Output Agent

Installation and Setup Guide

Version: Foundation EP3

Environment: Windows

Written by: Product Knowledge, R&D
Date: March 2021

Hyland

Copyright

Information in this document is subject to change without notice. The software described in this document is furnished only under a separate license agreement and may be used or copied only according to the terms of such agreement. It is against the law to copy the software except as specifically allowed in the license agreement. This document or accompanying materials contains certain information which is confidential information of Hyland Software, Inc. and its affiliates, and which is subject to the confidentiality provisions agreed to by you.

All data, names, and formats used in this document's examples are fictitious unless noted otherwise. Complying with all applicable copyright laws is the responsibility of the user. Without limiting the rights under copyright law, no part of this document may be reproduced, stored in or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), or for any purpose, without the express written permission of Hyland Software, Inc. or one of its affiliates.

Hyland® and Hyland Software®, as well as Hyland product names, are registered and/or unregistered trademarks of Hyland Software, Inc. and its affiliates in the United States and other countries. All other trademarks, service marks, trade names and products of other companies are the property of their respective owners.

© 2021 Hyland Software, Inc. and its affiliates. All rights reserved.

Table of Contents

Copyright **2**
Output Agent Overview **4**
Install Output Agent **4**
Download Output Agent files 4
Install Output Agent files 5
About installation options for Output Agent *5*
Perform an attended installation of Output Agent *5*
Perform an unattended installation of Output Agent *6*
License Output Agent 7
Configure Output Agent **7**
About configuring Output Agent 7
Configure the Output Agent service 8
Define values in a keyfile 9
Troubleshoot Output Agent **9**
General troubleshooting 10
Include annotations on output pages 10
Appendix A: inserverOutput.ini **10**
Appendix B: Variables to Create Export File Names **17**

Output Agent Overview

Output Agent is a server-side process that lets you output Perceptive Content documents on a job-by-job basis or in a batch. Using this agent, you can output Perceptive Content documents directly to a printer or to a file. You can also export documents in various formats, including JPEG and raster PDF, and then print the exported documents at any time.

Output Agent additionally offers the ability to export documents in DICOM format and transmit them to an external DICOM server. DICOM is an optional feature of Output Agent and requires an additional license.

To have Output Agent output documents, you can submit an output job to Output Agent using iScript or you can define a keyfile that specifies the documents you want to output. For details about using an iScript to output files from Output Agent, refer to documentation about the submitToPrintServer type in the INDocument help.

Note When exporting records, you cannot submit an output job to Output Agent using keyfiles or iScripts that use keys to look up objects.

Using values in a keyfile, Output Agent returns matching documents stored in Perceptive Content and then outputs them using the specified parameters from the inserverOutput.ini configuration file. Output Agent monitors a specified directory for keyfiles. When a new keyfile appears in the monitored directory, Output Agent recognizes it and then processes it. This document explains how to create a keyfile in the "Configure Output Agent" section.

Note that Output Agent outputs copies of documents, called output files. The Perceptive Content documents remain unaltered within the Perceptive Content repository.

Before you install Output Agent, perform the following readiness checks:

- Obtain the IP address and port number of Perceptive Content Server.
- Ensure that you have sufficient disk space for executables and object storage.

Important

- This document assumes you are installing Output Agent for the first time or that you have no earlier versions running on the computer. To update or upgrade Output Agent from a previous version, refer to the *Update ReadMe* document. Sections of the update readme may reference procedures in this installation guide.
- When using records functionality or Retention Management, only one Output Agent can be installed.
- In Windows, you must install this agent in a 64-bit environment. For product technical specifications and system requirements, refer to the *Product Technical Specifications* for your product version.

Install Output Agent

This section details the installation process for Output Agent on a Windows environment. The installation process requires downloading and installing the Output Agent files, removing the DEP setting, and licensing Output Agent.

Download Output Agent files

To obtain Perceptive product installation files, contact the Hyland Software Technical Support group. For a list of Technical Support phone numbers, go to hyland.com/pswtscontact.

Install Output Agent files

This section describes the two installation options for Output Agent running on a Windows environment. It also provides detailed steps to perform the installation option you choose.

About installation options for Output Agent

You can install Output Agent using an attended or unattended installation on the Perceptive Content Server computer or on a computer separate from Perceptive Content Server.

An unattended installation is an automatic way to run an installation. If you follow the procedure to install Output Agent on Windows unattended, you do not install Output Agent using a standard Install Shield interface. Using this unattended installation method, you can do a custom installation or use a combination of default and customized settings. Note that using an unattended installation skips the license agreement the user sees when using an attended installation.

Perform the steps in one of the following subsections.

Perform an attended installation of Output Agent

The following steps explain how to run the installation wizard for Output Agent to perform an attended installation.

1. Double-click the **EXE** file you just downloaded.
2. On the **Welcome to the Output Agent Installation Wizard** page, click **Next**.
3. On the **License Agreement** page, review the terms in the License Agreement, scroll to the end of the agreement, click **I accept the terms in the license agreement**, and click **Next**.
4. In the **Perceptive Content Server Information** page, complete the following steps.
    1. Under **Perceptive Content Server**, enter the **Server name** and **Port number** for the Perceptive Content Server computer.
    2. Under **Additional Configuration**, enter the **Initial instance name**.

       Note The instance name allows for multiple instances of the same agent or server to run in parallel in an active-active environment. You can enter a maximum of 40 characters, and the following characters are invalid: \ / : * ? " < > |.
5. Click **Next**.
6. On the **RabbitMQ Configuration** page, configure the settings according to your RabbitMQ instance and click **Next**.
7. In the **Destination Folder** page, accept the default folder or click **Browse** to select a different directory, and click **Next**.
8. On the **Ready to Install the Program** page, click **Install**.
9. On the **Installation Wizard Completed** page, click **Finish**. The system creates the file folder $(IMAGENOWDIR)\output_agent in the same directory where Output Agent was installed. The default directory is **[*drive:*]\inserver\output_agent**. The new output_agent folder contains the following four folders:
    - Export – directory to store exported documents
    - Monitor – directory to check for new output keyfiles

- Moved – directory to store keyfiles that have been executed
- Reports – directory to store runtime reports for output processing

Perform an unattended installation of Output Agent

The following steps explain how to install Output Agent when you are not at the computer.

1. Set up your argument values to customize the unattended installation. If you do not use arguments, the installation uses the default values for the missing arguments. If you use environment variables to set the arguments, be sure to set all of your environment variables.

   Note For information on configuring RabbitMQ arguments for unattended installations, see the Perceptive Content Server Installation Guide.

Script Variables	Arguments	Description	Default	Example
LOGFILE	/L*V	If you use this argument, setup does not create directories so the path for the log file generation must be a valid, existing path. This argument is typically used to diagnose installation errors. Use escaped quotation marks when setting this argument.	If the command line argument is removed, it defaults to the %TEMP% directory in a file named OutputAgentInstall.log.	Script Variable: set LOGFILE=C:\logs\output_agent-install.txt Command line: /L*V \"C:\logs\output_agent-install.txt\"
INSTALLDIR_VAL	INSTALLDIR	The default, and recommended, installation directory is [*drive*:]\inserver. Use escaped quotation marks when setting this argument.	[*drive:*]\inserver	Script Variable: set INSTALLDIR_VAL = C:\inserver Command line: INSTALLDIR=\"C:\inserver\"
PORTNUMBER_VAL	PORTNUMBER	Perceptive Content Server port.	6000	Script Variable: set PORTNUMBER_VAL =7000 Command line: PORTNUMBER=7000
SERVERNAME_VAL	SERVERNAME	Location of the Perceptive Content Server.	127.0.0.1	Script Variable: set SERVERNAME_VAL = localhost Command line: SERVERNAME=127.0.0.1

2. Enter the following command. You can use one of the commands in a Command Prompt window, use a command in the provided batch file, or create a command line script for your deployment software:

```
OutputAgentSetup.exe /s /V"/qb <argument list>"
```

The following example shows the command format using the environment variables:

```
OutputAgentSetup.exe /s /V"/qb /L*V \"%LOGFILE%\" INSTALLDIR=\"%INSTALLDIR_VAL%\"
SERVERNAME=%SERVERNAME_VAL% PORTNUMBER=%PORTNUMBER_VAL%"
```

The following example shows the command with a defined argument list:

```
OutputAgentSetup.exe /s /V"/qb /L*V \"C:\logs\output_agent-install.txt\"
INSTALLDIR=\"C:\inserver\" PORTNUMBER=7000"
```

3. Verify your installation.

License Output Agent

When you purchase Output Agent, you request a license from your Perceptive Software representative, who can send you a license file. Before authenticating the license, you must install Perceptive Content Server and at least one Perceptive Content Client. Only a user with privileges to manage licenses can complete this task.

The following steps explain how to license your copy of Output Agent. You must complete these steps on a Windows computer where the Perceptive Content Client is installed.

1. Copy the license files to a temporary folder where you can access them from an Perceptive Content Client.
2. On the **Start** menu, point to **All Programs**, point to **Perceptive Content**, and then click **Perceptive Content**.
3. In the **Perceptive Content** login, click **License Manager**.
4. In the **License Management** dialog box, select **Upload licenses** and click **OK**.
5. Browse to the license file from its temporary directory, click **Open**, and then **OK**.

Configure Output Agent

This section details the configuration process for Output Agent on a Windows environment. After you install Output Agent, you must configure the inserverOutput.ini file and create a keyfile (if you do not submit output jobs to Output Agent using iScript).

About configuring Output Agent

Output Agent monitors a directory for text files, called keyfiles. The monitored directory is specified for the monitor.path setting in the inserverOutput.ini. Using the values in the keyfile, Output Agent returns matching documents stored in Perceptive Content and then outputs files of the documents using the specified parameters from the inserverOutput.ini file. When a new keyfile appears in the monitored directory, Output Agent recognizes it and processes it.

To configure Output Agent to move a keyfile after it executes the keyfile, in the inserverOutput.ini file, set keyfile.move to TRUE and set keyfile.move.path to the path where you want to move the executed keyfile. If an output process cannot be completed, the Output Agent logs will provide details.

Configure the Output Agent service

The following steps explain how to configure the Output Agent service using the inserverOutput.ini file. Additional details about each setting found in the inserverOutput.ini file are available in Appendix A.

1. In the **$(IMAGENOWDIR)\etc** folder, locate the **inserverOutput.ini** file and open it in a text editor.
2. Under **[Remote]**, to set up Output Agent as a remotable service, configure the remote settings so that you provide the IP address or name and the port number for the Perceptive Content Server.
3. Under **[Monitor]**, configure the following settings:
    1. For **monitor.path**, keep the default **$(IMAGENOWDIR)\output_agent\monitor** or specify a different directory where Output Agent checks for new output keyfiles.
    2. For **monitor.extension**, keep the default **txt**, or specify a new file extension that Output Agent uses to check for output keyfiles.
4. Under **[General]**, perform the following substeps:
    1. Set **output.mode** to **EXPORT**, **PRINTER**, or **DICOM**.
    2. For **keyfile.move.path**, keep the default **$(IMAGENOWDIR)\output_agent\moved** or specify a different directory where Output Agent stores executed keyfiles.
5. If you set **output.mode** to **EXPORT**, in the **[Export]** group, configure the following settings:
    1. Set the export file type for **export.file.type**. For a list of the most commonly used output file formats, reference the [Export] group in the Appendix A section of this document .
    2. Change **export.file.extension** to match the export file type, such as **JPEG**.
    3. For **export.file.directory**, leave the default **$(IMAGENOWDIR)\output_agent\export** or specify a new location. The path you specify does not need to be on the local file system Perceptive Content must have write permissions for the specified location. Also, the entire file path, which includes the file name and extension, cannot exceed the character limit set by your operating system. For example, Windows XP allows a file path up to 255 characters in length.
    4. Change **export.filename.format** to include the text and variables you want to use to create the name of the exported file. For example, you can set **export.filename.format** to **[FIELD1]_[FIELD2]_[FIELD3]_[FIELD4]**. Additional examples are provided in the Appendix B section of this document.

        Note File names must not contain spaces or the following characters: \ / : * ? " < > |. If any of these characters appears in a file name, Output Agent replaces the characters with dashes.
6. If you set **ouput.mode** to **PRINTER**, complete the following substeps:
    1. Open a Command Prompt window and navigate to **$(IMAGENOWDIR)\bin**, and complete the following substeps:
        1. Type **printerinfo** and press ENTER.
        2. Review the list of printers and copy the settings for the printer you want to use for output.
    2. In the **inserverOutput.ini** file, in the **[Printer]** group, configure the **printer.input.tray**, **printer.name**, **printer.driver**, **printer.downscale.color.mode**, and **printer.diffuse.black.level.threshold** properties for the printer you selected for output.
7. If you set **output.mode** to **DICOM**, in the **[Dicom]** group, configure the following settings:
    1. For **dicom.ip**, specify the IP address of the Dicom server.

2. For **dicom.port**, specify the service port of the Dicom server.
3. For **dicom.store.title**, specify the store tile for documents Output Agent sends to the Dicom server.
4. For **dicom.external.title**, specify the external title for documents Output Agent sends to the Dicom server.

8. Under **[Layout]**, change any setting to modify the layout format as needed.
9. Under **[Logging]**, you can set debug levels for auditing or troubleshooting. The default is 0 (no logging). Unless you are troubleshooting an issue, set minimal logging.
10. Save and close the file.
11. Perform the following substeps to restart the Output Agent service:
    1. On your Windows Desktop, right-click the **My Computer** shortcut and select **Manage**.
    2. In the **Computer Management** dialog box, click **Services and Applications**.
    3. Click **Services**.
    4. In the right pane, locate and select the service titled **ImageNow Output Agent**. In the upper left-hand corner of the right pane, click **Start**.

Define values in a keyfile

The following steps explain how to create and submit a keyfile that specifies the documents you want Output Agent to locate in Perceptive Content and output.

1. Using a text editor, create a file in a temporary location. Using the following guidelines, type a row in the file that defines each document key value you want to search and return matching Perceptive Content documents:
   - The structure is: DRAWER^FIELD1^FIELD2^FIELD3^FIELD4^FIELD5^DOCTYPE^DOCNAME.
   - Any combination of values can remain blank.
   - For example, the following row returns all documents in the AP drawer that have a Field1 value of 12345.

     ```
     AP^12345
     ```

   - The following row returns all documents in the AP drawer with a Field2 value of 12345, regardless of the Field1 value.

     ```
     AP^^12345
     ```

2. Save and close the file.
3. Move the text file to the folder you specified for **monitor.path** in the **inserverOutput.ini** file. The default path is **$(IMAGENOWDIR)\output_agent\monitor**.

Troubleshoot Output Agent

This section outlines procedures for correcting errors encountered during the installation of Output Agent.

General troubleshooting

Perceptive Content Server provides logging specifically for troubleshooting printing and export problems. Specific log files for Output Agent reside in the **$(IMAGENOWDIR)\log** folder (the default directory is **[*drive:*]\inserver\log**). Log files are named as **inserverOutput_<*instance name*>_<*date*>.log** so you can easily identify the file you need. The **[Logging]** group in the **inserverOutput.ini** file contains the settings you need to adjust to control logging verbosity debug levels and to turn logging on or off.

Include annotations on output pages

To configure Output Agent to include annotations on output pages, perform the following steps.

1. In the **$(IMAGENOWDIR)\etc** folder, locate the **inserverOutput.ini** file and open it in a text editor.
2. Under **[Layout]**, set **layout.annotations.show** to **TRUE**.
3. Save and close the file.
4. Restart the Output Agent service.

Appendix A: inserverOutput.ini

The following table provides definitions and sample data for the settings in the inserverOutput.ini configuration file. This table displays the INI settings under group headings in brackets, for example, [Remote], in the order the groups appear in the INI file. Each setting offers two or more options, which are defined in the table below along with a description of each setting and its options. Use this table as a guide when customizing the file.

Group	Setting	Options	Description
Remote	server.ip.address	Any valid IP address	Specifies the IP address of Perceptive Content Server. The default is specified during installation.
	server.ip.port	Any existing port number	Specifies the port number of Perceptive Content Server. The default is specified during installation.
	reconnect.interval	Any positive integer	Specifies how many seconds Output Agent waits before attempting to reconnect to Perceptive Content Server after a lost connection. **Note** Do not change this value without first consulting Product Support. The default is 60.
Documents	search.maxresults	Any positive integer	Specifies the maximum number of results Output Agent outputs. The default is 250000. **Note** The odbc.grid.max.fetch.count setting in the inow.ini file for Perceptive Content Server can also limit the results.

Group	Setting	Options	Description
Monitor	poll.interval	Any positive integer	Specifies how often, in seconds, Output Agent searches the directory specified for the monitor.path setting for new output keyfiles. The default is 15. **Note** Do not change this value without first consulting Product Support.
	monitor.path	Any valid directory	Specifies the path to the directory where Output Agent checks for new outputkeyfiles. The default is $(IMAGENOWDIR)\output_agent\monitor.
	monitor.extension	Any valid file extension	Specifies the file extension that Output Agent uses to check for output keyfiles. The default is txt.
General	keyfile.delete	TRUE FALSE	Specifies whether Output Agent deletes the keyfile from the monitor directory after it runs a query. TRUE = Delete the keyfile. FALSE = Do not delete the keyfile. The default is TRUE.
	keyfile.move	TRUE FALSE	Specifies whether Output Agent moves the keyfile after it runs a query. TRUE = Move the keyfile to the directory specified for the keyfile.move.path setting. FALSE = Do not move the keyfile. The default is TRUE. **Note** If set to TRUE, keyfile.move.path is required.
	keyfile.move.path	Any valid directory	Specifies the directory that Output Agent uses to store executed keyfiles. The default is $(IMAGENOWDIR)\output_agent\moved. **Note** If keyfile.move is set to TRUE, this setting is required.
	keyfile.encoding	ANSI UTF-8	Specifies the expected keyfile encoding. The default is ANSI.
	output.mode	CLIENTVIEW DICOM EXPORT PRINTER	Specifies the output mode that Output Agent uses. To see which settings Clientview uses, refer to the [Layout] and [Export] groups in this table. Clientview is only available on Windows. The default is <none>.

Group	Setting	Options	Description
	output.incomplete.mailto	Any text string	Specifies the email address that receives notifications when page rendering or any other output process does not complete. The default is blank. **Note** Using a comma-delimited list, you can specify multiple email addresses.
Layout	layout.dpi.max	DPI	Specifies the resolution, in dots-per-inch (DPI), that Output Agent uses for output sheets. Clientview output mode ignores this setting. The default is 300.
	layout.units	IMPERIAL METRIC PIXELS	Specifies the unit of measurement that Output Agent uses. Clientview output mode overrides this setting to PIXELS. IMPERIAL = Inches METRIC = Millimeters PIXELS = Pixels The default is IMPERIAL.
	layout.margin	Any range in the unit specified for the layout.units setting	Specifies the margin space that Output Agent uses for output sheets. Clientview output mode ignores this setting. The default is 0. **Note** The layouts.units setting determines the unit of measurement used for the margin space.
	layout.annotations. show	TRUE FALSE	Specifies whether Output Agent includes annotations on output sheets. The default is TRUE.
	layout.pages.per. sheet	Any positive integer	Specifies the number of pages that Output Agent outputs per sheet. Clientview output mode ignores this setting. The default is 1.
	layout.pages.per. sheet.spacing	Any range in the unit specified for the layout.units setting	Specifies the spacing that Output Agent uses between output sheets. Clientview output mode ignores this setting. The default is 0.25. **Note** The layouts.units setting determines the unit of measure used for the spacing.
	layout.pages.per.row	Any positive integer	Specifies the number of pages per row that Output Agent uses for each output sheet. Clientview output mode ignores this setting. The default is 1.

Group	Setting	Options	Description
	layout.width	Any range in the unit specified for the layout.units setting	Specifies the width that Output Agent uses for output sheets. Clientview output mode ignores this setting. The default is 8.5. **Note** The layouts.units setting determines the unit of measure used for the width.
	layout.height	Any range in the unit specified for the layout.units setting	Specifies the height that Output Agent uses for output sheets. Clientview output mode ignores this setting. The default is 11. **Note** The layouts.units setting determines the unit of measure used for the height.
	layout.color.depth	Any positive integer representing bits	Specifies the color depth, in bits per pixel, that Output Agent uses for output sheets. Clientview output mode ignores this setting. The default is 24.
	layout.color.mode	COLOR GRAYSCALE	Specifies whether Output Agent uses color or grayscale for output sheets. Clientview output mode ignores this setting. The default is COLOR.
	layout.header	Any text string	Specifies the header Output Agent includes at the top of each output sheet. **Tip** You can use document keys or properties as the header by enclosing column headings in brackets. For example, “[DRAWER] [PAGE]” displays the drawer value and the page number at the top of each page.
Dicom	dicom.ip	Any valid IP address	Specifies the IP address of the Dicom server where Output Agent exports files.
	dicom.port	Any valid port ID	Specifies the service port of the Dicom server where Output Agent exports files. The default is 104.
	dicom.store.title	Any text string	Specifies the store title for output files that Output Agent sends to the Dicom server.
	dicom.external.title	Any text string	Specifies the external title for output files that Output Agent sends to the Dicom server.

Group	Setting	Options	Description
	dicom.tag.<x> = <pos1>^<pos2>^<doc key>	See description	Specifies the Perceptive Content values you want to assign to Dicom tags. Where <x> = A number from 1 to n. Where <pos1> and <pos2> = The Dicom tag value, such as 0x0010^0x0020. For example, the Dicom tag value 0x0010^0x0010 = PatientsName. For example, the Dicom tag value 0x0010^0x0020 = PatientID. Where <doc key> = One of the following options: [DOCID],[DOCNAME], [DRAWER], [FIELD1], [FIELD2], [FIELD3], [FIELD4], [FIELD5], or [DOCTYPE]. For example, dicom.tag.1 = 0x0010^0x0010^[FIELD1]. For example, dicom.tag.2 = 0x0010^0x0020^[FIELD5].
Export	export.file.type	The following file formats are most commonly used: 2 3 6 10 11 17 27 29 75 87 146 147 149 150	Specifies the file type that Output Agent uses for exported files. The following file formats are most commonly used: 2 = GIF 3 = TIFF 6 = Windows BMP 10 = JPEG 75 = PNG 11 = TIFF with JPEG compression 17 = TIFF with LZW compression 27 = TIFF with G3 compression 29 = TIFF with G4 compression 87 = TIFF with RLE compression 146 = Raster PDF uncompressed 147 = Raster PDF with G3 compression 149 = Raster PDF with G4 compression 150 = Raster PDF with JPEG compression The default is 17.

Group	Setting	Options	Description
	export.file.extension	The following file extensions are most commonly used: GIF BMP JPG PDF PNG TIFF	Specifies the file extension that Output Agent uses for exported files. The default is TIFF.
	export.file.directory	Any valid directory	Specifies the directory that Output Agent uses to store exported files. The default is $(IMAGENOWDIR)\output_agent\export.
	export.filename. format	Any valid text string or the variables listed in Appendix B, "Variables to Create Export File Names."	Specifies the naming scheme that Output Agent uses for exported files. You can define one or more variables and choose to include text for Perceptive Content to generate the file name of an exported file. Enclose variables in brackets. You can separate text and variables with underscores (such as [DOCID]_Page_Number_[PAGENUM]) to make the file names easier to read. You can also specify the width of some variables (such as [%0<*a positive integer*>PAGENUM]). Defining the variable width helps you organize files after you export multiple files. For more information, refer to the Appendix B section of this document. The default is OutputAgent_[DOCID]_[PAGENUM].
	export.multipage. document	TRUE FALSE	Specifies whether Output Agent appends exported files when export.filename.format matches an existing file name. TRUE = Append exported files to existing files. FALSE = Do not append exported files. The default is FALSE.
	export.file.dpi	Any positive integer	Specifies the dots-per-inch (DPI) that Output Agent uses for exported files. Clientview output mode ignores this setting. The default is 150.
Printer	printer.input.tray	Varies depending on your printer settings	Specifies the input tray that Output Agent uses to print output sheets. The default is 0.

Group	Setting	Options	Description
	printer.name	Any valid available printer	Specifies the name of the printer that Output Agent uses to print output sheets. Refer to your Windows Printer Settings.
	printer.driver	Any valid printer driver	Specifies the printer's driver name that Output Agent uses to print output sheets. Refer to your Windows Printer Settings. The default is winspool.
	printer.downscale. color.mode	0 1 2	Specifies the color mode that Output Agent uses to print output sheets. 0 = Use the printer's default setting. 1 = Black and white halftone. 2 = Black and white diffuse. The default is 0. **Note** If set to 2, specify a threshold in printer.diffuse.black.level.threshold.
	printer.diffuse.black. level.threshold	Any integer between 0 and 255	Specifies the threshold at which a given color in an output file is determined to be black or white. The default is 128. **Note** If printer.downscale.color.mode is set to 2, this setting is required.
	printer.rotate.to.best.fit	TRUE FALSE	Specifies whether the system automatically rotates a page image when the page orientation does not match the sheet orientation when printed. TRUE = Rotate page image to match sheet orientation. FALSE = Do not rotate page image to match sheet orientation when printed. The default is FALSE.
Logging	debug.level.file	0, 1-6, 9	Specifies the level that Output Agent uses to log errors for troubleshooting. 0 = Turn off logging. 1 = Use the least verbose logging. 6 = Use the most verbose logging. 9 = Turn on logging for timing. This logging shows the amount of time Output Agent uses to execute calls such as queries from the server to the database and for image conversions. The default is 0.

Group	Setting	Options	Description
	debug.level.pipe	0, 1-3, 6	Specifies the level that Output Agent uses to log pipe errors for troubleshooting. 0 = Turn off logging. 1 = Use the least verbose logging. 6 = Use the most verbose logging. The default is 0.
	socket.level.file	1 0	Specifies whether to log communication between Perceptive Content Server and Output Agent. 1 = Log communication. 0 = Do not log communication. The default is 0.

Appendix B: Variables to Create Export File Names

The following table lists variables you can use to define file names of exported Perceptive Content documents, called output files. You specify these variables for the export.filename.format setting in the [Export] group of the inserverOutput.ini file.

You can define one or more variables for Perceptive Content to generate the file name of an output file. You can also provide static text for part of the file name. Enclose variables in brackets. You can separate text and variables with underscores (such as [DOCID]_Page_Number_[PAGENUM]) to make the file names easier to read. You can also specify the width of some variables (such as [%0<*a positive integer*>PAGENUM]). Defining the width of a variable helps with file organization when you export multiple files to a folder. The entire file path, which includes the file name and extension, cannot exceed the character limit set by your operating system. For example, Windows XP allows a file path up to 255 characters in length.

Note that an Perceptive Content document is a single document object that can contain multiple files created by various applications. For example, you might process an Perceptive Content document that contains a two-page Word document, a five-page Excel workbook, a two-page email, and a four-page fax. Furthermore, an exported file is a copy of an Perceptive Content document that remains unaltered within the Perceptive Content repository.

You can specify the following variables for Perceptive Content to generate file names for output files created from Perceptive Content documents:

Variable	Description
[DOCID]	Names an exported Perceptive Content document with its Document ID.
[DOCNAME]	Names an exported Perceptive Content document with its Perceptive Content name.
[DRAWER], [FIELD1], [FIELD2], [FIELD3], [FIELD4], [FIELD5], or [DOCTYPE]	Names an exported Perceptive Content document with its specified document keys.

Variable	Description
[DOCNUM]	Names an exported Perceptive Content document with the sequence number of the document processed. **Note** This variable applies only to keyfile output.
[%0<*a positive integer*>DOCNUM]	Names an exported Perceptive Content document with a unique value while specifying a width for the value. For example, if you assign the variable [%03DOCNUM] and Perceptive Content assigns the exported file as the fifth exported file, the document number included in the exported file name is 005.
[ACTUALPAGENUM]	Names each page of an exported Perceptive Content document with a unique value. For example, a document with 5 pages is exported as 5 files with file names that include the following: 1, 2, 3, 4, and 5.
[%0<*a positive integer*>ACTUALPAGENUM]	Names each page of an exported Perceptive Content document with a unique value while specifying a width for the value. For example, if you assign the variable [%03ACTUALPAGENUM], a Perceptive Content document with 5 pages is exported as 5 files with file names that include the following: 001, 002, 003, 004, and 005.
[PAGENUM]	Names each file of an exported Perceptive Content document with a unique value. For example, a Perceptive Content document that contains the file types PDF, DOC, TIFF, and PNG is exported as 4 files with file names that include the following: 1, 2, 3, and 4.
[%0<*a positive integer*>PAGENUM]	Names each file of an exported Perceptive Content document with a unique value while specifying a width for the value. For example, if you assign the variable [%03PAGENUM], a Perceptive Content document that contains the file types PDF, DOC, TIFF, and PNG is exported as 4 files with file names that include the following: 001, 002, 003, and 004.
[SHEETNUM]	Names each exported sheet, or output page, that contains multiple pages of a Perceptive Content document with a unique value. **Note** You define the number of pages exported per sheet for the layout.pages.per.sheet setting in the [Layout] group.
[%0<*a positive integer* >SHEETNUM]	Names each exported sheet that contains multiple pages of a Perceptive Content document with a unique value while specifying a width for the value. For example, if you define the export.filename.format setting as [%03SHEETNUM], and you define the layoutpages.per.sheet setting as 4, a Perceptive Content document that contains 4 pages is exported as one sheet with a file name that includes 001.