

Using Nexidia's Illuminate QC with Vantage

This App Note
applies to
Vantage
Version
7.0 - 7.1
& later

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Note: This guide is written for video professionals who are familiar with using Vantage. To implement applications in Vantage, you should know how to create workflows and submit jobs. If you aren't familiar with Vantage, we suggest that you review the *Vantage User's Guide* and *Vantage Domain Management Guide* as needed.

Synopsis

Nexidia's Illuminate QC provides automated closed caption and video description verification, closed caption alignment, and language verification for broadcast and IP workflows.

The Vantage Nexidia QC connector provides access to Nexidia's Illuminate QC functionality within Vantage workflows. The connector includes a Nexidia QC service that is visible in the Services panel of the Vantage Management Console and a Nexidia QC action that is visible in the action toolbar of the Vantage Workflow Designer.

Nexidia's Illuminate QC Features

Nexidia's Illuminate QC provides the following QC testing features:

- Language Verification—Check any track for one of 11 languages
- Supported Languages: English, German, French, Italian, Spanish, Polish, Dutch, Czech, Russian, Serbo-Croatian, and Portuguese
- Caption Verification—Check for missing or incorrect captions, and check for out of sync shift and frame-rate conversion drift.
- Caption Alignment—Align out of sync captions and output the re-timed caption file.
- Video Description Verification—Check for adequate presence of video description on a secondary track or separate media file.

Vantage and Nexidia QC

Nexidia QC Connector is an optional, licensed feature in Vantage. This app note describes how to integrate Nexidia QC into Vantage, so that you can automate the QC process by adding Nexidia QC actions directly into your workflows. An example workflow and Nexidia QC workflow step configuration help have also been provided.

Vantage Nexidia QC Action Inputs:

- All actions require one media file
- Caption Verification requires an additional sidecar caption file
- Video Description Verification requires an additional media file (usually the same as the primary media file)

Vantage Nexidia QC Action Outputs:

- Passed Boolean variable—whether all tests passed or not
- JobReferenceUri URI variable—Location of the Nexidia QC job that processed the action
- ResultSummary Text variable—The results of the action in plain text markdown

- WarningCount Integer variable—The number of errors that do not disqualify tests, such as a pre-qualification
- ErrorCount Integer variable—The number of errors that disqualify the tests, such as inadequate permissions to the media file
- RawXml—The raw XML output (from JobReferenceUri) as an attachment
- HtmlReport—The HTML formatted report as an attachment
- AlignedCaptionFile—Aligned Caption XML file output as an attachment.

Requirements

The Vantage Nexidia QC service and action are available in Vantage 7.0 - 7.1 and later. If you do not currently have Vantage 7.0 - 7.1 or later, download the latest version from www.telestream.net and obtain a license that includes the Vantage Nexidia QC Connector from Telestream.

The following versions are required:

- Vantage 7.0 - 7.1 or later
 - Vantage Nexidia QC Connector license
- Windows Server 2008 R2, 2012 R2, and Server 2016.

Note: Support for Windows Server 2008 ended on December 31, 2017. Telestream recommends using Windows Server 2012 or 2016.

- CaptionMaker v6.4 or later (optional)
 - Nexidia QC report files can be imported into CaptionMaker allowing an operator to efficiently spot check and correct if needed.
- Nexidia's Illuminate QC version 2.5.
 - Nexidia's Illuminate QC software and associated license must be purchased through Nexidia or an authorized Nexidia QC reseller.
- Network Read/Write permissions

Sharing must be enabled for the Vantage default store, the location of files passed to Nexidia QC action, and the location of files output by the Nexidia QC action. This is necessary because the Vantage and Nexidia applications run on separate system servers. Sharing allows all server services on the network to have read/write access. Connectivity to the shared locations within a Vantage network can be 1Gb Ethernet, 10Gb Ethernet, Fibre or any other appropriate protocol. However, be aware that connectivity to shared media folders and files can become a bottleneck if throughput is limited. Design your Vantage/Nexidia system with maximum shared access in mind.

Note: An expired or invalid Nexidia Illuminate QC server license can cause the Vantage Nexidia QC action within a workflow to hang at 0% and eventually fail with a timeout error.

If you do not have a supported version, please contact Telestream to upgrade your software.

Important Note: Jobs submitted directly to a third party application, or from other systems not within Vantage management control can cause undesirable workflow delays due to lack of available third party resources or available licenses. Best practice when using Vantage with third party application services is to limit the use of the third party application service to Vantage alone. This will prevent processing delays caused by resources being consumed by processes not under Vantage management control.

Nexidia QC Integration with Vantage

This option should be considered by any Vantage customer who requires automated closed caption and video description verification, closed caption alignment, and language identification for broadcast and IP workflows. Nexidia QC analyzes the individual sounds of human speech in media files to assess what language is being spoken, the presence of video description, and the completeness and timing of captions. In cases where captions are out-of-sync, Nexidia QC can automatically align them.

The Vantage Nexidia QC Connector service works in tandem with Nexidia QC software to provide an effective method of automating analysis of captions, video descriptions, and language present in media files and returning the results to a Vantage workflow for additional media processing.

The Vantage Nexidia QC Connector service is present in all Vantage 7.0 - 7.1 or later installations and is enabled when the appropriate Vantage Nexidia QC Connector license option is included in a valid Vantage license. You must also purchase and install the Nexidia QC software on the Vantage server where the VantageNexidia QC service resides.

Note: Telestream does not resell Nexidia QC software. Telestream sells a connector (Vantage Nexidia QC Connector service) for integrating Nexidia QC functionality into Vantage. The Nexidia QC software and the requirements for installing it can be obtained separately from Nexidia or an authorized Nexidia QC reseller/dealer.

Installation

Follow these steps and refer to the following figure to create a Vantage system with Nexidia's Illuminate QC:

1. Create a Vantage domain with all appropriate Vantage services licensed and actively running.

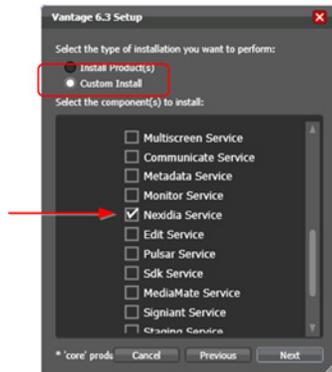
Configuring Vantage licensing and services is described in the Vantage Domain Management Guide, which is available from the Help menu of the Vantage Management Console.

2. Create a Nexidia Illuminate QC server (or servers) according to the instructions from Nexidia.

Important: Steps 3, 4 and 5 must be executed in sequential in order to guarantee proper communication between Vantage and the Nexidia Illuminate QC server.

3. On each Nexidia Illuminate QC server run the Vantage Setup installer and select Custom Install. Within the Custom installation menu select just the Vantage Nexidia Service and proceed to install it on each individual Nexidia Illuminate QC server. Nexidia Illuminate QC software should always run on a separate independent server from Vantage with just the Vantage Nexidia service installed.

Figure 1. Setup Selections



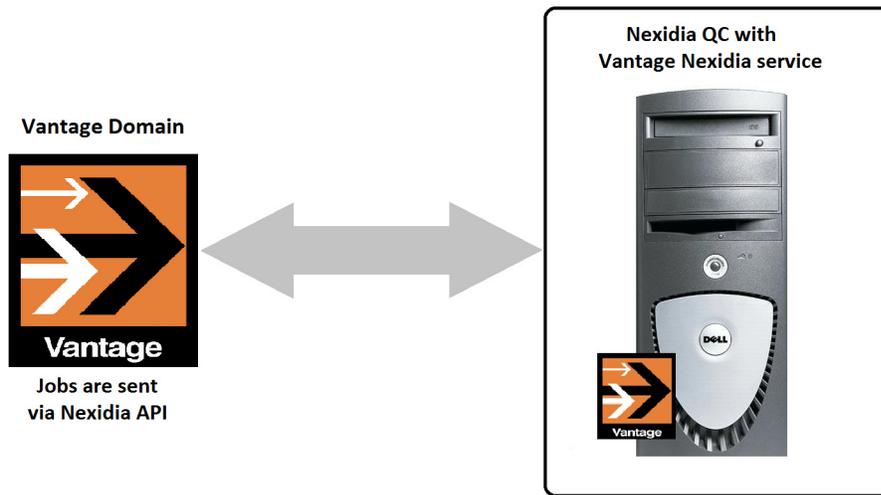
Note: By default Vantage setup also installs the Vantage Metric Service. This service needs to be added to the Vantage domain, see step 5.

4. After the Vantage Nexidia Service has been installed, you must install a Vantage Agent connector to each Nexidia's Illuminate QC server. The Vantage Agent connector is distributed with Nexidia's Illuminate QC installation package. Locate and run the *NexidiaIlluminateQCVantageAgentSetup.msi* (Vantage Agent connector) included with the Nexidia Illuminate QC installation package. Each Nexidia Illuminate QC release comes with an associated Vantage Agent connector installer. Make sure the Vantage Agent connector installer used is of the same revision as the Nexidia Illuminate QC software that is installed. Contact Nexidia technical support for assistance.
5. Add the Vantage Nexidia and Metric Service running on the Nexidia Illuminate QC server node(s) as member services of the overall Vantage domain (see the *Vantage*

Domain Management Guide for details). Verify that each Nexidia Illuminate QC server is properly licensed for the Vantage Nexidia service.

For Vantage installation and licensing details, see the [Vantage Domain Management Guide](#).

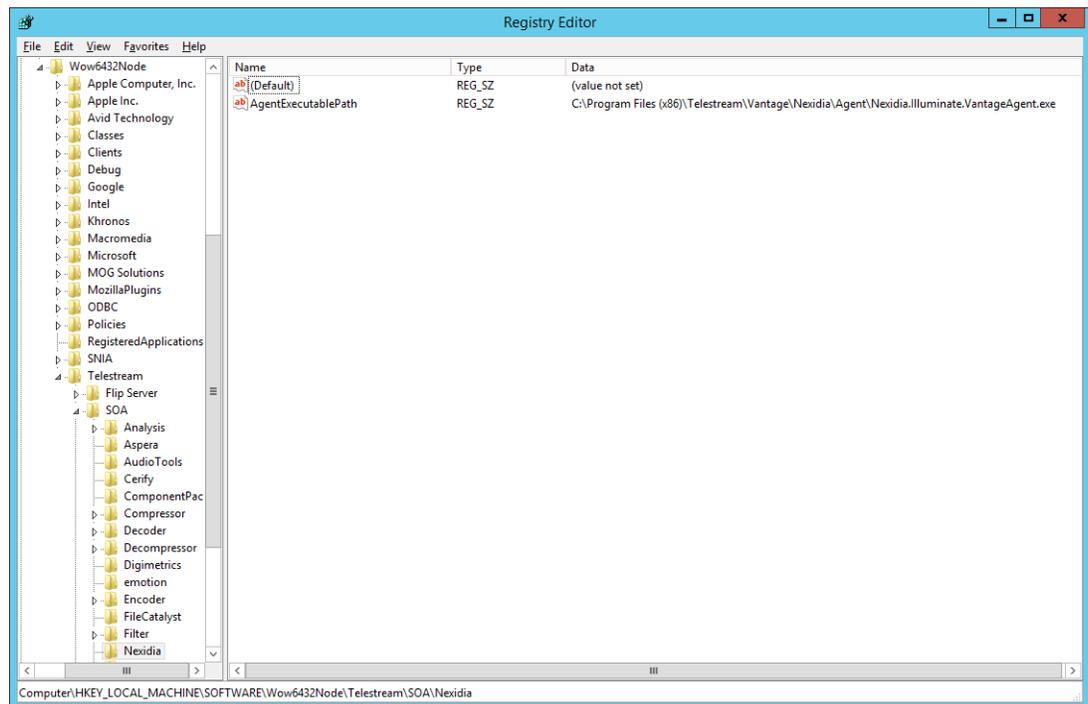
Figure 2. Vantage Nexidia QC Integration Diagram



Integration Troubleshooting

If you installed Vantage 7.1 on top of Vantage 7.0 without uninstalling Vantage 7.0 first, third party services may get stuck in maintenance mode or may not function at all. To correct this issue, the following registry setting(s) must be applied to the server hosting the corresponding third party Vantage service(s). After a registry setting is applied, the corresponding service must be restarted.

- Create the Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Telestream\SOA\Nexidia
- Create the String Value:
"AgentExecutablePath"="C:\Program Files (x86)\Telestream\Vantage\Nexidia\Agent\Nexidia.Illuminate.VantageAgent.exe"
- Create the Data value:
C:\Program Files (x86)\Telestream\Vantage\Nexidia\Agent\Nexidia.Illuminate.VantageAgent.exe



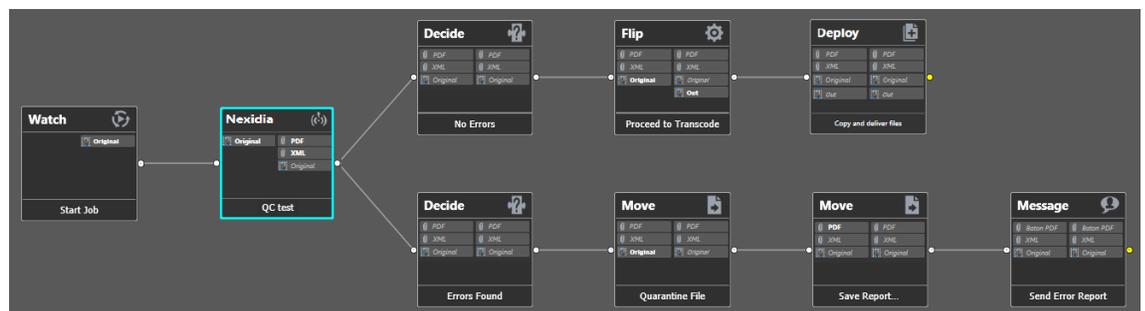
Telestream Support can help you with this procedure if you are unfamiliar with editing the registry. See [Telestream Support](#) later in this document for contact information.

Example Nexidia QC Workflow

The following workflow example (Figure 3) includes a Nexidia QC action and operates as follows:

1. This workflow begins with a Watch action, configured to monitor a target location for incoming media.
2. When the job starts, the Nexidia QC action is executed. The media file and optional associated caption file are passed to Nexidia QC software to perform the selected QC test. The QC test determines if the media meets the standards or requirements that you selected in the Nexidia QC action inspector.
3. When Nexidia QC has completed the specified tests, it assigns result values to all selected variables and file outputs, and returns them to Vantage.
4. This workflow looks at the Passed variable's value and executes Decide actions to determine which workflow path to take.
5. If the Passed variable is 1 (the test passed). The media files are then directed to an encoding branch that encodes the media using the Flip Action, and deploys the transcoded media to a selected destination. However, if the Test returns a Passed variable of 0 (the test did not pass) the media file is quarantined by sending it to a quarantine branch.
6. The quarantine branch has two Move actions. The first Move action moves the media file to a quarantine folder. The second Move action moves the PDF report (with a unique filename) to the same quarantine folder, for analysis and further action by an operator. The operator is notified to inspect the files by an email notification sent by the final Message action.

Figure 3. Example Nexidia QC Workflow.

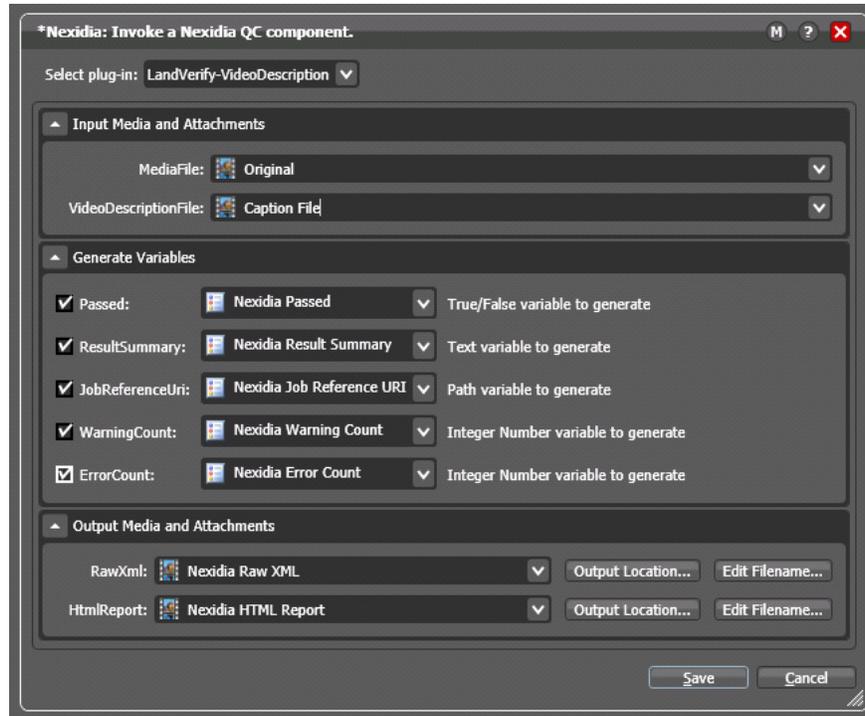


Configuring Nexidia QC Actions

Follow these steps to configure the Nexidia QC action:

1. Create a workflow similar to the one shown in the previous topic.
2. Click and drag the Nexidia QC action into the workflow.
3. Click the "i" in the upper left corner of the action to open the Inspector (Figure 4).

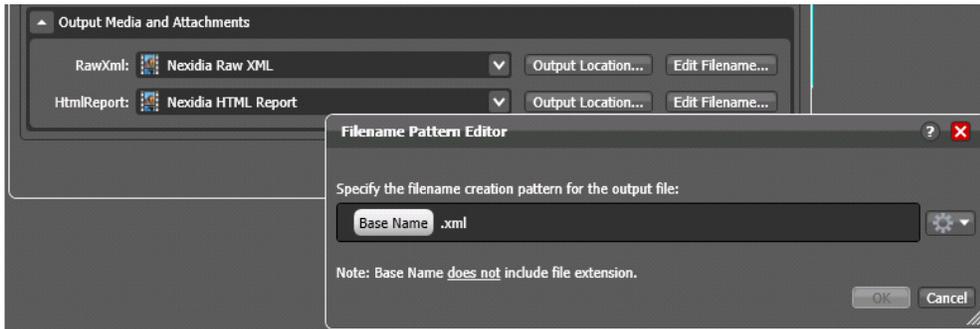
Figure 4. Example Nexidia QC Action Inspector (panel 1).



4. Fill in the required fields, and click Next to proceed to the next panel.
5. Click *Finish* to save the configured action.
6. Activate the workflow, and submit a file to test for successful workflow operation.

Note: Output file attachments do not include the file extension. Use the *Edit Filename* button to add the appropriate extension manually as shown in Figure 5.

Figure 5. Entering the File Extension



This concludes the description of Vantage with Nexidia QC. For more information, visit the Telestream and Nexidia Web sites.

Telestream Support

- **Web Site:** <http://www.telestream.net/telestream-support/vantage/support.htm>
- **Support Email:** support@telestream.net
- Terms and times of support services vary, per the terms of your current service contract with Telestream.

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