Vantage
Application Note

Installing & Using Venera Pulsar with Vantage

This App Note applies to Vantage Versions 6.2 to 7.1 & later

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.

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Synopsis

Pulsar^{TM} software provides file-based content verification, including automated quality checking and control. Pulsar can be used to perform quick scanning, QC, auto sorting, and in-depth verification at any stage of the workflow. The software performs technically complicated checks such as digital hits, blockiness and active aspect ratio. It can also check for media compliance with regulations and standards, such as the EBU R128 or CALM act. With built-in support for adaptive bitrate formats such as Apple HLS and Microsoft Smooth Streaming, you can deploy Pulsar in web delivery environments.

The Vantage Pulsar action allows you to automate access to the Pulsar server from within a Vantage workflow. The workflow can route media files through Pulsar, performing any necessary QC checks, and returning test results to the Vantage workflow for appropriate decision-making and branching. For example, media that tests OK can be automatically deployed by the workflow to distribution servers, while media that fails QC checks can be automatically quarantined and an email message sent to an operator who can do further analysis and disposition.

Version Requirements

The following versions are required for Vantage and Pulsar:

- Venera Technologies Pulsar v4.0.0 or later. Prior versions are not supported.
- Vantage 6.2 through 7.1 or later.

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

Licensing

Both the Vantage Pulsar and the Pulsar QC software engine require licensing:

- Vantage—Vantage Pulsar service is installed through the Custom Installation options. The Vantage Pulsar connector license can be purchased from Telestream Enterprise Sales at enterprisesales@telestream.net. The V-PULSAR-CONN license supports up to 4 processes each.

Note: A Vantage Array license is not required for the Vantage Pulsar service.

- Pulsar - Each Pulsar QC software copy must be licensed individually. Pulsar is purchased and licensed directly through Venera or an authorized Venera Pulsar reseller.

Important Note: Jobs submitted directly to a third party application, or from other systems not within Vantage management control can cause an undesirable workflow delays due to lack of available third party resources or available licenses. Best practices 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.

Limitations

- Pulsar QC software must be running in conjunction with just the Vantage Pulsar service on a separate node within a Vantage domain. No other Vantage service is permitted to be running on the Pulsar QC server node.

- The number of concurrent Vantage Pulsar sessions is 4 per Vantage Pulsar license.

- While the following codec types are supported by Pulsar directly, they cannot be processed through the existing Vantage Pulsar connector:

- Apple HLS

- Adobe HDS

- Microsoft HSS

- TIFO IPTV

Installation

Follow these steps and refer to the following figure to create a Vantage system with Pulsar 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 Pulsar QC server (or servers) according to the instructions from Venera Technologies.

3. Use the Vantage installer to install Vantage with *only* the Pulsar service on each individual Pulsar server. Enable only the Pulsar service. Pulsar QC should always run on a separate independent server from Vantage with just the Vantage Pulsar service installed on the Pulsar QC server.

4. Add the node(s) running the Vantage Pulsar service as members of the Vantage domain (see the *Vantage Domain Management Guide* for details).

5. License each Pulsar server for the Pulsar service.

6. On the Vantage server, share the Vantage default store and the location of files passed to a Pulsar QC action to allow all servers in the domain (i.e. Pulsar QC server) access to them. Connectivity to the shared locations within the Vantage domain can be 1Gb Ethernet, 10Gb Ethernet, Fibre or any other appropriate protocol. Connectivity to shared media files can become a bottleneck if throughput is limited, so design your Vantage/ Pulsar system with maximum shared access in mind.

Note: Be sure to configure your Vantage and Pulsar servers so they both have full access to the shared locations for file writing and reading.
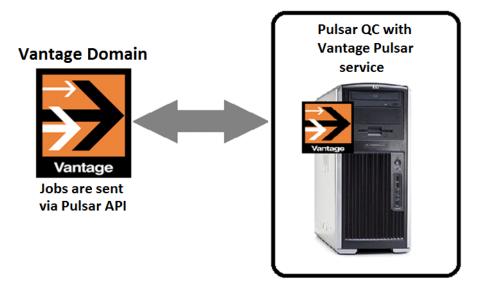
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Figure 1. Vantage-Pulsar Integration

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\Pulsar

- Create the String Value:
  "AgentExecutablePath"="C:\\Program Files (x86)\\Telestream\\Vantage\\Pulsar\\Agent\\VeneraPulsarBridgeAgent.exe"

- Create the Data value:
  C:\Program Files (x86)\Telestream\Vantage\Pulsar\Agent\VeneraPulsarBridge-Agent.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.

Pulsar Action and Example Workflow

The following information describes the Vantage Pulsar Action and presents an example workflow.

Inputs

- Select the Test Plan to be used.
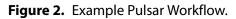- The Vantage Pulsar action accepts one media file as an input.

Outputs

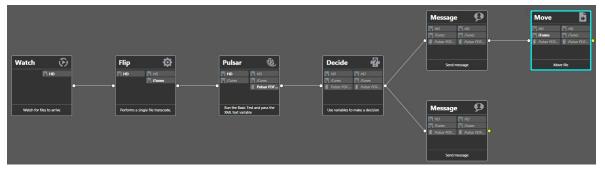The Vantage Pulsar action outputs 5 variables and one attachment:

- **Total Number of Errors** integer variable. Returns the number of errors generated by the test run.
- **Total Number of Warnings** integer variable. Returns the number of warnings generated by the test run.
- **Job Status** text variable. Returns a text string containing the Job Status.
- **XML Report Path** text variable. Returns the path to the XML Report generated by the test run. This path is determined by the Report Path parameter set selected within each template's General parameter section (see the Venera Pulsar documentation).
- **PDF Report Path** text variable. Returns the path to the PDF Report generated by the test run. This path is determined by the Report Path parameter set selected within each template's General parameter section (see the Venera Pulsar documentation).
- **PDF Report File Attachment:** A detailed Test Report PDF is associated with the attachment nickname and delivered to the output location specified within the plug-in.

Example Workflow

The workflow depicted below is typical of how Pulsar is often used in Vantage workflows and can serve as a template for implementing your workflows that require file-based QC processing.

Figure 2. Example Pulsar Workflow.

This workflow begins (as is typical) with a Watch action, configured to monitor a target location for incoming media.

When the job starts, a Flip action is executed to transcode the source media file to an iTunes-compatible file.

After a successful transcode, the Pulsar Action begins processing the iTunes file to perform a QC test. The test determines whether the file meets the standards and requirements specified in the Pulsar test template being employed.

When the Pulsar QC has completed the specified test, the Pulsar Action sets the respective results to the output variables selected within the Pulsar Action. All variables are now available to downstream Vantage actions, along with a PDF Test report attachment.

Next, the workflow executes a Decide action. If no errors were detected, an email is sent via the Message Action, followed by a Move Action to move the iTunes file to the specified output location.

If an error is detected by Pulsar, the Decide action forwards the error information to a Message Action that sends an appropriate email indicating the error.

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Configuring Pulsar Actions

The Pulsar inspector allows you to specify the input file, and specify how results are passed back to Vantage, as depicted below in the Pulsar inspector.

Figure 3. Example Pulsar Inspector.

To configure the Pulsar action, display the Pulsar action inspector.

First, select a test template from the Select Plug-in menu. These templates are created and configured directly in Pulsar. (If there is more than one Pulsar node, be sure that you have migrated the templates to all other nodes.)

In the Input Media and Attachments section, select the input media file you want Pulsar to examine, by selecting its nickname. Typically, this is the input media file specified by the preceding action.

The Settings section is unused.

In the Generate Variables section (see Output section above for details of these variables), enable those variables you want passed back from Pulsar to Vantage for use in the workflow—assign a variable by selecting one or creating a new one.

Finally, provide a nickname for the report PDF which is always generated each time the workflow runs and Pulsar examines a file. You can use the nickname in a Move, Copy or other action to save the PDF as a file for use outside of Vantage.

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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