USER MANUAL

Content Check

Version 1.5 - February 2015

MediArchive.Director

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 User Manual the icon NEW ! has been added on the left margin to highlight information on new and updated features.

The changes linked to new features in version 2.5 are listed below.

Content Check now writes files to the AppData folder instead of it's own executable folder.

Content Check has been adapted to support the move of assets in Media Manager.

1. About the Application

General Description

Content Check forms part of the ingest module of the central archiving system MediArchive Director or MAD. It is used to monitor content checks performed by Interra Systems' quality check software Baton on high-resolution video files that have just been ingested into the digital archive.

It lists the faulty segments and provides a detailed error report per segment. It enables the user to play back a low-resolution version of the erroneous video files and to manually accept or reject them. Video files that are rejected will have to be purged from the digital archive. Video files that are accepted will remain available in the digital archive.

Workflow

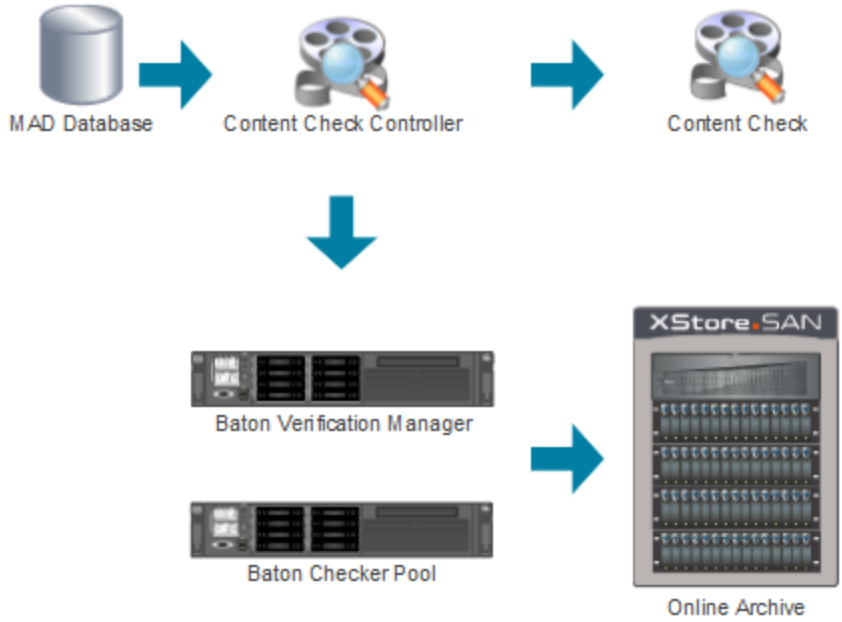
Description

The Content Check workflow proceeds as follows:

1. The automated application Content Check Controller scans the MAD database for content check requests.
2. If the high-resolution video files that need to be checked are available on the online storage, Content Check Controller requests Baton to perform the content checks.
3. Baton checks the audio and video quality of the specified video files on the online storage.
4. Baton enters the status of the requested checks in the MAD database.
5. Content Check Controller picks up the updated status of the requested content checks in the MAD database. In Content Check, the progress and the status of the requested content checks can be monitored. In Media Manager, a green bar appears under the **Content Check** icon if a segment has passed the content check successfully. See the Media Manager user manual for more information.
6. In Content Check, the user has to manually accept or reject segments for which errors have been detected. The status of the content check requests is then updated in the MAD database.
7. In Media Manager, the status of the corresponding asset item automatically turns into ‘Baton QC Rejected’ if a segment is rejected in Content Check and a red bar appears under the **Content Check** icon. A purge can be requested for the segment.

Diagram

The diagram below illustrates the Content Check workflow.



Multiple Timecode Support

The application supports the following SMPTE timecodes:

- PAL
- NTSC non-drop frame
- NTSC drop frame

2. About Baton

Baton by Interra Systems is an automated verification system for file-based content. Baton enables content developers, studios, and broadcasters to minimize manual quality checks on content and automate quality checks for file-based workflows. With Baton's automated content verification, broadcasters and content developers can assure quality media for distribution. For more information about Baton see the manuals provided by the manufacturer.

3. Installing the Application

See the MAD Installation manual for more information on how to install the application.

4. Starting the Application

4.1. After Installation

To start the application after installation, proceed as follows:

1. Double-click the Content Check icon  on the server desktop to start the application. You can also launch the application by double-clicking the executable file (.exe) in the installation folder.

   The application splash screen appears while the application logs into the MAD database.

   Then, the Settings window appears allowing you to configure the application. See section "Settings Window" on page 36.

4.2. After Configuration

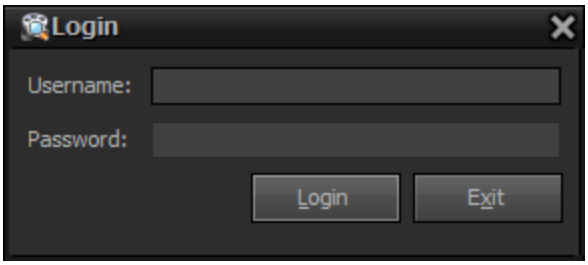
To start the application after it has been configured, proceed as follows:

1. Double-click the Content Check icon on the server desktop to start the application. You can also launch the application by double-clicking the executable file (.exe) in the installation folder.

   The application splash screen appears while the application logs into the MAD database.

   Next, the Login dialog box of the application appears.

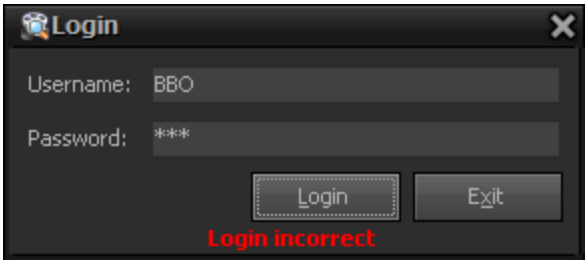
   To be able to log into the application, you need to belong to a user group that has a role which allows to use the application.

2. Enter your username and password and click **Login**.

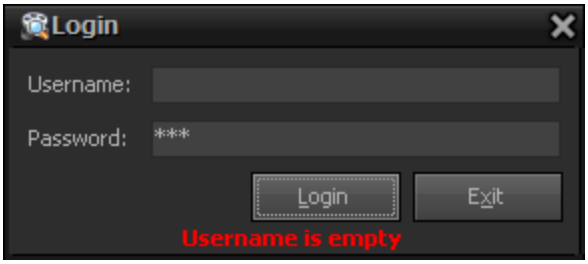
   The main window of the application opens.

You get an error notification if:

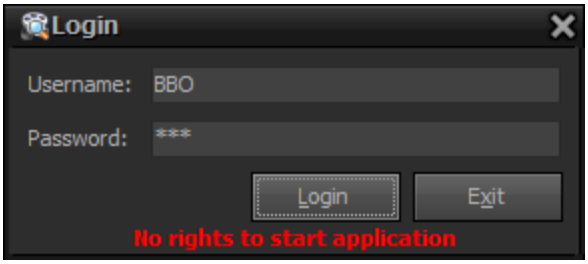
- you have entered a wrong username or password.

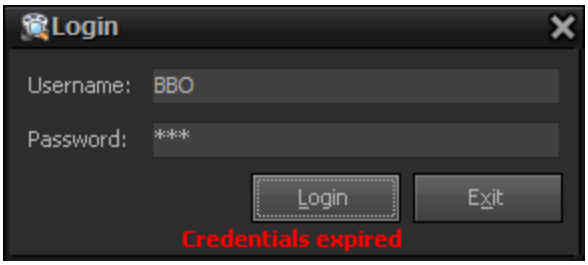
- you have omitted your username.



- you have insufficient user rights.



- your login has expired.



Warning
If you have lost your password, a new password will have to be set in MAD Config. Contact your system administrator.

4.3. Version and License Check

Introduction

The version of the application and the validity of the application license will be checked when the application logs into the MAD database at startup. The status of the version or the license that is returned is displayed on the application splash screen.

Version and License Statuses

The following version and license statuses can be returned:

Status	Description	Color	Action Required
Current	The actual version of the application.	no color	No action required. The application starts automatically.
Outdated	A newer version of the application exists, but this version can still be used. The application version that should be installed is displayed.	red	Click **OK** to start the application at once. By default, the application starts automatically after 10 seconds.
Obsolete	A newer version of the application exists and must be used. This version may not be used anymore. The application version that should be installed is displayed.	red	Click **OK** to continue. The application shuts down.
Undefined	The version of the application is not defined in the MADdatabase.	black	Click **OK** to continue. The application shuts down.
Beta	A test version.	blue	Click **OK** to start the application. By default, the application starts automatically after 10 seconds.

Status	Description	Color	Action Required
License About to Expire	The license period is about to expire. It is shown in how many days the license will expire. Contact your system administrator or check the License Controller manual.	orange	Click **OK** to start the application at once. By default, the application starts automatically after 10 seconds.
License Expired	The license period has expired. The date when the license expired is displayed. Contact your system administrator or check the License Controller manual.	red	Click **OK** to continue. The application shuts down.
No Valid License	There was no valid license found in the database. Contact your system administrator or check the License Controller manual.	red	Click **OK** to continue. The application shuts down.
Maximum Licenses Reached	The maximum number of instances <NUMBER OF LICENSES> for the license has been reached. Contact your system administrator or check the License Controller manual.	red	Click **OK** to continue. The application shuts down.

4.4. Main Window

General Description

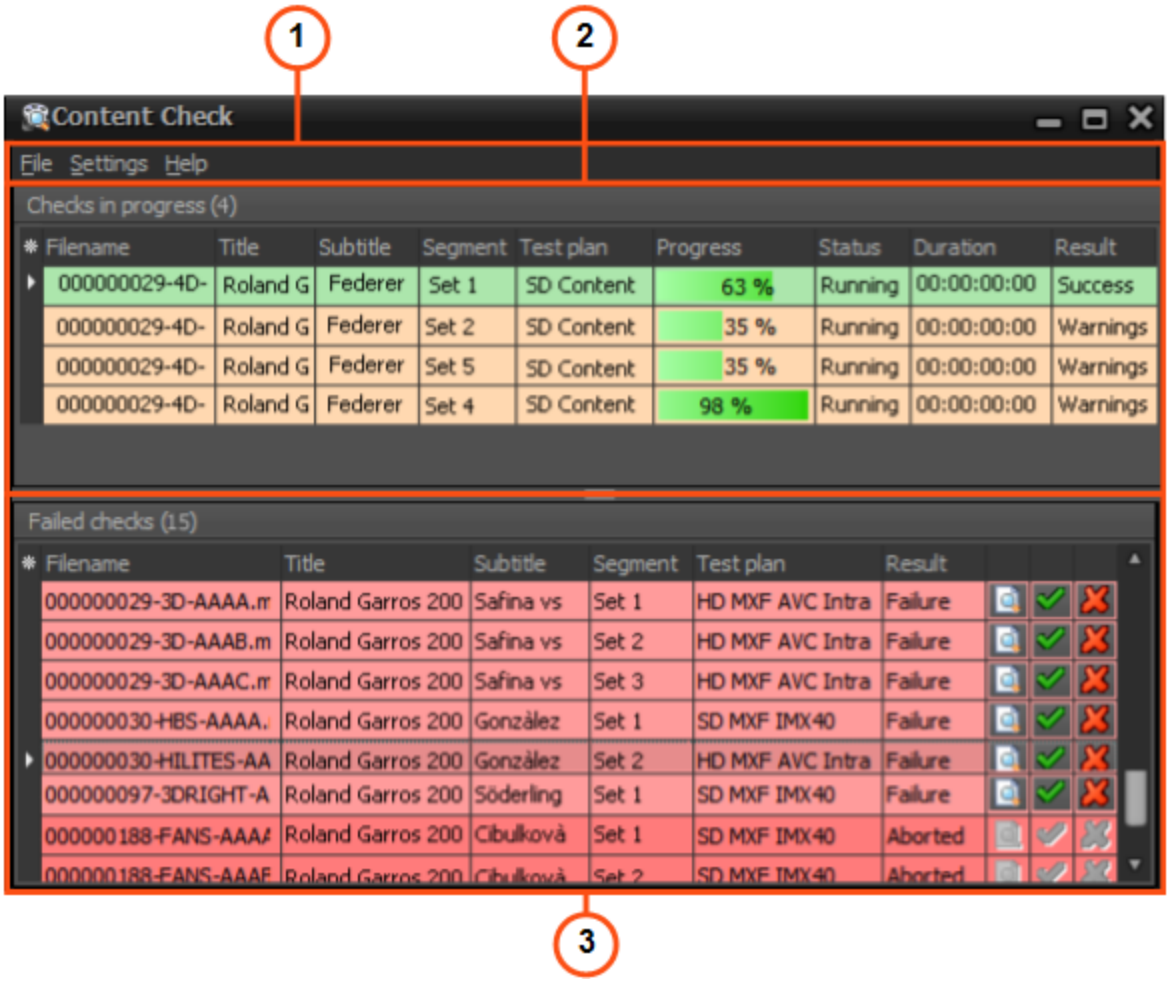
The Content Check main window displays the content (= quality) checks being performed by Baton on the high-resolution video file of segments that have been successfully ingested into the digital archive.

The faulty video files are picked out and listed at the bottom of the window. The user can open a detailed error report and play back a low-resolution version to check the errors. The user can manually accept or reject each video file.

Accepted files will remain in the archive, rejected files will have to be purged from the archive.

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.	Menu bar	The menu bar contains three menus: **File**, **Settings** and **Help**.
2.	Checks in Progress grid	This grid displays the content checks that are being performed. See section "Checks in Progress Grid" on page 11.
3.	Failed Checks grid	This grid displays the video files that did not pass the content check tests. See section "Failed Checks Grid" on page 13.

Menu Bar

The menu bar contains three menus: **File**, **Settings** and **Help**.

File Menu

The **File** menu contains two commands: **Logout** and **Exit**.

Click the **File** menu or use the keyboard shortcut keys **ALT** + **F** or **F10** + **F** to open it.

Click **Exit** or use the keyboard shortcut key **X** to exit the application.

Click **Logout** or use the keyboard shortcut key **O** to log out of the application.

Settings Menu

The **Settings** menu does not contain any commands. It immediately gives access to the application settings. Click the **Settings** menu or use the keyboard shortcut keys **ALT** + **S** or **F10** + **S** to access the settings.

Help Menu

The **Help** menu contains the following commands: **Help**, **Context-Sensitive Help** and **About**.

With the **Help** command you can open the application help file.

With the **Context-Sensitive Help** command you can turn on or off the context-sensitive help mode. In context-sensitive help mode, when you click a user interface item, help for that item is displayed. You can also turn on or off context-sensitive help mode by pressing **F1**.

With the **About** command the application about box can be opened. The about box displays the application software version, the date until which the application license is valid, the name and version of the database the application is logged on to and the login name used.

Click **About** or use the keyboard shortcut key **A** to open the application about box.


MediArchive Director
Version: 01.05
Content Check
Application: 2.5.2.0
Database: R00137
License: 21-DEC-2016
EVS
Logged on to [DatabaseName]

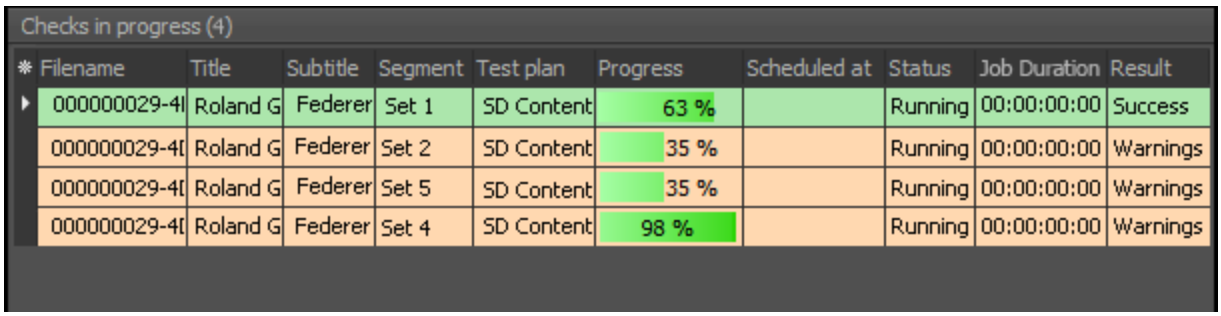
5. Managing Content Checks

5.1. Monitoring Content Check Tasks

5.1.1. Checks in Progress Grid

Introduction

The Checks in Progress grid displays information about the content check tasks that Baton is performing on the ingested high-resolution video files. Between brackets, the number of content check tasks is displayed.



Monitoring Information

For each content check task, the following information is displayed:

Column	Description
Filename	The name of the video file that is being checked.
Title	The name of the grouping category.
Subtitle	The name of the asset.
Segment	The name of the segment.
Test Plan	The name of the Baton test plan used to verify the video file. See below for more information.
Priority	The priority of the content check task.
Progress	The progress of the content check task.
Scheduled at	The creation time of the content check task.
Status	The status of the content check task.
Job Duration	The duration of the content check task.
Result	The result of the content check task.

States and Results of a Content Check Task

The table below describes the various content check task states:

State	Description
Ready	The task waits for the availability of a checker server.
Running	The task is assigned to a checker server and starts running.
Cancelled	The task is removed before the verification begins.
Aborted	The task is terminated before completion and the result is not available.

When a content check task is running or has been completed, the following results are available for the video file:

Column	Description
Success	The video file has no errors or warnings.
Failed	The video file has one or more errors; or, the file format is unknown.
Warnings	The video file has warnings, but no errors.

Color Codes

The following colors are used to indicate the status of a content check task:

Color	Status
Gray	The content check task has not started yet.
Green	No errors were detected in the video material during the content check.
Orange	Minor errors were detected in the video material during the content check.
Red	Major errors were detected in the video material during the content check.

Test Plan

To verify a video file, you need to check the content against a checklist that defines what features of the content need to be checked and what are the accepted characteristics of each feature. For example, the checklist may define checks for required resolution, bit rate, chroma format, frame rate, audio level, and more. At the same time, the checklist may define some directives on how the content should be checked.

A Test Plan, in simple words, is a checklist for a set of media files. During a content check task, Baton uses the specified Test Plan to check and verify a set of video files. During verification if there are any violations in the content against specifications in the Test Plan, Baton reports errors.

5.1.2. Failed Checks Grid

Introduction

The Failed Checks grid displays the segments whose high-resolution video file did not pass the content check tests. Between brackets, the number of failed content checks is displayed.

Monitoring Information

For each video clip in the Failed Checks grid, the following information is displayed:

Column	Description
Filename	The name of the video file that did not pass the content check tests.
Title	The name of the grouping category.
Subtitle	The name of the asset.
Segment	The name of the segment.
Tape Status	The status assigned to the corresponding asset item in Media Manager by the user. See the Media Manager user manual for more information.
Test Plan	The name of the test plan used to verify the video clip.
Result	The result of the content check.
	The **View Error Report** button used to open the Error Inspector window. See section "Error Inspector Window Overview" on page 14.
	The **Accept** button used to accept the video file.
	The **Reject** button used to reject the video file.

If the content check was aborted for a particular video file, because for example there was an issue with Baton, then the **View Error Report**, **Accept** and **Reject** button will be unavailable.

The Baton Quality Check action will have to be retried in Media Manager.

5.2. Accepting and Rejecting Files

5.2.1. Analyzing the Detailed Error Report

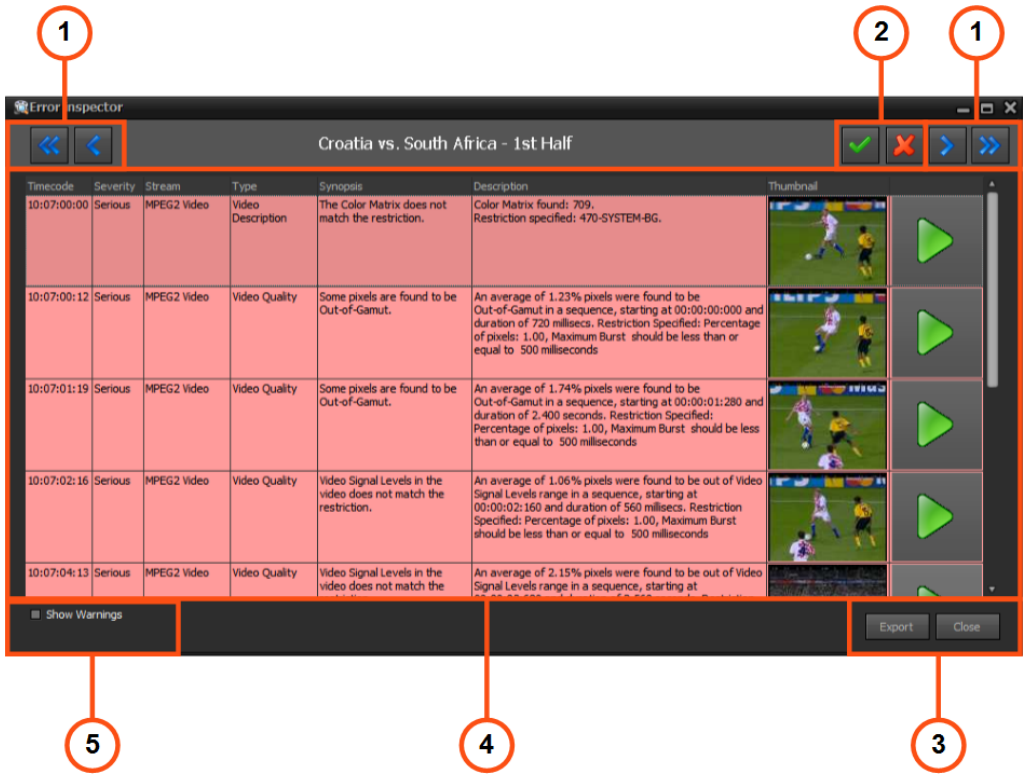
Error Inspector Window Overview

General Description

The Error Inspector window gives you detailed information about the errors, warnings and information in a video file that has been verified by Baton. To open this window for a particular video file, click the corresponding **View Error Report** button  .

Illustration

The Error Inspector window contains the areas highlighted on the screenshot below:



Area Description

The table below describes the various parts of the Error Inspector window:

Part	Name	Description
1.	Navigation buttons	The **Navigation** buttons are used to move back and forth between the error reports of the video files.
2.	Accept and Reject button	The **Accept** button is used to accept a video file. See section "How to Accept a Video File" on page 22. The **Reject** button is used to reject a video file. See section "How to Reject a Video File" on page 22.
3.	Export, Close and Play button	The **Export** button is used to export the error report to Excel. The **Close** button is used to close the Error Inspector window. A **Play** button  is provided to open a video player and to play back the part of the low-resolution video file that contains the error. See section "Playing Back Video Files" on page 18.
4.	Error grid	The Error grid displays detailed information about the minor and major errors and warnings that have been detected during the content check of a particular video file. See section "Error Information" on page 16
5.	Show Warnings check box	The **Show Warnings** check box is used to show or hide warnings. Depending on the settings, this check box will be selected or unselected. See section "General Tab" on page 39.

Navigation Buttons

The Navigation buttons are used to move back and forth between the error reports of the video files. The table below describes each button:

Button	Name	Description
	**First Segment**	This button is used to move to the error report of the first video file in the Checks Done grid.
	**Previous Segment**	This button is used to move to the previous error report.
	**Next Segment**	This button is used to move to the next error report.
	**Last Segment**	This button is used to move to the error report of the last video file in the Checks Done grid.

Error Information

The Error grid displays detailed information about the errors and warnings that have been detected during the content check of a particular video file. For each error or warning the following information is displayed:

Column	Description
Timecode	Displays the timecode when the error occurred.
Severity	Displays the severity of the error.
Stream	Displays the stream where the error occurred, e.g. MXF, MPEG2 Video, AES3 Audio, DNxHD Video, LPCM Audio, MP4 File.
Type	Displays the type of content check. In most cases, this will be a video or audio check.
Synopsis	Gives a summary of the error.
Description	Describes the error in more detail.
Thumbnail	Displays the erroneous thumbnail, if any.

Content Check Categories

The checks are grouped under the following categories:

- **Audio/video quality checks:** checks on decoded audio/video.

  E.g. blurriness, blockiness, RGB gamut errors, audio silence, transient noise, etc.

- **Audio/video description checks:** checks on audio/video encoding done.

  E.g. resolution, chroma format, frame rate, display aspect ratio, etc.

- **Container format specific checks:** checks which are specific to the container files.

  E.g. number of PCR PIDs/PMT PIDs in MPEG-2 Transport streams, time code track in MXF files, field location table (FLT) in GXF, Creation/Modification Time MP4 files, etc.

- **Elementary format specific checks:** specify checks which are specific to the elementary audio/video essences.

  E.g. scan order of H.264 video, VITC PAL information in MPEG-2 video, TNS data in AAC audio, etc.

- **Verification Directives:** directives specify options to control the verification process.

- **Container description checks:** checks on the container encoding done. These checks are available only for the container formats.

  E.g. content layout, size of the file, number of audio/video tracks, etc.

Possible Errors

See the user manual of Baton for more information.

5.2.2. Playing Back Video Files

Video Player Overview

General Description

The video player allows you to play back the low-resolution version of a particular video file to check the errors and warnings.

To open the video player, click the **Play** button in the Error grid.

Illustration

The video player contains the areas highlighted on the screenshot below:

Area Description

The table below describes the various parts of the software player:

Area	Name	Description
1.	Video Display	The file is played back in the video display.
2.	Timecode field	The **Timecode** field displays the timecode value corresponding to the current position of the file being played back.
3.	Mark All, MarkIn, SnapShot and MarkOut button	The **Mark All** button is used to mark an In point at the start timecode of the video file and to mark an Out point at the end timecode. The **MarkIn** button is used to mark an In point. The **SnapShot** button is used to take a screenshot of a particular frame of the source file. The **MarkOut** button is used to mark an Out point.
4.	Timeline	The Timeline visually represents the duration of the video file. The playhead marks the current position in the Timeline. You use the playhead to scrub, or play back from its current position.
5.	Audio Channel Left and Audio Channel Right field	The **Audio Channel Left** and **Audio Channel Right** field are used to select the left and right audio channel. These channels will be played back when starting the player. By default, eight left and right channels are available.
6.	Navigation buttons	The **Navigation** buttons are used to navigate through the loaded file.

Navigation Buttons

The following navigation buttons are available:

Button	Name	Description
	**GotoStart**	This button is used to move to the start of the video file.
	**Rewind**	This button is used to move backward through the loaded video file at a speed faster than real time.
	**Play**	This button is used to play back the video file.

Button	Name	Description
	**Pause**	This button is used to pause the video file.
	**Fast Forward**	This button is used to move forward through the loaded video file at a speed faster than real time.
	**GotoEnd**	This button is used to move to the end of the video file.
	**GotoMarkIn**	This button is used to move to the In point.
	**Jog Reverse**	This button is used to move backward through the loaded video file frame by frame.
	**Preview**	This button is used to play back the video file from the newly marked In and Out Point.
	**Jog Forward**	This button is used to move forward through the loaded video file frame by frame.
	**GotoMarkOut**	This button is used to move to the Out point.

Navigating Within a Loaded Video File

You can navigate within a loaded video file in several ways.

You can:

- click at a specific point on the timeline; or
- drag the playhead; or
- manually enter a timecode in the **Timecode** field; or
- click one of the Navigation buttons.
- use the Shuttle Pro.

See section "General Tab" on page 38 for more information on how to configure Content Check so that a ShuttlePRO device can be used to control the video player.

5.2.3. How to Accept a Video File

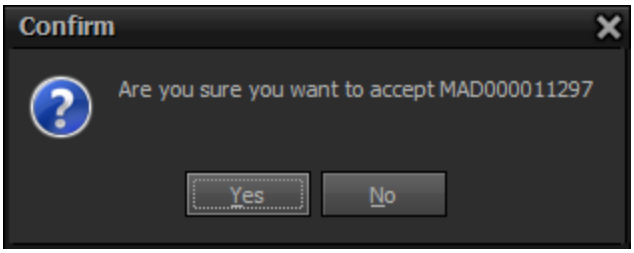
You can accept video files in two locations:

- in the Failed Checks grid
- in the Error Inspector window

To accept a video file, proceed as follows:

1. Click the **Accept** button.

   A message appears asking you to confirm the action.



2. Click **Yes** to continue or press **Y** or **ENTER**.

   The record will disappear from the Failed Checks grid. In Media Manager, in the Segments tab of the Technical Form of the corresponding asset item, the colored bar under the icon of the Baton workflow action will turn green, indicating that it was performed successfully. The next action in the workflow will be automatically selected. See the Media Manager user manual for more information.

5.2.4. How to Reject a Video File

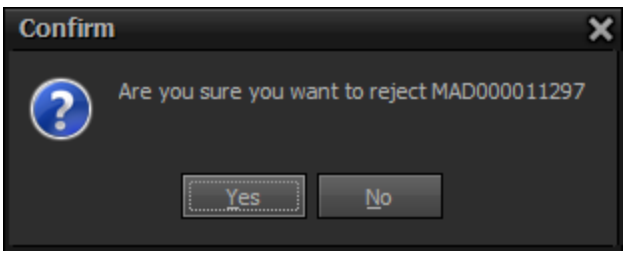
You can reject a video file in two locations:

- in the Failed Checks grid
- in the Error Inspector window

To reject a video file, proceed as follows:

1. Click the **Reject** button.

   A message appears asking you to confirm the action.



2. Click **Yes** to continue or press **Y** or **ENTER**.

   The record will disappear from the Failed Checks grid. In Media Manager, in the Segments tab of the Technical Form of the corresponding asset item, the colored bar

under the icon of the Baton workflow action will turn red, indicating that the action went wrong. In Media Manager, the user can request a purge of the video file from the archive. See the Media Manager user manual for more information.

6. Managing Grids

6.1. Introduction

In Content Check most of the data is displayed in grids. Each grid consists of a number of columns containing specific information.

Content Check provides you a number of features to customize each grid.

You can:

- adjust the width of each column
- sort and filter data.

6.2. Manipulating Columns

6.2.1. Adjusting the Width of Columns

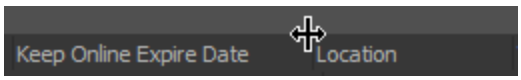
The width of each grid column can be manually or automatically adjusted.

How to Manually Adjust the Column Width

To manually adjust the width of a particular column, drag the right or left border of the column header until the column has the desired width.

To manually change the width of a column to fit its contents, double-click the boundary on the right side of the column header.

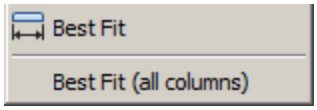
If you hold your cursor over a column header border, it will change into a double-headed arrow.



How to Automatically Adjust the Column Width

To automatically adjust the width of a column to fit its contents, right-click the column header, and then select the **Best Fit** option from the context menu.

To automatically adjust the width of all columns to fit their contents, right-click the column header, and then select the **Best Fit (all columns)** option from the context menu.



6.2.2. Reordering Columns

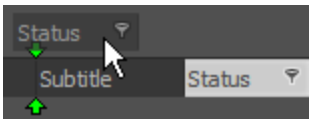
If you want the information in a grid to be displayed in a different order, you can change the position of the columns. There are two ways to reorder columns.

How to Reorder a Column Using a Drag-And-Drop Action

To reorder a column by directly dragging its header, proceed as follows:

1. Click the header of the column you want to move and hold down your left mouse button.
2. Drag the column header to the desired position in the grid.

   Two arrows will indicate where it is possible to insert the column.

   A black prohibition sign will indicate where the column cannot be inserted.

3. Release the left mouse button to insert the column.

How to Reorder a Column Using the Show/Hide/Move Button

You can also reorder the columns of a grid by using the **Show/Hide/Move** button:

1. Click  on the left side of the first column header.

   A drop-down list containing the headers of the grid columns appears. The column headers are listed in the order in which the columns are displayed in the grid. The first header in the list is the leftmost field in the grid. The columns that are visible in the grid are selected.

   The headers in the screenshot below can differ from the headers available in your application.

2. Select a header and drag it to the desired position in the list. Green arrows will appear indicating where you can insert the grid.

In the grid, the column will be moved to the new position.

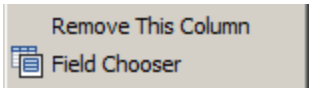
6.2.3. Adding and Removing Columns

If you want more or less information to be displayed in a particular grid, you can simply add or remove one or more columns.

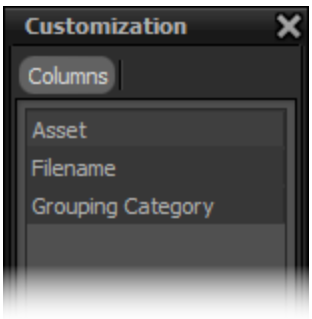
How to Add a Column

To add a column to a grid, proceed as follows:

1. Right-click the header of a column, and then select the option **Field Chooser** from the context menu.

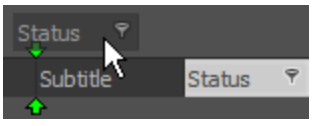
   

   A dialog box appears with a list of predefined columns you can add to the grid. Note that the column headers shown in the screenshot below can differ from the ones displayed in your application.

2. From the list, select the header of the column you want to add to the grid.
3. Drag the column header to the desired position in the grid.

   Two green arrows will appear indicating where you can insert the column.

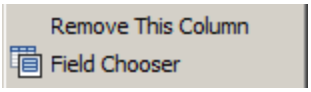
   

   A black prohibition sign or cross will appear if you try to insert the column in a location where it cannot be inserted.

4. Release the left mouse button to insert the column.

How to Remove a Column

To remove a column from a grid, right-click its header and then select the option **Remove This Column** from the context menu.



The column will disappear from the grid and its header will be added to the dialog box containing the columns that can be added to the grid.

The removed column can be added again to the grid.

6.2.4. Hiding and Unhiding Columns

You can temporarily hide columns from a grid without having to remove them. Afterwards, you can easily make them visible again.

How to Hide a Column

To hide a particular column from a grid, proceed as follows:

1. Click the **Show/Hide/Move** button in the top left corner of the grid.

   A drop-down list will appear with the available columns.

2. Deselect the check box next to the header of the column you want to hide from the grid.

How to Unhide a Column

To make a hidden column visible again, proceed as follows:

1. Click the **Show/Hide/Move** button in the top left corner of the grid.

   A drop-down list will appear with the available columns.

2. Select the check box next to the header of the column you want to make visible again.

6.3. Copying Data

To copy the data of a particular grid row to the Clipboard, proceed as follows:

1. Select the appropriate row in the grid.
2. Press CTRL +C.

6.4. Sorting Data

Each grid can be sorted according to the values in one of the columns. You can sort text (from A-Z or from Z-A), numbers (from low to high or from high to low).

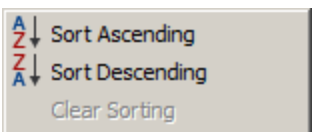
How to Sort Data by Clicking a Column Header

To sort the data in a particular column, click the column header once to sort the data in ascending order. Click again to sort the data in descending order. An arrow next to the column header indicates the sorting method.

VarId ▲	sorted in ascending order
VarId ▼	sorted in descending order

How to Sort Data by Using the Context Menu

You can also sort the data in a particular column by right-clicking the column header and selecting the desired sorting method from the context menu.



To clear the sorting in a particular column, right-click the column header and select the option **Clear Sorting** from the context menu.

6.5. Filtering Data

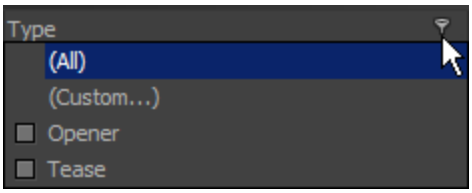
You can filter the data in a grid by using two types of filters: by one or more values from a particular column or by simple or complex criteria.

6.5.1. Filtering by Values From a Column

To filter the data in a particular grid by one or more values from a particular column, proceed as follows:

1. Hold your cursor over the header of the column by whose values you want to filter the grid, and then click the filter button.

   A drop-down list opens containing all the column values.

2. Select the desired values.

   Only the records that contain one of the selected values are displayed in the grid. At the bottom of the grid a filter bar appears displaying the applied filter.

3. In the filter bar, do one of the following:
   - Clear the check box next to the filter to undo it. Select the check box to apply the filter again.
   - Click to undo the filter and close the filter bar.
   - Click to open a drop-down list containing previously applied filters.
   - Click **Customize** to create a complex filter.

6.5.2. Filtering by Criteria

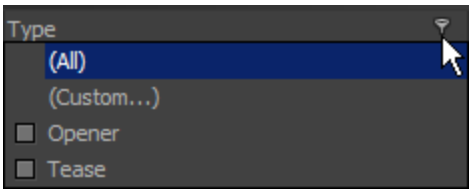
Filters by criteria can be simple or complex:

- **Simple filters** consist of one or two criteria and one Boolean operator (AND or OR).
- **Complex filters** consist of more than two criteria and more than one Boolean operator (AND, OR, NOT AND and NOT OR).

How to Create a Simple Filter

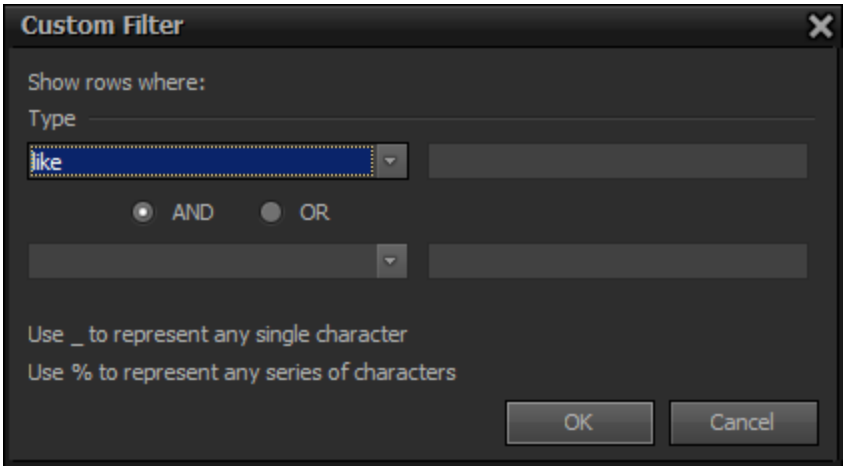
To create a simple filter, proceed as follows:

1. Hold your cursor over the header of the desired column, and then click the filter button appearing in the right corner.



2. From the drop-down list, select the option **(Custom…)**.

   The Custom Filter dialog box appears. Here you can enter the criterion or the two criteria you want to filter the values of the selected column by.



3. Select the desired comparison operator from the first drop-down list.

   A comparison operator is used in comparison criteria to compare two values. Operators include: ‘equals’, ‘does not equal’, ‘is less than’, ‘is less than or equal to’, ‘is greater than’, ‘is greater than or equal to’, ‘like’, ‘not like’, ‘is blank’ and ‘is not blank’.

   For example, if you want to filter the values of a column by text that includes a certain word, character or sign, you have to select the comparison operator ‘like’.

4. Enter text in the field next to the first drop-down list.

   For example, if you want to filter by text that includes the letter ‘S’, type %S%.

The % wildcard can substitute for zero or more characters. The _ character can substitute for exactly one character.

5. If you want to add a second filter criterion, select the desired Boolean operator. Select:
   - **AND**, if both criteria have to be true;
   - **OR**, if at least one of the criteria or both have to be true.
6. Select the desired comparison operator from the second drop-down list, and then enter text in the field at the right.
7. Click **OK** to apply the filter.

   Only the values matching the entered criterion or criteria will be displayed.

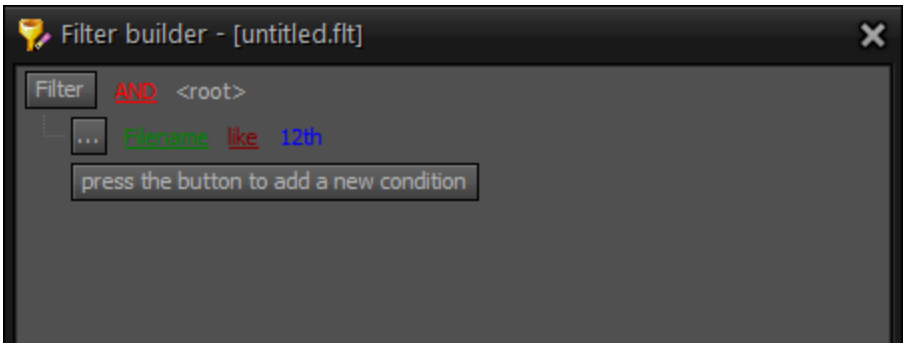
How to Create a Complex Filter

To create a complex filter, proceed as follows:

1. Apply a simple filter to a grid or filter a grid by selecting one or more values from a list of values. See above.

   At the bottom of the grid a filter bar appears.
2. In the filter bar, click the **Customize** button.

A dialog box appears that allows you to create complex filters. The criteria of the active filter are displayed in a tree structure. Here you can add extra criteria and change the existing criteria.



3. Do one of the following:

- To add a new criterion, do one of the following:
  - click the **Press the Button to Add a New Condition** button;
  - click the **Filter** button and select **Add Condition**;
  - click  next to a criterion and select **Add Condition**.
- To change a criterion, do one of the following:
  - click a column header (green and underlined text) and select another value from the list;

- click a comparison operator (dark red and underlined text) and select another value from the list: ‘equals’, ‘does not equal’, ‘is less than’, ‘is less than or equal to’, ‘is greater than’, ‘is greater than or equal to’, ‘like’, ‘not like’, ‘is blank’, ‘is not blank’, ‘between’, ‘not between’, ‘in’, ‘not in’;
- click the dark blue text on the right of the comparison operator and enter another value.

- To delete a criterion, click the  button to the left of the criterion and select the option **Remove Row**.
- To add a group of criteria, do one of the following:
  - click  next to a random criterion and select **Add Group**;
  - click the **Filter** button and select **Add Group**.
- To delete all criteria, click the **Filter** button and select the option **Clear All**.

4. Do one of the following:
   - To open an existing complex filter, click **Open**;
   - To save the current filter, click **Save As**;
   - To confirm the changes and close the dialog box, click **OK**;
   - To undo the changes, click **Cancel**.
   - To apply the changes, click **Apply**.

   At the bottom of the grid a bar appears which displays the components of the complex filter. Note that if you have already created a custom filter in the past, you can reapply it by clicking the current filter or the downward pointing arrow. A drop-down list containing previous filters appears.

6.6. Performing Basic Calculations on Data

6.6.1. Footers and Basic Calculations

You can perform basic calculations on the data in a grid by adding footers.

Types of Footers

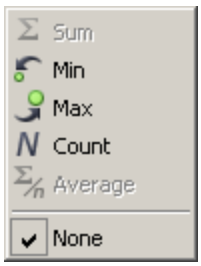
Two types of footers can be distinguished:

- **Grid footer:** Footer added at the bottom of a grid allowing you to perform calculations on all values in a particular column.
- **Group footer:** Footer added at the bottom of a group allowing you to perform calculations on the values of a particular column in that group.

The result of a calculation performed on the data of a particular column is displayed in a **footer cell** below the column in the grid or group footer.

Basic Calculations

Right-clicking a footer cell in a grid or group footer will open the **footer context menu**. This menu will allow you to select or change the type of calculation that should be performed on the data of a particular column.



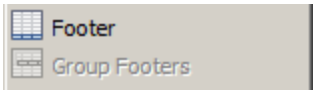
Depending on the type of data contained in each column, you will be able to perform one or more of the following calculations:

- **Sum**: Adds up all numbers in a column.
- **Min**: Defines the lowest value in a column.
- **Max**: Defines the highest value in a column.
- **Count**: Counts the elements in a column.
- **Average**: Calculates the average value of all numbers in a column.

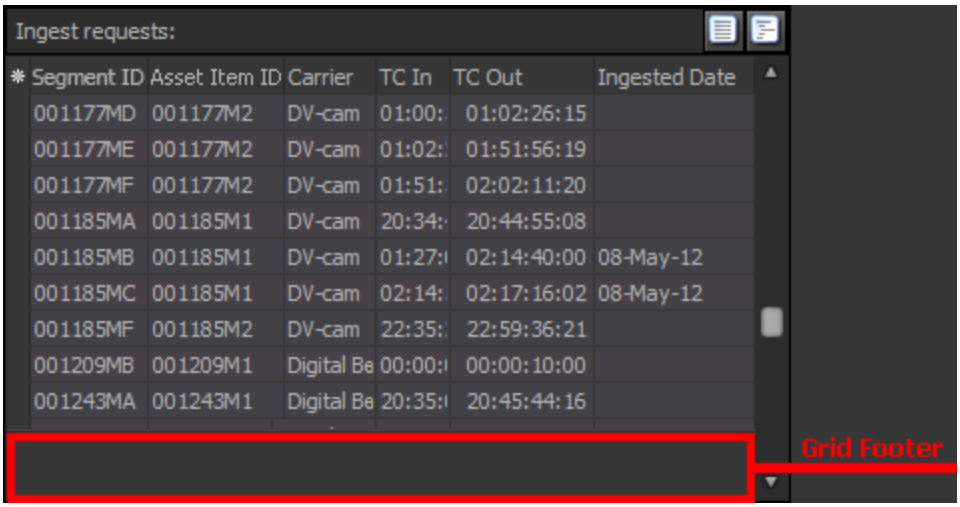
6.6.2. Performing Basic Calculations on Non-Grouped Data

To perform basic calculations on all the data of one or more column, proceed as follows:

1. Right-click the desired column header.
2. From the context menu, select the **Footer** option.

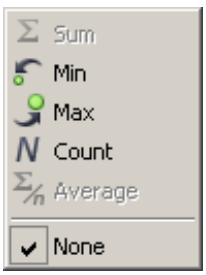


The grid footer automatically appears at the bottom of the grid.



3. In the grid footer, right-click the footer cell below the column whose data you want to perform calculations on.

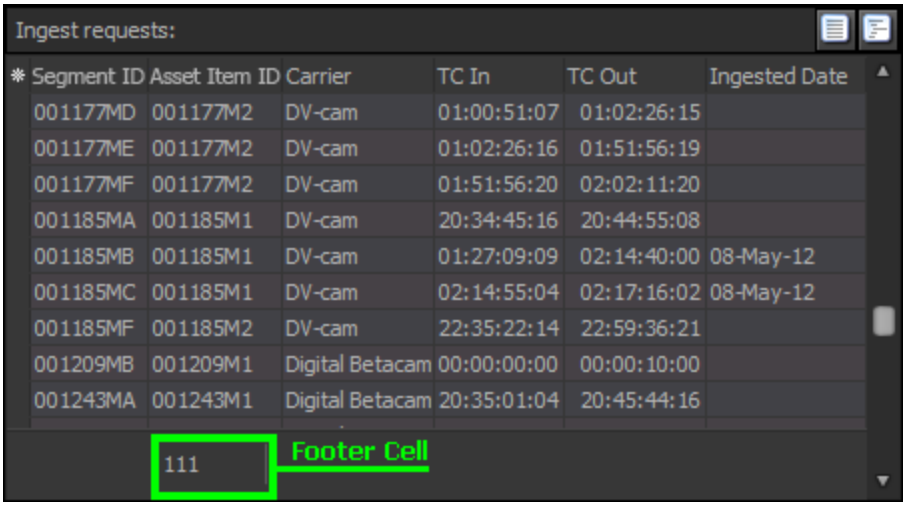
   A context menu with basic calculations appears.



Note
Depending of the type of data in a column (dates, alphanumeric data), all or only some of the calculations will be available.

4. Select the desired calculation.

In the footer cell the result of the calculation appears.

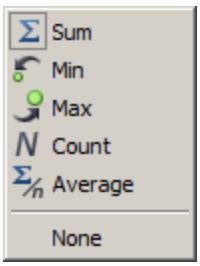


6.6.3. Removing Footers

You can remove the grid and group footers and also clear the content of a cell footer. Do one of the following:

- To remove the grid footer or all group footers, right-click any column header and in the context menu deselect the option **Footers** or **Group Footers**.

- To clear the contents of a cell footer, right-click it and from the footer context menu select the option **None**.

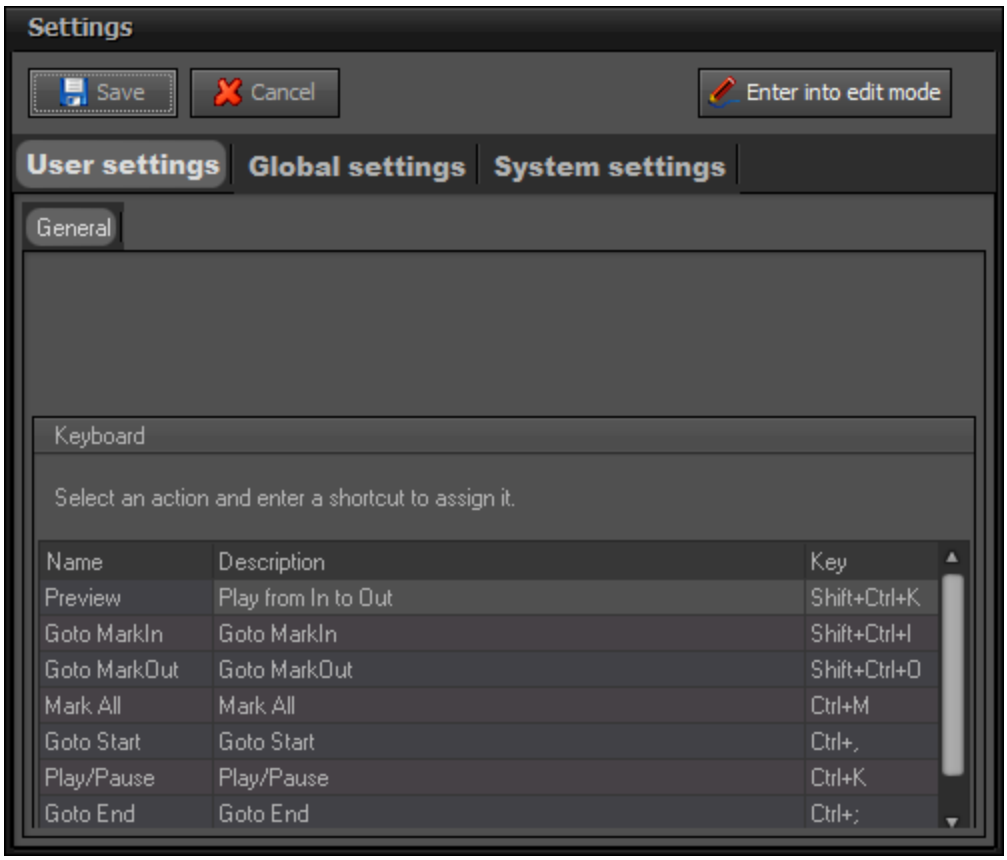


7. Configuring the Application

7.1. Settings Window

Opening the Settings Window

The Settings window allows you to configure your application. The first time the application is launched after it has been installed, the Settings window opens automatically.



The Settings window can also be accessed through the **Settings** menu.

Overview Setup Categories

The settings can be divided into three setup categories. In the Settings window, a tab is provided for each setup category. The table below briefly describes each setup category:

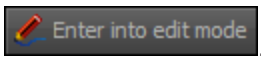
Setup Category	Description
User Settings	These settings can be configured by each individual user.
Global Settings	These settings can only be configured by the system administrator and by an eventual superuser.

Setup Category	Description
System Settings	These settings configure the general functioning of the application. They can only be configured by the system administrator.

Edit Mode

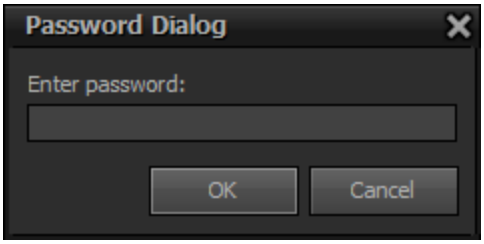
To be able to edit the System settings, you first have to enter a password.

To put the Settings window into Edit Mode, proceed as follows:

1. Click the **Enter Into Edit Mode** button 

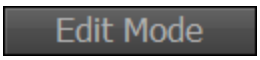
.

   A dialog box appears.



2. Enter the administrator password and then click **OK**.

   The Settings window enters into Edit Mode.



Saving Settings

A **Save** button is provided which allows you to immediately save the changes you have made to the settings. With the **Cancel** button you can discard the changes you have made.

7.2. User Settings

7.2.1. Overview User Settings Subcategories

The User settings are divided into the following subcategories:

- General

For each category a tab is provided.

7.2.2. General Tab

The General tab allows you to configure the control of the video player.

The Keyboard group box contains the keyboard shortcut keys that have been configured by default to control the video player.

To change a particular keyboard shortcut key, select it and perform the keyboard shortcut key you want to use instead. You can also change the description of a particular action.

The video player can also be controlled with a ShuttlePro device. A `.pref` file will be provided by EVS in which the default video player shortcut keys are associated with ShuttlePro components (e.g. jog wheel, shuttle ring, buttons).

This `.pref` file has to be imported in the Shuttle Device Control panel, the component of the software that allows to manage the Shuttle device by defining and/or modifying application settings. The ShuttlePro device will have to be connected with the server or pc on which Content Check is installed.

See the ShuttlePRO user manual for more information.

7.3. Global Settings

7.3.1. Overview Global Settings Subcategories

The Global settings are divided into the following subcategories:

- General

For each category a tab is provided.

7.3.2. General Tab

The General tab enables you to activate or deactivate the display of warnings in an error report. You can also specify the path of an alternative storage folder where Content Check has to look, if it does not find a particular low-resolution video file on the storage. Finally, you can specify a default snapshot folder.

Configuring the Display of Warnings

In the Reports area you can configure the display of warnings in the Error Inspector window.

If the option **Include Warnings in Error Reports** is selected, warnings are automatically displayed. The **Show Warnings** check box will already be selected.

If this option is not selected, the user will have to select the **Show Warnings** check box to view warning in the Error Inspector window.

By default, this option is selected.

Specifying an Alternative Storage Location

In the Media area you can specify an alternative storage location.

If the option **If Video File Is Not Found, Search in Path** is selected, and Content Check does not find a particular video file on the online storage, then it will look for the video file in the location that you have entered in the field provided for this purpose. You can also browse for a specific folder by clicking  .

By default, this option is not selected.

Specifying a Default Snapshot Folder

In the Media area you can also specify a default folder for snapshots.

The snapshots taken with the video player will be automatically stored in this folder. By default, the Content Check installation folder is entered as snapshot folder. You can enter the path of a different folder or browse for it by clicking  .

7.4. System Settings

7.4.1. Overview System Settings Subcategories

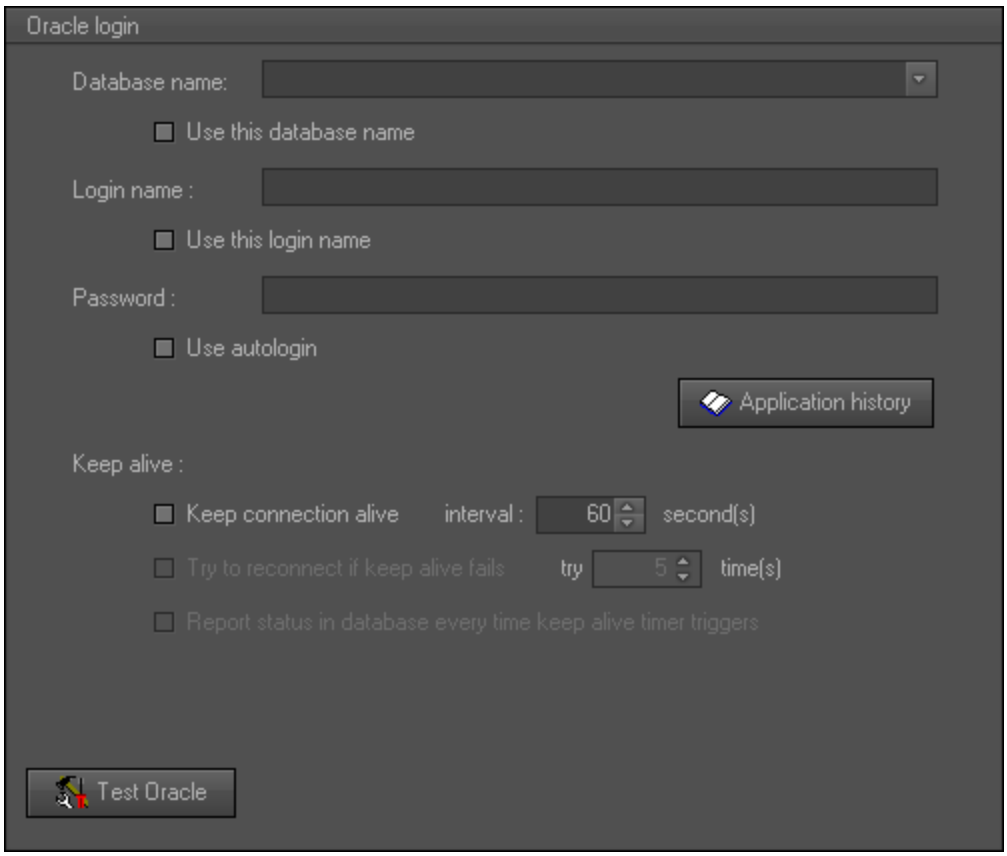
The System settings are divided into the following subcategories:

- Oracle Connection
- E-Mail Options

For each subcategory a tab is provided.

7.4.2. Oracle Connection Tab

The Oracle Connection tab allows you to configure the connection with the Oracle database.



Entering the Database Name

In this field you have to enter the name of the database the application has to connect to.

If the **Use This Database Name** check box is selected, the name of the database will automatically appear in the Oracle login dialog box at start-up.

Note that the database name will be automatically entered and the **Use This Database Name** check box will be automatically selected when you log into the application for the very first time.

Entering the Login Name

In this field you have to enter a login name. If the **Use This Login Name** check box is selected, the login name will automatically appear in the Oracle login dialog box at start-up.

Note that the login name will be automatically entered and the **Use This Login Name** check box will be automatically selected when you log into the application for the very first time.

Entering a Password

In this field you have to enter a password. If the **Use Auto Login** check box is selected, the application automatically logs into the selected database at start-up. The Oracle login dialog box does not appear.

Note that the password will be automatically entered and the **Use Login** check box will be automatically selected when you log into the application for the very first time.

Checking Application History

By clicking the **Application History** button, you can open a chronological list of all software versions of the application. To get more details about each version (creation date, name of programmer, status, additional remarks), you have to click **+** next to the version number.

Activating Keep Alive

If the option **Keep Connection Alive** is selected, a message is sent to the database at regular time intervals to avoid idle connections from being closed by the firewall. These intervals can be set by you.

Note that this option will be automatically selected when you log into the application for the very first time.

If the option **Try to Reconnect if Keep Alive Fails** is selected, the application will try a number of times to reconnect with the database.

If the option **Report Status in Database Everytime Keep Alive Timer Triggers** is selected, the status of the connection is reported in the database each time the Keep Alive Timer sends a trigger to send a Keep Connection Alive message.

Testing the Oracle Connection

The **Test Oracle** button allows you to check the validity of the database name, login and username you entered.

If these data are valid, then the following message appears next to the **Test Oracle** button: ‘OK’.

If the login name or password is invalid, then a message box appears with the following message: ‘ORA-01017: invalid username/password; logon denied’.

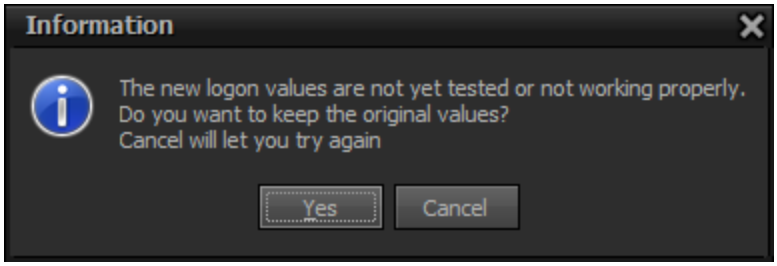
If the database name is invalid, then a message box appears with the following message: ‘ORA-12154:TNS: could not resolve the connect identifier specified’.

If you omit the password, then a message box appears with the following message: ‘ORA-01005: null password given; logon denied’.

If you do not enter a database name, login and username, then a message box appears with the following message: ‘ORA-12560: TNS: protocol adapter error’.

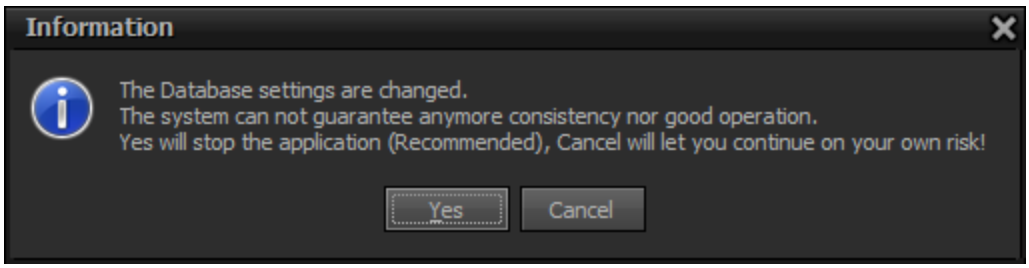
You can also check the software version of the application by clicking the **Test Oracle** button. If the software version is up-to-date, then the following message appears: 'Current– The Current Version'. If the software version is outdated, then the following message appears: 'Unknown Version Application! Please contact the EDP department.'

If you close the Settings window without testing the validity of the database name, login and username you just entered, then a message box appears.



If you click **Yes**, then the Settings window is closed and the original values are restored. If you click **Cancel**, then the Settings window does not close and you can test the values by clicking the **Test Oracle** button.

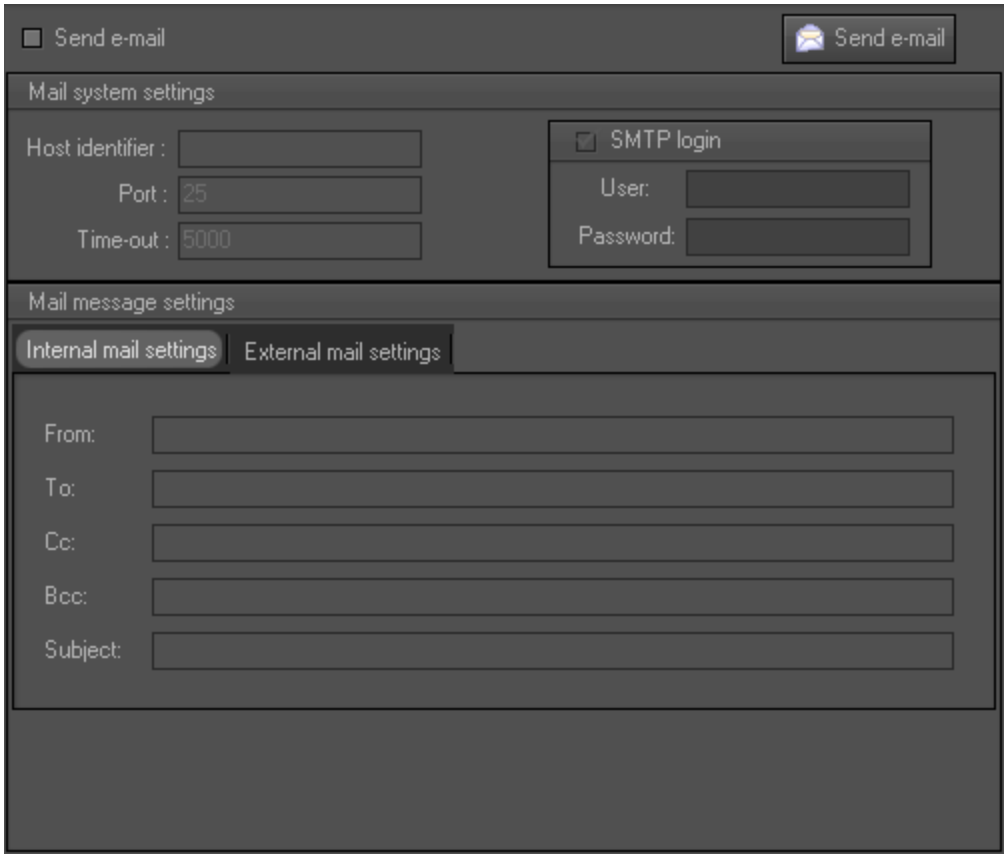
If you change the current database settings, test the connection and then close the Settings window, a message box will appear.



If you click **Yes**, the application is stopped and closed. A manual restart will be required. Click **Cancel** to continue.

7.4.3. E-Mail Options Tab

In case the application is capable of sending e-mail messages, the E-Mail Options tab will allow you to configure an e-mail account, enter the e-mail address of the default sender and recipients, and enter a default e-mail subject. If the application is not capable of sending e-mail messages, the settings in this tab cannot be used.



To be able to configure the e-mail account, you have to select the **Send E-Mail** check box. The fields in the Mail System Settings and Mail Message Settings group box become available.

Configuring an E-Mail Account

In the Mail System Settings group box you have to enter the IP address and port number of the SMTP server and specify a timeout. In the SMTP Login group box you can enter a user name and password.

Configuring a Default E-Mail Message

The Mail Message Settings group box contains two tabs: Internal Mail Settings and External Mail Settings.

The Internal Mail Settings tab can be used to configure a default e-mail message that will be sent to the EVS developers and the customer when an error occurs.

The External Mail Settings tab can be used to configure a default e-mail message that will be sent to the customer to notify him about an error. In each tab you have to enter the sender's email address, the email address of the various recipients and a subject. It should be noted that this tab is not always used.

When you insert multiple e-mail addresses in any of the header fields, make sure you separate them by a comma.

To test the settings and manually send an e-mail message, click the **Send Mail** button.

For the new settings to take effect, close and restart the application. Check the TOM.ini file in the `AppData\Roaming\EVS Broadcast Equipment\MAD\[Application]` folder for the e-mail addresses and subject entered here.

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**