ArgoNavis Automation Application

User Manual

Version 10.0.10.x

Contents

About the ArgoNavis Automation Application

The ArgoNavis Automation application is a program used to automate many of the file based tools and processes supported on the ArgoNavis system.

The ArgoNavis Automation application automates the following processes:

1. File Information Extraction and logging.
2. File Information Comparison.
3. Black and Static Image detection and logging.
4. LKFS Analysis.
5. Closed Captioning detection, extraction, decoding, and logging.

The ArgoNavis Automation Application utilizes the 'watch folder' concept to perform selected operations. The program continuously monitors the 'watch' folder, selected by the user. As assets are copied into the folder, the operations listed above are performed on the asset. Upon completion, the asset will be moved to either a 'pass' or 'fail/quarantine'. Additionally, a 'results' file, in PDF format, will be generated and placed in the 'results folder.

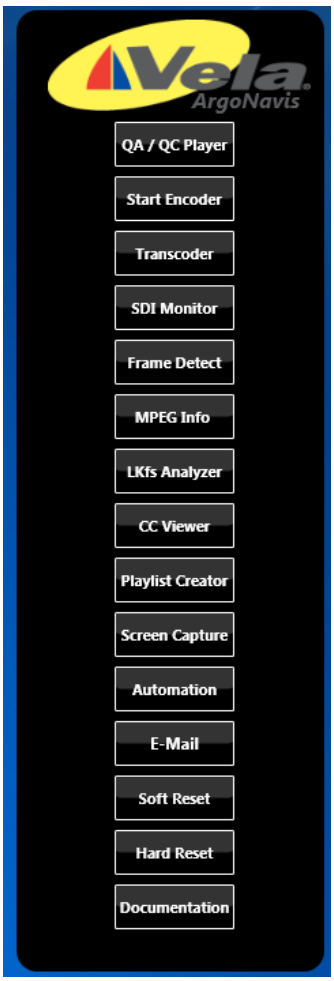
You will be required to create\know the path to the following folders:

1. Watch Folder: the folder the program will 'watch' to perform operations on assets placed in this folder
2. Pass Folder: the folder the program will move content that 'passes' the tests to.
3. Fail Folder: the folder the program will move content that 'fails' the tests to.
4. Results Folder: the folder the program will write results files to.

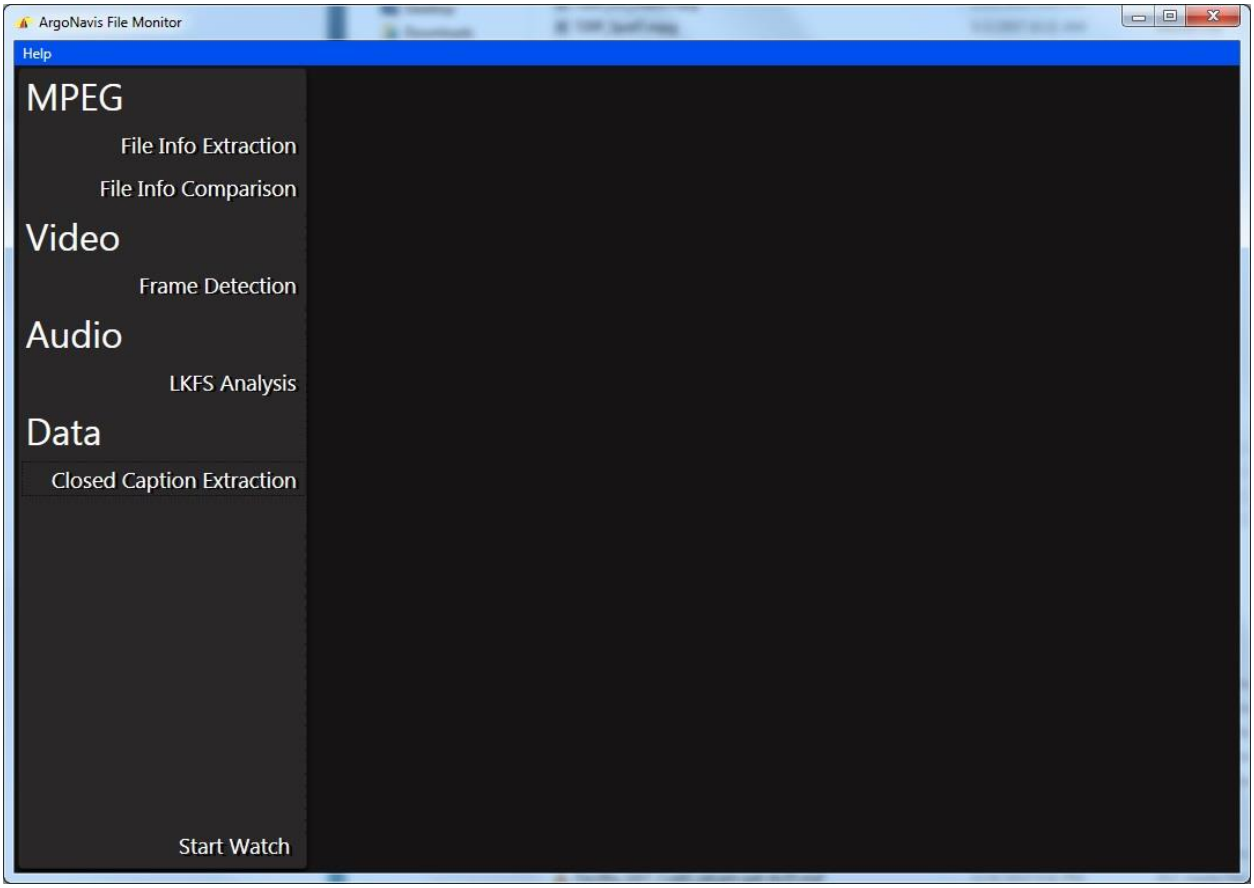
Although not required, you should create a 'Templates' folder to hold the templates that will be used for the File Information Comparison process.

Launching the Application

The application can be launched from the ArgoNavis Sidebar. Select the ‘Automation’ button on the Sidebar.



Operations



File Info Extraction

When ‘checked’ the file information (codec, bitrate, PID, etc.) will be extracted and written to the ‘results’ file.

Note that the File Info Extraction is not a Pass/Fail test and files that pass through this process alone will alone be routed to the ‘Pass’ folder.

File Info Comparison

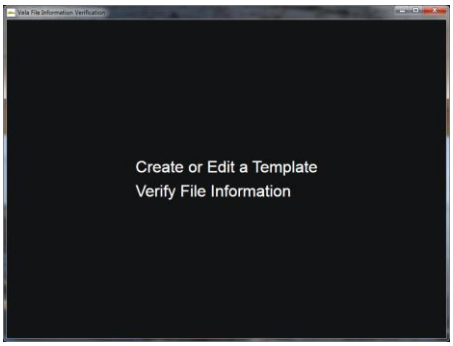
When 'checked' the file information will be compared to a 'template'. The template is created from a reference media file.

Creating a Template for File Info Comparison

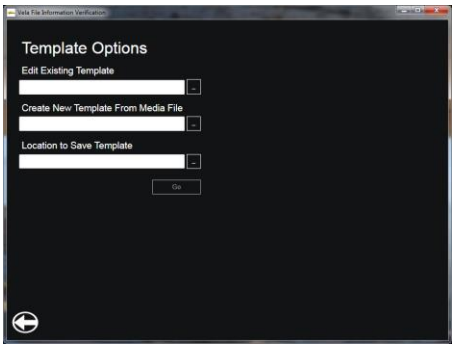
To enable the File Info Comparison automation feature you will need to create a template using a known good 'reference' or 'standard' media file. This process need only be completed once for each profile or format of media file used in your workflow.

To do this use the 'MPEG Info' Application and follow these steps:

1. Launch the MPEG Info Application from the Vela Sidebar
2. Select 'Create or Edit a Template'



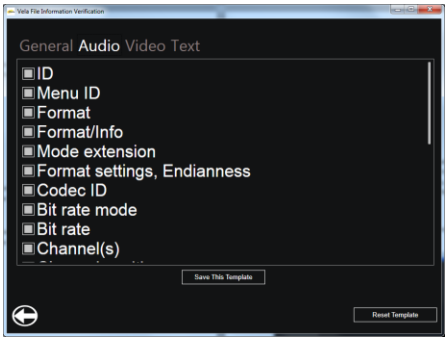
3. Select 'Create New Template From Media File' and browse to the 'standard/reference' media file you wish to use.



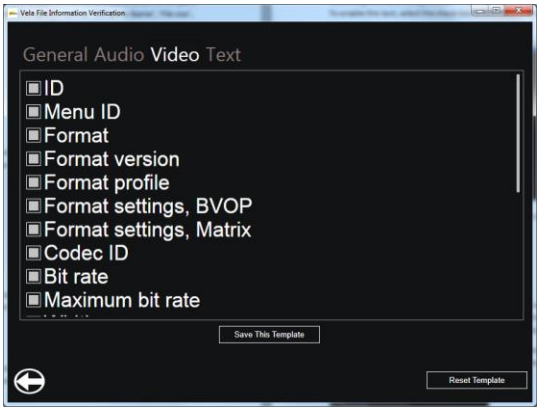
4. Set the path and name for the Template file to be created using 'Location to Save Template'.
5. Select 'Go'
6. The parameter selection window will now be displayed. These windows allow you to select which parameters will be checked when comparing new assets to the reference file.

7. Select the General ‘tab’ on the top row to view and select the General parameters to compare. Be sure to de-select and parameters that are too specific such as ‘Complete Name’, ‘File size’, and ‘Duration’.

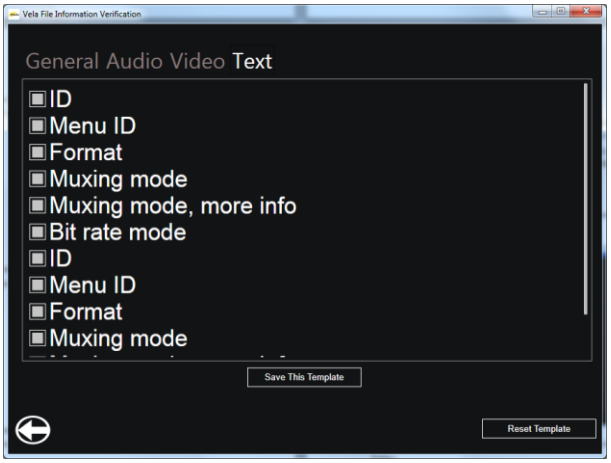
8. Select the Audio ‘tab’ on the top row to view and select the Audio parameters to compare. Be sure to de-select and parameters that are too specific such as ‘Duration’ and ‘Stream Size’.



9. Select the Video ‘tab’ on the top row to view and select the Video parameters to compare. Be sure to de-select and parameters that are too specific such as ‘Duration’ and ‘Stream Size’.



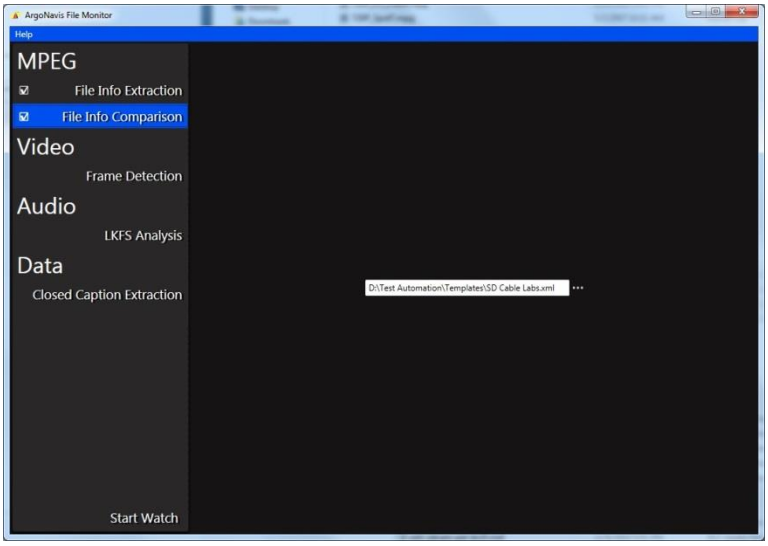
10. Select the Text ‘tab’ (if available) on the top row to view and select the Text parameters to compare. Be sure to de-select and parameters that are too specific such as ‘Duration’ and ‘Stream Size’.



11. Once all of the parameters have been selected select ‘Save This Template’ to save these parameters to the Template XML file. Note that it is a best practice to save all of the templates you create in one location for ease of accessibility.
12. Repeat this process for any other formats or profiles used in your work flow.
13. Exit the MPEG Info Application.

Enabling File Info Comparison

To enable this test, select the check box and browse to and select the ‘Template’ file to be used for the comparison.

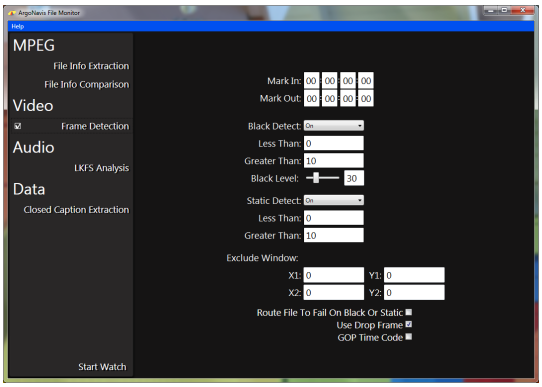


Note that the File info is a Pass/Fail test and files that fail the parameter check will be routed to the ‘Fail’ folder.

Frame Detection

When 'checked' the file will be decoded and scanned for sequential black frames or static images. This test can be useful for finding the most opportune points for ad insertion or can be used to detect sequences of black or static images longer than desired by specification.

*Note: For static image detection, the consecutive images must be EXACTLY the same to trigger a result. It is therefore unlikely that sequences such as Color Bars or Title Images that have been encoded from baseband video will trigger a static image result.



Frame Detection Options

Mark In and Mark Out

Sets the range in which black/static frames will be detected. These settings are useful for eliminating known areas of black and static images from the results (black, slate, trailing black, etc).

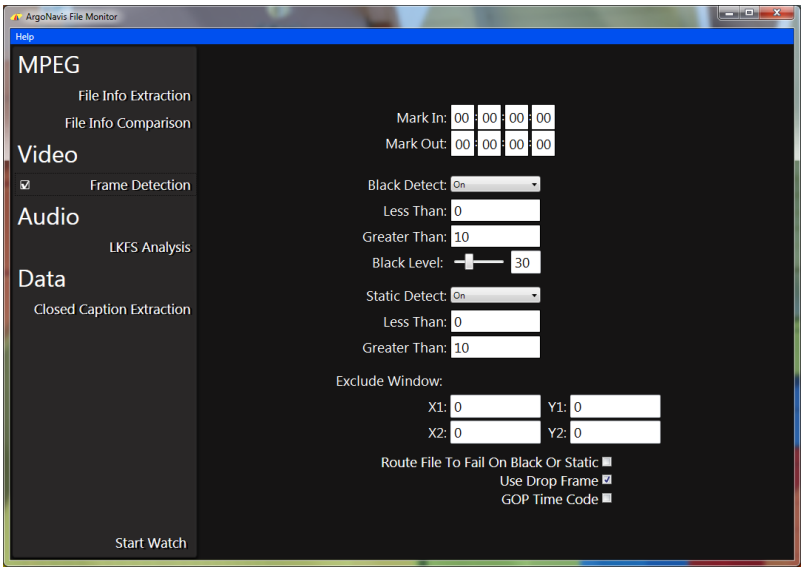
For example:
Mark In: 00:00:10:00
Mark Out : 00:03:30:00
All instances between these two time codes will be returned.

If both the Mark In and Mark Out are set to 00:00:00:00 then results from the entire file will be returned.

For example:
Mark In: 00:00:00:00
Mark Out : 00:00:00:00
All instances throughout the entire file will be returned.

If a Mark In is used but you are unsure of the exact Mark Out, set the Mark Out to be much greater than the anticipated Mark Out of the file to return results from Mark In throughout the rest of the file.

For example:
The file is approximately five minutes long
Mark In: 00:00:10:00
Mark Out : 01:00:00:00
All instances between 00:00:10:00 and the end of the file will be returned.



Less Than

Limits the results to only those that fit the logical criteria.

For example:
Less Than: 2
All instances less than two frames will be returned. This setting is useful for finding random black frames.

Greater Than

Limits the results to only those that fit the logical criteria.

For example:
Greater Than: 30
All instances greater than 30 consecutive frames will be returned. This setting is useful for finding convenient points for digital program insertion.

Black Level

Sets the level to declare a frame black. Range 0 to 100 where 0 is more black and 100 is less black. Default value is 30.

Use Drop Frame

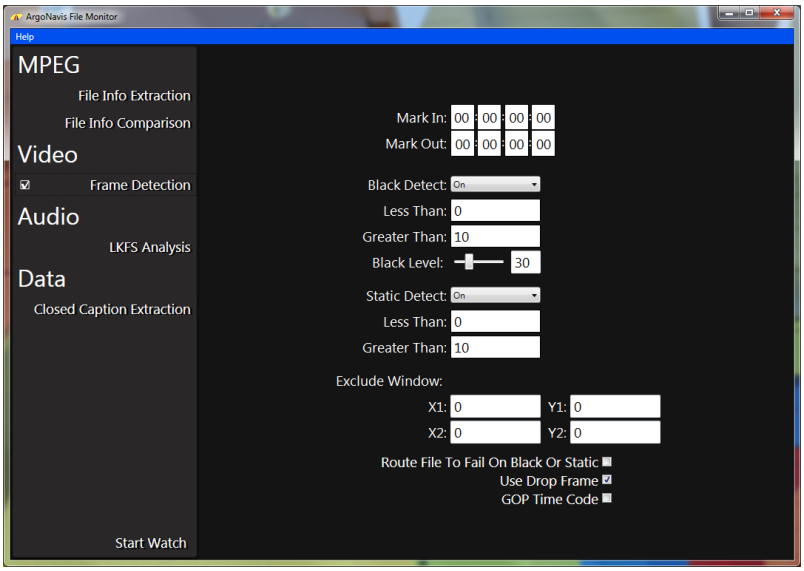
If 'Checked' drop frame time coding is used to calculate the time codes. If 'Unchecked' non drop frame time coding is used. This setting is 'Checked' by default. If you are unsure, use the default setting.

GOP Time Timecode

If 'Checked' the Timecode extracted from the GOP Header is used.

Route File to Fail On Black Or Static

The Frame Detection operation can be for informational purposes only or can be used in determining Pass/Fail criteria. Select this option if this test is to be used as part of the Pass/Fail criteria.



Exclude Window

The 'Exclude Window' allows you to define areas within the video frame to not include in the black/static image search. If you have a network logo embedded in the lower right hand corner of the video then black frames will not be detected due to that logo. You can exclude the area containing the logo using the x and y co-ordinates.

For Example:
If you have a file in the lower right hand corner of the file that is 1920x1080i you might enter

X1: 1500 Y1: 750

X2: 1920 Y2: 1080

X1 and Y1 cannot be less than 0.

X1 and Y2 cannot be greater than the maximum resolution of the file being checked. For example:

1920x1080i $X1_{max}$:1920 $Y1_{max}$:1080

1280x720P $X1_{max}$:1280 $Y1_{max}$:720

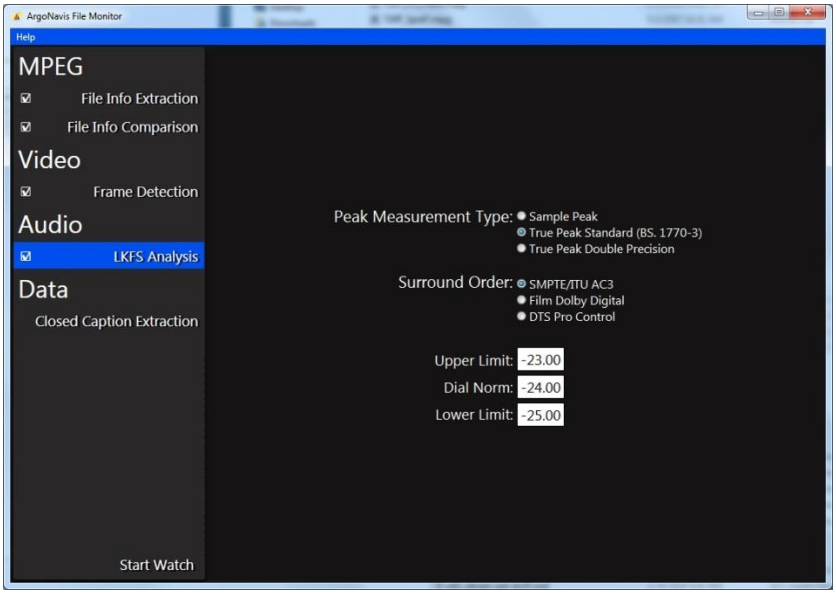
720x480i $X1_{max}$:720 $Y1_{max}$:480

544x480i $X1_{max}$:544 $Y1_{max}$:480

If a value is entered that exceeds the maximum or minimum values then the exclude window is not used at all.

LKFS Analysis

When 'checked' an LKFS analysis will be performed on up to two independent audio programs within the file. For example, if the target file has a primary audio program with AC-3, 5.1 and a secondary audio program with AC-3, 2.0 then an independent LKFS analysis will be performed on each program.



LKFS Analysis Options

Peak Measurement Type

Sets the type measurement to be used for peak. 'True Peak Standard (BS.1770-3)' is selected by default and is what should be used for ATSC A/85 compliance testing.

Surround Order

Sets the order of the audio channels. 'SMPTE/ITU AC3' is selected by default and is what should be used for ATSC A/85 compliance testing.

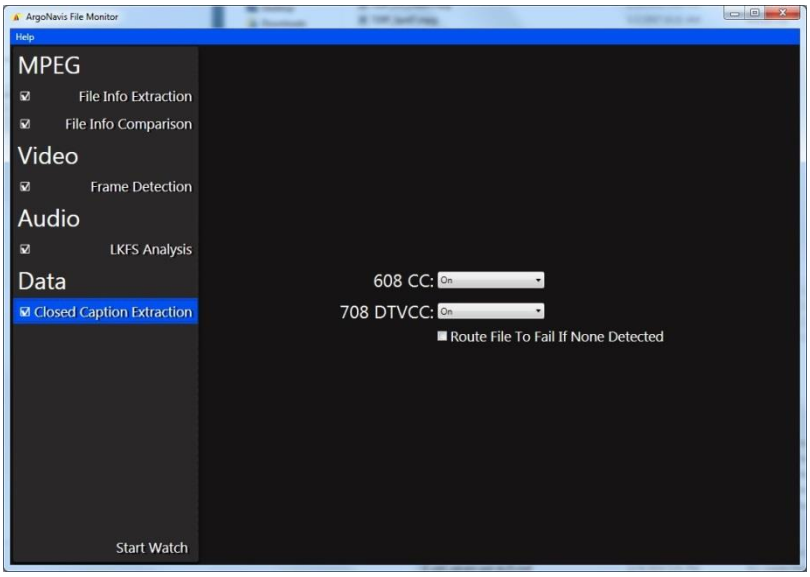
Dial Norm and Limits

Set the Dial Norm file the files to be tested. Set the Upper and Lower Limits to determine for the acceptable Dial Norm range.

Note that the LKFS Analysis is a Pass/Fail test and files that fail this check will be routed to the 'Fail' folder.

Closed Captioning Extraction

When ‘checked’ the 608 and 708 Closed Captioning will be extracted, decoded, and written to the results file.



Closed Captioning Extraction Options

608 CC

Enables the extraction, decoding and logging of 608 Closed Captioning.

708 DTVCC

Enables the extraction, decoding and logging of 708 Closed Captioning.

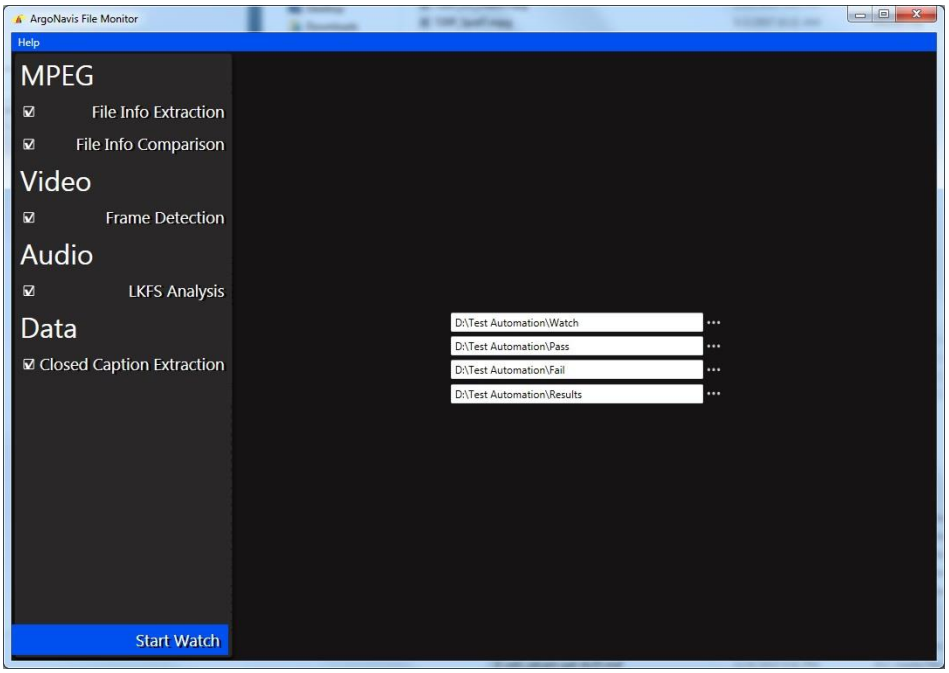
Route File to Fail If None Detected

The Closed Captioning Extraction operation can be for informational purposes only or can be used in determining Pass/Fail criteria. Select this option if this test is to be used as part of the Pass/Fail criteria.

Configuring the Folders

Prior to starting the 'Watch' process the folders must be configured. Hover over the 'Start' button to display the folder dialogs. Open each dialog and browse to or create the location for the following folders:

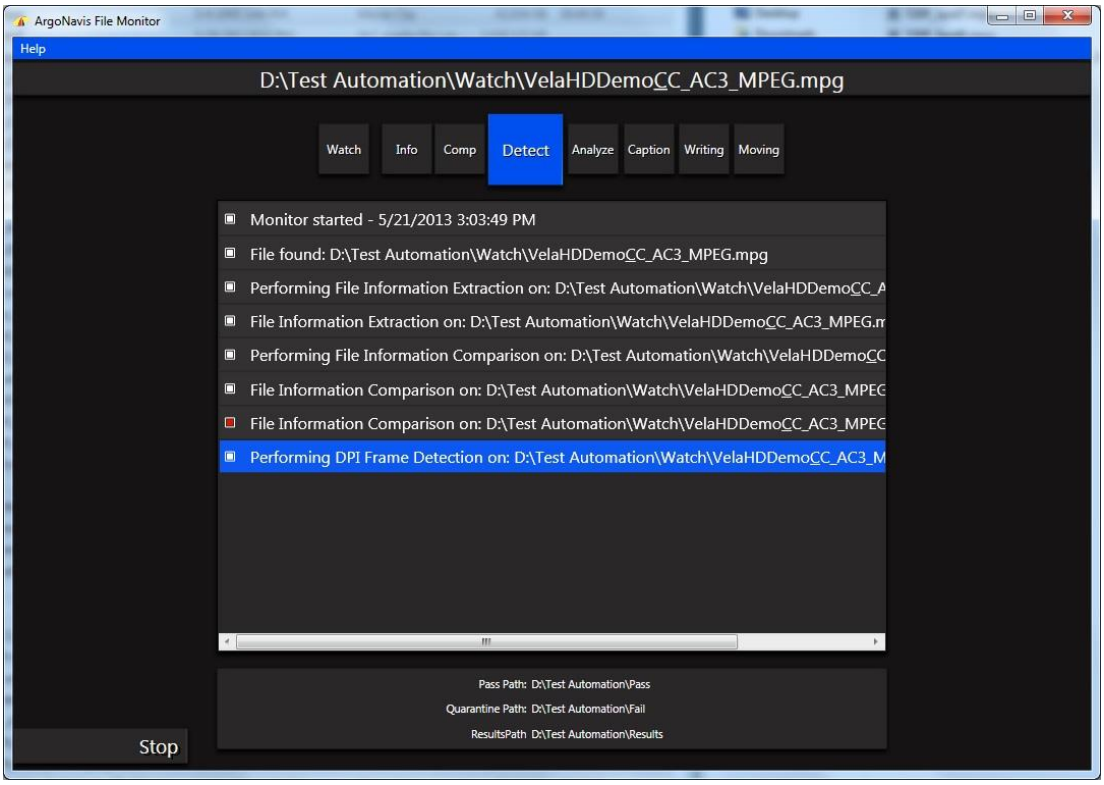
1. Watch Folder: the folder the program will 'watch' to perform operations on assets placed in this folder
2. Pass Folder: the folder the program will move content that 'passes' the tests to.
3. Fail Folder: the folder the program will move content that 'fails' the tests to.
4. Results Folder: the folder the program will write results files to.



The ‘Watch’ Automation Process

Once the test parameters and folder options have been configured the automation process can be started by clicking ‘Start Watch’.

As files are moved through the automation process the current file under test and the current test process will be displayed.



To stop the watch process select ‘Stop’.

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