributes:</b>			
StartTime	Attribute	Mandatory	Event absolute start time, in format hh:mm:ss:ff.
StartDate	Attribute	Mandatory	Event start date, in format yyyy-mm-dd.
Duration	Attribute	Mandatory	Event duration, in format hh:mm:ss:ff.
EventType	Attribute	Mandatory	The default is Follow; the Event follows up the previous Event, if applicable the Event's StartTime is adjusted. Options: Fixed   Follow  Manual.
EventID	Attribute	Optional	The EventID as generated by the external schedule system, if applicable.
EventName	Attribute	Optional	Name of the Event.
Flags	Attribute	Optional	Specifies the number of flags, 1 or more.
<b>ImportFields</b>			
These fields can be used to add additional info to an Event.			
ImportFields	Record	Optional	These fields can be used to add additional info to an Event. This information is picked up by the three applications below and: <ul style="list-style-type: none"> <li>• is displayed in the Playlist</li> <li>• is included in the AsRun log</li> <li>• can be used by templates and applets</li> </ul> Contains: Field (0 or more)
FIELD	Record	Optional	Fields are free configurable and can be used to specify schedule information. Example: <FIELD name="billing">NONE</FIELD>

## Asset

Specifies the Event's main asset.

Asset	Record	Mandatory	Specifies the Event's main asset. Contains: <ul style="list-style-type: none"><li>type_metadata (0 or 1)</li><li>custom_metadata (0 or 1)</li></ul>  If an asset reference (InternalID, see below) does not exist in the TX/MAM database, a new asset is created using information from the attributes and records below.
-------	--------	-----------	--

### Asset attributes:

InternalID	Attribute	Optional, but recommended	Reference to the asset. Other systems may call this reference "House ID" or "Material ID". Stored in the TX/MAM database as "external ref".
ID	Attribute	Optional	Direct reference to an asset (if the asset already exists). Not often used.
AssetType	Attribute	Mandatory for new assets	Asset type, as defined in TX/MAM.
TcIn	Attribute	Optional	Timecode in in format hh:mm:ss:ff. Used for partial playout of assets.
TcOut	Attribute	Optional	Timecode out in format hh:mm:ss:ff. Used for partial playout of assets.

## type\_metadata

type\_metadata info is used to create new assets, or to update asset info [see also chapter 6].  
The asset (type)'s base type fixed fields.

type_metadata	Record	Optional, used if a new asset has to be created or to update asset info	Used if a new asset is created, or to update asset info. The asset type's base type fixed fields. Contains: Field (0 or more).
FIELD	Record	Optional	Note that the type metadata fields have to match the fixed fields for asset types as defined in TX/MAM. Example: <FIELD name="use duration">value</FIELD>

## custom\_metadata

custom\_metadata info is used to create new assets, or to update asset info [see also chapter 6].  
The asset (type)'s custom fields, if any.

custom_metadata	Record	Optional, used if a new asset has to be created or to update asset info	Used if a new asset is created, or to update asset info. Contains: Field (0 or more).
FIELD	Record	Optional	Name of the custom metadata field, as defined in TX/MAM. Fields that are not found in the asset type definition will be ignored. Example: <FIELD name="artist">Usher</FIELD>



## Formats

Specifies the format(s) that will be used to play out the Event.

Formats	Record	Optional	Specifies the format(s) that will be used to play out the Event. If no formats are specified, the default format is applied. Contains: Format (0 or more).
<b>Format</b>	Record	Optional	Specifies the format(s) that will be used to play out the Event. Contains: Field (0 or more).
<b>Format attributes:</b>			
Name	Attribute	Mandatory	The format name as defined in Channel Composer. Contains: Field (0 or more)
offset	Attribute	Optional	Offset (negative or positive) from the start of the Event, in format hh:mm:ss:ff.
duration	Attribute	Optional	Duration that this particular format will be active, in format hh:mm:ss:ff.
FIELD	Record	Optional	Extra format information can be added using the <Field> element. Free configurable. Example: <FIELD name="rated">NONE</FIELD>

## 7 Appendix: configuring the Schedule Importer to update asset info

The Importer can be configured to update metadata fields from existing Assets. The default is that existing Assets' metadata fields are not overwritten. To configure automatic updating:

- On the TX/MAM client PC, in **C:\Program Files (x86)\Grass Valley\cobalt\runtime**, edit the **ScheduleImporter.ini** file.
- To update all metadata fields for all Asset Types:

```
[UpdateAssets]
AllFields=true
```

- To update specific metadata fields for specific Asset Types only, specify the Asset Type and fields that should be updated. For example:

```
[Update_MusicVideo]
use duration=true
artist=true
album=false
```

## 8 Appendix: example Schedule (text)

You can copy this example Schedule into a text or XML-editor and use for test purposes.

```
<?xml version="1.0" encoding="UTF-8"?>
<Cobalt>
  <!-- Cobalt
    Elements: Schedule (1 element) -->
  <Schedule ChannelName="Music_channel" AllowedChannels="Music_channel,Music_channelBackup">
    <!-- Schedule
      Attributes: ChannelName = name of the channel to import the schedule (mandatory for automatic import)
                 AllowedChannels = names of the allowed channels separated by a , (optional)
      Elements: Event (1 or more elements) -->
    <Event StartTime="14:35:00:00" StartDate="2012-05-23" Duration="00:03:16:00" EventType="Fixed" EventName="Usher - Love is...">
      <!-- Event
        Attributes: StartTime = starttime of event in format hh:mm:ss:ff (mandatory)
                   StartDate = startdate of event in format yyyy-mm-dd (mandatory)
                   Duration = duration of event in format hh:mm:ss:ff (mandatory)
                   EventType = Fixed, Follow or Manual (mandatory)
                   EventName = name of event (optional)
                   EventID = event reference of scheduling system (optional)
                   Flags = number to set 1 or more flags (optional)
        Elements: ImportFields (0 or 1 elements)
                 Asset (1 element)
                 Formats (0 or 1 elements) -->
    <ImportFields>
      <!-- ImportFields (optional) can be used to add extra information to the event.
        Elements: FIELD (0 or more elements) -->
      <FIELD name="extra title">Next Friday, the whole concert</FIELD>
      <FIELD name="event category">SONG</FIELD>
      <!-- FIELD
        Attributes: name = name of the importfield (mandatory)
        Value: value of the named importfield -->
    </ImportFields>
```

```

<Asset InternalID="CLP_123" AssetType="Videoclips">
  <!-- Asset (mandatory) will identify the asset to schedule in this event. If the reference doesn't exist in the
  Cobalt database, a new asset will be created with the information from the following elements.
  Attributes: InternalID = reference to the asset, stored in TX/MAM as "external ref"
             (optional, but recommended)
             ID      = direct reference to an existing Cobalt Asset ID, if available
             (optional, not used very often)
             AssetType = asset type where the new asset will be created
             (mandatory for new asset)
             TcIn     = timecode in for partial playout of asset in format hh:mm:ss:ff
             (optional)
             TcOut    = timecode out for partial playout of asset in format hh:mm:ss:ff
             (optional)
  Elements: type_metadata (0 or 1 elements)
            custom_metadata (0 or 1 elements) -->
<type_metadata>
  <!-- type_metadata (optional) will be used if a new asset has to be created. The type metadata fields can be used to
  set the duration of an asset in TX/MAM. This can be used if the asset duration differs from the event duration.
  Elements: FIELD (0 or more elements) -->
  <FIELD name="use duration">00:03:16:00</FIELD>
  <!-- FIELD
  Attributes: name = name of the type metadata field (mandatory)
  Value: value of the named type metadata field -->
</type_metadata>
<custom_metadata>
  <!-- custom_metadata (optional) will be used if a new asset has to be created. The custom metadata fields have
  to match to the configured metadata fields from this asset type in TX/MAM.
  Elements: FIELD (0 or more elements) -->
  <FIELD name="artist">Usher</FIELD>
  <FIELD name="track">Love Is A Deserter</FIELD>
  <FIELD name="album">Confessions</FIELD>
  <FIELD name="label"></FIELD>
  <!-- FIELD
  Attributes: name = name of the custom metadata field (mandatory)
  Value: value of the named custom metadata field -->
</custom_metadata>

```

```

</Asset>
<Formats>
  <!-- Formats (optional) specifies all the format(s) which will be used to play out the event. If no formats
  are specified, the default format can be applied.
  Elements: Format (0 or more elements) -->
  <Format name="videoclip"></Format>
  <Format name="clip_logo" offset="00:00:10:00" duration="00:02:56:00">
  <!-- Format (optional) specifies the format which will be used to play out the event. Extra format
  information can be added with the FIELD element.
  Attributes: name = name of the format, the format has to exist in the Cobalt db (mandatory)
             offset = offset of the start of the format (optional)
             duration = duration of the format (optional)
  Elements: FIELD (0 or more elements) -->
  <FIELD name="rated">NONE</FIELD>
  <!-- FIELD
  Attributes: name = name of the format field (mandatory)
  Value: value of the named format field -->
  </Format>
</Formats>
</Event>
<Event StartTime="14:38:16:00" StartDate="2006-05-23" Duration="00:02:12:12" EventType="Follow">
  <Asset InternalID="CLP_456" AssetType="Videoclips">
  <type_metadata>
  <FIELD name="use duration">00:02:12:12</FIELD>
  </type_metadata>
  <custom_metadata>
  <FIELD name="artist">Madonna</FIELD>
  <FIELD name="track">Somethings</FIELD>
  </custom_metadata>
  </Asset>
  <Formats>
  <Format name="videoclip"></Format>
  </Formats>
</Event>
<Event StartTime="14:40:28:12" StartDate="2006-05-23" Duration="00:02:46:00" EventType="Follow" EventName="Usher - Love is (partial)">
  <Asset InternalID="CLP_123" AssetType="Videoclips" TcIn="00:00:15:00" TcOut="00:03:01:00">

```

```
<type_metadata>
  <FIELD name="use duration">00:03:16:00</FIELD>
</type_metadata>
<custom_metadata>
  <FIELD name="artist">Usher</FIELD>
  <FIELD name="track">Love Is A Deserter</FIELD>
  <FIELD name="album">Confessions</FIELD>
  <FIELD name="label"></FIELD>
</custom_metadata>
</Asset>
<Formats>
  <Format name="videoclip"></Format>
</Formats>
</Event>
</Schedule>
</Cobalt>
```