

Perceptive Content

Release Notes

Versions: 7.3, EP1, EP2, EP3, EP4, 22.1, 22.2, 23.1, and 24.1

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Table of Contents

Documentation Notice	2
Overview	7
Release Notes for Perceptive Content Foundation 24.1 (7.11)	7
Perceptive Content Foundation 24.1 Release (March 8, 2024)	7
Release Notes for Perceptive Content Foundation 23.1 (7.10)	10
Perceptive Content Foundation 23.1 (7.10.0.224) Release (February 10, 2024)	10
Perceptive Content Foundation 23.1 (7.10.0.209) Release (December 10, 2023)	11
Perceptive Content Foundation 23.1 (7.10.0.200) Release (November 10, 2023)	12
Perceptive Content Foundation 23.1 (7.10.0.187) Release (October 10, 2023)	12
Perceptive Content Foundation 23.1 (7.10.0.176) Release (September 10, 2023)	13
Perceptive Content Foundation 23.1 (7.10.0.163) Release (August 10, 2023)	14
Perceptive Content Foundation 23.1 (7.10.0.145) Release (July 10, 2023)	15
Perceptive Content Foundation 23.1 Release (June, 2023)	15
Release Notes for Perceptive Content Foundation 22.2 (7.9)	19
Perceptive Content Foundation 22.2 (7.9.0.362) Release (February 10, 2024)	19
Perceptive Content Foundation 22.2 (7.9.0.347) Release (December 10, 2023)	20
Perceptive Content Foundation 22.2 (7.9.0.338) Release (November 10, 2023)	20
Perceptive Content Foundation 22.2 (7.9.0.327) Release (October 10, 2023)	21
Perceptive Content Foundation 22.2 (7.9.0.321) Release (September 10, 2023)	22
Perceptive Content Foundation 22.2 (7.9.0.309) Release (August 10, 2023)	23
Perceptive Content Foundation 22.2 (7.9.0.296) Release (July 10, 2023)	23
Perceptive Content Foundation 22.2 (7.9.0.281) Release (May 10, 2023)	24
Perceptive Content Foundation 22.2 (7.9.0.272) Release (April 10, 2023)	25
Perceptive Content Foundation 22.2 (7.9.0.248) Release (March 10, 2023)	26
Perceptive Content Foundation 22.2 (7.9.0.233) Release (February 10, 2023)	27
Perceptive Content Foundation 22.2 (7.9.0.219) Release (December 16, 2022)	28
Perceptive Content Foundation 22.2 Release (November 2022)	30
Perceptive Content Foundation 22.1 (7.8)	36
Perceptive Content Foundation 22.1 (7.8.0.253) Release (October 10, 2022)	36
Perceptive Content Foundation 22.1 (7.8.0.246) Release (September 10, 2022)	36
Perceptive Content Foundation 22.1 (7.8.0.236) Release (August 10, 2022)	38
Perceptive Content Foundation 22.1 (7.8.0.231) Release (July 10, 2022)	38
Perceptive Content Foundation 22.1 (7.8.0.222) Release (June 10, 2022)	38

Perceptive Content Foundation 22.1 (7.8.0.204) Release (May 10, 2022)	39
Perceptive Content Foundation 22.1 (7.8.0.191) Release (April 10, 2022)	40
Perceptive Content Foundation 22.1 (7.8.0.171) Release (March 10, 2022)	41
Perceptive Content Foundation 22.1 Release (February 11, 2022)	42
Release Notes for Perceptive Content Foundation EP4 (7.7)	46
Perceptive Content Foundation EP4 (7.7.0.390) Release (February 10, 2024)	46
Perceptive Content Foundation EP4 (7.7.0. 378) Release (December 10, 2023)	47
Perceptive Content Foundation EP4 (7.7.0.358) Release (September 10, 2023)	48
Perceptive Content Foundation EP4 (7.7.0.351) Release (August 10, 2023)	48
Perceptive Content Foundation EP4 (7.7.0.346) Release (July 10, 2023)	48
Perceptive Content Foundation EP4 (7.7.0.336) Release (May 10, 2023)	49
Perceptive Content Foundation EP4 (7.7.0.325) Release (April 10, 2023)	50
Perceptive Content Foundation EP4 (7.7.0.316) Release (March 10, 2023)	50
Perceptive Content Foundation EP4 (7.7.0.304) Release (February 10, 2023)	51
Perceptive Content Foundation EP4 (7.7.0.293) Release (December 16, 2022)	51
Perceptive Content Foundation EP4 (7.7.0.268) Release (November 10, 2022)	52
Perceptive Content Foundation EP4 (7.7.0.268) Release (October 10, 2022)	53
Perceptive Content Foundation EP4 (7.7.0.261) Release (September 10, 2022)	53
Perceptive Content Foundation EP4 (7.7.0.253) Release (August 10, 2022)	54
Perceptive Content Foundation EP4 (7.7.0.248) Release (July 10, 2022)	55
Perceptive Content Foundation EP4 (7.7.0.239) Release (June 10, 2022)	55
Perceptive Content Foundation EP4 (7.7.0.217) Release (May 10, 2022)	56
Perceptive Content Foundation EP4 (7.7.0.209) Release (April 10, 2022)	57
Perceptive Content Foundation EP4 (7.7.0.195) Release (March 10, 2022)	58
Perceptive Content Foundation EP4 (7.7.0.180) Release (February 10, 2022)	59
Perceptive Content Foundation EP4 (7.7.0.174) Release (January 10, 2022)	59
Perceptive Content Foundation EP4 (7.7.0.168) Release (December 10, 2021)	60
Perceptive Content Foundation EP4 (7.7.0.150) Release (November 10, 2021)	60
Perceptive Content Foundation EP4 (7.7.0.139) Release (October 10, 2021)	61
Perceptive Content Foundation EP4 (7.7.0.128) Release (September 10, 2021)	62
Perceptive Content Foundation EP4 (7.7.0.111) Release (August 10, 2021)	64
Perceptive Content Foundation EP4 Release (June 2021)	65
Perceptive Content Foundation EP3 (7.6)	68
Perceptive Content Foundation EP3 (7.6.0.154) Release (June 10, 2021)	68
Perceptive Content Foundation EP3 (7.6.0.142) Release (May 10, 2021)	69

Perceptive Content Foundation EP3 (7.6.0.132) Release (March 10, 2021).....	69
Perceptive Content Foundation EP3 (7.6.0.126) Release (February 10, 2021)	70
Perceptive Content Foundation EP3 Release (December, 2020).....	70
Perceptive Content Foundation EP2 (7.5)	74
Perceptive Content Foundation EP2 (7.5.0.441) Release (July 10, 2023).....	74
Perceptive Content Foundation EP2 (7.5.0.397) Release (September 10, 2022).....	74
Perceptive Content Foundation EP2 (7.5.0.383) Release (June 10, 2022).....	75
Perceptive Content Foundation EP2 (7.5.0.374) Release (May 10, 2022)	75
Perceptive Content Foundation EP2 (7.5.0.369) Release (April 10, 2022).....	76
Perceptive Content Foundation EP2 (7.5.0.363) Release (March 10, 2022).....	76
Perceptive Content Foundation EP2 (7.5.0.352) Release (January 10, 2022).....	76
Perceptive Content Foundation EP2 (7.5.0.347) Release (December 10, 2021)	77
Perceptive Content Foundation EP2 (7.5.0.330) Release (November 10, 2021).....	77
Perceptive Content Foundation EP2 (7.5.0.323) Release (October 10, 2021).....	78
Perceptive Content Foundation EP2 (7.5.0.317) Release (September 10, 2021).....	78
Perceptive Content Foundation EP2 (7.5.0.300) Release (August 10, 2021).....	79
Perceptive Content Foundation EP2 (7.5.0.289) Release (July 10, 2021).....	80
Perceptive Content Foundation EP2 (7.5.0.284) Release (June 10, 2021).....	81
Perceptive Content Foundation EP2 (7.5.0.276) Release (May 10, 2021)	81
Perceptive Content Foundation EP2 (7.5.0.266) Release (March 10, 2021).....	82
Perceptive Content Foundation EP2 (7.5.0.261) Release (February 10, 2021)	82
Perceptive Content Foundation EP2 (7.5.0.245) Release (December 10, 2020)	83
Perceptive Content Foundation EP2 (7.5.0.232) Release (November 10, 2020).....	83
Perceptive Content Foundation EP2 (7.5.0.219) Release (October 10, 2020).....	84
Perceptive Content Foundation EP2 (7.5.0.210) Release (September 10, 2020).....	85
Perceptive Content Foundation EP2 (7.5.0.184) Release (August 10, 2020).....	86
Perceptive Content Foundation EP2 Release (June, 2020)	88
Perceptive Content Foundation EP2 (7.4.0.xxx) Release (September 10, 2020).....	90
Perceptive Content Foundation EP1 (7.4)	90
Perceptive Content Foundation EP1 (7.4.0.267) Release (June 10, 2020).....	90
Perceptive Content Foundation EP1 (7.4.0.261) Release (May 10, 2020)	91
Perceptive Content Foundation EP1 (7.4.0.247) Release (April 10, 2020).....	91
Perceptive Content Foundation EP1 (7.4.0.237) Release (March 10, 2020).....	92
Perceptive Content Foundation EP1 (7.4.0.228) Release (February 10, 2020)	92
Perceptive Content Foundation EP1 (7.4.0.208) Release (December, 2019).....	93

Perceptive Content 7.3	95
Perceptive Content 7.3.0.584 Release (July 10, 2023)	95
Perceptive Content 7.3.0.xxx Release (March 10, 2022)	95
Perceptive Content 7.3.0.567 Release (December 10, 2021)	96
Perceptive Content 7.3.0.558 Release (February 10, 2021)	96
Perceptive Content 7.3.0.549 Release (December 10, 2020)	96
Perceptive Content 7.3.0.544 Release (November 10, 2020)	96
Perceptive Content 7.3.0.537 Release (October 10, 2020)	97
Perceptive Content 7.3.0.532 Release (September 10, 2020)	97
Perceptive Content 7.3.0.521 Release (August 10, 2020)	98
Perceptive Content 7.3.0.509 Release (July 10, 2020)	98
Perceptive Content 7.3.0.500 Release (June 10, 2020)	99
Perceptive Content 7.3.0.494 Release (May 10, 2020)	99
Perceptive Content 7.3.0.479 Release (April 10, 2020)	100
Perceptive Content 7.3.0.471 Release (March 10, 2020)	100
Perceptive Content 7.3.0.460 Release (February 10, 2020)	101
Perceptive Content 7.3.0.444 Release (December 10, 2019)	102
Perceptive Content 7.3.0.424 Release (November 10, 2019)	103
Perceptive Content 7.3.0.408 and 7.3.0.411 Release (October 10, 2019)	103
Perceptive Content 7.3.0.401 Release (September 10, 2019)	104
Perceptive Content 7.3.0.386 Release (August 10, 2019)	105
Perceptive Content 7.3.0.375 Release (June 19, 2019)	105

Overview

This document contains a consolidation of all release notes from Perceptive Content 7.7 and newer.

Release Notes for Perceptive Content Foundation 24.1 (7.11)

Perceptive Content Foundation 24.1 Release (March 8, 2024)

The following enhancements and updates are included in the initial release of Perceptive Content Foundation 24.1.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Business Insight
- Perceptive Content Client
- Perceptive Content Integration Server
- Perceptive Content Server

All Released Products

- Updated Perceptive Content executable target runtimes on Windows. (PER-527)
- Updated Windows installers to install C++ Redistributable for Visual Studio 2015-2022. (PER-527)
- Updated Perceptive Content to consume OpenSSL 3.0 LTS. (PER-8798)
- Updated the code signing certificate for Windows applications. (PER-9359)

All Perceptive Content Agents

- Removed upper limit on number of worker threads that can be configured for processing Perceptive Content work items. (PER-8919)
- Resolved an issue where intermittent connectivity to RabbitMQ could occur when using TLS connections on Windows. (PER-7000)
- Added new settings to disable publication of informational events to the message queuing broker. If these events are not being consumed, it is recommended that these settings be disabled. For more information, see the [Message Queuing] settings help topic in the Manage Content help. (PER-7000)
- Added support for RabbitMQ Quorum queues. RabbitMQ broker must have the quorum_queue feature enabled. (PER-7000)
- The following cryptographic algorithms are no longer supported. Any user supplied keys that were generated using these algorithms should be updated to use newer algorithms. Affected symmetric ciphers include Blowfish, CAST, DES, IDEA, RC2, RC4, RC5 and SEED. Affected hashing algorithms include MD2, MD4, MDC2, WHIRLPOOL and RIPEMD160. (PER-9233)
- Resolved an issue in remote agent installers that prevented the full token from being added to the configuration. Updated the installer Token Authentication dialog to unmask the authentication token

control to support verifying the token is entered correctly. The following installers were updated: User Replication Agent, Recognition Agent, Output Agent, File Processing Agent, Fax Agent. (PER-8565)

- Added support for Oracle Instant Client 21.12 with ODBC on Windows. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-9362)
- Added support for Oracle Instant Client 21.13 with ODBC on Linux. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-9362)
- Updated supported versions of Microsoft ODBC Driver 17 for SQL Server on Windows and Linux. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-9362)
- Added support for Microsoft ODBC Driver 18 for SQL Server on Windows and Linux. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-9362)
- Perceptive Content now supports RabbitMQ 3.11 and 3.12. Support for RabbitMQ Quorum queues is required. If upgrading from previous versions of RabbitMQ, refer to the Perceptive Content RabbitMQ Update Guide. (PER-9362)
- Resolved an issue in iScript which could result in the incorrect time being returned when using a Date object's localized instance methods on Linux. (PER-9164)

Perceptive Business Insight

- Resolved an issue associated with run.bat where users had to manually set JAVA_HOME after installing the BI Integrator. (PER-8639)
- Resolved an issue associated with BI Authenticator logging additional data. (PER-8735)
- Removed additional information that were displayed in p2pd_message log file. (PER-9444)

Perceptive Content Client

- Resolved an issue with the LearnMode script AppGetTree() function not working correctly with Google Chrome versions 114 and later. (PER-8653)
- Ensured Perceptive Content Client version is validated for OpenID Connect Single Sign-On logins. Resolved an issue where older versions of the Perceptive Content Client could connect to incompatible Perceptive Content Server versions. (PER-8539)
- Updated third-party controls, used to display different file formats in the viewer, to the latest release. (PER-8761)
- Updated Perceptive Content to support making OpenID Connect requests through an authenticated proxy. (PER-9020)
- Updated Perceptive Content with a configurable delay before triggering the OpenID Connect login. For more information, see the sso.openid.connect.login.delay.seconds setting of the imagenow.ini [OpenID Connect Login Controls] settings help topic in the Manage Content help. (PER-9020)
- Added a new setting to allow the Perceptive Content client to close the logon dialog window after a user is logged in to the Perceptive Content client. For more information, see the close.logon.dialog.after.successful.logon setting of the imagenow.ini [Logon Settings] help topic in the Manage Content help. (PER-9130)

- Resolved issues with OpenID Connect logins persistently failing with some OpenID Provider integrations. Added a new setting to control whether this class of error should be ignored. For more information, see the `sso.openid.connect.login.ignore.client.aborted.requests.enabled` setting of the `imagenow.ini` [OpenID Connect Login Controls] settings help topic in the Manage Content help. (PER-9343/PER-8564)
- Resolved an issue where the client would not maintain focus on correct page when a multiple page document was saved. (PER-9145)
- Updated third-party viewing SDK with latest version, fixes potential security vulnerability CVE-2023-4863. (PER-9009 and PER-9143)

Perceptive Content Forms Server

- Updated core third party dependencies used by Integration Server. (PER-8237)
- Updated supported versions of Web Application Servers. For more information on Web Application Server compatibility, see the Perceptive Content Technical Specifications. (PER-8061)
- Updated supported Java runtimes. For more information on Java compatibility, see the Perceptive Content Technical Specifications. (PER-9539)

Perceptive Content Integration Server

- Ensured Perceptive Content Client version is validated for OpenID Connect Single Sign-On logins. Resolved an issue where older versions of the Perceptive Content Client could connect to incompatible Perceptive Content Server versions. (PER-8539)
- When searching the contents of a folder in the Folder Viewer, the system now correctly completes the request to return custom properties in the results column list. (PER-8913)
- Updated core third party dependencies used by Integration Server. (PER-8237)
- X.509 LDAP authentication translator plugin has been deprecated and removed from the default Integration Server distribution. Consider switching to OIDC flows that can leverage an OpenID Provider that supports client certificate authentication. If required, it can be downloaded and installed separately. For more information, see the *Special Considerations* section of the *Perceptive Content Update Guide*. (PER-8237)
- Added GET `/v4/captureProfile`, GET `/v4/captureProfile/{id}`, and GET `/v4/captureSourceProfile/{id}` endpoints to support retrieving browser extension type capture profiles and capture sources. (PER-9123)
- Updated supported versions of Web Application Servers. For more information on Web Application Server compatibility, see the Perceptive Content Technical Specifications (PER-8061)
- Updated Introspection Endpoint error response body when provided bearer token is not authorized or invalid. (PER-9429)
- Added GET `/v2/captureGroup` endpoint to support providing a screen ID to support creating capture groups with browser extension capture profiles with multiple screens. (PER-9395)
- Updated supported Java runtimes. For more information on Java compatibility, see the Perceptive Content Technical Specifications. (PER-9539)

Perceptive Content Server

- Updated migration packages to ensure that custom property list values are not inadvertently renamed or removed if they are being consumed. (PER-8243)
- Resolved a system stability issue which may occur when modifying a custom property list value that is currently being consumed. (PER-8243)
- Ensured Perceptive Content Client version is validated for OpenID Connect Single Sign-On logins. Resolved an issue where older versions of the Perceptive Content Client could connect to incompatible Perceptive Content Server versions. (PER-8539)
- Updated demo mode licensing policies to allow Active-Active configurations. (PER-9102)
- Updated demo mode licensing policies to allow the Integration Server Transaction Pack license. (PER-9102)
- Resolved an issue with blocking when initializing the user information cache in environments with a large number of users. For more information, see the `users.bulk.load.max.entries` and `users.bulk.load.enable` settings of the `inow.ini` [Cross Node Cache] settings help topic in the Manage Content help. (PER-9070)
- Updated demo mode licensing policies to improve support for Active-Active configurations. (PER-9342)
- Resolved issues with OpenID Connect logins failing during token validation with "ID Token audience validation failed" errors when multiple audiences are present in the claim. (PER-9437)
- Added support for using a custom Pluggable Authentication Module (PAM) when using SYSTEM authentication on Linux. For more information, see the `logon.method.system.pam.enable` setting of the `inow.ini` [Logon Control] settings help topic in the Manage Content help. (PER-9540)
- Updated supported Operating Systems. For more information on Operating System compatibility, see the Perceptive Content Technical Specifications. (PER-8621)

Release Notes for Perceptive Content Foundation 23.1 (7.10)

Perceptive Content Foundation 23.1 (7.10.0.224) Release (February 10, 2024)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Server

All Perceptive Content Agents

- Added support for Oracle Instant Client 21.12 with ODBC on Windows. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-9362)
- Added support for Oracle Instant Client 21.13 with ODBC on Linux. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-9362)

- Updated supported versions of Microsoft ODBC Driver 17 for SQL Server on Windows and Linux. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-9362)
- Perceptive Content now supports RabbitMQ 3.11 and 3.12. If upgrading from previous versions of RabbitMQ, refer to the Perceptive Content RabbitMQ Update Guide. (PER-9362)

Perceptive Content Client

- Resolved issues with OpenID Connect logins persistently failing with some OpenID Provider integrations. Added a new setting to control whether this class of error should be ignored. For more information, see the `sso.openid.connect.login.ignore.client.aborted.requests.enabled` setting of the `imagenow.ini` [OpenID Connect Login Controls] settings help topic in the Manage Content help. (PER-9343/PER-8564)
- Resolved an issue where the client would not maintain focus on correct page when a multiple page document was saved. (PER-9145)
- Updated third-party viewing SDK with latest version, fixes potential security vulnerability CVE-2023-4863. (PER-9143)

Perceptive Content Server

- Updated demo mode licensing policies to improve support for Active-Active configurations. (PER-9342)

Perceptive Content Foundation 23.1 (7.10.0.209) Release (December 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides an overview of updates made to existing functionality.

All Perceptive Content Agents

- Resolved an issue where intermittent connectivity to RabbitMQ could occur when using TLS connections on Windows. (PER-9212)
- Added new settings to disable publication of informational events to the message queuing broker. If these events are not being consumed, it is recommended that these settings be disabled. For more information, see the `inow.ini` [Message Queuing] settings help topic in the Manage Content help. (PER-9212)
- The following cryptographic algorithms are deprecated and should no longer be used. Any user supplied keys that were generated using these algorithms should be updated to use newer algorithms to ensure compatibility with future Perceptive Content releases. Affected symmetric ciphers include Blowfish, CAST, DES, IDEA, RC2, RC4, RC5 and SEED. Affected hashing algorithms include MD2, MD4, MDC2, WHIRLPOOL and RIPEMD160. (PER-9233)
- Resolved an issue in remote agent installers that prevented the full token from being added to the configuration. Updated the installer Token Authentication dialog to unmask the authentication token

control to support verifying the token is entered correctly. The following installers were updated: User Replication Agent, Recognition Agent, Output Agent, File Processing Agent, Fax Agent. (PER-8565)

Perceptive Content Foundation 23.1 (7.10.0.200) Release (November 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Server

Perceptive Content Client

- Add a new setting to allow the Perceptive Content client to close the logon dialog window after a user is logged in to the Perceptive Content client. For more information, see the `close.logon.dialog.after.successful.logon` setting of the `imagenow.ini` [Logon Settings] help topic in the Manage Content help. (PER-9130)

Perceptive Content Server

- Updated demo mode licensing policies to allow Active-Active configurations. (PER-9102)
- Updated demo mode licensing policies to allow the Integration Server Transaction Pack license. (PER-9102)
- Resolved an issue with blocking when initializing the user information cache in environments with a large number of users. For more information, see the `users.bulk.load.max.entries` and `users.bulk.load.enable` settings of the `inow.ini` [Cross Node Cache] settings help topic in the Manage Content help. (PER-9070)
- New version of `IN_DB_UTIL` (version 5.0) and updates to `IN_DB_UPGRADE` for Oracle which includes the following enhancements:
 - Added a new stored procedure, `CLEANUP_WF_ARCH_DATA`, to the `IN_DB_UTIL` database package for Oracle, that cleans up old, archived workflow data from the database. (PER-9107)
 - Added a new parameter, `DISPLAY_BATCHES`, for toggling OFF/ON the displaying of batch results in the output of the `CLEANUP_AUDIT_DATA` and `CLEANUP_WF_ARCH_DATA` procedures. (PER-9107)

Perceptive Content Foundation 23.1 (7.10.0.187) Release (October 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Server

Perceptive Content Client

- Updated Perceptive Content to support making OpenID Connect requests through an authenticated proxy. (PER-9020)
- Updated Perceptive Content with a configurable delay before triggering the OpenID Connect login. For more information, see the `sso.openid.connect.login.delay.seconds` setting of the `imagenow.ini` [OpenID Connect Login Controls] settings help topic in the Manage Content help. (PER-9020)

Perceptive Content Server

- New version of `IN_DB_UTIL` (version 5.0) and updates to `IN_DB_UPGRADE` for SQL Server which includes the following enhancements:
 - Updated the Perceptive Content `IN_DB_UTIL` database package for SQL Server to version 5. (PER-8991)
 - Added the `IN_DB_UTIL_LOG` table to record execution and error logging for `IN_DB_UTIL` and `IN_DB_UPGRADE` operations. Also includes a new parameter, `DISPLAY_BATCHES`, for toggling OFF/ON the displaying of batch results in the output of the `N_DB_UTIL_CLEANUP_AUDIT_DATA` and `IN_DB_UTIL_CLEANUP_WF_ARCH_DATA` procedures. (PER-8991)
 - Implemented the `APPLOCK` feature of SQL Server to allow for explicit locking of application resources (stored procedures and identifiers) when they are called during the execution of the `IN_DB_UTIL` package/procedures and by extension the `IN_DB_UPGRADE` package/procedures. (PER-9084)

Perceptive Content Foundation 23.1 (7.10.0.176) Release (September 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Integration Server
- Perceptive Content Server

All Perceptive Content Agents

- Removed upper limit on number of worker threads that can be configured for processing Perceptive Content work items. (PER-8919)

Perceptive Content Client

- Ensured Perceptive Content Client version is validated for OpenID Connect Single Sign-On logins. Resolved an issue where older versions of the Perceptive Content Client could connect to incompatible Perceptive Content Server versions. (PER-8539)

Perceptive Content Integration Server

- Ensured Perceptive Content Client version is validated for OpenID Connect Single Sign-On logins. Resolved an issue where older versions of the Perceptive Content Client could connect to incompatible Perceptive Content Server versions. (PER-8539)

Perceptive Content Server

- Ensured Perceptive Content Client version is validated for OpenID Connect Single Sign-On logins. Resolved an issue where older versions of the Perceptive Content Client could connect to incompatible Perceptive Content Server versions. (PER-8539)
- Updated migration packages to ensure that custom property list values are not inadvertently renamed or removed if they are being consumed. (PER-8243)
- Resolved a system stability issue which may occur when modifying a custom property list value that is currently being consumed. (PER-8243)
- Updated CLEANUP_AUDIT_DATA logging/output and SQL Server version checks in the IN_DB_UTIL package. (PER-8953)
- Updated IN_DB_UPGRADE logging/output and IN_DB_UTIL version checks in the IN_DB_UPGRADE package. (PER-8953)

Perceptive Content Foundation 23.1 (7.10.0.163) Release (August 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Business Insight
- Perceptive Content Client
- Perceptive Content Integration Server
- Perceptive Content Management Console

Perceptive Business Insight

- Resolved an issue associated with run.bat where users had to manually set JAVA_HOME after installing the BI Integrator. (PER-8639)

- Resolved an issue associated with BI Authenticator logging additional data. (PER-8735)

Perceptive Content Client

- Updated Perceptive Content to support KeyView 12.13. This resolved an issue where Import Agent would not display .EML files correctly. (PER-7361)

Perceptive Content Integration Server

- Both the language and locale are now considered when formatting dates in forms. (PER-8689)

Perceptive Content Management Console

- Added localized strings for Custom Property Job Management. (PER-8804)

Perceptive Content Foundation 23.1 (7.10.0.145) Release (July 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client

Perceptive Content Client

- Resolved an issue with the LearnMode script AppGetTree() function not working correctly with Google Chrome versions 114 and later. (PER-8653)

Perceptive Content Foundation 23.1 Release (June, 2023)

The following enhancements and updates are included in the initial release of Perceptive Content Foundation 23.1.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Interact Office
- Perceptive Content Batch Agent
- Perceptive Content Client
- Perceptive Content Fax Agent
- Perceptive Content File Processing Agent
- Perceptive Content File System Agent
- Perceptive Content Forms Server

- Perceptive Content Integration Server
- Perceptive Content Management Console
- Perceptive Content Recognition Agent
- Perceptive Content Server
- Perceptive Content User Replication Agent
- Perceptive Content Workflow Agent

All Released Products

- Updated Perceptive Content to distribute OpenSSL 1.1.1t. (PER-7735)
- On Windows, updated Perceptive Content to inherit supported TLS protocols from system wide WinHTTP DefaultSecureProtocols for calls made to external web services. By default, Windows disables deprecated TLS protocols. For more information refer to Secure Protocols for Microsoft Windows HTTP Services under Special considerations in the Perceptive Content Update Guide. (PER-8112)
- Resolved an issue where installers would not display the correct message when a newer version of the product was already installed. Updated installers for Fax Agent, File Processing Agent, Output Agent, Recognition Agent, User Replication Agent. (PER-4803)

All Perceptive Content Agents

- Added support for Oracle Instant Client with ODBC 21.8 on Windows. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-7666)
- Updated supported versions of Microsoft ODBC Driver 17 for SQL Server on Windows and Linux. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-7666)
- Resolved an issue where iScript String object toUpperCase and toLowerCase methods could truncate double-byte character values. (PER-7256)
- Updated Perceptive Content to support TLS v1.3 for calls made to external web services. (PER-7434)
- Updated performance statistic logging to sanitize arguments. (PER-498)
- Added settings to control the maximum length for arguments that are output in the performance statistic logs. For more information, see the stats.<type>.param.max.length settings of the inow.ini [Statistics] help topic in the Manage Content help. (PER-498)

Interact Office

- Resolved an issue where the installer would not display the correct message when a newer version of the product was already installed. (PER-4803)

Perceptive Content Batch Agent

- Updated Perceptive Content Batch Agent to handle processing custom property updates to a document or folder type. Perceptive Content Batch Agent must be running if asynchronous processing of custom property updates are enabled via the inow.ini custom.properties.job.framework.enable setting. (PER-7095)

Perceptive Content Client

- Updated Perceptive Content to allow login profile synchronization when launching new client applications when another client instance is running. For more information, see the `login.profile.client.sync.enable` setting of the `imagenow.ini` [General] settings help topic in the Manage Content help. (PER-7336)
- Improved support for emailing Perceptive Experience Content Apps links to documents in Thunderbird email client. (PER-7383)
- Resolved an issue with importing certain TIFF files. Additionally, you can now annotate LZW encoded TIFF images in the client. (PER-7459)
- Resolved an issue where capturing using Hyland Virtual Printer would use printer page settings instead of capture source profile page settings, such as landscape, legal, and A4 pages. (PER-7734)
- Resolved an issue where exporting documents with very large page files could cause the client to close unexpectedly. (PER-7722)
- Resolved an issue where the system could not open documents that were exported or emailed as HTML documents. (PER-7334)
- The [Experience URL Default] group is now included in the `inserver.ini` file by default. (PER-7764)
- Resolved an issue where the installer would not display the correct message when a newer version of the product was already installed. (PER-4803)

Perceptive Content Fax Agent

- Updated installer to prompt for ODBC settings when configured to run locally. (PER-8012)

Perceptive Content File System Agent

- Ensured that database recovery is triggered appropriately for work processed by File System agent. (PER-7639)

Perceptive Content File Processing Agent

- Updated Windows installer to prompt for agent token during remote installation. (PER-7980)

Perceptive Content Forms Server

- Resolved an issue where eForm serverAction would fail if the input parameters contained reserved XML characters. (PER-7126)
- Perceptive Content Forms Server now supports Tomcat version 10.1. (PER-279)

Perceptive Content Integration Server

- Resolved an issue where eForm serverAction would fail if the input parameters contained reserved XML characters. (PER-7126)
- Updated Integration Server session management to gracefully cleanup connection resources to Perceptive Content Server when a connection is disconnected. Perceptive Content Server must be running the same or newer version of Integration Server. (PER-7408)

- Ensured that Integration Server API calls are not charged transactions for Perceptive Content bearer tokens associated with a Perceptive Content Apps session. (PER-8074)
- Updated OpenID Connect Login Profiles `sso.openid.profile.<profileName>.max.response.value.size` default value to be 3000 bytes. For more information see the Appendix A: `integrationserver.ini` file options section of the Perceptive Integration Server Installation Guide. (PC-8091)
- Updated Bearer Token Login Profiles `sso.bearer.profile.<profileName>.max.bearer.token.size` default value to be 3000 bytes. For more information see the Appendix A: `integrationserver.ini` file options section of the Perceptive Integration Server Installation Guide. (PC-8091)
- Perceptive Content Integration Server now supports Tomcat version 10.1. (PER-279)
- Resolved an issue where Integration Server conversion, rendition or export calls could result in empty pages when `GRAPHIC_DPI` rendering options were adjusted in File Conversion Service configuration. (PER-8099)
- Added support for cloud licensed remote agents in Integration Server. (PER-8238)

Perceptive Content Management Console

- Added the ability to view and manage custom property jobs under the Custom Properties section in Management Console. (PER-7086)

Perceptive Content Server

- Improved Perceptive Content server security. (PER-7357)
- Updated the setting, `osm.disallowed.file.extensions`, in the [OSM] section in the `inow.ini` configuration file to include a default list of file extensions. You can modify the list accordingly. For more information, see the `inow.ini` [OSM] settings topic of the Manage Content help. (PER-7363)
- Resolved an issue where the `inserverConvert` installer would install or update the deprecated SMTP settings, `smtp.server` and `smtp.server.port`, during the installation process. (PER-6930)
- Updated Perceptive Content Server to gracefully cleanup connection resources when Integration Server disconnects a connection. (PER-7408)
- Resolved an issue where changes to a folder or document could not be made if a modified custom property was missing from the instance. (PER-7090)
- Enabled asynchronous processing of custom property updates to a document or folder type. For more information, see the `custom.property.job.framework.enable` setting of the `inow.ini` [Custom Property Job Framework] help topic in the Manage Content help. (PER-7095)

Perceptive Content Recognition Agent

- Updated installer to prompt for ODBC settings when configured to run locally. (PER-8012)

Perceptive Content User Replication Agent

- Improved error handling in Perceptive Content User Replication Agent to prevent the unintended removal of users from the system when certain intermittent errors occur. (PER-7365)
- Updated installer to prompt for ODBC settings for local configuration. (PER-8013)
- Updated installer to prompt for MQ settings for all configurations. (PER-8013)

Perceptive Content Workflow Agent

- Added Workflow agent settings to facilitate workload balancing customization: `work.queue.type.work.items.minimum`, `work.queue.type.work.items.maximum`, `work.queue.type.work.items.multiple`, `batch.work.items.maximum`, `minimum.work.item.batches`. For more information, see the `inserverWorkflow.ini` help topic in the Manage Content help and Workflow Agent performance tuning topic in the Workflow Designer help. (PER-498)

Release Notes for Perceptive Content Foundation 22.2 (7.9)

Perceptive Content Foundation 22.2 (7.9.0.362) Release (February 10, 2024)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Server

All Perceptive Content Agents

- Added support for Oracle Instant Client 21.12 with ODBC on Windows. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-9362)
- Added support for Oracle Instant Client 21.13 with ODBC on Linux. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-9362)
- Updated supported versions of Microsoft ODBC Driver 17 for SQL Server on Windows and Linux. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-9362)
- Perceptive Content now supports RabbitMQ 3.11 and 3.12. If upgrading from previous versions of RabbitMQ, refer to the Perceptive Content RabbitMQ Update Guide. (PER-9362)

Perceptive Content Client

- Resolved issues with OpenID Connect logins persistently failing with some OpenID Provider integrations. Added a new setting to control whether this class of error should be ignored. For more information, see the `sso.openid.connect.login.ignore.client.aborted.requests.enabled` setting of the `imagenow.ini` [OpenID Connect Login Controls] settings help topic in the Manage Content help. (PER-9343/PER-8564)
- Resolved an issue where the client would not maintain focus on correct page when a multiple page document was saved. (PER-9145)
- Updated third-party viewing SDK with latest version, fixes potential security vulnerability CVE-2023-4863. (PER-9143)

Perceptive Content Server

- Updated demo mode licensing policies to improve support for Active-Active configurations. (PER-9342)

Perceptive Content Foundation 22.2 (7.9.0.347) Release (December 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides an overview of updates made to existing functionality.

All Perceptive Content Agents

- Resolved an issue where intermittent connectivity to RabbitMQ could occur when using TLS connections on Windows. (PER-9212)
- Added new settings to disable publication of informational events to the message queuing broker. If these events are not being consumed, it is recommended that these settings be disabled. For more information, see the inow.ini [Message Queuing] settings help topic in the Manage Content help. (PER-9212)
- The following cryptographic algorithms are deprecated and should no longer be used. Any user supplied keys that were generated using these algorithms should be updated to use newer algorithms to ensure compatibility with future Perceptive Content releases. Affected symmetric ciphers include Blowfish, CAST, DES, IDEA, RC2, RC4, RC5 and SEED. Affected hashing algorithms include MD2, MD4, MDC2, WHIRLPOOL and RIPEMD160. (PER-9233)
- Resolved an issue in remote agent installers that prevented the full token from being added to the configuration. Updated the installer Token Authentication dialog to unmask the authentication token control to support verifying the token is entered correctly. The following installers were updated: User Replication Agent, Recognition Agent, Output Agent, Fax Agent. (PER-8565)

Perceptive Content Foundation 22.2 (7.9.0.338) Release (November 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Server

Perceptive Content Client

- Add a new setting to allow the Perceptive Content client to close the logon dialog window after a user is logged in to the Perceptive Content client. For more information, see the

close.logon.dialog.after.successful.logon setting of the imagenow.ini [Logon Settings] help topic in the Manage Content help. (PER-9130)

Perceptive Content Server

- Updated demo mode licensing policies to allow Active-Active configurations. (PER-9102)
- Updated demo mode licensing policies to allow the Integration Server Transaction Pack license. (PER-9102)
- Resolved an issue with blocking when initializing the user information cache in environments with a large number of users. For more information, see the users.bulk.load.max.entries and users.bulk.load.enable settings of the inow.ini [Cross Node Cache] settings help topic in the Manage Content help. (PER-9070)
- New version of IN_DB_UTIL (version 5.0) and updates to IN_DB_UPGRADE for Oracle which includes the following enhancements:
 - Added a new stored procedure, CLEANUP_WF_ARCH_DATA, to the IN_DB_UTIL database package for Oracle, that cleans up old, archived workflow data from the database. (PER-9107)
 - Added a new parameter, DISPLAY_BATCHES, for toggling OFF/ON the displaying of batch results in the output of the CLEANUP_AUDIT_DATA and CLEANUP_WF_ARCH_DATA procedures. (PER-9107)

Perceptive Content Foundation 22.2 (7.9.0.327) Release (October 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Server

Perceptive Content Client

- Updated Perceptive Content to support making OpenID Connect requests through an authenticated proxy. (PER-9020)
- Updated Perceptive Content with a configurable delay before triggering the OpenID Connect login. For more information, see the sso.openid.connect.login.delay.seconds setting of the imagenow.ini [OpenID Connect Login Controls] settings help topic in the Manage Content help. (PER-9020)

Perceptive Content Server

- New version of IN_DB_UTIL (version 5.0) and updates to IN_DB_UPGRADE for SQL Server which includes the following enhancements:
 - Updated the Perceptive Content IN_DB_UTIL database package for SQL Server to version 5. (PER-8991)

- Added the IN_DB_UTIL_LOG table to record execution and error logging for IN_DB_UTIL and IN_DB_UPGRADE operations. Also includes a new parameter, DISPLAY_BATCHES, for toggling OFF/ON the displaying of batch results in the output of the N_DB_UTIL_CLEANUP_AUDIT_DATA and IN_DB_UTIL_CLEANUP_WF_ARCH_DATA procedures. (PER-8991)
- Implemented the APPLOCK feature of SQL Server to allow for explicit locking of application resources (stored procedures and identifiers) when they are called during the execution of the IN_DB_UTIL package/procedures and by extension the IN_DB_UPGRADE package/procedures. (PER-9084)

Perceptive Content Foundation 22.2 (7.9.0.321) Release (September 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Integration Server
- Perceptive Content Server

All Perceptive Content Agents

- Removed upper limit on number of worker threads that can be configured for processing Perceptive Content work items. (PER-8919)

Perceptive Content Client

- Ensured Perceptive Content Client version is validated for OpenID Connect Single Sign-On logins. Resolved an issue where older versions of the Perceptive Content Client could connect to incompatible Perceptive Content Server versions. (PER-8539)

Perceptive Content Integration Server

- Ensured Perceptive Content Client version is validated for OpenID Connect Single Sign-On logins. Resolved an issue where older versions of the Perceptive Content Client could connect to incompatible Perceptive Content Server versions. (PER-8539)

Perceptive Content Server

- Updated migration packages to ensure that custom property list values are not inadvertently renamed or removed if they are being consumed. (PER-8243)
- Resolved a system stability issue which may occur when modifying a custom property list value that is currently being consumed. (PER-8243)
- Updated CLEANUP_AUDIT_DATA logging/output and SQL Server version checks in the IN_DB_UTIL package. (PER-8953)

- Updated IN_DB_UPGRADE logging/output and IN_DB_UTIL version checks in the IN_DB_UPGRADE package. (PER-8953)

Perceptive Content Foundation 22.2 (7.9.0.309) Release (August 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Business Insight
- Perceptive Content Client
- Perceptive Content Management Console

Perceptive Business Insight

- Resolved an issue associated with run.bat where users had to manually set JAVA_HOME after installing the BI Integrator. (PER-8639)
- Resolved an issue associated with BI Authenticator logging additional data. (PER-8735)

Perceptive Content Client

- Updated Perceptive Content to support KeyView 12.13. This resolved an issue where Import Agent would not display .EML files correctly. (PER-7361)

Perceptive Content Management Console

- Added localized strings for Custom Property Job Management. (PER-8804)

Perceptive Content Foundation 22.2 (7.9.0.296) Release (July 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Batch Agent
- Perceptive Content Client
- Perceptive Content Management Console
- Perceptive Content Server

Perceptive Content Batch Agent

- Updated Perceptive Content Batch Agent to handle processing custom property updates to a document or folder type. Perceptive Content Batch Agent must be running if asynchronous processing of custom property updates are enabled via the `inow.ini` `custom.property.job.framework.enable` setting. (PER-7095)

Perceptive Content Client

- Resolved an issue with the LearnMode script `AppGetTree()` function not working correctly with Google Chrome versions 114 and later. (PER-8653)

Perceptive Content Management Console

- Added the ability to view and manage custom property jobs under the Custom Properties section in Management Console. (PER-7086)

Perceptive Content Server

- Enable asynchronous processing of custom property updates to a document or folder type. For more information, see the `custom.property.job.framework.enable` setting of the `inow.ini` [Custom Property Job Management] help topic in the Manage Content help. (PER-7095)

Perceptive Content Foundation 22.2 (7.9.0.281) Release (May 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Forms Server
- Perceptive Content File System Agent
- Perceptive Content Integration Server
- Perceptive Content Workflow Agent

All Perceptive Content Agents

- Updated performance statistic logging to sanitize arguments. (PER-498)
- Added settings to control the maximum length for arguments that are output in the performance statistic logs. For more information, see the `stats.<type>.param.max.length` settings of the `inow.ini` [Statistics] help topic in the Manage Content help. (PER-498)

Perceptive Content Client

- Resolved an issue where the system could not open documents that were exported or emailed as HTML documents. (PER-7334)

Perceptive Content Forms Server

- Perceptive Content Forms Server now supports Tomcat version 10.1. (PER-7729)

Perceptive Content File System Agent

- Ensured that database recovery is triggered appropriately for work processed by File System agent. (PER-7639)

Perceptive Content Integration Server

- Resolved an issue where Integration Server conversion, rendition or export calls could result in empty pages when GRAPHIC_DPI rendering options were adjusted in File Conversion Service configuration. (PER-8099)
- Perceptive Content Integration Server now supports Tomcat version 10.1. (PER-7728)

Perceptive Content Workflow Agent

- Added Workflow agent settings to facilitate workload balancing customization: `work.queue.type.work.items.minimum`, `work.queue.type.work.items.maximum`, `work.queue.type.work.items.multiple`, `batch.work.items.maximum`, `minimum.work.item.batches`. For more information, see the `inserverWorkflow.ini` help topic in the Manage Content help and Workflow Agent performance tuning topic in the Workflow Designer help. (PER-498)

Perceptive Content Foundation 22.2 (7.9.0.272) Release (April 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Business Insight
- Perceptive Content Client
- Perceptive Content Integration Server
- Perceptive Content Server

All Released Products

- Updated Perceptive Content to distribute OpenSSL 1.1.1t. (PER-7735)
- On Windows, updated Perceptive Content to inherit supported TLS protocols from system wide WinHTTP DefaultSecureProtocols for calls made to external web services. By default, Windows disables deprecated TLS protocols. For more information refer to Secure Protocols for Microsoft Windows HTTP Services under Special considerations in the Perceptive Content Update Guide. (PER-8112)

All Perceptive Content Agents

- Updated Perceptive Content to support TLS v1.3 for calls made to external web services. (PER-7434)

Perceptive Business Insight

- Updated log4j dependency to log4j2 version 2.17.1 for Business Insight Integrator. (PER-7430)
- Resolved an issue associated with Business Insight Installer that displayed Cognos 10 installation location. (PER-7709)
- Resolved an issue associated with Business Insight report where users were unable to open and view reports on subsequent attempts. (PER-7721)

Perceptive Content Client

- Resolved an issue where exporting documents with very large page files could cause the client to close unexpectedly. (PER-7722)

Perceptive Content Integration Server

- Ensured that Integration Server API calls are not charged transactions for Perceptive Content bearer tokens associated with a Project Titan client session. (PER-8074)
- Updated OpenID Connect Login Profiles `sso.openid.profile.<profileName>.max.response.value.size` default value to be 3000 bytes. For more information see the Appendix A: `integrationserver.ini` file options section of the Perceptive Integration Server Installation Guide. (PC-8091)
- Updated Bearer Token Login Profiles `sso.bearer.profile.<profileName>.max.bearer.token.size` default value to be 3000 bytes. For more information see the Appendix A: `integrationserver.ini` file options section of the Perceptive Integration Server Installation Guide. (PC-8091)

Perceptive Content Server

- Resolved an issue where changes to a folder or document could not be made if a modified custom property was missing from the instance. (PER-7090)

Perceptive Content Foundation 22.2 (7.9.0.248) Release (March 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Integration Server
- Perceptive Content Server
- Perceptive Content User Replication Agent

All Perceptive Content Agents

- Resolved an issue where iScript String object toUpperCase and toLowerCase methods could truncate double-byte character values. (PER-7256)

Perceptive Content Client

- Improved support for emailing Perceptive Experience Content Apps links to documents in Thunderbird email client. (PER-7383)
- Resolved an issue where capturing using Hyland Virtual Printer would use printer page settings instead of capture source profile page settings, such as landscape, legal, and A4 pages. (PER-7734)

Perceptive Content Integration Server

- Updated Integration Server session management to gracefully cleanup connection resources to Perceptive Content Server when a connection is disconnected. Perceptive Content Server must be running the same or newer version of Integration Server. (PER-7408)

Perceptive Content Server

- Updated Perceptive Content Server to gracefully cleanup connection resources when Integration Server disconnects a connection. (PER-7408)

Perceptive Content User Replication Agent

- Improved error handling in Perceptive Content User Replication Agent to prevent the unintended removal of users from the system when certain intermittent errors occur. (PER-7365)

Perceptive Content Foundation 22.2 (7.9.0.233) Release (February 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content iConvert
- Perceptive Content Integration Server
- Perceptive Content Forms Server

All Perceptive Content Agents

- Added support for Oracle Instant Client with ODBC 21.8 on Windows. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-7666)

- Updated supported versions of Microsoft ODBC Driver 17 for SQL Server on Windows and Linux. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-7666)

Perceptive Content Client

- Updated Perceptive Content to allow login profile synchronization when launching new client applications when another client instance is running. For more information, see the `login.profile.client.sync.enable` setting of the `imagenow.ini` [General] settings help topic in the Manage Content help. (PER-7336)
- Resolved an issue with importing certain TIFF files. Additionally, you can now annotate LZW encoded TIFF images in the client. (PER-7459)

Perceptive Content iConvert

- Resolved an issue where the `inserverConvert` installer would install or update the deprecated SMTP settings, `smtp.server` and `smtp.server.port`, during the installation process. (PER-6930)

Perceptive Content Integration Server

- Resolved an issue where `eForm serverAction` would fail if the input parameters contained reserved XML characters. (PER-7126)

Perceptive Content Forms Server

- Resolved an issue where `eForm serverAction` would fail if the input parameters contained reserved XML characters. (PER-7126)

Perceptive Content Foundation 22.2 (7.9.0.219) Release (December 16, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Business Insight
- Perceptive Content Client
- Perceptive Content Fax Agent
- Perceptive Content File Processing Agent
- Perceptive Content Integration Server
- Perceptive Content Output Agent
- Perceptive Content Server
- Perceptive Content User Replication Agent

All Perceptive Content Agents

- Perceptive Content now supports RabbitMQ 3.10 and 3.11. If upgrading from previous versions of RabbitMQ, refer to the Perceptive Content RabbitMQ Update Guide. (PER-7435)

Perceptive Business Insight

- Resolved an issue associated with search, where the complete list of users in Perceptive Namespace is displayed instead of list of users based on the specified search criteria. (PER-6905)
- Resolved an issue associated with the search, where the complete list of users in Perceptive Namespace is displayed when searched using a value that would have no results returns. (PER-7404)
- Resolved an issue where some reports' sub-headings displayed reversed or flipped lettering. (PER-7445)
- Resolved an issue where the user had to log in twice to the Perceptive Namespace to view a report in Perceptive Content Client. (PER-7444)
- Resolved an issue with scheduling and running reports when authenticated with OpenID (PER-7457, PER-6943, PER-7325, PER-7326)
- Business Insight is upgraded to IBM Cognos Fix pack 5 which resolved the intermittent issue that occurred when a filter was applied on the past activities in the administrator console of IBM Cognos. (PER-7588)

Perceptive Content Client

- Improved print scale functionality for digital signature annotations. (PER-6658)

Perceptive Content Fax Agent

- Resolved a missing dependency that may prevent the agent from starting on Windows. (PER-7525)

Perceptive Content File Processing Agent

- Resolved a missing dependency that may prevent the agent from starting on Windows. (PER-7525)

Perceptive Content Integration Server

- Resolved an issue where form scripts would not execute if the blockContentTypeSniffingEnabled setting was set to TRUE in Apache Tomcat. (PER-7390)

Perceptive Content Output Agent

- Resolved a missing dependency that may prevent the agent from starting on Windows. (PER-7525)

Perceptive Content Server

- Resolved an issue with a delay in validating the Perceptive Content Server license on service start when the Hyland Cloud Licensing feature is enabled. (PER-4635)

- Resolved an issue that prevented the Perceptive Content Client from connecting to HRCS when a line character was present in the token file. (PER-7477)

Perceptive Content User Replication Agent

- Resolved a missing dependency that may prevent the agent from starting on Windows. (PER-7525)

Perceptive Content Foundation 22.2 Release (November 2022)

The following enhancements and updates are included in the initial release of Perceptive Content Foundation 22.2.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Connector for SAP ArchiveLink
- Perceptive Content Client
- Perceptive Content Forms Server
- Perceptive Content iConvert
- Perceptive Content Integration Server
- Perceptive Content OSM Agent
- Perceptive Content Server

All Released Products

- Updated the code signing certificate for Windows applications. (PER-6991)
- Updated Perceptive Content to support TLS v1.3 when connecting to a RabbitMQ cluster. For more information, see the `mq.secure.enabled` setting of the `inow.ini` [Message Queuing] settings help topic in the Manage Content help. (PER-466)

All Perceptive Content Agents

- Improved error message content of installation errors caused by inability to access remote shared location. (PER-4609)
- Resolved issues where Microsoft Visual C++ Runtime installer prerequisites were not installing in some environments. (PER-891)
- Perceptive Content now supports RabbitMQ 3.9. (PER-7335)
- Perceptive Content now supports PostgreSQL 13. (PER-121)
- Updated IXOS, AcuoStore, and Amazon S3 OSM plugins to minimize CPU utilization while streaming data from a remote server. (PER-6982)
- Updated Amazon S3 OSM plugin to resolve issues when attempting to establish a non-TLS connection on Windows to a remote S3 compatible instance. (PER-6982)

- Updated HTTP client libraries to minimize CPU utilization while streaming data from a remote server. (PER-6982)
- Resolved an issue where OSM physical object retrieval could concatenate error responses and physical object data when retrying transient OSM errors. (PER-7400)
- Resolved an issue where the system could not render retrieved page content or would incorrectly display it as text. (PER-7400)

Perceptive Connector for SAP ArchiveLink

- Resolved an issue where a connection error could cause Apache Tomcat to unexpectedly close. (PER-7117)
- Updated documentation to limit number of connections to 10. (PER-7117)
- Updated documentation to have KGS Content Server recover the inserver connection. (PER-7117)
- Updated a new setting, `client.connect`, to the [Remote] section in the `insapaplink.ini` configuration file. For more information, see the `insapalink.ini` [Remote] settings topic of the Perceptive Connector for SAP ArchiveLink Installation Guide. (PER-7117)
- Updated SAP Client behavior to attempt to recover on inserver connection failure. (PER-7117)

Perceptive Content Client

- Resolved an issue where Document Viewer would incorrectly render numbers in Excel XLS and XLSX files. (PER-7118 and PER-4707)
- Resolved an issue where the system would not save repeating rows that were added to a form by a user when using Internet Explorer 11 browser Emulation mode. (PER-7005)
- Resolved multiple display issues with the client when OpenID Connect authentication was enabled. (PER-7072)
- Updated OpenID Connect login to support Windows Integrated Authentication through Active Directory Federation Services (ADFS). (PER-7071)
- Added new settings to specify the trusted sites that you can use for integrated authentication. By default, these settings are derived from the Intranet trusted sites configured in the Windows Internet Properties. For more information, see the `imagenow.ini` [OpenID Connect Login Controls] settings topic of the Manage Content help. (PER-7071)
- Resolved an issue where saving a form with invalid characters could cause the client to close unexpectedly. (PER-7075)
- When using a non-English version of the client that does not have corresponding translated documentation, the Help button now opens the English documentation. (PER-7170)
- Updated Perceptive Content client OIDC login to leverage the `GET /v1/serverInfo/lgid` operation from Integration Server. (PER-7009)
- Improved ability to triage OpenID Connect login flows in the Perceptive Content Client. For more information, see the Troubleshoot OpenID Connect in Perceptive Content Client topic in the Manage Content help. (PER-7218)

Perceptive Content Forms Server

- Perceptive Content Forms Server now supports Java 17. (PER-277)
- Perceptive Content Forms Server now supports Tomcat version 10. (PER-279)
- Updated CXF dependencies to a newer version. (PER-7119)
- Resolved an issue with forms loading slowly. (PER-6942)

Note After the restart of a service, the system clears the cache for all previously loaded forms. As a result, the initial loading of a form, after the cache is cleared, may take longer than expected. Subsequent loads will perform as expected.

- Updated Forms Server to support agent token authentication. See the `forms.server.authentication.token` setting in the Form Server Installation Guide for more information. (PER-7285)
- Added two new settings, `connection.socket.keep.alive.enabled` and `forms.server.authentication.token`, to the [PerceptiveContentForms] > Perceptive Content Server settings section in the `imagenowforms.settings` configuration file. For more information, see the `imagenowforms.settings` parameter section in the Forms Server Installation Guide. (PER-7285)
- Added four new secure-processing options to the Java XML settings, `com.imagenow.xml.sax.parser.factory.secure.processing`, `com.imagenow.xml.document.builder.factory.secure.processing`, `com.imagenow.xml.schema.factory.secure.processing`, and `com.imagenow.xml.transformer.factory.secure.processing`. For more information, see the Configure Java XML topic in the Manage Content help. (PER-6942)
- Added four new settings, `forms.xsltcache.filesystem.size`, `forms.xsltcache.memory.size`, `forms.xsltcache.background.enabled`, and `forms.xsltcache.directory` to the [Forms] section in the `imagenowforms.settings` configuration file. These new settings improve form loading performance. The file system XSLT cache can only be used when using the XSLTC TransformerFactory. For more information, see the `imagenowforms.settings` parameter section in the Forms Server Installation Guide. (PER-6942)
- Resolved an issue that prevented some TransformerFactory implementations from creating Transformers in Forms Server. (PER-6942)

Perceptive Content iConvert

- Resolved an issue where the `smtp.server.url` setting could prevent emails from being sent. (PER-6931)

Perceptive Content Integration Server

- Perceptive Content Integration Server now supports Java 17. (PER-277)
- Perceptive Content Integration Server now supports Tomcat version 10. (PER-279)
- The GET `/user/{id}/privilege` and GET `userGroup/{id}/privilege` operations now require a set value of either TRUE or FALSE when the query parameter GLOBAL is passed in the request. (PER-6980)
- Improved handling of timed out socket connections to Perceptive Content Server. The `server.call.timeout.retry.enabled` setting was added to the [General] section of the `integrationserver.ini` configuration file. For more information, see the Appendix A: integration server.ini file options section of the Perceptive Integration Server Installation Guide. (PER-6889)

- Resolved issues with `server.call.retry.count` setting not correctly retrying the specified number of times after a call to Perceptive Content Server failed. (PER-6889)
- Added support for configurable Perceptive Content token scopes. For more information, see the `inserver.ini` [Perceptive Token Management] settings topic of the Manage Content help. (PER-7006)
- Updated Integration Server authorization API to support issuing identity tokens. For more information, see the Integration Server Operations documentation. (PER-7006)
- Updated Spring Framework dependencies to a newer version. (PER-7119)
- Updated CXF dependencies to a newer version. (PER-7119)
- The CXF 3.5 series is the last to support Java 8. We recommend upgrading to Java 11. (PER-7119)
- Added introspect operation to Integration Server authorization API to validate and inquire about the current state of a Perceptive access token. For more information, see the What is Perceptive Content introspection? topic of the Manage Content help. (PER-7007)
- Added a new operation, `GET /v1/serverInfo/lgid`, which returns the system license group ID of the Perceptive Content environment. (PER-7009)
- Resolved an issue where the Max-Age cookie attribute was not being set correctly. (PER-7286)
- Added support for an application session load balancer cookie. For more information, see the `integrationserver.ini` `session.load.balancer.cookie.enabled` setting in the Integration Server Installation Guide. (PER-7221)
- Added support for the `SO_KEEPALIVE` option on sockets created when connecting to Perceptive Content Server. For more information, see the `integrationserver.ini` `connection.socket.keep.alive.enabled` setting in the Integration Server Installation Guide. (PER-7222)
- Added four new secure-processing options to the Java XML settings, `com.imagenow.xml.sax.parser.factory.secure.processing`, `com.imagenow.xml.document.builder.factory.secure.processing`, `com.imagenow.xml.schema.factory.secure.processing`, and `com.imagenow.xml.transformer.factory.secure.processing`. For more information, see the Configure Java XML topic in the Manage Content help. (PER-6942)
- Added four new settings, `forms.xsltcache.filesystem.size`, `forms.xsltcache.memory.size`, `forms.xsltcache.background.enabled`, and `forms.xsltcache.directory` to the [Forms] section in the `integrationserver.ini` configuration file. These new settings improve form loading performance. The file system XSLT cache can only be used when using the XSLTC TransformerFactory. For more information, see the `integrationserver.ini` file options section in the Integration Server Installation Guide. (PER-6942)
- Resolved an issue that prevented some TransformerFactory implementations from creating Transformers in Integration Server. (PER-6942)
- Implemented support for passing anti-CSRF tokens as a request header and allowed for query parameter support for anti-CSRF tokens to be disabled. Added a new setting, `session.csrf.query.parameter.enabled`, to the `integrationserver.ini` configuration file to configure this behavior. For more information, see the Appendix A: `integrationserver.ini` file options section of the Integration Server Installation Guide. (PER-605)
- Improved Integration Server performance by reducing resource contention. (PER-1136)
- Improved validation for OpenID Connect Login Profile names. Login profile names defined in the `integrationserver.ini` must be comprised of lower-case alpha-numeric characters. (PER-7346)

- Resolved an issue to suppress the document content in the integration server log file. Payload associated with JSON and XML are now logged in according to the configured log levels. (PER-6629)

Perceptive Content OSM Agent

- Updated physical object cleanup work to reschedule work items of OSM trees that are currently in recovery. (PER-6997)

Perceptive Content Server

- Added a new setting, `bypass.drawer.lock.on.capture`, to the [Capture] section in the `inow.ini` configuration file. For more information, see the `inow.ini` [Capture] settings topic of the Manage Content help. (PER-4603)
- Added a new setting, `enable.private.heap.allocators`, to the [Memory] section in the `inow.ini` configuration file. For more information, see the `inow.ini` [Capture] settings topic of the Manage Content help. (PER-6973)
- Updated libcurl to load the `libssl.so.1.1` and `libcrypto.so.1.1` on Linux. (PER-6989)
- Resolved an issue where a Perceptive Content Server session may fail to be promoted to active even though the current number of running Perceptive Content Server instances is within the concurrent license count. (PER-4985)
- Updated license monitoring to be performed by a single Perceptive Content Server instance in an Active-Active environment. (PER-4985)
- Updated Perceptive Content to handle connection cleanup in batches to minimize the possibility of database timeouts when attempting to start an agent that had many active connections when the instance was stopped. (PER-7038)
- Added a new setting, `inowd.session.cleanup.batch.size`, to the [Session Management] section in the `inow.ini` configuration file. For more information, see the `inow.ini` [Session Management] settings topic of the Manage Content help. (PER-7038)
- Added the ability to configure a whitelist of allowed scopes for supported token types. For more information, see the `inserver.ini` [Perceptive Token Management] settings topic of the Manage Content help. (PER-7006)
- Optimized workflow privilege resolution for Route from Anywhere queues. (PER-6995)
- Optimized the allocation of converters used for transcoding data during message serialization and deserialization. (PER-7149)
- Optimized the queries used to associate a view with a department when populating views privileges. (PER-7149)
- Added new settings to manage verbose logging for message protocol serialization and deserialization. For improved performance it is recommended that these settings are disabled. For more information, see the `inow.ini` [Debug] settings topic of the Manage Content help. (PER-7149)
- Added a new setting, `cache.offline.state.grace.period.seconds`, to the [Cross Node Cache] section in the `inow.ini` configuration file. For more information, see the `inow.ini` [Cross Node Cache] settings topic of the Manage Content help. (PER-7150)
- Updated cross-node cache to have a grace period prior to taking the cache fully offline after disconnecting from the message queuing broker. (PER-7150)

- For new installations, updated the default value of the `mq.client.reconnect.interval` and `mq.reconnect.interval` settings. We recommend that you review this setting in your current environments and decrease it to improve the speed of recovery when clients or agents are disconnected from the message queuing broker. For more information, see the [Message Queuing] settings topic of the Manage Content help. (PER-7150)
- Added a new INTool command, `create-introspection-bearer-token`, to create a bearer token that is authorized to invoke the Integration Server introspect endpoint. For more information, see the INTool commands > Server commands topic of the Manage Content help. (PER-7007)
- Updated ODBC driver compatibility for PostgreSQL. For more information, see the Perceptive Content Technical Specifications. (PER-7144)
- Added application support for the TLS 1.3 protocol when using Secure LDAP. On Windows, LDAP client support for TLS 1.3 is determined by the operating system. (PER-1312)
- Updated default TLS protocol policies for Secure LDAP. TLS 1.2 and TLS 1.3 are supported by default. For more information, see the `ldap.ssl.version.min` and `ldap.ssl.version.max` settings of the `inow.ini` [Logon Control] settings topic in the Manage Content help. (PER-1312)
- Distributed NSS 3.82 on Linux. Support for db7 databases has been removed. If the certificate database is no longer supported, create a new truststore database. For more information, see the Import a certificate into Perceptive Content Server on Linux topic of the Manage Content help. (PER-1312)

Perceptive Content User Replication Agent

- Added application support for the TLS 1.3 protocol when using Secure LDAP. On Windows, LDAP client support for TLS 1.3 is determined by the operating system. (PER-1312)
- Updated default TLS protocol policies for Secure LDAP. TLS 1.2 and TLS 1.3 are supported by default. For more information, see the `ldap.ssl.version.min` and `ldap.ssl.version.max` settings of the `inow.ini` [Logon Control] settings topic in the Manage Content help. (PER-1312)
- Distributed NSS 3.82 on Linux. Support for db7 databases has been removed. If the certificate database is no longer supported, create a new truststore database. For more information, see the Import a certificate into Perceptive Content Server on Linux topic of the Manage Content help. (PER-1312)

Known issues

- When running Windows installers that install to a remote shared location, both the current user and the SYSTEM user must have access to the shared location at installation time. To login as a different user, you can use the **net use** command in both the current user and SYSTEM context.

A workaround for this issue, if you choose not to give both the current user and SYSTEM user access, is to update the `environment.ini` configuration file to use a local directory. To update the file, complete the following steps.

1. Migrate the shared location to a local location on the machine. For more information, see the Perceptive Content Shared Directory Migration Guide.
2. Run the installers.
3. Migrate the shared location to a back to the remote location. For more information, see the Perceptive Content Shared Directory Migration Guide.

- The `forms.xsltcache.directory` setting in the `imagenowforms.settings` configuration file should only use relative paths. Using full paths will cause the filesystem `xsltcache` to fail if `forms.xsltcache.filesystem.size` is enabled.

Perceptive Content Foundation 22.1 (7.8)

Perceptive Content Foundation 22.1 (7.8.0.253) Release (October 10, 2022)

The following components are included in this month's patch.

Product updates

All Perceptive Content Agents

- Perceptive Content now supports RabbitMQ 3.9. (PER-7335)
- Updated IXOS, AcuoStore, and Amazon S3 OSM plugins to minimize CPU utilization while streaming data from a remote server. (PER-6982)
- Updated Amazon S3 OSM plugin to resolve issues when attempting to establish a non-TLS connection on Windows to a remote S3 compatible instance. (PER-6982)
- Updated HTTP client libraries to minimize CPU utilization while streaming data from a remote server. (PER-6982)

Perceptive Content Foundation 22.1 (7.8.0.246) Release (September 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Forms Server
- Perceptive Content Integration Server
- Perceptive Content OSM Agent

All Perceptive Content Agents

- Updated IXOS, AcuoStore, and Amazon S3 OSM plugins to minimize CPU utilization while streaming data from a remote server. (PER-6982)
- Updated Amazon S3 OSM plugin to resolve issues when attempting to establish a non-TLS connection on Windows to a remote S3 compatible instance. (PER-6982)
- Updated HTTP client libraries to minimize CPU utilization while streaming data from a remote server. (PER-6982)

Perceptive Content Forms Server

- Updated Forms Server to support agent token authentication. See the `forms.server.authentication.token` setting in the Form Server Installation Guide for more information. (PER-7285)
- Added two new settings, `connection.socket.keep.alive.enabled` and `forms.server.authentication.token`, to the [PerceptiveContentForms] > Perceptive Content Server settings section in the `imagenowforms.settings` configuration file. For more information, see the `imagenowforms.settings` parameter section in the Forms Server Installation Guide. (PER-7285)
- Added four new secure-processing options to the Java XML settings, `com.imagenow.xml.sax.parser.factory.secure.processing`, `com.imagenow.xml.document.builder.factory.secure.processing`, `com.imagenow.xml.schema.factory.secure.processing`, and `com.imagenow.xml.transformer.factory.secure.processing`. For more information, see the Configure Java XML topic in the Manage Content help. (PER-6942)
- Added four new settings, `forms.xsltcache.filesystem.size`, `forms.xsltcache.memory.size`, `forms.xsltcache.background.enabled`, and `forms.xsltcache.directory` to the [Forms] section in the `imagenowforms.settings` configuration file. These new settings improve form loading performance. The file system XSLT cache can only be used when using the XSLTC TransformerFactory. For more information, see the `imagenowforms.settings` parameter section in the Forms Server Installation Guide. (PER-6942)
- Resolved an issue that prevented some TransformerFactory implementations from creating Transformers in Forms Server. (PER-6942)

Perceptive Content Integration Server

- Resolved an issue where the Max-Age cookie attribute was not being set correctly. (PER-7286)
- Added support for an application session load balancer cookie. For more information, see the `integrationserver.ini session.load.balancer.cookie.enabled` setting in the Integration Server Installation Guide. (PER-7221)
- Added support for the `SO_KEEPALIVE` option on sockets created when connecting to Perceptive Content Server. For more information, see the `integrationserver.ini connection.socket.keep.alive.enabled` setting in the Integration Server Installation Guide. (PER-7222)
- Added four new secure-processing options to the Java XML settings, `com.imagenow.xml.sax.parser.factory.secure.processing`, `com.imagenow.xml.document.builder.factory.secure.processing`, `com.imagenow.xml.schema.factory.secure.processing`, and `com.imagenow.xml.transformer.factory.secure.processing`. For more information, see the Configure Java XML topic in the Manage Content help. (PER-6942)
- Added four new settings, `forms.xsltcache.filesystem.size`, `forms.xsltcache.memory.size`, `forms.xsltcache.background.enabled`, and `forms.xsltcache.directory` to the [Forms] section in the `integrationserver.ini` configuration file. These new settings improve form loading performance. The file system XSLT cache can only be used when using the XSLTC TransformerFactory. For more information, see the `integrationserver.ini` file options section in the Integration Server Installation Guide. (PER-6942)
- Resolved an issue that prevented some TransformerFactory implementations from creating Transformers in Integration Server. (PER-6942)

Perceptive Content OSM Agent

- Updated physical object cleanup work to reschedule work items of OSM trees that are currently in recovery. (PER-6997)

Known issues

- The `forms.xsltcache.directory` setting in the `imagenowforms.settings` configuration file should only use relative paths. Using full paths will cause the filesystem `xsltcache` to fail if `forms.xsltcache.filesystem.size` is enabled.

Perceptive Content Foundation 22.1 (7.8.0.236) Release (August 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client

Perceptive Content Client

- Resolved an issue where subsequent OpenID Connect logins may fail when using multiple OIDC profiles for different Perceptive Content environments. (PER-7218)
- Improved ability to triage OpenID Connect login flows in the Perceptive Content Client. (PER-7218)

Perceptive Content Foundation 22.1 (7.8.0.231) Release (July 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client

Perceptive Content Client

- When using a non-English version of the client that does not have corresponding translated documentation, the Help button now opens the English documentation. (PER-7170)

Perceptive Content Foundation 22.1 (7.8.0.222) Release (June 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Server

Perceptive Content Client

- Resolved an issue where Document Viewer would incorrectly render numbers in Excel XLS. (PER-7118)
- Resolved an issue where saving a form with invalid characters could cause the client to close unexpectedly. (PER-7075)

Perceptive Content Server

- Resolved an issue where Forms Server allowed a document form to be submitted with the same keys as an existing document. (PER-7084)
- Optimized workflow privilege resolution for Route from Anywhere queues. (PER-5995)
- Optimized the allocation of converters used for transcoding data during message serialization and deserialization. (PER-7149)
- Optimized the queries used to associate a view with a department when populating views privileges. (PER-7149)
- Added new settings to manage verbose logging for message protocol serialization and deserialization. By default, these settings are enabled. For improved performance it is recommended that these settings are disabled. For more information, see the inow.ini [Debug] settings topic of the Manage Content help. (PER-7149)
- Added a new setting to configure the amount of time that a cross-node cache can be disconnected from the Message Queuing broker before going into an offline state. For more information, see the inow.ini [Cross Node Cache] settings topic of the Manage Content help. (PER-7150)
- Updated cross-node cache to have a grace period prior to taking the cache fully offline after disconnecting from the message queuing broker. (PER-7150)
- Revised recommended values for Message Queuing recovery reconnect intervals. For more information, see the [Message Queuing] settings topic of the Manage Content help. (PER-7150)

Perceptive Content Foundation 22.1 (7.8.0.204) Release (May 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Integration Server

Perceptive Content Client

- Updated OpenID Connect login to support Windows Integrated Authentication through Active Directory Federation Services (ADFS). (PER-7071)
- Added new settings to specify the trusted sites that you can use for integrated authentication. By default, these settings are derived from the Intranet trusted sites configured in the Windows Internet Properties. For more information, see the imagenow.ini [OpenID Connect Login Controls] settings topic of the Manage Content help. (PER-7071)

Perceptive Content Integration Server

- Updated spring framework dependencies to a newer version. (PER-7100)

Perceptive Content Foundation 22.1 (7.8.0.191) Release (April 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Connector for SAP ArchiveLink
- Perceptive Content Client
- Perceptive Content Integration Server
- Perceptive Content Server

Perceptive Connector for SAP ArchiveLink

- Updated ArchiveLink installers to support installing configuration files into the Active-Active shared directory. (PER-591)

Perceptive Content Client

- Resolved an issue where Document Viewer would incorrectly render numbers in Excel XLS and XLSX files. (PER-4707)
- Resolved an issue where the system would not save repeating rows that were added to a form by a user when using Internet Explorer 11 browser Emulation mode. (PER-7005)
- Resolved multiple display issues with the client when OpenID Connect authentication was enabled. (PER-7072)

Perceptive Content Integration Server

- The GET /user/{id}/privilege and GET userGroup/{id}/privilege operations now require a set value of either TRUE or FALSE when the query parameter GLOBAL is passed in the request. (PER-6980)

Perceptive Content Server

- Resolved an issue where a Perceptive Content Server session may fail to be promoted to active even though the current number of running Perceptive Content Server instances is within the concurrent license count. (PER-4985)
- Updated license monitoring to be performed by a single Perceptive Content Server instance in an Active-Active environment. (PER-4985)
- Updated Perceptive Content to handle connection cleanup in batches to minimize the possibility of database timeouts when attempting to start an agent that had many active connections when the instance was stopped. (PER-7038)
- Added a new setting, `inowd.session.cleanup.batch.size`, to the [Session Management] section in the `inow.ini` configuration file. For more information, see the `inow.ini` [Session Management] settings topic of the Manage Content help. (PER-7038)

All Perceptive Content Agents

- Improved error message content of installation errors caused by inability to access remote shared location. (PER-4609)
- Resolved issues where Microsoft Visual C++ Runtime installer prerequisites were not installing in some environments. (PER-891)

Known issues

- When running Windows installers that install to a remote shared location, both the current user and the SYSTEM user must have access to the shared location at installation time. To login as a different user, you can use the **net use** command in both the current user and SYSTEM context.

A workaround for this issue, if you choose not to give both the current user and SYSTEM user access, is to update the `environment.ini` configuration file to use a local directory. To update the file, complete the following steps.

4. Migrate the shared location to a local location on the machine. For more information, refer to the Perceptive Content Shared Directory Migration Guide.
5. Run the installers.
6. Migrate the shared location to a back to the remote location. For more information, refer to the Perceptive Content Shared Directory Migration Guide.

Perceptive Content Foundation 22.1 (7.8.0.171) Release (March 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content
- Perceptive Content Integration Server
- Perceptive Content Server

All Patched Products

- Updated the code signing certificate for Windows applications. (PER-6991)

Perceptive Content

- Improved stability by resolving multi-thread issues when using ImageGear. (PER-7023)

Perceptive Content Integration Server

- Improved handling of timed out socket connections to Perceptive Content Server. The `server.call.timeout.retry.enabled` setting was added to the [General] section of the `integrationserver.ini` configuration file. For more information, refer to the Appendix A: integration server.ini file options section of the Perceptive Integration Server Installation Guide. (PER-6889)
- Resolved issues with `server.call.retry.count` setting not correctly retrying the specified number of times after a call to Perceptive Content Server failed. (PER-6889)

Perceptive Content Server

- Ensure that only Foundation 22.1 clients can successfully connect to Foundation 22.1 Perceptive Content Server. Previously released clients are not compatible with this version and should not be able to successfully establish a connection. (PC-6998)
- Added a new setting, `bypass.drawer.lock.on.capture`, to the [Capture] section in the `inow.ini` configuration file. For more information, see the `inow.ini` [Capture] settings topic of the Manage Content help. (PER-4603)
- Added a new setting, `enable.private.heap.allocators`, to the [Memory] section in the `inow.ini` configuration file. For more information, see the `inow.ini` [Capture] settings topic of the Manage Content help. (PER-6973)
- Updated libcurl to load the `libssl.so.1.1` and `libcrypto.so.1.1` on Linux. (PER-6989)

Perceptive Content Foundation 22.1 Release (February 11, 2022)

The following enhancements and updates are included in the initial release of Perceptive Content Foundation 22.1.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Business Insight
- Perceptive Content Client
- Perceptive Content File System
- Perceptive Content Integration Server
- Perceptive Content Server
- Perceptive Forms Server

All Released Products

- Resolved an issue where large file sizes could not be represented. Improved support for storing and receiving large files. (PC-89776)
- Resolved an issue where uninstall or repair may fail for the following installers: (PC-90655)
 - Perceptive Content Client
 - Perceptive Content Fax Agent
 - Perceptive Content File Processing Agent
 - Perceptive Content iConvert
 - Perceptive Content Output Agent
 - Perceptive Content Server
 - Perceptive Content User Replication Agent

All Perceptive Content Agents

- Updated Amazon S3 plugin to support `ObjectKeyNameSuffix` property. Refer to the Perceptive Content External OSM Plugin Best Practices Guide for more information. (PC-90588)
- Updated method used to update the last access time on IN_PHSOB_CACHE database records. (PC-90666)
- Updated agents to use an internal cache for OSM entity name and id references. (PC-90666)
- The token authentication value for agents is now the default value for the authentication.token setting. For more information on configuring this setting, refer to the Configure agent token authentication section of the appropriate installation guide. (PER-1267)

Perceptive Business Insight

- Business Insight now views reports using the browser that is set as the default browser on the user's workstation. (PC-90446)

Perceptive Content Client

- Addressed performance issues with message serialization. (PER-6921)
- Enhanced security by limiting information returned to the client about login attempts. (PC-90158)
- Resolved an issue where creating a filter with a time constraint during Daylight Savings Time could cause the Time value to change back one hour. (PC-90356)
- Resolved an issue in Perceptive Management Console that prevented the user from adjusting the column widths on the **Custom Properties** tab in the **Modify <Item> Type** dialog box. (PC-90200)
- Resolved an issue where using a UNC path to check in a file in version control would cause the client to close unexpectedly. (PC-90336)
- Resolved an issue where copying and pasting text into the view editor would cause an error. (PC-90332)

- Resolved an issue in Workflow Viewer/Explorer where the Launch Associated Application button would not work. (PC-90681)
- Resolved an issue when outputting a document containing dynamic XFA PDF via print or export would stop with a message box. (PC-90695)
- Resolved an issue where the client could not open Microsoft Word or Excel HTML files. (PC-90736)

Perceptive Content Fax Agent

- Updated installer to include installation location and version in registry. (PC-90655)

Perceptive Content File System

- Resolved issue with contention between two File System Agent instances attempting to perform the same work when running in active-active. (PC-90497)
- Added settings to be able to parallelize destroy work actions. For more information, refer to the `inserverFS.ini` topic of the Manage Content help. (PC-90497)
- Optimized queries used to select folder work items for processing to reduce chance of a timeout. (PC-90799)
- Reduced contention when processing folder asynchronous work items by limiting work to a single instance. (PC-90799)
- Updated log level for "document keys not found" message from information level to debug. (PC-90799)

Perceptive Content Integration Server

- Updated `log4j` dependency to `log4j2` version 2.17.1. (PER-1255)
- Add a new setting, `sso.openid.profile.<profileName>.same.site.cookies.policy`, to the [OpenID Connect Login Profiles] section of the `integrationserver.ini` configuration file. This setting replaces `sso.openid.profile.<profileName>.same.site.cookies.enabled`. For more information see the Appendix A: `integrationserver.ini` file options section of the Perceptive Integration Server Installation Guide. (PC-90798)
- Resolved an issue with cookie authentication when `X-IntegrationServer-Encode-Headers` is specified on the request. (PC-90529)
- Updated documentation for document API calls to include only supported values for the `actionType` query parameter. (PC-90213)
- Updated third-party libraries. (PC-90661)
- Resolved an issue where the service status endpoint would cause a socket error in Perceptive Content Server logs. (PC-90603)
- Updated documentation regarding the `log.level.thirdparties` setting in Integration Server. (PC-90618)
- Updated `stream.transfer.chunk.size` default value to facilitate large file streams. (PC-89776)
- Resolved an issue that could cause certain forms to not load properly. (PC-90590)

- Updated the `web.xml` configuration file to include the authorization header under the `cors.allowed.headers` parameter. This header is required to log into Android devices using OIDC sessions. (PC-90595)
- Two new settings, `server.call.retry.count` and `connection.timeout.socket` were added to [General] section of the `integrationserver.ini` configuration file. For more information, refer to the Appendix A: `integrationserver.ini` file options section of the Perceptive Integration Server Installation Guide. (PC-90680)

Perceptive Content Server

- Addressed performance issues with message serialization. (PER-6921)
- Resolved an issue where an inappropriate reason list could be used as the task action and task return reason when creating or modifying the template in iScript. (PER-689)
- Improved database audit logging performance. (PER-4658)
- Resolved an issue where the system was not reading the Health Check IP address value specified in the `inserver.ini` configuration file. (PER-4607)
- Added a new condition, LICENSED, to the `healthcheck.<healthCheckName>.conditions` setting in the `inserver.ini` configuration file. For more information, see the `inserver.ini` [Health Check] settings topic of the Manage Content help. (PER-6893)
- Resolved an issue that could cause server instability when deleting a large batch of pages simultaneously. (PC-90383)
- Added the intool command `osm-tree-in-place-transfer` which allows in-place migration of physical objects from a source OSM tree to an existing destination OSM tree. For more information, refer to the OSM commands topic of the Manage Content help. (PC-90588)
- Updated Perceptive Content Server to be able to retrieve physical objects that have been migrated from an FSS OSM tree to an EXT OSM tree. (PC-90588)
- Added configuration for buffer sizes used to stream content. Updated default values to facilitate large file streams. (PC-89776)
- Resolved an issue with the system incorrectly truncating data written to the database as part of the Search Audit. (PC-90647)
- Reviewed and updated database transactions to ensure transactions would be fully rolled back prior to establishing a new transaction context. (PC-90639)
- Resolved a database locking issue that could result in errors in the session monitor log file. (PC-90639)
- Resolved incorrect error message displayed when a select lock statement is made on the same record with NOWAIT specified. (PC-90639)
- Added support for TCP health checks for monitoring database availability and user login status. For more information, refer to the `inserver.ini` [Health Checks] settings topic of the Manage Content help. (PC-90218)
- Improved views performance on Microsoft SQL Server by adding support for the RECOMPILE query hint option. For more information, refer to the `inow.ini` [Views] settings topic of the Manage Content help. (PC-90730)

- Improved views performance by using the document table's creation time rather than the instance table's creation time. For more information, refer to the `inow.ini` [Views] settings topic of the Manage Content help. (PC-90728)
- Limited the size of audit detail entries stored in the database to improve performance. Added additional settings to be able to configure length of stored values. For more information, refer to the `inow.ini` [Audit] settings topic of the Manage Content help. (PC-90734)
- Updated session monitoring to be performed by a single Perceptive Content Server instance in an Active-Active environment. (PC-90746)
- Updated Perceptive Content error messages returned for user login errors. (PC-90158)
- Updated Perceptive Content error messages returned for file operation errors. (PC-89353)
- Resolved an issue where the system would not respect queue permissions. (PER-4722)
- The `encryption.enabled` setting, in the `inow.ini` configuration file, is now enabled by default and the default values for key strength settings are now larger. For more information, see the `inow.ini` [Network] settings topic of the Manage Content help. (PER-738)
- Added SMTP over SSL/TLS support to iScript, Notification Agent, Fax Agent, and iConvert. (PER-673)

Perceptive Forms Server

- Resolved an issue that could cause certain forms to not load properly. (PC-90590)

Perceptive Content OSM Agent

- Resolved an issue where physical object records could not be deleted after being copied between OSM sets. (PC-90666)
- Resolved an issue with lock contention on the `IN_PHSOB_CACHE` table when deleting physical objects that do not have a `IN_PHSOB_CACHE` record. (PC-90666)

Known Issues

- Amazon S3 OSM plugin does not support streaming objects larger than 2.3GB.
- iScript `INStream.read(Buffer, int, int)` member function cannot be used for streams over 1GB in size.

Release Notes for Perceptive Content Foundation EP4 (7.7)

Perceptive Content Foundation EP4 (7.7.0.390) Release (February 10, 2024)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client

All Perceptive Content Agents

- Added support for Oracle Instant Client 21.12 with ODBC on Windows. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-9362)
- Added support for Oracle Instant Client 21.13 with ODBC on Linux. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-9362)
- Updated supported versions of Microsoft ODBC Driver 17 for SQL Server on Windows and Linux. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-9362)
- Perceptive Content now supports RabbitMQ 3.11 and 3.12. If upgrading from previous versions of RabbitMQ, refer to the Perceptive Content RabbitMQ Update Guide. (PER-9362)

Perceptive Content Client

- Resolved issues with OpenID Connect logins persistently failing with some OpenID Provider integrations. Added a new setting to control whether this class of error should be ignored. For more information, see the `sso.openid.connect.login.ignore.client.aborted.requests.enabled` setting of the `imagenow.ini` [OpenID Connect Login Controls] settings help topic in the Manage Content help. (PER-9343/PER-8564)
- Resolved an issue where the client would not maintain focus on correct page when a multiple page document was saved. (PER-9145)
- Updated third-party viewing SDK with latest version, fixes potential security vulnerability CVE-2023-4863. (PER-9143)

Perceptive Content Foundation EP4 (7.7.0. 378) Release (December 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides an overview of updates made to existing functionality.

All Perceptive Content Agents

- Resolved an issue where intermittent connectivity to RabbitMQ could occur when using TLS connections on Windows. (PER-9212)
- Added new settings to disable publication of informational events to the message queuing broker. If these events are not being consumed, it is recommended that these settings be disabled. For more information, see the `inow.ini` [Message Queuing] settings help topic in the Manage Content help. (PER-9212)
- The following cryptographic algorithms are deprecated and should no longer be used. Any user supplied keys that were generated using these algorithms should be updated to use newer algorithms to ensure compatibility with future Perceptive Content releases. Affected symmetric ciphers include

Blowfish, CAST, DES, IDEA, RC2, RC4, RC5 and SEED. Affected hashing algorithms include MD2, MD4, MDC2, WHIRLPOOL and RIPEMD160. (PER-9233)

Perceptive Content Foundation EP4 (7.7.0.358) Release (September 10, 2023)

The following components are included in this month's patch.

Product updates

All Perceptive Content Agents

- Removed upper limit on number of worker threads that can be configured for processing Perceptive Content work items. (PER-8919)

Perceptive Content Foundation EP4 (7.7.0.351) Release (August 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client

Perceptive Content Client

- Updated Perceptive Content to support KeyView 12.13. This resolved an issue where Import Agent would not display .EML files correctly. (PER-7361)

Perceptive Content Foundation EP4 (7.7.0.346) Release (July 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client

Perceptive Content Client

- Resolved an issue with the LearnMode script AppGetTree() function not working correctly with Google Chrome versions 114 and later. (PER-8653)

Perceptive Content Foundation EP4 (7.7.0.336) Release (May 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content File System Agent
- Perceptive Content Integration Server
- Perceptive Content Workflow Agent

All Perceptive Content Agents

- Updated performance statistic logging to sanitize arguments. (PER-498)
- Added settings to control the maximum length for arguments that are output in the performance statistic logs. For more information, see the stats.<type>.param.max.length settings of the inow.ini [Statistics] help topic in the Manage Content help. (PER-498)

Perceptive Content Client

- Resolved an issue where the system could not open documents that were exported or emailed as HTML documents. (PER-7334)

Perceptive Content File System Agent

- Ensured that database recovery is triggered appropriately for work processed by File System agent. (PER-7639)

Perceptive Content Integration Server

- Resolved an issue where Integration Server conversion, rendition or export calls could result in empty pages when GRAPHIC_DPI rendering options were adjusted in File Conversion Service configuration. (PER-8099)

Perceptive Content Workflow Agent

- Added Workflow agent settings to facilitate workload balancing customization: work.queue.type.work.items.minimum, work.queue.type.work.items.maximum, work.queue.type.work.items.multiple, batch.work.items.maximum, minimum.work.item.batches. For more information, see the inserverWorkflow.ini help topic in the Manage Content help and Workflow Agent performance tuning topic in the Workflow Designer help. (PER-498)

Perceptive Content Foundation EP4 (7.7.0.325) Release (April 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client

All Released Products

- Updated Perceptive Content to distribute OpenSSL 1.1.1t. (PER-7735)

Perceptive Content Client

- Resolved an issue where exporting documents with very large page files could cause the client to close unexpectedly. (PER-7722)

Perceptive Content Foundation EP4 (7.7.0.316) Release (March 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Integration Server
- Perceptive Content Server
- Perceptive Content User Replication Agent

All Perceptive Content Agents

- Resolved an issue where iScript String object toUpperCase and toLowerCase methods could truncate double-byte character values. (PER-7256)

Perceptive Content Client

- Improved support for emailing Perceptive Experience Content Apps links to documents in Thunderbird email client. (PER-7383)
- Resolved an issue where capturing using Hyland Virtual Printer would use printer page settings instead of capture source profile page settings, such as landscape, legal, and A4 pages. (PER-7734)

Perceptive Content Integration Server

- Updated Integration Server session management to gracefully cleanup connection resources to Perceptive Content Server when a connection is disconnected. Perceptive Content Server must be running the same or newer version of Integration Server. (PER-7408)

Perceptive Content Server

- Updated Perceptive Content Server to gracefully cleanup connection resources when Integration Server disconnects a connection. (PER-7408)

Perceptive Content User Replication Agent

- Improved error handling in Perceptive Content User Replication Agent to prevent the unintended removal of users from the system when certain intermittent errors occur. (PER-7365)

Perceptive Content Foundation EP4 (7.7.0.304) Release (February 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client

All Perceptive Content Agents

- Added support for Oracle Instant Client with ODBC 21.8 on Windows. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-7666)
- Updated supported versions of Microsoft ODBC Driver 17 for SQL Server on Windows and Linux. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PER-7666)

Perceptive Content Client

- Updated Perceptive Content to allow login profile synchronization when launching new client applications when another client instance is running. For more information, see the `login.profile.client.sync.enable` setting of the `imagenow.ini` [General] settings help topic in the Manage Content help. (PER-7336)
- Resolved an issue with importing certain TIFF files. Additionally, you can now annotate LZW encoded TIFF images in the client. (PER-7459)

Perceptive Content Foundation EP4 (7.7.0.293) Release (December 16, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Business Insight
- Perceptive Content Client
- Perceptive Content Integration Server
- Perceptive Content Server

All Released Products

- Updated Perceptive Content to distribute OpenSSL 1.1.1q. (PER-7366)

All Perceptive Content Agents

- Perceptive Content now supports RabbitMQ 3.10 and 3.11. If upgrading from previous versions of RabbitMQ, refer to the Perceptive Content RabbitMQ Update Guide. (PER-7435)

Perceptive Business Insight

- Resolved an issue where some reports' sub-headings displayed reversed or flipped lettering. (PER-7445)
- Resolved an issue with scheduling and running reports when authenticated with OpenID. (PER-7457, PER-6943, PER-7325, PER-7326)

Perceptive Content Client

- Improved print scale functionality for digital signature annotations. (PER-6658)

Perceptive Content Integration Server

- Resolved an issue where form scripts would not execute if the blockContentTypeSniffingEnabled setting was set to TRUE in Apache Tomcat. (PER-7390)

Perceptive Content Server

- Resolved an issue with a delay in validating the Perceptive Content Server license on service start when the Hyland Cloud Licensing feature is enabled. (PER-4635)

Perceptive Content Foundation EP4 (7.7.0.268) Release (November 10, 2022)

The following components are included in this month's patch.

Product updates

All Perceptive Content Agents

- Resolved an issue where OSM physical object retrieval could concatenate error responses and physical object data when retrying transient OSM errors. (PER-7400)
- Resolved an issue where the system could not render retrieved page content or would incorrectly display it as text. (PER-7400)

Perceptive Content Foundation EP4 (7.7.0.268) Release (October 10, 2022)

The following components are included in this month's patch.

Product updates

All Perceptive Content Agents

- Perceptive Content now supports RabbitMQ 3.9. (PER-7335)
- Updated IXOS, AcuoStore, and Amazon S3 OSM plugins to minimize CPU utilization while streaming data from a remote server. (PER-6982)
- Updated Amazon S3 OSM plugin to resolve issues when attempting to establish a non-TLS connection on Windows to a remote S3 compatible instance. (PER-6982)
- Updated HTTP client libraries to minimize CPU utilization while streaming data from a remote server. (PER-6982)

Perceptive Content Foundation EP4 (7.7.0.261) Release (September 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Forms Server
- Perceptive Content Integration Server
- Perceptive Content OSM Agent

Perceptive Content Forms Server

- Added four new secure-processing options to the Java XML settings, `com.imagenow.xml.sax.parser.factory.secure.processing`, `com.imagenow.xml.document.builder.factory.secure.processing`, `com.imagenow.xml.schema.factory.secure.processing`, and `com.imagenow.xml.transformer.factory.secure.processing`. For more information, see the Configure Java XML topic in the Manage Content help. (PER-6942)
- Added four new settings, `forms.xsltcache.filesystem.size`, `forms.xsltcache.memory.size`, `forms.xsltcache.background.enabled`, and `forms.xsltcache.directory` to the [Forms] section in the

imagenowforms.settings configuration file. These new settings improve form loading performance. The file system XSLT cache can only be used when using the XSLTC TransformerFactory. For more information, see the imagenowforms.settings parameter section in the Forms Server Installation Guide. (PER-6942)

- Resolved an issue that prevented some TransformerFactory implementations from creating Transformers in Forms Server. (PER-6942)

Perceptive Content Integration Server

- Resolved an issue where the Max-Age cookie attribute was not being set correctly. (PER-7286)
- Added support for an application session load balancer cookie. For more information, see the integrationserver.ini session.load.balancer.cookie.enabled setting in the Integration Server Installation Guide. (PER-7221)
- Added support for the SO_KEEPALIVE option on sockets created when connecting to Perceptive Content Server. For more information, see the integrationserver.ini connection.socket.keep.alive.enabled setting in the Integration Server Installation Guide. (PER-7222)
- Added four new secure-processing options to the Java XML settings, com.imagenow.xml.sax.parser.factory.secure.processing, com.imagenow.xml.document.builder.factory.secure.processing, com.imagenow.xml.schema.factory.secure.processing, and com.imagenow.xml.transformer.factory.secure.processing. For more information, see the Configure Java XML topic in the Manage Content help. (PER-6942)
- Added four new settings, forms.xsltcache.filesystem.size, forms.xsltcache.memory.size, forms.xsltcache.background.enabled, and forms.xsltcache.directory to the [Forms] section in the integrationserver.ini configuration file. These new settings improve form loading performance. The file system XSLT cache can only be used when using the XSLTC TransformerFactory. For more information, see the integrationserver.ini file options section in the Integration Server Installation Guide. (PER-6942)
- Resolved an issue that prevented some TransformerFactory implementations from creating Transformers in Integration Server. (PER-6942)

Perceptive Content OSM Agent

- Updated physical object cleanup work to reschedule work items of OSM trees that are currently in recovery. (PER-6997)

Known issues

- The forms.xsltcache.directory setting in the imagenowforms.settings configuration file should only use relative paths. Using full paths will cause the filesystem xsltcache to fail if forms.xsltcache.filesystem.size is enabled.

Perceptive Content Foundation EP4 (7.7.0.253) Release (August 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client

Perceptive Content Client

- Resolved an issue where subsequent OpenID Connect logins may fail when using multiple OIDC profiles for different Perceptive Content environments. (PER-7218)
- Improved ability to triage OpenID Connect login flows in the Perceptive Content Client. (PER-7218)

Perceptive Content Foundation EP4 (7.7.0.248) Release (July 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client

Perceptive Content Client

- When using a non-English version of the client that does not have corresponding translated documentation, the Help button now opens the English documentation. (PER-7170)

Perceptive Content Foundation EP4 (7.7.0.239) Release (June 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Server

Perceptive Content Client

- Resolved an issue where Document Viewer would incorrectly render numbers in Excel XLS. (PER-7118)
- Resolved an issue where saving a form with invalid characters could cause the client to close unexpectedly. (PER-7075)

Perceptive Content Server

- Resolved an issue where Forms Server allowed a document form to be submitted with the same keys as an existing document. (PER-7084)
- Optimized workflow privilege resolution for Route from Anywhere queues. (PER-5995)
- Optimized the allocation of converters used for transcoding data during message serialization and de-serialization. (PER-7149)
- Optimized the queries used to associate a view with a department when populating views privileges. (PER-7149)
- Added new settings to manage verbose logging for message protocol serialization and de-serialization. By default, these settings are enabled. For improved performance it is recommended that these settings are disabled. For more information, see the inow.ini [Debug] settings topic of the Manage Content help. (PER-7149)
- Added a new setting to configure the amount of time that a cross-node cache can be disconnected from the Message Queuing broker before going into an offline state. For more information, see the inow.ini [Cross Node Cache] settings topic of the Manage Content help. (PER-7150)
- Updated cross-node cache to have a grace period prior to taking the cache fully offline after disconnecting from the message queuing broker. (PER-7150)
- Revised recommended values for Message Queuing recovery reconnect intervals. For more information, see the [Message Queuing] settings topic of the Manage Content help. (PER-7150)

Perceptive Content Foundation EP4 (7.7.0.217) Release (May 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Integration Server

Perceptive Content Client

- Updated OpenID Connect login to support Windows Integrated Authentication through Active Directory Federation Services (ADFS). (PER-7071)
- Added new settings to specify the trusted sites that you can use for integrated authentication. By default, these settings are derived from the Intranet trusted sites configured in the Windows Internet Properties. For more information, see the imagenow.ini [OpenID Connect Login Controls] settings topic of the Manage Content help. (PER-7071)

Perceptive Content Integration Server

- Updated spring framework dependencies to a newer version. (PER-7100)

Perceptive Content Foundation EP4 (7.7.0.209) Release (April 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Server

All Perceptive Content Agents

- Improved error message content of installation errors caused by inability to access remote shared location. (PER-4609)

Perceptive Content Client

- Resolved an issue where Document Viewer would incorrectly render numbers in Excel XLS and XLSX files. (PER-4707)
- Resolved an issue where the system would not save repeating rows that were added to a form by a user when using Internet Explorer 11 browser Emulation mode. (PER-7005)
- Resolved multiple display issues with the client when OpenID Connect authentication was enabled. (PER-7072)

Perceptive Content Server

- Resolved an issue where a Perceptive Content Server session may fail to be promoted to active even though the current number of running Perceptive Content Server instances is within the concurrent license count. (PER-4985)
- Updated license monitoring to be performed by a single Perceptive Content Server instance in an Active-Active environment. (PER-4985)
- Updated Perceptive Content to handle connection cleanup in batches to minimize the possibility of database timeouts when attempting to start an agent that had many active connections when the instance was stopped. (PER-7038)
- Added a new setting, `inowd.session.cleanup.batch.size`, to the [Session Management] section in the `inow.ini` configuration file. For more information, see the `inow.ini` [Session Management] settings topic of the Manage Content help. (PER-7038)

Known issues

- When running Windows installers that install to a remote shared location, both the current user and the SYSTEM user must have access to the shared location at installation time. To login as a different user, you can use the **net use** command in both the current user and SYSTEM context.

A workaround for this issue, if you choose not to give both the current user and SYSTEM user access, is to update the environment.ini configuration file to use a local directory. To update the file, complete the following steps.

7. Migrate the shared location to a local location on the machine. For more information, refer to the Perceptive Content Shared Directory Migration Guide.
8. Run the installers.
9. Migrate the shared location back to the remote location. For more information, refer to the Perceptive Content Shared Directory Migration Guide.

Perceptive Content Foundation EP4 (7.7.0.195) Release (March 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content
- Perceptive Content Integration Server
- Perceptive Content Server

All Patched Products

- Updated the code signing certificate for Windows applications. (PER-6991)

Perceptive Content

- Improved stability by resolving multi-thread issues when using ImageGear. (PER-7023)

Perceptive Content Integration Server

- Improved handling of timed out socket connections to Perceptive Content Server. The server.call.timeout.retry.enabled setting was added to the [General] section of the integrationserver.ini configuration file. For more information, refer to the Appendix A: integration server.ini file options section of the Perceptive Integration Server Installation Guide. (PER-6889)
- Resolved issues with server.call.retry.count setting not correctly retrying the specified number of times after a call to Perceptive Content Server failed. (PER-6889)

Perceptive Content Server

- Added a new setting, bypass.drawer.lock.on.capture, to the [Capture] section in the inow.ini configuration file. For more information, see the inow.ini [Capture] settings topic of the Manage Content help. (PER-4603)
- Added a new setting, enable.private.heap.allocators, to the [Memory] section in the inow.ini configuration file. For more information, see the inow.ini [Capture] settings topic of the Manage Content help. (PER-6973)

Perceptive Content Foundation EP4 (7.7.0.180) Release (February 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Server

Perceptive Content Client

- Addressed performance issues with message serialization. (PER-6921)

Perceptive Content Server

- Addressed performance issues with message serialization. (PER-6921)
- Improved database audit logging performance. (PER-4658)

Perceptive Content Foundation EP4 (7.7.0.174) Release (January 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Integration Server
- Perceptive Content Server

Perceptive Content Integration Server

- Resolved an issue where Forms Server failed to submit a form on the first attempt after a session timeout. (PER-4678)

Perceptive Content Server

- Resolved an issue where the system was not reading the Health Check IP address value specified in the inserver.ini configuration file. (PER-4607)
- Added a new condition, LICENSED, to the healthcheck.<healthCheckName>.conditions setting in the inserver.ini configuration file. For more information, see the inserver.ini [Health Check] settings topic of the Manage Content help. (PER-6893)

Perceptive Content Foundation EP4 (7.7.0.168) Release (December 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content File System
- Perceptive Integration Server

Perceptive Content Client

- Resolved an issue where creating a filter with a time constraint during Daylight Savings Time could cause the Time value to change back one hour. (PC-90356)

Perceptive Content File System

- Optimized queries used to select folder work items for processing to reduce chance of a timeout. (PC-90799)
- Reduced contention when processing folder asynchronous work items by limiting work to a single instance. (PC-90799)
- Updated log level for "document keys not found" message from information level to debug. (PC-90799)

Perceptive Content Integration Server

- Add a new setting, `sso.openid.profile.<profileName>.same.site.cookies.policy`, to the OpenID Connect Login Profiles section of the `integrationserver.ini` configuration file. For more information see the Appendix A: `integrationserver.ini` file options section of the Perceptive Integration Server Installation Guide. (PC-90798)

Perceptive Content Foundation EP4 (7.7.0.150) Release (November 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Server
- Perceptive Integration Server

Perceptive Content Client

- Resolved an issue when outputting a document containing dynamic XFA PDF via print or export would stop with a message box. (PC-90695)
- Resolved an issue where the client could not open Microsoft Word or Excel HTML files. (PC-90736)

Perceptive Content Server

- Improved views performance on Microsoft SQL Server by adding support for the RECOMPILE query hint option. For more information, refer to the inow.ini [Views] settings topic of the Manage Content help. (PC-90730)
- Improved views performance by using the document table's creation time rather than the instance table's creation time. For more information, refer to the inow.ini [Views] settings topic of the Manage Content help. (PC-90728)
- Limited the size of audit detail entries stored in the database to improve performance. Added additional settings to be able to configure length of stored values. For more information, refer to the inow.ini [Audit] settings topic of the Manage Content help. (PC-90734)
- Updated session monitoring to be performed by a single Perceptive Content Server instance in an Active-Active environment. (PC-90746)

Perceptive Content Integration Server

- Resolved an issue where an anonymous Forms Server user could access Integration Server APIs unrelated to forms. (PC-90753)
- Added a new call, GET /v3/user, which gets users matching a supplied search term. (PC-90700)
- Two new settings, `server.call.retry.count` and `connection.timeout.socket` were added to [General] section of the integrationserver.ini configuration file. For more information, see the Appendix A: integrationserver.ini file options section of the Perceptive Integration Server Installation Guide. (PC-90680)

Perceptive Content Foundation EP4 (7.7.0.139) Release (October 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Server
- Perceptive Content Fax Agent
- Perceptive Content OSM Agent

All Released Products

- Resolved an issue where uninstall or repair may fail for the following installers: (PC-90655)
 - Perceptive Content Full Client
 - Perceptive Content Fax Agent
 - Perceptive Content File Processing Agent
 - Perceptive Content iConvert
 - Perceptive Content Output Agent
 - Perceptive Content Server
 - Perceptive Content User Replication Agent

All Perceptive Content Agents

- Updated method used to update the last access time on IN_PHSOB_CACHE database records. (PC-90666)

Perceptive Content Client

- Resolved an issue in Workflow Viewer/Explorer where the Launch Associated Application button would not work. (PC-90681)

Perceptive Content Server

- Added support for TCP health checks for monitoring database availability and user login status. For more information see the inserver.ini [Health Checks] settings topic of the Manage Content help. (PC-90218)

Perceptive Content Fax Agent

- Updated installer to include installation location and version in registry. (PC-90655)

Perceptive Content OSM Agent

- Resolved an issue where physical object records could not be deleted after being copied between OSM sets. (PC-90666)
- Resolved an issue with lock contention on the IN_PHSOB_CACHE table when deleting physical objects that do not have a IN_PHSOB_CACHE record. (PC-90666)

Perceptive Content Foundation EP4 (7.7.0.128) Release (September 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content File System

- Perceptive Content Integration Server
- Perceptive Content Server
- Perceptive Forms Server

All Released Products

- Resolved an issue where large file sizes could not be represented. Improved support for storing and receiving large files. (PC-89776)

Perceptive Content File System

- Resolved issue with contention between two File System Agent instances attempting to perform the same work when running in active-active. (PC-90497)
- Added settings to be able to parallelize destroy work actions. For more information, refer to the `inserverFS.ini` topic of the Manage Content help. (PC-90497)

Perceptive Content Integration Server

- Resolved an issue where the service status endpoint would cause a socket error in Perceptive Content Server logs. (PC-90603)
- Updated documentation regarding the `log.level.thirdparties` setting in Integration Server. (PC-90618)
- Updated `stream.transfer.chunk.size` default value to facilitate large file streams. (PC-89776)
- Resolved an issue that could cause certain forms to not load properly. (PC-90590)
- Updated the `web.xml` configuration file to include the authorization header under the `cors.allowed.headers` parameter. This header is required to log into Android devices using OIDC sessions. (PC-90595)

Perceptive Content Server

- Added configuration for buffer sizes used to stream content. Updated default values to facilitate large file streams. (PC-89776)
- Resolved an issue with the system incorrectly truncating data written to the database as part of the Search Audit. (PC-90647)
- `iScript INStream.read(Buffer, int, int)` member function cannot be used for streams over 1GB in size. (PC-90610)
- Resolved an issue with the system incorrectly truncating data written to the database as part of the Search Audit. (PC-90647)
- Reviewed and updated database transactions to ensure transactions would be fully rolled back prior to establishing a new transaction context. (PC-90639)
- Resolved a database locking issue that could result in errors in the session monitor log file. (PC-90639)
- Resolved incorrect error message displayed when a select lock statement is made on the same record with `NOWAIT` specified. (PC-90639)

Perceptive Forms Server

- Resolved an issue that could cause certain forms to not load properly. (PC-90590)

Known issues

- Amazon S3 OSM plugin does not support streaming objects larger than 2.3GB.

Perceptive Content Foundation EP4 (7.7.0.111) Release (August 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Business Insight
- Perceptive Content Client
- Perceptive Content Integration Server
- Perceptive Content Server

All Perceptive Content Agents

- Updated Amazon S3 plugin to support `ObjectKeyNameSuffix` property. Refer to the Perceptive Content External OSM Plugin Best Practices Guide for more information. (PC-90588)

Perceptive Business Insight

- Business Insight now views reports using the browser that is set as the default browser on the user's workstation. (PC-90446)

Perceptive Content Client

- Resolved an issue in Perceptive Management Console that prevented the user from adjusting the column widths on the **Custom Properties** tab in the **Modify <Item> Type** dialog box. (PC-90200)

Perceptive Content Integration Server

- Resolved an issue with cookie authentication when `X-IntegrationServer-Encode-Headers` is specified on the request. (PC-90529)
- Updated documentation for document API calls to include only supported values for the `actionType` query parameter. (PC-90213)

Perceptive Content Server

- Resolved an issue that could cause server instability when deleting a large batch of pages simultaneously. (PC-90383)

- Added the intool command `osm-tree-in-place-transfer` which allows in-place migration of physical objects from a source OSM tree to an existing destination OSM tree. Refer to the intool OSM Commands help topic for more information. (PC-90588)
- Updated Perceptive Content Server to be able to retrieve physical objects that have been migrated from an FSS OSM tree to an EXT OSM tree. (PC-90588)

Perceptive Content Foundation EP4 Release (June 2021)

The following enhancements and updates are included in the initial release of Perceptive Content Foundation EP4.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content iConvert
- Perceptive Content Integration Server
- Perceptive Content Job Agent
- Perceptive Content Management Console
- Perceptive Content Output Agent
- Perceptive Content Recognition Agent
- Perceptive Content Server
- Perceptive Content Workflow Agent

All Released Products

- Updated Perceptive Content client/server connection negotiation configuration. (PC-89825)
- Updated Perceptive Content to distribute OpenSSL 1.1.1k. (PC-90324)

All Perceptive Content Agents

- Resolved an issue where Amazon S3 OSM plugin did not include Content-Length header when storing large objects. (PC-90071)
- Resolved an issue on Windows where Amazon S3 OSM plugin would not correctly handle optional TLS client authentication. (PC-90071)
- Updated default ODBC settings for Oracle to enable OCIDescribeAny. Resolves an issue where client information could not be set when connecting to a pluggable database using Oracle instantclient ODBC drivers. (PC-90043)
- A new setting, `odbc.oracle.set_client_info.enabled`, was added to the [ODBC] section of the `inow.ini` configuration file. This setting is enabled by default. For more information see the `inow.ini` [ODBC] settings topic of the Manage Content help. (PC-90043)
- Improved detection of currently installed Perceptive Content agents in Windows installers. (PC-89488)

- Updated Windows installers to encrypt prompted passwords during installation. (PC-89488)
- Updated Windows installers to support installing configuration files into the Active-Active shared directory. (PC-89488)
 - Fax Agent
 - File Processing Agent
 - iConvert Agent
 - Recognition Agent
 - User Replication Agent
- Updated Windows installers to install Monitor Agent configuration files into the Active-Active shared directory. (PC-89488)
- Updated Linux compiler used to build Perceptive Content agents and components. (PC-90019)
- Added support for Oracle native ODBC drivers on Linux. (PC-89529)
- Added support for Oracle Instant Client with ODBC 19.11 and 21.1. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PC-89529)

Perceptive Content Client

- Resolved an issue that prevented the system from populating the drawer after calling the INSetViewerKeys API call with a valid Drawer. (PC-89291)
- Added support for Unicode characters in login profile names in the Perceptive Content Client installer. (PC-89488)
- Perceptive Content now supports KeyView 12.8. (PC-89824)
- Resolved an issue where .EML files would render as text files. (PC-89668)
- Resolved an issue where the client would unexpectedly close when attempting to render certain email files. (PC-89590)

Perceptive Content iConvert

- Added installer dialogs to configure source and destination database ODBC settings. (PC-89488)

Perceptive Content Integration Server

- Resolved an issue where an error was encountered when downloading, exporting, or printing a document with a large number of pages. (PC-89041)
- Added Integration Server authorization API to support issuing Integration Server API bearer tokens. (PC-89798)
- Updated Integration Server Request Headers documentation to include **X-IntegrationServer-Client-Hostname** header. This header should be specified when multiple client sessions are being established from a single host. (PC-90210)
- Added support for bearer token authentication using Perceptive Content access tokens. Perceptive Content access tokens must specify Perceptive Content bearer token scopes for supported

Integration Server API operations. Refer to the Integration Server Operations documentation for more information. (PC-89017)

- Added support for the "psw-document-page-get" Perceptive Content access token scope, which can be used for document page retrieval. See the Integration Server Scopes reference documentation for more information on Perceptive Content bearer token scopes. (PC-89017)
- Resolved an issue where OPTIONS calls against Integration Server endpoints would return 500 errors when CORS filters were disabled. (PC-90335)
- Resolved an Integration Server memory growth issue caused by leaked session caches. (PC-89001)
- Revised best practices for Integration Server Java memory options. Refer to Appendix D: Java Memory configuration in the [Integration Server on Tomcat Installation Guide](#) or [Integration Server on WebSphere Installation Guide](#) for more information. (PC-90025)

Perceptive Content Job Agent

- Resolved a potential database timeout when a large number of job records are waiting for deletion. (PC-90414)

Perceptive Content Management Console

- Added support for managing Perceptive Content users that are permitted to be used in Client Credentials Bearer profiles. (PC-90202)

Perceptive Content Output Agent

- Resolved an issue where a clean installation of Output Agent on Windows overwrites inow.ini ODBC settings. (PC-89047)
- Output Agent now supports KeyView 12.8. (PC-89824)
- Resolved an issue where .EML files would render as text files. (PC-89668)

Perceptive Content Recognition Agent

- Updated the default value for the inserverRec.ini orc.dir setting to be "\$(\IMAGENOWLOCALDIR6)\ocr". (PC-89488)

Perceptive Content Server

- Resolved an issue where audit details were missing document key and custom property values when executing relationship views. (PC-89795)
- Updated Perceptive Content Server installer to detect Active-Active directory locations using the environment.ini file. (PC-89488)
- Added validation of Integration Server API bearer tokens and enforcement of Perceptive Content bearer token scopes. (PC-89016)
- Resolved an issue where view results containing the STX ASCII character could cause view runs to fail with an error. (PC-89549)
- Added support for OAuth 2.0 token introspection for Perceptive Content Bearer profiles. (PC-90201)

- Updated Bearer profiles to support OAuth client credentials flows and mapping of OAuth clients to Perceptive Content users for machine to machine integrations. (PC-90202)
- Added remove-inactive-bearer-profiles intool command to cleanup unused bearer profiles from the Perceptive Content database. (PC-90202)

Perceptive Content Workflow Agent

- Revised default values for workflow queue scheduling to be more efficient. This may increase inserverWorkflow system load. (PC-90444)
- Documented additional Perceptive Content Workflow agent settings and best practices to improve throughput. See **Workflow Agent Performance Tuning** and **inserverWorkflow.ini** Help Topics for more information. (PC-90455)

Known issues

- In an Active-Active environment, configuration files in the local etc directory may be removed when upgrading to Perceptive Content EP4. Back up all configuration files prior to upgrade and ensure all desired settings are applied in the shared etc directory.

Perceptive Content Foundation EP3 (7.6)

Perceptive Content Foundation EP3 (7.6.0.154) Release (June 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Job Agent

This section provides, in alphabetical order, an overview of updates made to existing functionality.

All Released Products

- Updated Perceptive Content to distribute OpenSSL 1.1.1k. (PC-90324)

All Perceptive Content Agents

- Added support for Oracle native ODBC drivers on Linux. (PC-89529)
- Added support for Oracle Instant Client with ODBC 19.11 and 21.1. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PC-89529)

Perceptive Content Job Agent

- Resolved a potential database timeout when a large number of job records are waiting for deletion. (PC-90414)

Perceptive Content Foundation EP3 (7.6.0.142) Release (May 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Integration Server

This section provides, in alphabetical order, an overview of updates made to existing functionality.

Perceptive Content Integration Server

- Resolved an issue where OPTIONS calls against Integration Server endpoints would return 500 errors when CORS filters were disabled. (PC-90335)
- Updated Integration Server Request Headers documentation to include **X-IntegrationServer-Client-Hostname** header. This header should be specified when multiple client sessions are being established from a single host. (PC-90210)

Perceptive Content Foundation EP3 (7.6.0.132) Release (March 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Integration Server

This section provides, in alphabetical order, an overview of updates made to existing functionality.

All Perceptive Content Agents

- Updated default ODBC settings for Oracle to enable OCIDescribeAny. Resolves an issue where client information could not be set when connecting to a pluggable database using Oracle instantclient ODBC drivers. (PC-90043)
- A new setting, `odbc.oracle.set_client_info.enabled`, was added to the [ODBC] section of the `inow.ini` configuration file. This setting is enabled by default. For more information see the `inow.ini [ODBC] settings` topic of the Manage Content help. (PC-90043)

Perceptive Content Integration Server

- Resolved an issue with adding new pages on Content Apps in the Hyland Mobile shell on Android devices. (PC-89808)

Perceptive Content Foundation EP3 (7.6.0.126) Release (February 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Server

All Perceptive Content Agents

- Resolved an issue where Amazon S3 OSM plugin did not include Content-Length header when storing large objects. (PC-90071)
- Resolved an issue on Windows where Amazon S3 OSM plugin would not correctly handle optional TLS client authentication. (PC-90071)

Perceptive Content Client

- Resolved an issue where stamp annotations did not display the correct orientation after an image was saved to the server. (PC-89785)
- Resolved an issue that prevented the system from populating the drawer after calling the INSetViewerKeys API call with a valid Drawer. (PC-89291)

Perceptive Content Server

- Resolved an issue where audit details were missing document key and custom property values when executing relationship views. (PC-89795)

Perceptive Content Foundation EP3 Release (December, 2020)

The following enhancements and updates are included in the initial release of Perceptive Content Foundation EP3.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Integration Server
- Perceptive Content Import Agent
- Perceptive Content Monitor Agent
- Perceptive Content OSM Agent
- Perceptive Content Output Agent

- Perceptive Content Server
- Perceptive Forms Server
- Perceptive Recognition Agent

All Perceptive Content Agents

- Resolved an issue where search parameters containing double hyphens would cause an error. (PC-89173)
- Improved handling for database error 08S01 “Communication link failure”. (PC-89327)
- Resolved an issue in iScript sedbc ODBC library which could result in an agent crash when using Oracle Datadirect drivers on Linux and a stored procedure is executed using an invalid SQL statement. (PC-88496)
- Resolved an issue on Linux where reading XML files in iScript using the inxml library could result in data corruption. (PC-89360)
- Resolved an issue where Amazon S3 OSM plugin used incorrect server hostname when verifying TLS certificates. (PC-89525)
- Updated default ODBC settings for Oracle database to improve performance. The Oracle ODBC setting `odbc.oracle.using.function.based.indexes.recommended.defaults` has been added and is enabled by default. For more information see the [inow.ini \[ODBC\] settings](#) topic of the Manage Content help. (PC-89448)
- Resolved an issue where failure to open a file could result in an agent crash. (PC-89544)

All Released Products

- Updated Perceptive Content to distribute OpenSSL 1.1.1h. (PC-89601)

Perceptive Content Client

- Updated Perceptive Content Client and Perceptive Management Console to support OpenID Connect logins through Integration Server. (PC-89430)
- Extended Perceptive Content Client and Perceptive Management Console connection profiles and configuration to support OpenID Connect login profiles. (PC-89429)
- Updated Perceptive Content Client installer to support OpenID Connect for the default connection profile. The installer only configures a default connection profile on a fresh install of the client. (PC-89440)

Perceptive Content Import Agent

- Resolved an issue where Import Agent would log “File does not exist” error messages despite all the required files being present. (PC-89489)

Perceptive Content Integration Server

- Resolved Forms XSL transform issues when XSL documents contain namespaces. Updated the default Forms XSL transform output method from HTML to XML and added new configuration options to specify the Forms XSL transformation output method and fallback output method. For more

information, see the Forms group under the integrationserver.ini file options topic in the [Perceptive Integration Server for Tomcat Installation Guide](#) or [Perceptive Integration Server for WebSphere Installation Guide](#). (PC-89502)

- Added a new Java XML Configuration option to customize the source stream to use for XSL transformation. When enabled the setting will revert XSL transformation behavior to be consistent with releases prior to Perceptive Content 7.6.0/EP3. For more information, see the `com.imagenow.xml.transformer.factory.use.xml.stream.source` setting in the [Configure Java XML](#) topic in the Manage Content Online Help. (PC-89502)
- Updated the default value for the integrationserver.ini `sso.openid.profile.<profileName>.max.response.value.size` setting to be 512 bytes. (PC-89423)
- Resolved an issue where Integration Server disconnect calls could incorrectly return Unauthorized errors. (PC-89445)
- Resolved a performance issue in Integration Server when reading temporary files that are written if an uploaded file exceeds the `stream.cutoff.size` setting. (PC-89739)
- Update Integration Server to support desktop client OpenID Connect logins. (PC-89431)

Perceptive Content Monitor Agent

- Resolved an issue where Monitor Agent would fail to start if a large number of Windows processes were running on the system. (PC-89594)
- Added a new configuration setting `process.windows.max.count` to `inserverMonitor.ini` to specify the maximum number of Windows processes that can be monitored. For more information, see the [inserverMonitor.ini \[Defaults\] settings](#) topic of the Manage Content help. (PC-89594)

Perceptive Content OSM Agent

- Improved query performance for document OSM set transfers. (PC-89544)

Perceptive Content Output Agent

- Resolved an issue where annotations were incorrectly formatted when using Output Agent to export a document from Perceptive Content. (PC-89082)
- Added a new option, `Clientview`, for the `output.mode` setting in the [General] group of the `inserverOutput.ini` configuration file. This setting allows files exported via Output Agent to more closely match what is produced when exporting from the Perceptive Content desktop client. (PC-89082)

Perceptive Content Server

- Added a new OpenID Connect configuration setting to specify whether to resolve user claims from the UserInfo Endpoint or ID Token. Added new OpenID Connect configuration settings to remove a domain from user claim values. For more information see the `inserver.ini` [\[OpenID Connect Login Profiles\] settings](#) and [\[Bearer Token Login Profiles\] settings](#) topics of the Manage Content help. (PC-89423)
- Resolved an issue where OpenID Provider JWKS could not be imported through OpenID Connect Discovery if the algorithm parameter was missing from the JWK. (PC-89535)

- Added import-public-key intool command to support direct import of public keys to SSO trust store. The command supports DER or PEM public key formats. (PC-89535)
- Improved OpenID Connect error logs to include more details and reduced time travel logging of OpenID Connect errors. (PC-89535)
- Verified OpenID Connect compatibility with Microsoft Active Directory Federation Services. (PC-89423)
- Verified OpenID Connect compatibility with Microsoft Azure Active Directory. (PC-89535)
- Resolved an issue where searching for string custom properties using is blank and is not blank operators returned incorrect results. (PC-89356)
- Improved query performance for document OSM set transfers. (PC-89544)
- Improved hardware licensing support for UEFI and SMBIOS3 Linux environments. (PC-89715)
- Updated Perceptive Content Server to support desktop client OpenID Connect logins. (PC-89431)

Perceptive Forms Server

- Added a new Java XML Configuration option to customize the source stream to use for XSL transformation. When enabled the setting will revert XSL transformation behavior to be consistent with releases prior to Perceptive Content 7.5.0/EP2. For more information, see the `com.imagenow.xml.transformer.factory.use.xml.stream.source` setting in the [Configure Java XML](#) topic in the Manage Content Online Help. (PC-89502)
- Resolved Forms XSL transform issues when XSL documents contain namespaces. Updated the default Forms XSL transform output method from HTML to XML and added new configuration options to specify the Forms XSL transformation output method and back-up output method. For more information, see the Forms group under the `imagenowforms.settings` parameters topic in the [Perceptive Forms Server Installation Guide](#). (PC-89502)
- Upgraded the jQuery version deployed with Perceptive eForms from 3.3.1 to 3.5.1. (PC-89392)

Perceptive Recognition Agent

- Revised iScript error messages. For more information, see the [inow.ini \[iScript\] settings](#) topic of the Manage Content help. (PC-89248)
- Updated the underlying iScript string methods for non-Unicode agents. (PC-89360)

Known Issues

This section provides, in alphabetical order, an overview of known issues in this release.

Perceptive Content Client

- The Perceptive Content Client installer does not support Unicode Connection Profile names. (PC-89757)

Perceptive Content Foundation EP2 (7.5)

Perceptive Content Foundation EP2 (7.5.0.441) Release (July 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client

Perceptive Content Client

Resolved an issue with the LearnMode script AppGetTree() function not working correctly with Google Chrome versions 114 and later. (PER-8653)

Perceptive Content Foundation EP2 (7.5.0.397) Release (September 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Forms Server

Perceptive Content Forms Server

- Added four new secure-processing options to the Java XML settings, `com.imagenow.xml.sax.parser.factory.secure.processing`, `com.imagenow.xml.document.builder.factory.secure.processing`, `com.imagenow.xml.schema.factory.secure.processing`, and `com.imagenow.xml.transformer.factory.secure.processing`. For more information, see the Configure Java XML topic in the Manage Content help. (PER-6942)
- Added four new settings, `forms.xsltcache.filesystem.size`, `forms.xsltcache.memory.size`, `forms.xsltcache.background.enabled`, and `forms.xsltcache.directory` to the [Forms] section in the `imagenowforms.settings` configuration file. These new settings improve form loading performance. The file system XSLT cache can only be used when using the XSLTC TransformerFactory. For more information, see the `imagenowforms.settings` parameter section in the Forms Server Installation Guide. (PER-6942)
- Resolved an issue that prevented some TransformerFactory implementations from creating Transformers in Forms Server. (PER-6942)

Known issues

- The `forms.xsltcache.directory` setting in the `imagenowforms.settings` configuration file should only use relative paths. Using full paths will cause the `filesystem.xsltcache` to fail if `forms.xsltcache.filesystem.size` is enabled.

Perceptive Content Foundation EP2 (7.5.0.383) Release (June 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Server

Perceptive Content Server

- Resolved an issue where Forms Server allowed a document form to be submitted with the same keys as an existing document. (PER-7084)
- Optimized the allocation of converters used for transcoding data during message serialization and de-serialization. (PER-7149)
- Optimized the queries used to associate a view with a department when populating views privileges. (PER-7149)
- Added new settings to manage verbose logging for message protocol serialization and de-serialization. By default, these settings are enabled. For improved performance it is recommended that these settings are disabled. For more information, see the `inow.ini [Debug]` settings topic of the Manage Content help. (PER-7149)

Perceptive Content Foundation EP2 (7.5.0.374) Release (May 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Server

Perceptive Content Client

- Addressed performance issues with message serialization. (PER-7106 and PER-6921)

Perceptive Content Server

- Add setting to allow use of private memory arenas for VSL and database subsystems on Windows. For more information, see the inow.ini [Memory] settings topic of the Manage Content help. (PER-7106 and PER-6921)
- Addressed performance issues with message serialization. (PER-7106 and PER-6921)

Perceptive Content Foundation EP2 (7.5.0.369) Release (April 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content

Perceptive Content Client

- Resolved an issue where the system would not save repeating rows that were added to a form by a user when using Internet Explorer 11 browser Emulation mode. (PER-7005)

Perceptive Content Foundation EP2 (7.5.0.363) Release (March 10, 2022)

The following components are included in this month's patch.

All Patched Products

- Updated the code signing certificate for Windows applications. (PER-6991)

Perceptive Content Foundation EP2 (7.5.0.352) Release (January 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content
- Perceptive Content Integration Server

Perceptive Content

- Improved stability by resolving multi-thread issues when using ImageGear. (PER-7023)

Perceptive Content Integration Server

- Resolved an issue where Forms Server failed to submit a form on the first attempt after a session timeout. (PER-4678)

Perceptive Content Foundation EP2 (7.5.0.347) Release (December 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Integration Server

Perceptive Content Client

- Resolved an issue where creating a filter with a time constraint during Daylight Savings Time could cause the Time value to change back one hour. (PC-90356)

Perceptive Content Integration Server

- Add a new setting, `sso.openid.profile.<profileName>.same.site.cookies.policy`, to the OpenID Connect Login Profiles section of the `integrationserver.ini` configuration file. For more information see the Appendix A: `integrationserver.ini` file options section of the Perceptive Integration Server Installation Guide. (PC-90798)

Perceptive Content Foundation EP2 (7.5.0.330) Release (November 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Integration Server

Perceptive Content Client

- Resolved an issue when outputting a document containing dynamic XFA PDF via print or export would stop with a message box. (PC-90695)

Perceptive Content Integration Server

- Resolved an issue where an anonymous Forms Server user could access Integration Server APIs unrelated to forms. (PC-90753)

Perceptive Content Foundation EP2 (7.5.0.323) Release (October 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content OSM Agent

All Perceptive Content Agents

- Updated method used to update the last access time on IN_PHSOB_CACHE database records. (PC-90666)

Perceptive Content Client

- Resolved an issue in Workflow Viewer/Explorer where the Launch Associated Application button would not work. (PC-90681)

Perceptive Content OSM Agent

- Resolved an issue where physical object records could not be deleted after being copied between OSM sets. (PC-90666)
- Resolved an issue with lock contention on the IN_PHSOB_CACHE table when deleting physical objects that do not have a IN_PHSOB_CACHE record. (PC-90666)

Perceptive Content Foundation EP2 (7.5.0.317) Release (September 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content File System
- Perceptive Content Integration Server
- Perceptive Content Server
- Perceptive Forms Server

All Released Products

- Resolved an issue where large file sizes could not be represented. Improved support for storing and receiving large files. (PC-89776)

Perceptive Content File System

- Resolved issue with contention between two File System Agent instances attempting to perform the same work when running in active-active. (PC-90497)
- Added settings to be able to parallelize destroy work actions. Refer to the `inserverFS.ini` help topic in for more information. (PC-90497)

Perceptive Content Integration Server

- Resolved an issue where the service status endpoint would cause a socket error in Perceptive Content Server logs. (PC-90603)
- Updated `stream.transfer.chunk.size` default value to facilitate large file streams. (PC-89776)
- Resolved an issue that could cause certain forms to not load properly. (PC-90590)
- Updated the `web.xml` configuration file to include the authorization header under the `cors.allowed.headers` parameter. This header is required to log into Android devices using OIDC sessions. (PC-90595)

Perceptive Content Server

- Added configuration for buffer sizes used to stream content. Updated default values to facilitate large file streams. (PC-89776)
- `iScript INStream.read(Buffer, int, int)` member function cannot be used for streams over 1GB in size. (PC-90610)
- Resolved an issue with the system incorrectly truncating data written to the database as part of the Search Audit. (PC-90647)
- Reviewed and updated database transactions to ensure transactions would be fully rolled back prior to establishing a new transaction context. (PC-90639)
- Resolved a database locking issue that could result in errors in the session monitor log file. (PC-90639)
- Resolved incorrect error message displayed when a select lock statement is made on the same record with `NOWAIT` specified. (PC-90639)

Perceptive Forms Server

- Resolved an issue that could cause certain forms to not load properly. (PC-90590)

Known Issues

- Amazon S3 OSM plugin does not support streaming objects larger than 2.3GB.

Perceptive Content Foundation EP2 (7.5.0.300) Release (August 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Business Insight
- Perceptive Content Client
- Perceptive Content Integration Server
- Perceptive Content Server

All Perceptive Content Agents

- Updated Amazon S3 plugin to support `ObjectKeyNameSuffix` property. Refer to the Perceptive Content External OSM Plugin Best Practices Guide for more information. (PC-90588)

Perceptive Business Insight

- Business Insight now views reports using the browser that is set as the default browser on the user's workstation. (PC-90446)

Perceptive Content Client

- Resolved an issue in Perceptive Management Console that prevented the user from adjusting the column widths on the **Custom Properties** tab in the **Modify <Item> Type** dialog box. (PC-90200)

Perceptive Content Integration Server

- Updated documentation for document API calls to include only supported values for the `actionType` query parameter. (PC-90213)

Perceptive Content Server

- Resolved an issue that could cause server instability when deleting a large batch of pages simultaneously. (PC-90383)

Perceptive Content Foundation EP2 (7.5.0.289) Release (July 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Integration Server
- Perceptive Content Workflow Agent

Perceptive Content Integration Server

- Resolve an Integration Server memory growth issue caused by leaked session caches. (PC-89001)

Perceptive Content Workflow Agent

- Documented additional Perceptive Content Workflow agent settings and best practices to improve throughput. See **Workflow Agent Performance Tuning** and **inserverWorkflow.ini** Help Topics for more information. (PC-90455)

Perceptive Content Foundation EP2 (7.5.0.284) Release (June 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Job Agent

All Released Products

- Updated Perceptive Content to distribute OpenSSL 1.1.1k. (PC-90324)

All Perceptive Content Agents

- Added support for Oracle native ODBC drivers on Linux. (PC-89529)
- Added support for Oracle Instant Client with ODBC 19.11 and 21.1. See the Perceptive Content Technical Specifications for ODBC driver and operating system compatibility. (PC-89529)

Perceptive Content Job Agent

- Resolved a potential database timeout when a large number of job records are waiting for deletion. (PC-90414)

Perceptive Content Foundation EP2 (7.5.0.276) Release (May 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Integration Server

Perceptive Content Integration Server

- Resolved an issue where OPTIONS calls against Integration Server endpoints would return 500 errors when CORS filters were disabled. (PC-90335)

Perceptive Content Foundation EP2 (7.5.0.266) Release (March 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Integration Server

All Perceptive Content Agents

- Updated default ODBC settings for Oracle to enable OCIDescribeAny. Resolves an issue where client information could not be set when connecting to a pluggable database using Oracle instantclient ODBC drivers. (PC-90043)
- A new setting, `odbc.oracle.set_client_info.enabled`, was added to the [ODBC] section of the `inow.ini` configuration file. This setting is enabled by default. For more information see the `inow.ini [ODBC]` settings topic of the Manage Content help. (PC-90043)

Perceptive Integration Server

- Resolved an issue with adding new pages on Content Apps in the Hyland Mobile shell on Android devices. (PC-89808)

Perceptive Content Foundation EP2 (7.5.0.261) Release (February 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Integration Server

All Perceptive Content Agents

- Resolved an issue where Amazon S3 OSM plugin did not include Content-Length header when storing large objects. (PC-90071)
- Resolved an issue on Windows where Amazon S3 OSM plugin would not correctly handle optional TLS client authentication. (PC-90071)

Perceptive Content Client

- Resolved an issue where stamp annotations did not display the correct orientation after an image was saved to the server. (PC-89785)

- Resolved an issue that prevented the system from populating the drawer after calling the `INSetViewerKeys` API call with a valid Drawer. (PC-89291)

Perceptive Content Server

- Resolved a performance issue in Integration Server when reading temporary files that are written if an uploaded file exceeds the `stream.cutoff.size` setting. (PC-89739)
- Resolved an issue where audit details were missing document key and custom property values when executing relationship views. (PC-89795)

Perceptive Content Foundation EP2 (7.5.0.245) Release (December 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Server

All Released Products

- Updated Perceptive Content to distribute OpenSSL 1.1.1h. (PC-89601)

Perceptive Content Server

- Improved hardware licensing support for UEFI and SMBIOS3 Linux environments. (PC-89715)
- Resolved an issue where adding a private filter to a sub queue removed statistics on the sub queue. (PC-89537)

Note To see the statistics on a sub queue after you create a private filter on the queue, you may be required to perform a **Restore Default View** on the super queue, and then re-create the status.

Perceptive Content Foundation EP2 (7.5.0.232) Release (November 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Business Insight
- Perceptive Content Monitor Agent
- Perceptive Content Server
- Perceptive Integration Server

Perceptive Business Insight

- Restored the following DOD reports, Audit Action report, Destruction report, and Disposition report. (PCBI-57)

Perceptive Content Monitor Agent

- Resolved an issue where Monitor Agent would fail to start if a large number of Windows processes were running on the system. (PC-89594)
- Added a new configuration setting `process.windows.max.count` to `inserverMonitor.ini` to specify the maximum number of Windows processes that can be monitored. For more information, see the [inserverMonitor.ini \[Defaults\] settings](#) topic of the Manage Content help. (PC-89594)

Perceptive Content Server

- Resolved an issue where a user group could be deleted even though it was associated with a custom property. (PC-89343)
- Resolved an issue where older EP1 clients were allowed to connect to an EP2 server. All EP1 clients must be updated to an EP2 release in order to resolve known compatibility issues between EP1 and EP2 server versions. (PC-89645)

Perceptive Integration Server

- Resolved an issue where Forms Server did not accept agent token authentication. (PC-89404)

Perceptive Content Foundation EP2 (7.5.0.219) Release (October 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content OSM Agent
- Perceptive Content Server
- Perceptive Forms Server

All Perceptive Content Agents

- Updated default ODBC settings for Oracle database to improve performance. The Oracle ODBC setting `odbc.oracle.using.function.based.indexes.recommended.defaults` has been added and is enabled by default. For more information see the [inow.ini \[ODBC\] settings](#) topic of the Manage Content help. (PC-89448)
- Resolved an issue where failure to open a file could result in an agent crash. (PC-89544)

Perceptive Content OSM Agent

- Improved query performance for document OSM set transfers. (PC-89544)

Perceptive Content Server

- Improved query performance for document OSM set transfers. (PC-89544)

Perceptive Forms Server

- Resolved an issue where Forms Server dialog boxes would become cropped when moving them. (PC-89260)

Perceptive Content Foundation EP2 (7.5.0.210) Release (September 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Import Agent
- Perceptive Content Integration Server
- Perceptive Content OSM Agent
- Perceptive Content Output Agent
- Perceptive Content Server
- Perceptive Forms Server
- Perceptive Content Output Agent

All Perceptive Content Agents

- Resolved an issue where Amazon S3 OSM plugin used incorrect server hostname when verifying TLS certificates. (PC-89525)

Perceptive Content Import Agent

- Resolved an issue where Import Agent would log "File does not exist" error messages despite all the required files being present. (PC-89489)

Perceptive Content Integration Server

- Resolved Forms XSL transform issues when XSL documents contain namespaces. Updated the default Forms XSL transform output method from HTML to XML and added new configuration options to specify the Forms XSL transformation output method and fallback output method. For more information, see the Forms group under the integrationserver.ini file options topic in the [Perceptive Integration Server for Tomcat Installation Guide](#) or [Perceptive Integration Server for WebSphere Installation Guide](#). (PC-89508)

- Resolved an issue where Integration Server disconnect calls could incorrectly return Unauthorized errors. (PC-89445)

Perceptive Content Output Agent

- Resolved an issue where annotations were incorrectly formatted when using Output Agent to export a document from Perceptive Content. (PC-89082)
- Added a new option, Clientview, for the output.mode setting in the [General] group of the inserverOutput.ini configuration file. This setting allows files exported via Output Agent to more closely match what is produced when exporting from the Perceptive Content desktop client. (PC-89082)

Perceptive Content Server

- Resolved an issue where OpenID Provider JWKs could not be imported through OpenID Connect Discovery if the algorithm parameter was missing from the JWK. (PC-89535)
- Added import-public-key intool command to support direct import of public keys to SSO trust store. The command supports DER or PEM public key formats. (PC-89535)
- Improved OpenID Connect error logs to include more details and reduced time travel logging of OpenID Connect errors. (PC-89535)
- Verified OpenID Connect compatibility with Microsoft Azure Active Directory. (PC-89535)
- Resolved an issue where searching for string custom properties using `is blank` and `is not blank` operators returned incorrect results. (PC-89356)
- Improved query performance for document OSM set transfers. (PC-89544)

Perceptive Forms Server

- Resolved Forms XSL transform issues when XSL documents contain namespaces. Updated the default Forms XSL transform output method from HTML to XML and added new configuration options to specify the Forms XSL transformation output method and back-up output method. For more information, see the Forms group under the `imagenowforms.settings` parameters topic in the [Perceptive Forms Server Installation Guide](#). (PC-89508)

Perceptive Content Foundation EP2 (7.5.0.184) Release (August 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Server
- Perceptive Content Integration Server
- Perceptive Forms Server

- Perceptive Recognition Agent

All Perceptive Content Agents

- Resolved an issue where search parameters containing double hyphens would cause an error. (PC-89173)
- Improved handling for database error 08S01 "Communication link failure". (PC-89327)
- Resolved an issue in iScript sedbc ODBC library which could result in an agent crash when using Oracle Datadirect drivers on Linux and a stored procedure is executed using an invalid SQL statement. (PC-88496)
- Resolved an issue on Linux where reading XML files in iScript using the inxml library could result in data corruption. (PC-89360)

Perceptive Content Integration Server

- Added a new Java XML Configuration option to customize the source stream to use for XSL transformation. When enabled the setting will revert XSL transformation behavior to be consistent with releases prior to Perceptive Content 7.5.0/EP2. For more information, see the `com.imagenow.xml.transformer.factory.use.xml.stream.source` setting in the [Configure Java XML](#) topic in the Manage Content Online Help. (PC-89502)
- Updated the default value for the `integrationserver.ini` `sso.openid.profile.<profileName>.max.response.value.size` setting to be 512 bytes. (PC-89423)

Perceptive Content Server

- Added a new OpenID Connect configuration setting to specify whether to resolve user claims from the UserInfo Endpoint or ID Token. Added new OpenID Connect configuration settings to remove a domain from user claim values. For more information see the `inserver.ini` [\[OpenID Connect Login Profiles\] settings](#) and [\[Bearer Token Login Profiles\] settings](#) topics of the Manage Content help. (PC-89423)
- Verified OpenID Connect compatibility with Microsoft Active Directory Federation Services. (PC-89423)

Perceptive Forms Server

- Added a new Java XML Configuration option to customize the source stream to use for XSL transformation. When enabled the setting will revert XSL transformation behavior to be consistent with releases prior to Perceptive Content 7.5.0/EP2. For more information, see the `com.imagenow.xml.transformer.factory.use.xml.stream.source` setting in the [Configure Java XML](#) topic in the Manage Content Online Help. (PC-89502)

Perceptive Recognition Agent

- Revised iScript error messages. For more information, see the `inow.ini` [\[iScript\] settings](#) topic of the Manage Content help. (PC-89248)
- Updated the underlying iScript string methods for non-Unicode agents. (PC-89360)

Perceptive Content Foundation EP2 Release (June, 2020)

The following enhancements and updates are included in the initial release of Perceptive Content Foundation EP2.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Business Insight
- Perceptive Content Client
- Perceptive Content OSM Agent
- Perceptive Content Server
- Perceptive Content User Replication Agent
- Perceptive File Processing Agent
- Perceptive Forms Server
- Perceptive Integration Server

All Perceptive Content Agents

- Resolved an issue where installers may not preserve inow.ini settings while performing an upgrade or a clean install when Perceptive Content Server is installed. Updated installers for Fax Agent, File Processing Agent, iConvert Agent, Output Agent, and Perceptive Content Server. (PC-88845)
- Updated Perceptive Content to consume OpenSSL 1.1.1 LTS. (PC-87605)
- Updated Perceptive Content to consume Microsoft C++ Rest SDK 2.10.14. (PC-87605)
- Perceptive Content now supports RabbitMQ version 3.8. (PC-89085)
- Updated Oracle and PostgreSQL database connections to use forward-only cursors. (PC-88976)
- Using forward-only cursors with the Oracle native ODBC driver resolved an issue where the driver incorrectly caused parse errors in the database trace file. (PC-88976)
- Improved database transaction error handling. (PC-89119)
- Improved handling for Oracle error HY000 -5 "Unexpected Network Error". (PC-88808)
- Limited number of retries when database lock timeout occurs. (PC-89265)
- Updated XML policies to prevent external XML access by default. For more information, see the [inow.ini \[XML\] settings](#) topic in the Manage Content online help. (PC-88799)
- Updated agents to use inuser.IN_DOC table for document and record creation time. (PC-88979)

All Released Products

- Updated the code signing certificate for Windows applications. (PC-89088)

Perceptive Business Insight

- Perceptive Content now supports IBM Cognos Business Intelligence 11.1.3. (PC-88160)

Perceptive Content Client

- Perceptive Content Client and Server now support opening multiple workflow viewer windows. (PC-89081)
- A new setting, `allow.multiple.item.open`, was added to the [Workflow] section of the `inow.ini` configuration file. This setting specifies whether or not the client supports opening multiple workflow viewer windows. (PC-89081)
- Updated Forms Viewer XSLT provider to be MSXML6. Prevent XML external XML access access by default. For more information, see the [Forms] and [XML] sections of the `imagenow.ini` documentation. (PC-88799)

Perceptive Content OSM Agent

- Resolved an issue where database errors could result in an agent crash while triggering recovery. (PC-89362)

Perceptive Content Server

- LDAP configurations now specify Secure LDAP by default. On upgrade, configurations that rely on default values now assume new values and enable TLS and use port 636. Administrators should review LDAP configurations prior to upgrading to ensure Secure LDAP is configured. (PC-89060)
- Resolved an issue where socket errors could result in higher CPU utilization on Linux. (PC-88712)
- Updated audit elements names for privileges from `<_xxxx>` to `<priv_xxxx>`. For example, `<_2510>...</_2510>` is now `<priv_2510>...</priv_2510>`. (PC-88480)
- Resolved an issue where database connectivity issues could cause the server to unexpectedly close. (PC-89348)
- Resolved an issue where the text of a stamp annotation or text annotation in iScript would have non-text content. (PC-88622)
- Updated Perceptive Content error messages for file operation errors. (PC-88800)
- Resolved an issue with `intool` where LDAP authentication could fail when multiple LDAP servers were configured. (PC-70362)
- Verified OpenID Connect compatibility with Hyland Identity Provider (IdP) v2.2.0. (PC-89205)

Known issues

Perceptive Content Server Foundation EP2 contains the following known issue.

- Agent token-based authentication does not currently work for Forms Server. Legacy authentication must be enabled for Forms Server to function. This can be set in the Integration Server configuration by setting `agent.legacy.authentication.method.enabled=TRUE`. This issue will be resolved in a future release. (PC89404)

Perceptive Content User Replication Agent

- LDAP configurations now specify Secure LDAP by default. On upgrade, configurations that rely on default values now assume new values and enable TLS and use port 636. Administrators should review LDAP configurations prior to upgrading to ensure Secure LDAP is configured. (PC-89060)

Perceptive File Processing Agent

- Updated Forms Flattener XSLT provider to be MSXML6. (PC-88799)

Perceptive Forms Server

- Updated Java XML policies to prevent external XML access by default. For more information, see the [Configure Java XML](#) topic in the Manage Content Online Help. (PC-88799)

Perceptive Integration Server

- Updated Integration Server login error messages to be consistent. (PC-88801)
- Updated Java XML policies to prevent external XML access by default. For more information, see the [Configure Java XML](#) topic in the Manage Content Online Help. (PC-88799)

Perceptive Content Foundation EP2 (7.4.0.xxx) Release (September 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Output Agent
- Perceptive Content Server

Perceptive Content Output Agent

- Resolved an issue where annotations were incorrectly formatted when using Output Agent to export a document from Perceptive Content. (PC-89082)
- Added a new option, Clientview, for the output.mode setting in the [General] group of the inserverOutput.ini configuration file. This setting allows files exported via Output Agent to more closely match what is produced when exporting from the Perceptive Content desktop client. (PC-89082)

Perceptive Content Foundation EP1 (7.4)

Perceptive Content Foundation EP1 (7.4.0.267) Release (June 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Server

Perceptive Content Server

- Resolved an issue where database connectivity issues could result in a server crash. (PC-89348)

Perceptive Content Foundation EP1 (7.4.0.261) Release (May 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client

All Perceptive Content Agents

- Improved database transaction error handling. (PC-89119)
- Improved handling for Oracle error HY000 -5 "Unexpected Network Error". (PC-88808)
- Limited number of retries when database lock timeout occurs. (PC-89265)

Perceptive Content Client

- Resolved an issue where typeahead search functionality would not work correctly when routing an item in workflow. (PC-89210)
- Resolved an issue where the client could terminate unexpectedly when opening a workflow item. (PC-89126)
- Resolved an issue in the client where multiple pages exported to a single PDF file were distorted due to different page sizes. (PC-89108)

Perceptive Content Foundation EP1 (7.4.0.247) Release (April 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Server

All Released Products

- Updated the code signing certificate for Windows applications. (PC-89088)

Perceptive Content Server

- Resolved an issue where audit files could have invalid XML content. (PC-88480)

Perceptive Content Foundation EP1 (7.4.0.237) Release (March 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Integration Server

All Perceptive Content Agents

- Perceptive Content now supports RabbitMQ version 3.8. (PC-89085)

Perceptive Integration Server

- A new setting, `session.cookie.samesite.policy`, was added to the [General] section of the `integrationserver.ini` configuration file. For more information, see the "Appendix A; integrationserver.ini file options" section of the Perceptive Integration Server Installation Guide. (PC-89087)

Perceptive Content Foundation EP1 (7.4.0.228) Release (February 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Server
- Perceptive Forms Server

All Perceptive Content Agents

- Resolved an issue where installers may not preserve `inow.ini` settings while performing an upgrade or a clean install when Perceptive Content Server is installed. Updated installers for Fax Agent, File Processing Agent, iConvert Agent, Output Agent, and Perceptive Content Server. (PC-88845)

Perceptive Content Server

- Resolved an issue where socket errors could result in higher CPU utilization on Linux. (PC-88712)

Perceptive Forms Server

- Resolved an issue where form data populated by a URL parameter could persist when opening a different form. (PC-88599)

Microsoft 2020 LDAP Advisory

Microsoft 2020 LDAP channel binding and LDAP signing requirements

This requirement applies to the following:

- Perceptive Content Server LDAP Authentication
- Perceptive Content User Replication Agent
- Perceptive Content Management Console LDAP User Import
- Perceptive Content Integration Server X.509 LDAP Authentication

Microsoft plans to release a security update to all Windows versions in March 2020 that requires Lightweight Directory Access Protocol (LDAP) channel binding and LDAP signing. Hyland has reviewed the proposed changes and has identified potential impacts to Perceptive Content. To satisfy the new LDAP signing requirements, Perceptive Content LDAP configurations must support SSL/TLS and bind on port 636. LDAP configurations that do not leverage SSL/TLS and bind on port 389 will no longer work when Microsoft releases the LDAP security update in March. Hyland recommends that System Administrators review Microsoft Security Advisory ADV190023 and ensure that their Perceptive Content LDAP configurations are configured to use SSL/TLS. For any assistance needed relating to Perceptive Content LDAP configurations please contact Hyland Global Support.

For more information, see the following blog post on Hyland Community.

<https://community.hyland.com/en/blog/posts/72137-2020-ldap-channel-binding-and-ldap-signing-requirement-for-window>

Perceptive Content Foundation EP1 (7.4.0.208) Release (December, 2019)

The following enhancements and updates are included in the initial release of Perceptive Content Foundation EP1.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Fax Agent
- Perceptive Content Output Agent
- Perceptive Content Recognition Agent
- Perceptive Content Server
- Perceptive Content User Replication Agent

All released products

- Added Digital Signature to Perceptive Content installers. (PC-85482)
- Updated timestamping authority for signed Perceptive Content Windows applications and Java clients. (PC-88720)
- Removed WebNow application support. (PC-88508)

All Perceptive Content Agents

- Agents now properly escape ODBC connection strings when making database connections. (PC-88691)

Perceptive Content Client

- Removed WebNow product references from interface. (PC-88508)
- Output profiles that sent WebNow links now use ImageNow link type.
- Perceptive Content Client now supports the loading of static XFA PDFs for printing. (PC-76088)

Perceptive Content Fax Agent

- Resolved an issue where the previous Monitor Agent service was not removed during an Installer Major Upgrade on Windows. (PC-88763)

Perceptive Content Output Agent

- Perceptive Content Output Agent now supports the loading of static XFA PDFs. (PC-76088)
- Resolved an issue where the previous Monitor Agent service was not removed during an Installer Major Upgrade on Windows. (PC-88763)

Perceptive Content Recognition Agent

- Resolved an issue where the previous Monitor Agent service was not removed during an Installer Major Upgrade on Windows. (PC-88763)

Perceptive Content Server

- Resolved an issue where retention policies would not correctly calculate the number of days in a leap year when selecting documents to purge. (PC-86887)
- Resolved an issue where the previous Monitor Agent service was not removed during an Installer Major Upgrade on Windows. (PC-88763)
- Optimized server call that was invoked on user login to prevent client-side timeout when user has permissions to view a large number of views. (TFS77734)
- A new setting, `init.cache.vsl.rules.for.views`, was added to the [General] section of the `inserver.ini` configuration file. For more information, see the “`inserver.ini` [General] settings” topic of the Manage Content help. (TFS77734)
- Perceptive Content Server now supports Oracle 12c R2 (12.2.0.1), 18c and 19c.

- Added new settings for performance improvements when Perceptive Content agents are using an Oracle database. For more information, see the “inow.ini [ODBC]” settings topic of the Manage Content help. (PC-88120)
- iScript: Removed the parameter, attachWebNowLink, from the INTaskTemplate object. (PC-88508)
- iScript: The INTaskTemplate object functions getinfo() no longer supports the attachWebNowLink parameter. (PC-88505)
- Filtered indexes, which help promote improved query performance, are now part of the Perceptive Content database schema. For instructions on creating and using filtered indexes, see the Special Considerations section of the Perceptive Content Update Guide. (PC-88526)

Perceptive Content User Replication Agent

- Resolved an issue where the previous Monitor Agent service was not removed during an Installer Major Upgrade on Windows. (PC-88763)
- Resolved an issue where User Replication Agent would unexpectedly terminate when running as a remote agent. (PC-88686)

Perceptive Content 7.3

Perceptive Content 7.3.0.584 Release (July 10, 2023)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client

Perceptive Content Client

- Resolved an issue with the LearnMode script AppGetTree() function not working correctly with Google Chrome versions 114 and later. (PER-8653)

Perceptive Content 7.3.0.xxx Release (March 10, 2022)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

All Patched Products

- Updated the code signing certificate for Windows applications and WebNow. (PER-6991)

Perceptive Content 7.3.0.567 Release (December 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client

Perceptive Content Client

- Resolved an issue where creating a filter with a time constraint during Daylight Savings Time could cause the Time value to change back one hour. (PC-90356)

Perceptive Content 7.3.0.558 Release (February 10, 2021)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Integration Server

Perceptive Content Server

- Resolved a performance issue in Integration Server when reading temporary files that are written if an uploaded file exceeds the stream.cutoff.size setting. (PC-89739)

Perceptive Content 7.3.0.549 Release (December 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Server

Perceptive Content Server

- Improve hardware licensing support for UEFI and SMBIOS3 Linux environments. (PC-89715)

Perceptive Content 7.3.0.544 Release (November 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Server

Perceptive Content Server

- Resolved an issue where a user group could be deleted even though it was associated with a custom property. (PC-89343)

Perceptive Content 7.3.0.537 Release (October 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Forms Server

Perceptive Forms Server

- Resolved an issue where Forms Server dialog boxes would become cropped when moving them. (PC-89260)

Perceptive Content 7.3.0.532 Release (September 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Output Agent
- Perceptive Content Server

All Perceptive Content Agents

- Resolved an issue where Amazon S3 OSM plugin used incorrect server hostname when verifying TLS certificates. (PC-89525)

Perceptive Content Output Agent

- Resolved an issue where annotations were incorrectly formatted when using Output Agent to export a document from Perceptive Content. (PC-89082)
- Added a new option, Clientview, for the output.mode setting in the [General] group of the inserverOutput.ini configuration file. This setting allows files exported via Output Agent to more closely match what is produced when exporting from the Perceptive Content desktop client. (PC-89082)

Perceptive Content Server

- Resolved an issue where searching for string custom properties using `is blank` and `is not blank` operators returned incorrect results. (PC-89356)

Perceptive Content 7.3.0.521 Release (August 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Recognition Agent

All Perceptive Content Agents

- Resolved an issue in iScript sedbc ODBC library which could result in an agent crash when using Oracle Datadirect drivers on Linux and a stored procedure is executed using an invalid SQL statement. (PC-88496)
- Resolved an issue on Linux where reading XML files in iScript using the `inxml` library could result in data corruption. (PC-89360)

Perceptive Recognition Agent

- Revised iScript error messages. For more information, see the [inow.ini \[iScript\] settings](#) topic of the Manage Content help. (PC-89248)
- Updated the underlying iScript string methods for non-Unicode agents. (PC-89360)

Perceptive Content 7.3.0.509 Release (July 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content OSM Agent
- Perceptive Content Server
- Perceptive Forms Server
- Perceptive Integration Server

All Perceptive Content Agents

- Resolved an issue where database connectivity issues could result in an agent crash. (PC-89362)
- Resolved an issue where search parameters containing double hyphens would cause an error. (PC-89173)
- Improved handling for database error 08S01 "Communication link failure". (PC-89327)

Perceptive Content OSM Agent

- Resolved an issue where database errors could result in an agent crash while triggering recovery. (PC-89362)

Perceptive Content Server

- Resolved potential cross-site scripting vulnerabilities in Perceptive Forms Server. (PC-89244, PC-89245, and PC-89246)
- Revised iScript error messages. For more information, see the inow.ini [iScript] settings topic of the Manage Content help. (PC-89248)

Forms Server

- Resolved potential cross-site scripting vulnerabilities in Perceptive Forms Server. (PC-89244, PC-89245, and PC-89246)

Integration Server

- Resolved potential cross-site scripting vulnerabilities in Perceptive Forms Server. (PC-89244, PC-89245, and PC-89246)

Perceptive Content 7.3.0.500 Release (June 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Server

Perceptive Content Server

- Resolved an issue where database connectivity issues could result in a server crash. (PC-89348)

Perceptive Content 7.3.0.494 Release (May 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client

All Perceptive Content Agents

- Improved database transaction error handling. (PC-89119)
- Improved handling for Oracle error HY000 -5 "Unexpected Network Error". (PC-88808)

- Limited number of retries when database lock timeout occurs. (PC-89265)

Perceptive Content Client

- Resolved an issue where typeahead search functionality would not work correctly when routing an item in workflow. (PC-89210)
- Resolved an issue where the client could terminate unexpectedly when opening a workflow item. (PC-89126)
- Resolved an issue in the client where multiple pages exported to a single PDF file were distorted due to different page sizes. (PC-89108)

Perceptive Content 7.3.0.479 Release (April 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Server

All Released Products

- Updated the code signing certificate for Windows applications and WebNow. (PC-89088)

Perceptive Content Server

- Resolved an issue where audit files could have invalid XML content. (PC-88480)

Perceptive Content 7.3.0.471 Release (March 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Server
- Perceptive Integration Server

All Perceptive Content Agents

- Perceptive Content Database now supports Oracle 18c and 19c. (PC-88430)
- Perceptive Content now supports RabbitMQ version 3.8. (PC-89085)

Perceptive Content Server

- Resolved an issue where the `intool db-schema-validation` command did not correctly identify invisible indexes on Oracle database versions 18c and 19c. (PC-88430)

Perceptive Integration Server

- A new setting, `session.cookie.samesite.policy`, was added to the [General] section of the `integrationserver.ini` configuration file. For more information, see the “Appendix A; integrationserver.ini file options” section of the Perceptive Integration Server Installation Guide. (PC-89087)

Perceptive Content 7.3.0.460 Release (February 10, 2020)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Server
- Perceptive Forms Server

All Perceptive Content Agents

- Resolved an issue where installers may not preserve `inow.ini` settings while performing an upgrade or a clean install when Perceptive Content Server is installed. Updated installers for Fax Agent, File Processing Agent, iConvert Agent, Output Agent, and Perceptive Content Server. (PC-88845)

Perceptive Content Server

- Resolved an issue where socket errors could result in higher CPU utilization on Linux. (PC-88712)

Perceptive Forms Server

Resolved an issue where form data populated by a URL parameter could persist when opening a different form. (PC-88599)

Microsoft 2020 LDAP Advisory

Microsoft 2020 LDAP channel binding and LDAP signing requirements

This requirement applies to the following:

- Perceptive Content Server LDAP Authentication
- Perceptive Content User Replication Agent
- Perceptive Content Management Console LDAP User Import
- Perceptive Content Integration Server X.509 LDAP Authentication

Microsoft plans to release a security update to all Windows versions in March 2020 that requires Lightweight Directory Access Protocol (LDAP) channel binding and LDAP signing. Hyland has reviewed the proposed changes and has identified potential impacts to Perceptive Content. To satisfy the new LDAP signing requirements, Perceptive Content LDAP configurations must support SSL/TLS and bind on

port 636. LDAP configurations that do not leverage SSL/TLS and bind on port 389 will no longer work when Microsoft releases the LDAP security update in March. Hyland recommends that System Administrators review Microsoft Security Advisory ADV190023 and ensure that their Perceptive Content LDAP configurations are configured to use SSL/TLS. For any assistance needed relating to Perceptive Content LDAP configurations please contact Hyland Global Support.

For more information, see the following blog post on Hyland Community.

<https://community.hyland.com/en/blog/posts/72137-2020-ldap-channel-binding-and-ldap-signing-requirement-for-window>

Perceptive Content 7.3.0.444 Release (December 10, 2019)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client
- Perceptive Content Integration Server
- Perceptive Content Local Agent
- Perceptive Content Server
- Perceptive Content User Replication Agent

All patched products

- Updated timestamping authority for signed Perceptive Content Windows applications and Java clients. (PC-88720)

All Perceptive Content Agents

- Agents now properly escape ODBC connection strings when making database connections. (PC-88691)

Perceptive Content Client

- Resolved an issue where the client would incorrectly display the toolbar after logging in. (PC-88620)

Perceptive Content Integration Server

- Adding settings to control File Conversion Service connection pool and connection pool lifetimes. (PC-88704)

Perceptive Content Server

- Optimized server call that was invoked on user login to prevent client-side timeout when user has permissions to view a large number of views. (TFS77734)

- A new setting, `init.cache.vsl.rules.for.views`, was added to the [General] section of the `inserver.ini` configuration file. For more information, see the “`inserver.ini [General]`” settings topic of the Manage Content help. (TFS77734)
- Added new settings for performance improvements when Perceptive Content agents are using an Oracle database. For more information, see the “`inow.ini [ODBC]`” settings topic of the Manage Content help. (PC-88761)
- Added configuration settings for reusing connections when database errors occur. (PC-88704)
- Improved database query performance when resolving global privileges for users. (PC-88704)
- Improved a database query for monitoring connections so that it can better leverage custom indexes. (PC-88704)
- Perceptive Content Server now supports Oracle 12c R2 (12.2.0.1).

Perceptive Content User Replication Agent

- Resolved an issue where User Replication Agent would unexpectedly terminated when running as a remote agent. (PC-88686)

Perceptive Content 7.3.0.424 Release (November 10, 2019)

The following components are included in this month’s patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Client

Perceptive Content Client

- Resolved an issue with zoom regions not working in the client. (PC-88638)
- Resolved an issue with the font type and size not setting correctly in the Viewer options. (PC-88596)
- Resolved an issue where completed tasks were not displaying in the view results. (PC-88560)

Perceptive Content 7.3.0.408 and 7.3.0.411 Release (October 10, 2019)

The following components are included in this month’s patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Business Insight
- Perceptive Content Server
- WebNow

Business Insight

- Added a new form, eForm Group Security, that allows you to view the privileges granted to group members for an eForm. (PC-88510)
- Added a new form, eForm User Security, that allows you to view the privileges granted to a user for an eForm. (PC-88510)

Perceptive Content Server

- Resolved an issue where characters were being interpreted as wildcards in certain VSL query statements. (PC-73548)

WebNow

- Resolved an issue where the system would save eForm data to the wrong document after a previous eForm was opened. (PC-88517)

Perceptive Content 7.3.0.401 Release (September 10, 2019)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content
- Perceptive Content Client
- Perceptive Content Server
- Perceptive Recognition Agent

Perceptive Content

- Resolved an issue where iScript would return corrupted form data if it contained an asterisk. This issue affected Perceptive Forms Server and Perceptive Experience. (PC-87051)

Perceptive Content Client

- Resolved issue where a trailing space on doc key entry would prevent updates from being saved in a workflow context. (PC-88479)

Perceptive Content Server

- Resolved an issue in workflow where custom properties could not be modified after being saved. (PC-73863)

Perceptive Recognition Agent

- Resolved an issue where Perceptive Recognition Agent would unexpectedly close when processing 0kb files. (PC-88394)

Perceptive Content 7.3.0.386 Release (August 10, 2019)

The following components are included in this month's patch.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Content Server

Perceptive Content Server

- Resolved an issue where license renewal could result in query timeouts when running in an active-active environment. (PC-88202)

Perceptive Content 7.3.0.375 Release (June 19, 2019)

The following enhancements and updates are included in the initial release of Perceptive Content 7.3.x.

Product updates

This section provides, in alphabetical order, an overview of updates made to existing functionality.

- Perceptive Business Insight
- Perceptive Content Client
- Perceptive Content Integration Server
- Perceptive Content Server

Perceptive Business Insight

- Business Insight now supports Oracle 12c R2. (PC-87821)
- Business Insight now supports TLS (Transport Layer Security) 1.2. (PC-87822)
- Added a new Business Insight report that list the extensions for all OSM files in the Perceptive Content environment. (PC-88052)
- Performed minor updates and enhancements with existing Business Insight reports. (PC-88107)

Perceptive Content Client

- Removed Java Access Bridge from the Perceptive Content installer. You must pre-install Java Access Bridge on the consumer's system to use Java Learnmode integration. (PC-87982)
- Replaced the JABInstaller executable with JABConfigurationTool for configuring Java Access Bridge at installation and run time. (PC-87982)
- Resolved an issue where the client would unexpectedly close because of an invalid formula in captured Excel files. (PC-87904)

- Updated KeyView to deploy into the 32-bit **Common Files** folder that all Perceptive Content components consume. (PC-87904)

Perceptive Content Integration Server

- When Perceptive Content Client requests certain resources from Perceptive Content Integration Server, the server now returns the privileges the client has on that resource. This update allows Perceptive Experience to dynamically enable or disable buttons and controls based on the user's privileges. (PC-57209)

Perceptive Content Server

- Perceptive Content Server now supports Windows Server 2019. (PC-87851)
- Perceptive Content Server now supports 64-bit Linux. (PC-86751)
- Perceptive Content Server now supports native Oracle and SQLServer drivers. For more information, see the Perceptive Content Technical Specifications Guide. (PC-57236)
- Updated Perceptive Content components to consume Microsoft C++ Rest SDK 2.10. This ensures TLS 1.1 and TLS 1.2 protocols are possible when performing REST calls on older versions of Windows. (PC-87976)
- Resolved an issue where symbolic links in Linux Perceptive Content distribution would break when performing an upgrade to Perceptive Content 7.2.3. (PC-88149)