Recognition Agent

Installation and Setup Guide

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Recognition Agent overview

Recognition Agent is a dedicated, high-volume, server-side agent used to acquire document property values automatically during various CaptureNow capture processes. Recognition Agent offers the following recognition modules: ICR/OMR/OCR, Barcode, and Forms Identification.

- **ICR/OMR/OCR Module**. Automatically acquires Perceptive Content property values from documents during the Perceptive Content batch scanning process. This module captures information using OCR, OMR, and ICR technologies on a specific zonal location defined on an Perceptive Content document in BMP, PNG, JPEG, TIFF, or GIF format. This module cannot acquire data from Word documents or other non-raster file types.
- **Barcode Module**. Provides a high-performance barcode solution with robust algorithms for recognizing and decoding 1D, 2D, and postal symbologies. It reads barcodes scanned in grayscale, as well as small or compact barcodes and, with the advanced capability, it scans barcodes that are heavily damaged or skewed. This module requires an additional license.
- **Forms Identification Module**. Provides the ability to automatically identify a form without registration or anchor marks. Forms Identification Module recognizes forms rotated 90, 180 or 270 degrees and adjusts to forms scaled from 90% to 110% of the original document size. This module also handles documents with up to a 20-degree skew. After Forms Identification Module identifies a form, Perceptive Content assigns the appropriate Type value to the resulting Perceptive Content document. This module requires an additional license.

Important This document assumes you are installing Recognition Agent for the first time or that you have no earlier versions running on the computer. To install multiple instance of Recognition Agent, refer to Appendix A: Install another instance of Recognition Agent. To update or upgrade Recognition Agent from a previous version, refer to the *Update ReadMe.* Sections of the update readme may reference procedures in this installation guide.

Before you install Recognition Agent, perform the following readiness checks.

- Verify that your Perceptive Content Server is running.
- Obtain the user name and password for the user that administers the Perceptive Content database.
- Install Perceptive Content Data Source. For more information, see the Perceptive Content Database Installation and Setup Guide.
- Make sure that you have sufficient disk space for executables and object storage.
- Verify that the computer you are using to install Recognition Agent is a 64-bit operating system.

Important Ensure that the REMOTED value in the inserverRec.ini file is set to TRUE even if Recognition Agent is running locally. For more information, see Appendix B: Server configuration files.

Install Recognition Agent

This section details the installation process for Recognition Agent. The installation process requires downloading and installing the Recognition Agent files, removing the DEP setting, and licensing Recognition Agent.

Download Recognition 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 Recognition Agent files

This section describes the two installation options for Recognition Agent running. It also provides detailed steps to perform the installation option you choose.

About installation options for Recognition Agent

You can install Recognition 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 Recognition Agent unattended, you do not install Recognition 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 Recognition Agent

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

1. Double-click the **EXE** file you just downloaded.
2. On the **Welcome to the Installation Wizard for Recognition Agent** 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. On the **Installation Location** page, select **Local installation** if you are installing the Recognition Agent on the Perceptive Content Server computer or select **Remote installation** if you are installing Recognition Agent on a different computer, and click **Next**.
5. On the **Perceptive Content Server Information** page, under **Perceptive Content Server**, enter the **Server IP** and **Port Number** for the Perceptive Content Server computer.
6. 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: \ / : * ? " < > |.
7. Click **Next**.

8. On the **Perceptive Content Database Connection** page, under **Database type**, select the database, specify your DSN, verify the DSN exists, and click **Next**.

   Note The username and password fields are populated with a default username and password. If you chose a different username and password during the installation of the database, you must update them here. If the password is encrypted, a warning will appear next to the password field.

9. On the **RabbitMQ Configuration** page, configure the settings according to your RabbitMQ instance and click **Next**.
10. On the **Destination Folder** page, accept the default folder or browse and select another folder, and click **Next**.
11. On the **Ready to Install the Program** page, click **Install**.
12. On the **Installation Wizard Completed** page, click **Finish**.
13. Click **OK** twice.
14. Restart your computer.

Perform an unattended installation of Recognition Agent

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

1. Optional. If you use deployment software to push out your installations and it requires you to use an MSI file, perform the following substeps to extract the **RecognitionSetup.msi** file.
   1. If you have not already installed this version of Recognition Agent, double-click the downloaded **RecognitionSetup.exe**, which extracts the **RecognitionSetup.msi** file.
   2. By default, the **RecognitionSetup.msi** file is extracted to the common application data folder. The Unique ID varies with each build, so you must sort the **Downloaded Installations** folder by **Date Modified** and copy the most recent entry containing this file to the folder that is required by your deployment software.
   3. In the **Welcome to the Perceptive Content Installation Wizard for Perceptive Content Client** page, click **Cancel**.

   Note Do not delete the **Downloaded Installations\[*Unique ID*]** folder or remove the MSI file. You must have both for certain maintenance functionality.

2. 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.

Argument	Description	Default	Example
L*V	This value is optional, and the default is not to generate a log file. 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.	No log file is generated unless you include this argument.	L*V ”C:\logs\ RecAgent-silentinstall670.txt”
INSTALLDIR	The default, and recommended, installation directory is [*drive*:]\inserver.	[*drive:*]\inserver	INSTALLDIR=”C:\inserver”
OPERATION_MODE	Defines whether the Recognition Agent is running remotely with respect to Perceptive Content Server. Valid values include LOCAL or REMOTE.	LOCAL	OPERATION_MODE=LOCAL
SERVER_IP	Name of the server instance	localhost	SERVER_IP=localhost
IN_PORT_NO	The port number of Perceptive Content Server	6000	IN_PORT_NO=6000
INSTANCE_NAME	The name of the Perceptive Content instance	Primary	INSTANCE_NAME=PRIMARY
ODBC.DBMS	Sets the database management system for Perceptive Content. This value should be set to either SQLServer or Oracle.	SQLServer	ODBC.DBMS=Oracle
ODBC.DSN	The ODBC name.	Perceptive Content	ODBC.DSN=\"Perceptive Content\"
PORT_NO	The port number of the database.	1433	PORT_NO=1521
ODBC_DBNAME	The name of the Perceptive Content SQL Server database. Only applicable for SQL Server installations.	INOW	ODBC_DBNAME=DBNAME

Argument	Description	Default	Example
ODBC_SID	The name of the Perceptive Content Oracle database. Only applicable for Oracle Server installations.	INOW	ODBC_SID=DBNAME
ODBC_DESCRIPTION	The ODBC description.	Perceptive Content	ODBC_DESCRIPTION=\"my description\"
IS_SQLSERVER_ SERVER	The hostname of the database server.	localhost	IS_SQLSERVER_SERVER=local host
ODBC.USER.ID	Specifies the user ID for the ODBC connection	inuser	ODBC.USER.ID=inuser
ODBC.USER.PASSWORD	Specifies the password that is consumed by the application for encryption in the odbc.user.password.encry pted setting. This value is encrypted and removed from the setting after running the `inserverRec -encrypt-config` command.	imagenow	ODBC.USER.PASSWORD=imag enow

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

```
RecognitionAgentSetup.exe /s /V"/qb /L*V “Logfile.txt”\ [argument list]"
```

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

```
RecognitionAgentSetup.exe /s /V"/qb /L*V “Logfile.txt” INSTALLDIR=\"D:\inserver\"
INSTANCE_NAME=\"Production\" OPERATION_MODE=LOCAL SERVER_IP=localhost
IN_PORT_NO=6000"
```

Turn off data execution prevention (DEP)

The following steps explain how to delete the Data Execution Prevention setting. You must remove the Data Execution Prevention (DEP) setting from the Recognition Agent executable file in [*drive:*]\inserver\bin if you operate in a Windows Server 2008 environment.

1. On the desktop, right-click **My Computer** (Windows Server 2003) or **Computer** (Windows Server 2008), and select **Properties**.

2. In Windows 2008, under **Tasks**, click **Advanced system settings**. Windows 2003 does not require this selection.

3. In the **System Properties** dialog box, on the **Advanced** tab, under **Performance**, click **Settings**.

4. In the **Performance Options** dialog box, on the **Data Execution Prevention** tab, select **Turn on DEP for all programs and services except those I select**.
5. Click **Add**.
6. In the **Open** dialog box, navigate to the **[*drive:*]\inserver\bin** directory, select the **inserverRec.exe** file, and click **Open**.
7. Click **OK** twice.
8. Restart your computer.

License Recognition Agent

This section describes the steps to obtain license files and then install them.

Obtain the license files

To obtain the hardware information for the Perceptive Content Server, you must be the admin user on Windows.

1. Generate a system fingerprint using the following substeps.
    4. Click **Start**, point to All Programs, point to **Perceptive Content**, and then click **Perceptive Content Management Console**.
    5. In the login page, click **License Manager**.
    6. In the **License Management** dialog box, select **Save system fingerprint** and click **OK**.
    7. In the **Save As** dialog box, enter a name for the file and then navigate to the location where you want to save the report. Click **Save**.
2. Contact your Perceptive Software representative for instructions on where to send the system fingerprint file to obtain your license. The system fingerprint file has a SYSFP extension.
3. When you receive the license files, store the license files in a temporary directory on the Perceptive Content Server computer.

Install the license files

Before entering your licenses, you must have installed the Perceptive Content Server and at least one Perceptive Content Client. You must have Service Administrator privileges to install Perceptive Content licenses. The Perceptive Content Client must be available on a Windows machine in order to install the Perceptive Content product licenses.

1. When you receive the license files from your Perceptive Software representative, copy them to a temporary folder where you can access them with an Perceptive Content Client.
2. Upload licenses, as explained in the following substeps.
    1. Click **Start**, point to **All Programs**, and then select **Perceptive Content**.
    2. In the login page, click **License Manager**.
    3. In the **License Management** dialog box, select **Upload Licenses** and click **OK**.
    4. Navigate to the folder where you stored the Perceptive Content license files, select the LIC files to upload, and click **Open**.

5. Enter the **User Name**, **Password**, and **Server Location** and click **OK**.
6. Optional. The **License Upload** dialog box lets you view the type name, actual license code, and status of each license upload. To display detailed information for a specific license, select the appropriate row.

3. Click **OK**.

Configure Recognition Agent

This section details the configuration process for Recognition Agent. After you install Recognition Agent, you must configure the inserverRec.ini file. You must also configure a setting in the inow.ini file if you install Recognition Agent to run remotely.

To configure Recognition Agent, complete the following steps.

Refer to inserverRec.ini settings for more information about your configuration options.

4. Navigate to the **\inserver\etc** directory and then open the **inserverRec.ini** file in a text editor.
5. Locate the INI setting you want to customize and then make the appropriate changes.
6. After you complete your updates, save the inserverRec.ini file, and then restart inserverRec.exe to make the changes effective.

Configure the Recognition Agent service

To configure the Recognition Agent service in the inserverRec.ini file, perform the following steps.

1. On the Perceptive Content Server computer, navigate to the **[*drive:*] \inserver\etc\inserverRec.ini** file and open it with a text editor.
2. Under **[General]**, configure the following settings.
    1. Verify that **ocr.dir** is set to **C:\inserver\ocr** unless you want to specify a different holding directory for the documents submitted to Recognition Agent.
    2. If you want Recognition Agent to recognize social security numbers using the pattern xxx-xx-xxxx, perform the following substeps.
        1. Set **ocr.pattern.matching** to **TRUE**.
        2. Change **ocr.pattern** to **SSN**.
    3. For **ocr.remove.markchars**, specify a character that you do not want Recognition Agent to include in document property values. The default is **~**.

        Note The characters you list for **ocr.remove.markchars** and **ocr.suspicious.chars** must match. For **ocr.suspicious.chars**, specify a character that you want Recognition Agent to use in place of characters read by OCR without a high level of confidence. The default is **~**.

        Note The characters you list for **ocr.remove.markchars** and **ocr.suspicious.chars** must match.
    4. Modify **ocr.languages** to the language or languages you want Recognition Agent to identify by using the following language identifiers and separating them with commas and no spaces.
        - LANG_ENG = English
        - LANG_FRE = French

- LANG_SPA = Spanish
- LANG_ITA = Italian
- LANG_GER = German
- LANG_NOR = Norwegian
- LANG_POR = Portuguese
- LANG_DAN = Danish
- LANG_DUT = Dutch
- LANG_FIN = Finnish
- LANG_SWE = Swedish
- LANG_BRA = Brazilian Portuguese

5. For settings **timeouts.to.restart.threshold**, **resubmit.on.fail.num**, **resubmit.on.timeout.num**, **seconds.until.job.resume**, **ignore.confidence.on.barcodes**, and **remove.old.service**, keep the default settings or adjust the settings as needed.

3. If you purchased Forms Identification Module, configure the following settings under **[Auto Form ID]**.
    1. If you do not want Recognition Agent to straighten slanted documents, change **form.enable.deskew** to **FALSE**.
    2. If you want to increase or decrease the number of seconds Recognition Agent dedicates to reading a form, for **form.identification.quality**, enter a new integer up to 100.

       Note The higher the number of seconds, the longer Recognition Agent dedicates to reading a barcode, which results in higher quality. The default is 60 seconds.
    3. For **form.debug.level**, specify the level of debugging between 0 (no debugging) and 2 (the most verbose debugging). Unless you are debugging an issue, set the debugging level to 0.
    4. Verify that **form.debug.path** is set to **[*drive*:]\inserver\log** unless you want to specify different holding directories for the debugging logs.
4. If an iScript is used during the zone recognition of a batch of documents, under **[Script]**, change **ocr.script.enabled** to **TRUE**.
5. Whether you installed Recognition Agent on a different computer than Perceptive Content Server or locally, in the **[Remote]** section, change the following settings.
    1. Set **remoted** to **TRUE.**
    2. For **server.ip.address**, specify the IP address of the Perceptive Content Server.
    3. For **server.ip.port**, specify the port number of the Perceptive Content Server.

       Note Do not change values for settings **heartbeat.interval**, **socket.login.timeout**, **socket.default.timeout**, **force.server.validation**, or **reconnect.interval** without consulting Product Support.
6. If you purchased the Barcode Module, configure the following settings to have Recognition Agent recognize barcodes to index documents.
    1. To have Recognition Agent use zonal OCR to read a barcode, under **[BarCodeTypes]**, specify the barcodes that you want Recognition Agent to detect by entering **TRUE** to recognize a barcode or **FALSE** to ignore a barcode. After Recognition Agent is installed, you must define an

OCR zone for each barcode in Perceptive Content Client. For steps to define an OCR zone in Perceptive Content Client, refer to Administrator Help.

Note If you type **TRUE** for the **code39.full.ascii** setting, Recognition Agent assumes all Code 39 barcodes are Full ASCII.

2. To have Recognition Agent recognize a barcode without zonal OCR, under **[Advanced Barcode Module]**, configure the following settings.
    1. Set **enable.advanced.barcode** to **TRUE**. Enabling this option lets you submit documents to Recognition Agent with or without barcodes and sort the pages by either the individual barcode value or barcode failed in combination with a unique_ID.
    2. If you want Recognition Agent to read barcodes on an image from left to right and top to bottom, set **advanced.barcode.coordinate.sorting** to **TRUE**.
    3. For settings **<*barcode_type*>.enable.rec**, specify the barcodes you want Recognition Agent to detect by entering **TRUE** to recognize a barcode or **FALSE** to ignore a barcode.

        Note If you type **TRUE** for **the code39.full.ascii.enable.rec** setting, Recognition Agent assumes all Code 39 barcodes are Full ASCII.
    4. If you use codabar barcodes, and you want Recognition Agent to validate a barcode using the checksum, set **codabar.enable.checksum** to one of the following values.
        - 1 = Enable checksum validation.
        - 2 = Enable checksum validation and remove the checksum from the results.

        Note The checksum is the number located on the far right side of a barcode. The purpose of a checksum is to verify that the information on the barcode is entered correctly.
    5. If you use Code 11 barcodes, and you want Recognition Agent to use the checksum digit to validate a Code 11 barcode, set **code11.enable.checksum** to one of the following values.
        - 0 = Enable checksum validation for two digits.
        - 1 = Enable checksum validation for one digit.
        - 2 = Enable checksum validation for two digits and remove the checksum from the results.
        - 3 = Enable checksum validation for one digit and remove the checksum from the results.
    6. If you use Code 39 barcodes, and you want Recognition Agent to use the checksum digit to validate a Code 39 barcode, change **code39.enable.checksum** to one of the following values.
        - 1 = Enable checksum validation.
        - 2 = Enable checksum validation and remove the checksum from the results.
    7. If you use Interleaved 2 of 5 barcodes, and you want Recognition Agent to use the checksum digit to validate an Interleaved 2 of 5 barcode, change **i2of5.enable.checksum** to one of the following values.
        - 1 = Enable checksum validation.
        - 2 = Enable checksum validation and remove the checksum from the results.
    8. If you use Matrix 2 of 5 barcodes, and you want Recognition Agent to use the checksum digit to validate a Matrix 2 of 5 barcode, set **m2of5.enable.checksum** to one of the following values.

- 1 = Enable checksum validation.
- 2 = Enable checksum validation and remove the checksum from the results.

9. If you use MSI Plessey barcodes, and you want Recognition Agent to use the checksum digit to validate a MSI Plessey barcode, set **msiplessey.enable.checksum** to one of the following values.
   - 1 = Enable Mod 10 checksum.
   - 2 = Enable Mod 11 checksum.
   - 3 = Enable two Mod 10 checksums.
   - 5 = Enable Mod 10 checksum and remove the checksum from the results.
   - 6 = Enable Mod 10 and Mod 11 checksums and remove the checksums from the results.
   - 7 = Enable two Mod 10 checksums and remove the checksums from the results.

7. Save and close the file, and then restart the Recognition Agent service using **Windows Computer Management** by completing the following steps.
   1. On the Windows Desktop, right-click the **My Computer** shortcut and select **Manage** from the menu.
   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 **Recognition Agent Foundation EP1**.
   5. Click **Start** in the upper left-hand corner of the right pane.

Set Recognition Agent to run remotely

If you install Recognition Agent remotely, you must change **ocr.integration** in the **inow.ini** file by completing the following steps.

1. On the Perceptive Content Server computer, navigate to the **[*drive:*]\inserver\etc** directory and open the **inow.ini** file in a text editor.
2. Under **[OCR]**, set **ocr.integration** to **TRUE**.
3. Save and close the file, and then restart the Perceptive Content Server using **Windows Computer Management** by completing the following substeps.
   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 **Perceptive Content Server Foundation EP1**.
   5. In the upper left-hand corner of the right pane, click **Restart**.

Note To install Recognition Agent remotely, you must also configure the **[Remote]** settings in the **inserverRec.ini** file as outlined in the previous “Configure the Recognition Agent service” section.

Troubleshoot Recognition Agent

Perceptive Content Server provides logging specifically for auditing or troubleshooting. Specific log files for Recognition Agent reside in the **[*drive*:]\inserver\log** folder. Log files are named as **inserverRec_<*date*>.log** so you can easily identify the file you need.

The **[Logging]** group in the **inserverRec.ini** file contains the settings you need to adjust to control logging verbosity levels and to turn logging on or off. The default is **0** (no logging). You can change the setting to **1** through **6** (logging with the most information). Unless you are debugging an issue, set logging to **0**. For additional information about settings for logging, refer to Appendix B.

Appendix A: Install another instance of Recognition Agent

You can install and run any number of instances of Recognition Agent, although each additional instance requires an additional license.

We recommend that before you install an additional instance of Recognition Agent in production, implement it in a test environment to ensure that other solutions such as server-based printing are not affected.

Due to the CPU-intensive work required for OCR, each Recognition Agent has the potential to take up one core of the host machine's processing under heavy usage. Therefore, the upper limit of Recognition Agents should be based on how many cores (or CPUs) are on the server and whether the server is performing any functions other than running the Recognition Agent.

To add another instance of Recognition Agent, complete the following steps.

1. Stop all running instances of Recognition Agent.
2. To copy the EXE file, complete the following substeps.
    1. Navigate to the **[*drive*]:\inserver6\bin** directory.
    2. Create a copy of the **inserverRec.exe** file in the same directory as the original file.
    3. Rename the new file **inserverRec<*instancenumber*>.exe**, replacing **<*instance number*>** with the sequential number of the Recognition Agent instance you want to add. For example, rename the new file **inserverRec2.exe**.
3. To copy the INI file, complete the following substeps.
    1. Navigate to the **[*drive*]:\inserver6\etc** directory.
    2. Create a copy of the **inserverRec.ini** file in the same directory as the original file.
    3. Rename the new file **inserverRec<*instancenumber*>.ini**, replacing **<*instancenumber*>** with the sequential number of the Recognition Agent instance you want to add. For example, rename the new file **inserverRec2.ini**.
    4. Configure the new inserverRec<instancenumber>.ini file.
4. To install the new instance of Recognition Agent, at the **Command Prompt** window, complete the following substeps.
    1. Navigate to the **\inserver6\bin** directory.
    2. Run the following command, where `<instance number>` represents the number of the Recognition Agent instance you want to add: `inserverRec<instancenumber> -i`
5. Start each additional Recognition Agent to verify functionality.
6. Exclude each additional Recognition Agent from Windows Data Execution Prevention (DEP). Refer to **Error! Reference source not found.**.

Appendix B: Server configuration files

The following tables provide definitions and sample data for the settings in the **inserverRec.ini** and **inow.ini** configuration files. This table displays the INI settings under group headings in brackets, for example, **[General]**, 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 these tables as a guide when customizing them.

inow.ini

If you install Recognition Agent remotely, in the **inow.ini** file, under **[OCR]**, set **ocr.integration** to **TRUE**.

Group	Setting	Options	Description
OCR	ocr.integration	TRUE FALSE	Specifies whether to run Recognition Agent remotely. TRUE = Enable Recognition Agent to run remotely. FALSE = Do not enable Recognition Agent to run remotely. The default is FALSE.

inserverRec.ini

Group	Setting	Options	Description
General	ocr.dir	$<imagenowdir>/ocr	Specifies where the Recognition Agent is installed.
	load.license.file	0 1	Specifies whether Perceptive Content loads the license for the Recognition Agent OCR, OMR, ICR, and barcodes functionality. 0 = False 1 = True The default is 1.
	ocr.pattern.matching	TRUE FALSE	Specifies whether Recognition Agent uses pattern matching on OCR, OMR, or ICR results, such as the pattern xxx-xx-xxxx for recognizing social security numbers. TRUE = Enable pattern matching. FALSE = Do not enable pattern matching. The default is FALSE. If true, ocr.pattern is required.

Group	Setting	Options	Description
	ocr.pattern	SSN	Specifies the pattern Recognition Agent uses to find matching on OCR, OMR, or ICR results. The default is SSN. **Note** This setting is required if ocr.pattern.matching is set to TRUE.
	ocr.remove.markchars	Any character	Specifies a character you do not want Recognition Agent to include in document property values. The default is ~. Note The character listed for ocr.remove.markchars and ocr.suspicious.chars must match.
	ocr.suspicious.chars	Any character	Specifies the character Recognition Agent uses in place of a character read by OCR that does not have a high level of confidence. The default is ~. Note The character listed for ocr.remove.markchars and ocr.suspicious.chars must match.
	ocr.languages	LANG_ENG LANG_FRE LANG_SPA LANG_ITA LANG_GER LANG_NOR LANG_POR LANG_DAN LANG_DUT LANG_FIN LANG_SWE LANG_BRA	Specifies one or more language identifiers separated by commas. LANG_ENG = English LANG_FRE = French LANG_SPA = Spanish LANG_ITA = Italian LANG_GER = German LANG_NOR = Norwegian LANG_POR = Portuguese LANG_DAN = Danish LANG_DUT = Dutch LANG_FIN = Finnish LANG_SWE = Swedish LANG_BRA = Brazilian Portuguese The default is LANG_ENG.
	timeouts.to.restart.threshold	Any positive integer	Specifies the number of timeouts Recognition Agent allows to occur before restarting. The default is 0, which specifies that Recognition Agent not reset after timeouts.

Group	Setting	Options	Description
	resubmit.on.fail.num	Any positive integer	Specifies the number of times Recognition Agent attempts to re-recognize a failed recognition. The default is 0.
	resubmit.on.timeout.num	Any positive integer	Specifies the number of times Recognition Agent attempts to re-scan a document if it timed out while performing the initial recognition of the document. The default is 0.
	seconds.until.job.resume	Any positive integer	Specifies the number of seconds Recognition Agent waits before resuming a suspended recognition job. The default is 300.
	ignore.confidence.on.barcodes	TRUE FALSE	Specifies whether Recognition Agent considers confidence of character accuracy in results of barcodes read with zonal OCR. TRUE = Accept low confidence values. FALSE = Only accept high confidence values. The default is FALSE.
	remove.old.service	1 0	Specifies whether Recognition Agent removes old services from the Services list. When you enable this setting and the path and name for services match, Recognition Agent removes any existing service registrations. 1 = Remove old services. 0 = Do not remove old services. The default is 0.
Auto Form ID	form.enable.deskew	TRUE FALSE	Determines whether Forms Identification Module straightens an image that is slanted. TRUE = Straighten slanted images. FALSE = Do not straighten slanted images. The default is FALSE.
	form.identification.quality	Any integer from 0 to 100	Specifies the number of seconds Forms Identification Module dedicates to reading a form. The higher the number, the longer Recognition Agent dedicates, which results in higher quality. The default is 60.

Group	Setting	Options	Description
	form.debug.level	0 1 2	Specifies the level Forms Identification Module uses to debug errors that occur while identifying forms. 0 = Do not debug. 1 = The least verbose debugging. 2 = The most verbose debugging. The default is 0.
	form.debug.path	$<imagenowdir>/log	Specifies where Forms Identification Module stores log files related to forms.
Script	ocr.script.enabled	TRUE FALSE	Specifies whether Recognition Agent runs an iScript at the time of zone recognition in a batch. TRUE = Run an iScript. FALSE = Do not run an iScript. The default is FALSE.
Remote	remoted	TRUE FALSE	Specifies whether you installed Recognition Agent on a different computer as the Perceptive Content server. TRUE = Recognition Agent and Perceptive Content Server are installed on different computers. FALSE = Recognition Agent and Perceptive Content Server are installed on the same computer. The default is FALSE. **Note** In 64-bit environments, this setting must be set to TRUE.
	server.ip.address	Any valid IP address or a semicolon-delimited string of valid IP addresses.	Specifies the IP address of Perceptive Content Server. You can supply multiple IP addresses with a semicolon-delimited string. For example: 123.12.123.10;234.23.234.2;345.34.345.3. When you use a delimited list of IP addresses, Recognition Agent attempts to connect to the IP addresses in the order listed until it establishes a successful connection.
	server.ip.port	Any existing port number	Specifies the port number of Perceptive Content Server. The default is 6000.

Group	Setting	Options	Description
	heartbeat.interval	Any positive integer	Specifies how often, in seconds, Recognition Agent verifies its connection to Perceptive Content Server. The default is 60. **Note** Do not change this value without first consulting Product Support.
	socket.login. timeout	Any positive integer	Specifies how many seconds Recognition Agent waits for successful login before terminating the connection. The default is 60. **Note** Do not change this value without first consulting Product Support.
	socket.default. timeout	Any positive integer	Specifies how many seconds Recognition Agent waits for APIs. The default is 60. **Note** Do not change this value without first consulting Product Support.
	force.server.validation	0 1	Specifies whether Recognition Agent forces the server to validate the user ID and password. 1 = Recognition Agent forces the server to validate user ID and password. 0 = Recognition Agent does not force the server to validate user ID and password. The default is 0. **Note** Do not change this value without first consulting Product Support.
	reconnect.interval	Any positive integer	Specifies how many seconds Recognition Agent continues to try to reconnect to Perceptive Content Server after a lost connection. The default is 60. **Note** Do not change this value without first consulting Product Support.
Logging	debug.level.file	0, 1-3, 6	Specifies the level Recognition Agent uses to log errors for troubleshooting. 0 = Do not log errors. 1 = The least verbose logging. 6 = The most verbose logging. The default is 0.

Group	Setting	Options	Description
	recognizer.level	0, 1-3, 6	Specifies the level Recognition Agent uses to log errors for troubleshooting. 0 = Do not log errors. 1 = The least verbose logging. 6 = The most verbose logging. The default is 0.
	recognizer.path	[*drive*]\inserver\log	Specifies where Recognition Agent stores log files. The default is [*drive*]\inserver\log.
BarCode Types	ean.8and13	TRUE FALSE	Specifies whether Barcode Module honors this barcode type for zonal OCR. TRUE = Recognize the barcode type. FALSE = Ignore the barcode type. **Note** If you enable the code39.full.ascii setting, Recognition Agent assumes all Code 39 barcodes are Full ASCII.
	ean.8and13.supplement		
	upc.a		
	upc.e		
	interleaved.2of5		
	interleaved.2of5.checksum		
	code39		
	code39.start.stop.character		
	code39.checksum		
	code39.full.ascii		
	code128		
	codabar		
	postnet		
	iata.2of5		
	ucc128		
	industrial.2of5		
	code93		

Group	Setting	Options	Description
	patch		
	pdf417		
	qr.code		
	data.matrix		
	aztec		
	matrix.2of 5		
	automatically.detect.barcode		
Advanced Barcode Module	enable.advanced.barcode	TRUE FALSE	Specifies whether Barcode Module is active for Recognition Agent. TRUE = Enable barcode recognition. FALSE = Do not enable barcode recognition. The default is FALSE.
	advanced.barcode.coordinate.sorting	TRUE FALSE	Specifies whether Barcode Module sorts barcodes by the position of their top-left coordinate. When enabled, Recognition Agent looks to the top-left corner of an image and reads barcodes from left to right and top to bottom. TRUE = Sort barcodes by their top-left coordinate. FALSE = Do not sort barcodes by their top-left coordinate. The default is FALSE.
	<*barcode_type*>.enable.rec	TRUE FALSE	Specifies whether Barcode Module honors the specified barcode. TRUE = Honor the specified barcode. FALSE = Do not honor the specified barcode. The default is FALSE. **Note** If you enable the code39.full.ascii.enable.rec setting, Recognition Agent assumes all Code 39 barcodes are Full ASCII.

Group	Setting	Options	Description
	<*barcode_type*>. improve.bounds	TRUE FALSE	Specifies whether Barcode Module uses additional processing power to improve its ability to recognize difficult to read symbols for the specified barcode. TRUE = Enable improved recognition ability. FALSE = Do not enable improved recognition ability. The default is FALSE. Notes Enabling this setting may increase the amount of time necessary to perform the recognition. This setting applies to the following barcode types: codabar code11 code128 code39 hk2of5 i2of5 m2of5 micropdf417 msiplessey nec2of5 std2of5 ind2of5 telepen upc.ean.jan
	codabar.enable. checksum	0 1 2	Specifies whether Barcode Module uses the checksum digits to validate codabar barcodes. 0 = Do not enable checksum validation. 1 = Enable checksum validation. 2 = Enable checksum validation and remove the checksum from the results. The default is 0.

Group	Setting	Options	Description
	code11.enable.checksum	0 1 2 3	Specifies whether Barcode Module uses the checksum digits to validate code11 barcodes. 0 = Enable checksum validation for two digits. 1 = Enable checksum validation for one digit. 2 = Enable checksum validation for two digits and remove the checksum from the results. 3 = Enable checksum validation for one digit and remove the checksum from the results. The default is 0.
	code39.enable.checksum	0 1 2	Specifies whether Barcode Module uses the checksum digits to validate code39 barcodes. 0 = Do not enable checksum validation. 1 = Enable checksum validation. 2 = Enable checksum validation and remove the checksum from the results. The default is 0.
	i2of5.enable.checksum	0 1 2	Specifies whether Barcode Module uses the checksum digits to validate interleaved 2 of 5 barcodes. 0 = Do not enable checksum validation. 1 = Enable checksum validation. 2 = Enable checksum validation and remove the checksum from the results. The default is 0.
	m2of5.enable.checksum	0 1 2	Specifies whether Barcode Module uses the checksum digits to validate matrix 2 of 5 barcodes. 0 = Do not enable checksum validation. 1 = Enable checksum validation. 2 = Enable checksum validation and remove the checksum from the results. The default is 0.

Group	Setting	Options	Description
	msiplessey.enable.checksum	0 1 2 3 5 6 7	Specifies whether Barcode Module uses the checksum digits to validate MSI Plessey barcodes. 0 = Do not enable checksum validation. 1 = Enable Mod 10 checksum. 2 = Enable Mod 11 checksum. 3 = Enable two Mod 10 checksums. 5 = Enable Mod 10 checksum and remove the checksum from the results. 6 = Enable Mod 10 and Mod 11 checksums and remove the checksums from the results. 7 = Enable two Mod 10 checksums and remove the checksums from the results.