

Kodak

Info Input Solution

Info Input Solution *Release Notes*

Version 7.0.4



Table of Contents

Legal Notice	1
1. New Features / Enhancements	2
2. Fixed Issues	9
3. Known Issues	16
4. Patch Deployment Instructions	17
5. Upgrade Notes	19
5.1. Upgrade Preparation	19
5.2. Upgrade steps	20
6. System & Environment Requirements	21
6.1. System requirements for the InfoInputSolution Application Server:	21
6.2. Software requirements for the InfoInputSolution Application Server:	22
6.3. Antivirus detection/interference	22
6.4. Requirements for Thick Client	23
6.5. Requirements for HTML Client	23

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1. New Features / Enhancements

InfoInputSolution is a web-based scanning software solution that enables users to scan documents from any remote location and deliver the captured information to an Enterprise Content Management system, for storage or further processing.

New features in InfoInputSolution v.7.0.4:

Thick Client:

- Removed all the Open Source license references from the GUI

Core Service:

- Added REST API endpoints for supporting Intelligent OCR from third party applications

Export Service:

- OpenText Content Server: Added the ability to export files to a folder that contains slashes to its name
- OpenText Application Content Management: Added the *pre-append* conflict action for files with the same filename
- SharePoint Server: Added the ability to create folders dynamically during export
- Included the *Noto Math* font for extra math symbol support in the searchable PDF creation

Extraction / Intelligent OCR:

- Google Vision: Introduced a method to reduce the OCR model size when serialized by converting OcrWords to dynamic
- Google Document AI: Added support for Table Extraction in both the General and the Invoice parsers
- Google Document AI: Added support for Table Extraction when using a Google custom parser

New features in InfoInputSolution v.7.0.3:

Export Service:

- Nuance Export: All the Nuance-related errors are now included in the tolerance logic to allow the Images export to continue by creating single page searchable PDF files

Security:

- Upgraded the **commons** binaries to their latest version, to remediate the CVE-2022-42889 vulnerabil-

ity

New features in InfoInputSolution v.7.0.2:

Thick / HTML Client:

- Introduced the `scanapp.client.max_thumb_size` Server Configuration parameter to dictate the maximum size of thumbnails displayed in the Client

HTML Client:

- Introduced the `scanapp.client.html.default_imageviewer_size` Server Configuration parameter that will dictate the default View Mode of the Image Viewers. Accepted values are `fitPage`, `fitWidth`, and `actualSize`
- The Date Picker used in the Batch Manager and the Task filters will now format dates according to the system's locale

Export Service:

- Images Export: The `SharedObject` is not correctly set when exporting *each page separately*
- Salesforce: Added the ability to evaluate system variables at the page level
- Salesforce: Updated the plugin to upload files with a larger size limit
- Sharepoint Online: Added the ability to evaluate system variables at the page level
- SharePoint Server: Added the ability to evaluate system variables at the page level
- OpenText Content Server: Added the ability to evaluate system variables at the page level
- OpenText Documentum Rest: Added the ability to evaluate system variables at the page level
- OpenText Documentum DFC: Added the ability to evaluate system variables at the page level
- Dropbox: Added the ability to evaluate system variables at the page level
- Box: Added the ability to evaluate system variables at the page level
- OpenText Application Content Management: Added the ability to evaluate system variables at the page level
- IBM Content Manager: Added the ability to evaluate system variables at the page level
- IBM FileNet P8: Added the ability to evaluate system variables at the page level
- IBM FileNet P8: Added the ability to export documents in minor versions

Extraction / Intelligent OCR:

- Removed the minimum accepted rotation limit retrieved from all the OCR engines
- Microsoft Document Intelligence: Enhanced the Invoice pre-built model to always retrieve the key-value pairs
- Added the ability to copy from the Help dialogs in Source Field and Transformation Scripts in the Intelligent OCR Mappings

Classification:

- Designer tester: When using a RegEx with matching patterns, the highlighted bounding box is not clearly visible
- Designer tester: The different panels will not be allowed to move or be collapsed
- Designer tester: Sort the matched row on top of the details panel
- Designer tester: Added the ability to test matching conditions when using a barcode zone for feature Classification

Barcode Detection:

- Windows engine: Added the `Code11 checksum`, `Code39 checksum`, `Code93 checksum`, and `Inter2of5 checksum` options in the Advanced configuration dialog

New features in InfoInputSolution v.7.0.1:**HTML Client:**

- Batch Manager: added a minimum size for the Batch Manager window when opened as standalone, to keep all the internal windows visible

Core Service:

- Introduced the `imagenio` server property that will dictate the method that the Application will use to write files to the file system
- Introduced the `filesystem-perfomance-test.bat` (Windows) and `filesystem-perfomance-test.sh` (Linux) files under the tools directory, to perform tests in the file system and select the most efficient method for the `imagenio` property

Import Service:

- Email Import: implemented an upper limit to the number of emails loaded at a time, to avoid memory loads
- Introduced the `imagenio` server property that will dictate the method that the Application will use to write files to the file system
- Enhanced the Import mechanism with safeguards so the service can recover after errors

Export Service:

- Introduced the `imagenio` server property that will dictate the method that the Application will use to write files to the file system

HTML Service:

- Introduced the **imagenio** server property that will dictate the method that the Application will use to write files to the file system

Database:

- Updated the default SA password for the bundled SQL Express Server

Classification:

- Designer tester: enhanced the keyword zone tester to highlight zones with confidence less than 100%

Extraction:

- When the Image Registration fails, a warning message will always be displayed in the Client and all the fields will be set for review
- The *ExtractionData* object will contain the `\n` special character at the end of each line, so it can be used to break lines in custom scripting

Intelligent OCR:

- Added a new option to retain the extracted entities and OCR data of a page when it's moved or split
- Microsoft Document Intelligence: added support for the *Health Insurance Cards*, *US Tax 1098*, and *Contracts* recognition models
- Microsoft Document Intelligence: renamed some of the recognition models in accordance to the official Microsoft documentation

Image Enhancement:

- Added additional options in the Resize Image operation

New features in InfoInputSolution v.7.0:

Thick / HTML Client:

- Updated the Login error message when the max user sessions are reached, to be more explanatory
- Created a notification message upon user login to warn them that one of the volume licenses has reached a specific threshold limit. By default, the limit is set to 95% and it can be changed by modifying the `scanapp.client.volume_license_consume_warn_ratio` server configuration parameter

Thick Client:

- Updated the Opener mechanism to pass the Windows Authenticode Signature Verification
- Upgraded the bundled Java to a newer OpenJDK version 17.0.9

HTML Client:

- Enhanced the HTML Client to support thousands of nodes, both in the View and in the Batch Explorer panels
- Optimized the HTML Service to upload a large batch instantly when discarding/closing it
- Batch Manager: added the option to make the Batch Manager a top-level window that remains open while working on other Client-side tasks
- Point & Click OCR: added the ability to use the pre-generated OCR data in the HTML Client indexing, in a more advanced and user-friendly experience
- Upgraded the Pix Tools for Web to the latest 23.4 version
- Driverless: Added extra configuration settings for the S3000 Kodak scanners
- Updated the Statistical tables to keep track of the indexing keystrokes in the HTML Client

Core Service:

- Batch cleanup: Introduced the `batch.cleanup.period.min` server configuration parameter, to determine how often the batch cleanup is executed
- Batch cleanup: Updated the `batch.deletion.threshold` server parameter to `batch.deletion.threshold.min` to allow values less than an hour to be set
- Upgraded the bundled Java to a newer OpenJDK version 17.0.9
- Added REST API endpoints for supporting Core Service functionalities such as Classification and zonal Extraction from third party applications
- Refactored the configuration loading system for the Core and the HTML services. From v.7.0, the `svc-core.properties` and `svc-html.properties` will be empty by default and the default values will be set for all properties. The list with the available properties (if they need to be modified) can be found in the Administrator's Guide
- Apache Tomcat: Upgraded the bundled Apache Tomcat to version 9.0.84

Import Service:

- Enhanced the Import Service to monitor in a deeper depth when the *Create multiple batches, one for each subdirectory* option is selected
- Added an extra option for handling what happens when one or more file(s) fail to be imported
- Refactored the configuration loading system for the Import Service. From v.7.0, the `importtd.properties` will be empty by default and the default values will be set for all properties. The list with the available properties (if they need to be modified) can be found in the Administrator's Guide

Export Service:

- Images Export: Added new conflict actions in case the same file already exists during export
- Images Export: removed the PDF + Text (Searchable) option using the Tesseract engine from the

available file formats

- Refactored the configuration loading system for the Export Service. From v.7.0, the **released.properties** will be empty by default and the default values will be set for all properties. The list with the available properties (if they need to be modified) can be found in the Administrator's Guide

Database:

- Optimized the database queries for the Batch Manager, the Next indexing task and the Select next indexing task windows
- Optimized the Database polling queries for the Core, HTML, and Export Services

Job Setup:

- Added the original Job ID in the General Option tab of the Job Setup
- Enhanced the Javascript editors within the Application to support search, auto-complete, help, and other functionalities

Workflow:

- Updated the Step permissions model to only allow one custom permission per step. In case more than one Workflow permissions exist to a system that will be upgraded to version 7, some manual actions need to take place before the upgrade. Please refer to the [Upgrade Notes](#) section for more information
- Added the ability to create custom activities for server-side Workflow steps
- Implemented public API for creating a custom callback-based Workflow actor
- Implemented a public REST endpoint on which third party services will callback into
- Added the ability to suspend a batch for a given time in a custom Workflow actor

Classification Designer:

- Allow testing with cloud OCR engines inside the designer, for keyword zones
- Enhanced the test dialog with more panels and visual information for the testing cases
- Added a new Save and Exit button next to the Save one. The Save button can be used to temporarily save the work in progress in the dialog, without exiting
- Added a Regular Expressions tester for the keyword classification
- Added support for importing PDF files, both as training and as test images

Extraction / Intelligent OCR:

- Google Document AI: added support for the latest API versions 1.3 and 1.5
- Tesseract: Upgraded the bundled OCR engine to version 5

Image Enhancement:

- Added a new image operation to rotate an image to 90 degrees left/right or 180 degrees

Document Split:

- Added support for the Azure Custom Document Classification module

2. Fixed Issues

Fixed Issues in InfoInputSolution v.7.0.4:

Thick / HTML Client:

- Fixed an issue which caused the *Split Batch* functionality to break
- Fixed an issue during PDF rasterization which caused specific PDFs to take a long time to be uploaded
- The *Remove Black border* Image Enhancement may lead to some image content to be lost, in specific images

HTML Client:

- If the browser locale is not found in the Application's CLDR data, it causes an error when launching the Client
- Advanced Indexing Forms: The image snippets are displayed zoomed in

Export Service:

- SharePoint Online: When the *Create New Document* conflict action is selected and the process fails for some reason, the existing file will be replaced by the incoming one
- SharePoint Online: The *rename* conflict action works until the 100th document
- OpenText Content Server: The *rename* conflict action works until the 100th document
- Images Export: Added missing codepoints for the SansSerif style that caused errors during exporting searchable PDFs
- Box Export: Updated the Export destination GUI to follow the syntax "`${<node_level>.idx.<field_name>}`"
- SharePoint Server: Updated the Export destination GUI to follow the syntax "`${<node_level>.idx.<field_name>}`"
- OpenText Application Content Management: Updated the Export destination GUI to follow the syntax "`${<node_level>.idx.<field_name>}`"

Database:

- When a User is assigned with a Custom permission and the Admin permission at the same time, the entries in the Batch Manager and the other Task dialogs will be displayed twice

Extraction / Intelligent OCR:

- Table Extraction: Mapping doesn't work when a Table column is split into 2 sub-columns

Image Enhancements:

- When cropping an image and the barcode detection is enabled, the *Crop* image operation will try to locate the detected barcode inside the cropped area
- The *Set/Overwrite DPI* Image Operation is not applied to the exported images

Classification:

- Designer tester: The Extracted OCR data of a page are still displayed when focusing on a different page
- Designer tester: The Arabic OCR characters are displayed as question marks
- Designer tester: When running a test for the second time, and the OCR language is Arabic, the test fails

Fixed Issues in InfoInputSolution v.7.0.3:**Thick / HTML Client:**

- The Rubber band OCR using the Tesseract engine is broken
- When an Index step is branch, the Scan mode is not available

Thick Client:

- The Client-side Zonal Extraction with Tesseract is broken
- Custom node names: The Node names width is not adjusted automatically when the name is retrieved from a node property

HTML Client:

- While indexing, if the *Next* button is pressed, the focused node is not selected in the Batch tree
- While indexing, if an image is selected from the Batch tree, the corresponding image is not selected in the Browse view
- The Custom Node Names are not updated instantly when using an expression

Core Service:

- A batch fails to be uploaded to the Server due to illegal characters in the `batch.xml`
- A batch fails to be uploaded to the Server when its NodeMetadata list is null

Export Service:

- Images Export: Export fails for specific JPEG images
- FileNet P8: The index field values are not evaluated correctly in the Mapping table because of wrong

syntax

- Nuance Export: Exporting searchable PDFs with Nuance fails when the *Auto-Detect* from ALL languages option is used

Import Service:

- Fixed an exception that was produced when imported .msg files, with no real impact on the file import

Extraction / Intelligent OCR:

- In case two Amazon Profiles have the same configuration but just different Save OCR/Response flags, then the Amazon SQS initialization fails
- When the Image Registration fails, it produces a `NullPointerException` to the Extraction
- The `Illegal bounding box` error occurs during extraction with Nuance, as a result of a bad Image Registration
- Google Document AI: Fixed an issue with the *US Driver's License*, the *US passport*, and the *ID proofing* processors

Classification:

- Feature Classification fails with `NullPointerException` when the OCR engine doesn't return any lines

Image Enhancements:

- The canvas color for the *Enlarge Canvas* Image operation is not saved to the Database
- When multiple images are processed simultaneously at the Test dialog, they lead to an `Invalid memory access` error

Database:

- The database upgrade to version 7 fails when using the Kerberos authentication

Licensing:

- Running the command `lic-config.[bat|sh] get_license_info` does not display any information about the active license

Fixed Issues in InfoInputSolution v.7.0.2:

Thick / HTML Client:

- QR codes cannot be detected due to incorrect PDF rasterization in specific PDF files

HTML Client:

- It is possible for the Index mode to be disabled before the `setIndexMode` hook function is completed
- Advanced Indexing Forms: A png image that is added in the Form Designer, fails to be displayed during runtime
- Advanced Indexing Forms: If an image is added to the designer with no index fields, it is not displayed during runtime
- Driverless Scanning: When the scanner runs out of paper, and the start button is pressed on the scanner, an error occurs, and the device gets locked
- Driverless Scanning: When scanning is completed and trying to rescan a new set of pages, the `Failed to parse response` error occurs
- Fixed some strange behavior that occurred during Indexing when the `customizeAvailableTypes` hook function was enabled
- When deleting a node from the Client, the change is not immediately reflected in the Batch Explorer
- The index field confidence indicators are lost when promoting a Job to the latest version and reopening it to the Client
- Point&Click: An error caused by a batch with no OCR data causes the functionality to break for all the upcoming batches
- Fixed an issue where a Database action was executed before all the Application components are loaded and caused the Batch Manager to freeze
- The `sticky` field property is not applied via scripting
- Error when trying to unreject descendant nodes

Thick Client:

- Image upload fails when the `scanapp.client.encrypt_images` Server Configuration parameter is enabled
- The Thick Client fails to be launched through Single Sign On (SSO)
- The window title in a floating window is displayed as `null`
- The Client hangs when a Forked item is processed by a non-Admin user
- Specific tiff images using *Old-JPEG style compression* fail to be rotated for the second time

Core Service:

- Fixed an issue during image upload to the server, when the images folder is on an SMB drive
- If a batch is created within 10 seconds from a Job publication, it causes the batch to not be uploaded to the server
- Error occurs while trying to create batch copies, and the batches directory is on network storage

Export Service:

- Specific documents fail to be exported as searchable PDFs when they have been previously processed in an Intelligent OCR step
- Salesforce: The Salesforce export requires a pre-existing Images Export configuration while it shouldn't
- The Images Export hangs when exporting large multipage tiffs
- Images Export: The *JPEG Quality* option is not always applied to the exported PDF

Import Service:

- When a specific error occurs, the files are moved to the "Failed" folder but the batch is created nevertheless
- PDFs that contain nested XForm objects fail to be rasterized and imported
- The Import Service stops processing when it fails to delete a folder that was supposed to be empty
- File System Import: When the *Use Job separation rules* option is not selected, it is possible that the batch will be created with an empty image despite it failing to be uploaded

Job Setup:

- Importing Jobs creates copies of the **ALL_Steps** permission

Extraction / Intelligent OCR:

- Hyperscience: A batch fails with `java.lang.IndexOutOfBoundsException: Index: 0, Size: 0` error when some retrieved information does not have character positions declared
- When doing OMR Extraction, the zone is not added to the **ExtractionData** object
- When a Transformation Script in the Intelligent OCR mappings is commented out, the field value is not returned
- Form Type tester: Fixed some issues where the *extracted value* and the *populated value* fields were not correct
- Nuance OCR: When an index zone encloses the whole page, the OCR fails with the **Nuance error - 2147170039: ZONE_SIZE_ERR** error
- Amazon Textract: The OMR functionality is not working correctly
- Amazon Textract: The Amazon engine gets tagged as initialized even if the SQS Client fails to register
- Amazon Textract: Specific documents fail to be exported as searchable PDFs after being processed with Amazon
- Azure AI Document Intelligence: Currency fields return the null string next to their value when using the pre-built Invoice model
- Azure AI Document Intelligence: Corrected some differences in the OCR results between the two Clients, when using a Custom Model

Classification:

- The Classification project is not updated when removing a Document Class/Form Type from the Job
- Designer tester: The Details panel hangs after a specific chain of actions takes place
- Designer tester: Text that was retrieved by Google Vision is incorrectly highlighted
- The default Form Type in a Classification project is not retained when exporting/importing a Job Setup

Database:

- Task Filtering: All the filter results are displayed twice when the **All Jobs** permission is given to the user
- Upgrading from v.6.3 to v.7.0 fails when the **NodeUploadInfos** table contains duplicate records

Server-side Script:

- An error occurs when trying to merge documents that contain OCR entities during a server-side script step

Fixed Issues in InfoInputSolution v.7.0.1:**Thick / HTML Client:**

- Specific PDFs that contain XML attachments failed to be rasterized as images

Thick Client:

- The **itlaunch.txt** is not always updated when a new jar is added under the client directory
- Some Chinese or Japanese characters are not displayed correctly in the document headers

HTML Client:

- The **ScanSingleAndInsert** operation may delete all the pages after the one selected, when the browser is extremely slowed down
- Added the exact Application version in the login window
- Duplicating nodes that have not been loaded to the Client yet will cause an error
- The page DPI is changed after adding an annotation
- Advanced Indexing Forms: when the focus is moved to an index field, its text is not entirely selected
- Fixed a synchronization issue where the **pageArrived** hook function was executed before the barcode detection
- The HTML Client fails to launch when the license does not contain volume tokens

Export Service:

- A batch may get stuck at a Processing state for a long time on rare occasions
- SharePoint Export: when the exported batches contain required column(s), the files are uploaded in checked out mode
- OpenText File360: the File360 server starts polling batches before the export is successfully completed
- OpenText File360: the files are exported with incorrect order
- OpenText File360: the folder structure is incorrect during export

Import Service:

- Import configuration GUI: the server configuration properties are not saved

Database:

- Error while upgrading a database from version 6.3 when at least one batch contains null priority

Authentication:

- The Active Directory authentication does not work due to missing Java arguments
- The Windows Integration authentication does not work due to missing Java arguments

Intelligent OCR:

- ABBYY Vantage: if the Intelligent OCR profile does not return any OCR entities, an error occurs during processing

Extraction:

- Extraction fails if the document contains more than one page
- Test Zones dialog: fixed an issue where the RegEx similarity is not calculated correctly
- Test Zones dialog: fixed an issue where the extracted value was not populated

Image Enhancement:

- The Image Enhancement Actors always run in 2 concurrent threads ignoring the value set in the `svc-core.properties` file
- Testing some heavy Image operations in the 32-bit Thick Client may cause an `OutOfMemory` error

3. Known Issues

Known issues in InfoInputSolution v.7.0:

Thick Client:

- In InfoInputSolution v7.0.4, the bundled Java was upgraded to a newer OpenJDK version 17.0.9. As a result, the Thick Client of older versions won't be able to launch after launching the Thick Client for version 7.0. As a workaround, a user can delete the contents of the `C:/Users/<username>/App-Data/Local/InfoInputSolution` folder and re-launch the Thick Client from scratch. Another workaround would be to launch one Client in 32-bit mode and the other Client in 64-bit.
- The opener mechanism will not work when the browser setting to *Ask where to save each file before downloading* is enabled.
- The Scripting Editors inside the Application may fail to be loaded correctly. Closing and reopening the editor will resolve the issue.

Task Filtering:

- When the Application is connected to a PostgreSQL and a server-side task filter plugin is used, the number of results retrieved in the Client may be less than expected. For example, if the Batch Manager Dialog has a max row count 1000, then the query will return 1000 batches, but after the plugin(s) is/are applied, the remaining batches may be 800. So the client requested 1000 batches, but received 800 even though there are more in the system.

4. Patch Deployment Instructions

The patch 7.0.4 is a cumulative patch and can be deployed on top of any 7.0.x patch level Application Server.

Steps for applying the patch:

1. Stop the application:

Windows: Use the Administration Utility (Services tab) to stop all running Windows Services, in the following order. Finally, close the Administration Utility window.

Linux: Stop the server-side processes, using the stop scripts or System V init-compatible scripts provided, in the following order:

- a. InfoInputSolution Import Service (If installed)
 - b. InfoInputSolution Export Service
 - c. InfoInputSolution Core Service
2. Take a **backup** copy of the installation directory, and a backup of the database
 3. **Copy** the patch distribution archive to the application server and extract the patch distribution archive to the installation directory. This step will **overwrite** some files and folders of the existing installation. When prompted, the user should confirm file (folder) replace.
 4. Some library (jar) files have been updated to the latest version with Cumulative Patch 7.0.4, so the old version of these files must be **removed** from the installation directories.

We provide the `libs-cleanup.bat` file (for Windows) and `libs-cleanup.sh` (for Linux) under the `<root_installation>\tools` directory.

Windows environment: Open a new Command Prompt window with administrator permissions, change directory to `<root_installation>\tools`, run the `libs-cleanup.bat` file and follow the steps to verify the deletion.

Linux environment: Change directory to `<root_installation>\tools`, make sure the shell script file is executable (run `chmod +x libs-cleanup.sh`), run the cleanup file (`./libs-cleanup.sh`) and follow the steps to verify the deletion.

The **deprecated** jar files that must be removed after the deployment of 7.0.4 are the following:

- a. The **twelvemonkeys-jpeg-metadata-reader-3.0.2-custom-1.jar** from folder(s):
 - i. `<Installation directory>\client\lib`
 - ii. `<Installation directory>\importd\lib`
 - iii. `<Installation directory>\released\lib`

- iv. <Installation directory>\server\WEB-INF\lib
 - v. <Installation directory>\service-html\WEB-INF\lib
 - b. The **log4j-server-2.10.1-custom-1.jar**, **bonecp-0.7.0-custom-1.jar**, **commons-configuration2-2.8.0.jar**, **commons-lang3-3.12.0.jar**, **commons-logging-1.2.jar**, and **commons-text-1.9.jar** from folder(s):
 - i. <Installation directory>\importd\lib
 - ii. <Installation directory>\released\lib
 - iii. <Installation directory>\server\WEB-INF\lib
 - iv. <Installation directory>\service-html\WEB-INF\lib
 - c. The **jackson-annotations-2.8.0.jar**, **jackson-core-2.8.7.jar**, **jackson-databind-2.8.7.jar**, **jackson-dataformat-xml-2.8.7.jar**, and **jackson-module-jaxb-annotations-2.8.7.jar** from folder(s):
 - i. <Installation directory>\importd\lib
 - ii. <Installation directory>\released\lib
 - iii. <Installation directory>\server\WEB-INF\lib
 - iv. <Installation directory>\service-html\WEB-INF\lib
 - d. The **xstream-1.4.7** folder from:
 - i. <Installation directory>\persistence\db-classes
 - e. The **micrometer-commons-1.12.3.jar**, **micrometer-core-1.12.3.jar**, **micrometer-observation-1.12.3.jar**, and **micrometer-registry-jmx-1.12.3.jar** from folder(s):
 - i. <Installation directory>\released\lib
 - ii. <Installation directory>\service-html\WEB-INF\lib
 - f. The **stax2-api-3.1.4.jar**, and **woodstox-core-5.0.3.jar** from folder(s):
 - i. <Installation directory>\released\lib
5. This patch may require a Database Schema upgrade.

Start the Administration Utility: at startup, it automatically checks the active Database configuration and performs the required Database Schema upgrade.

Note that, after a Database Schema upgrade, importing Jobs from a previous patch level is not supported.

6. Start the application: start the Windows Services / server processes in the reverse order:
- a. InfoInputSolution Core Service
 - b. InfoInputSolution Export Service
 - c. InfoInputSolution Import Service

5. Upgrade Notes

The InfoInputSolution v7.0.4 installer supports both new installations and upgrading an existing InfoInputSolution installation, version 3.x, 4.x, 5.x or 6.x installation. The instructions described in this section must be followed in case of a major upgrade, e.g., from v.6.3 to v.7.0. In case of a patch deployment, follow the [Patch Deployment Instructions](#).

5.1. Upgrade Preparation

5.1.1. When upgrading an existing application server installation, note the following:

- In InfoInputSolution v.7.0, the Step permissions model was updated to only allow one custom permission per step. In case more than one Workflow permissions exist to a system that will be upgraded to version 7, some manual actions need to take place before the upgrade. Run the following query against the Database that hosts the Application:

SQL, PostgreSQL Server:

```
select stepId, count(*)
from ITSCH.WFStepPermissions
group by stepId having count(*) > 1
```

Oracle Server:

```
select stepId, count(*)
from WFStepPermissions
group by stepId having count(*) > 1
```

If the above query returns any results, then this system cannot be upgraded using the standard upgrade procedure and it must be done manually. The Job Setup(s) that contain(s) a Workflow step with more than one custom permissions must be changed and saved before running the upgrade. The custom permissions must be deleted and they can be re-created after the upgrade.

- Any Export Destination plugin, previously installed on the Application Server, must be re-deployed after the upgrade by running the corresponding plugin installer. In that case, the "Upgrade Libraries only" option must be selected, when prompted by the installation wizard.
- After upgrading to InfoInputSolution v7.0.4, importing Jobs from previous product versions is not

supported.

- After upgrading to InfoInputSolution v7.0.4, the *PDF + Text (Searchable)* option is removed from the available file formats in the Images Export. A Job that was using this option before, must be re-configured to use Tesseract in an Intelligent OCR step and add the text layer at the Export step.

5.1.2. When upgrading an existing application server installation that uses a Microsoft SQL Server:

It is required to use at least TLS 1.2 protocol. This is a requirement for JDK 17.0.9 that is bundled with InfoInputSolution v7.0.4. In case TLS 1.1 or older protocol is used, the 1.2 TLS protocol must be set up in the MS SQL Server. More details and patch links can be found in the link below:

<https://support.microsoft.com/en-us/topic/kb3135244-tls-1-2-support-for-microsoft-sql-server-e4472ef8-90a9-13c1-e4d8-44aad198cdbe>

5.2. Upgrade steps

Before starting the upgrade, take a backup copy of the installation directory and the Application Database. The InfoInputSolution application services must be stopped, using the Administration Utility (Services tab) in the following order:

- InfoInputSolution Import Server (if installed)
- InfoInputSolution Export (Release) Server
- InfoInputSolution Apache Tomcat Server

Finally, close the Administration Utility window, before launching the installer. The wizard will detect the current installation on the server, and the administrator will have to point to the existing installation path.

Following the successful completion of the upgrade, the InfoInputSolution Administration Utility will check the active Database configuration, perform the required Database Schema upgrade and finally, start the corresponding Services.

6. System & Environment Requirements

6.1. System requirements for the InfoInputSolution Application Server:

System Sizing

- Small Volume: 4 concurrent users / 200K pages per year
- Medium Volume 80 users / 10M pages per year
- High Volume: 250 users / 50M pages per year

CPU

- Minimum requirement is 6 cores at 2GHz.
- For High Volume systems, the recommended configuration is 32 cores @2.7+ GHz. Contact the Support team for the exact requirements according to the business case.
- When the InfoInputSolution HTML Client is used by end-users, additional CPU is required for the HTML supporting service/process. The hardware specs depend on the use case and estimated load.
- When the InfoInputSolution Classification and Extraction server-side engines are used in the Job Workflow(s), additional CPU is required for the InfoInputSolution Core service/process. The hardware specs depend on the use case and estimated load.
- For virtual environments, features like Intel VT-x / VT-d and AMD V / Vi must be supported by the processors, activated on the machine, enabled in the Virtualization product and activated for the virtual machine.

Memory

- Minimum memory size is 6 GB.
- Recommended memory size for High Volume systems is 32 GB.

Operating System

- Windows Server (on premises or Cloud) 2012 / 2016 / 2019 / 2022.
- Red Hat Enterprise Linux 7 / 8.
- SUSE Linux Enterprise Server 12 / 15.

Disk Storage

- Single server installation: The recommended configuration is a dedicated disk array (RAID 5 or 10) either physically installed on the server, or exported over a dedicated high-speed Storage Area Network (SAN). The minimum configuration is a single disk, again either physically installed in the server, or exported over a SAN.
- Cluster installation: The recommended configuration is a dedicated Network Attached Storage (NAS) unit, using a file system native to the OS of the application servers, connected to the server over a dedicated high-speed network. The minimum configuration is a NAS that can be used by

all nodes in the server cluster.

- SMB v3 compatible Windows Server file storage systems are supported.

Network

- Single server: The recommended configuration is separate networks for HTTP, Database and storage traffic, if external storage is used. All networks should be at least 1 Gb and all nodes should be attached to the networks through switches. The minimum configuration for Small Volume systems is a single 1 Gb network.
- Server cluster: In addition to the single-server recommended configuration, the recommended configuration for a cluster is to provide additional networks for cluster heartbeat and reverse proxy to cluster node HTTP traffic. The minimum configuration for Small Volume systems is a single 1 Gb network.

6.2. Software requirements for the InfoInputSolution Application Server:

Apache Tomcat: version 9.0.84 64-bit (included in the installation package) or any 9.0.x Tomcat version.

Database

- SQL Server 2014 / 2016 / 2017 / 2019 / 2022.
- Oracle 11.2 / 12.1 / 18c / 19c.
- PostgreSQL 13 or later.
- Azure SQL Server.

Bundled Database in installer

If during installation, you choose to install a new instance of SQL Server 2019 Express, the operating system must meet the minimum requirements:

- SQL Server 2019 installer will automatically install/enable Microsoft .NET Framework 4.6.
- Windows Server 2012 R2 requires KB2919355 before installing .NET Framework 4.6.

For more information, see Hardware and Software Requirements for installing SQL Server 2017 at the Microsoft website.

6.3. Antivirus detection/interference

It is possible that an Antivirus program might detect InfoInputSolution or any of its components as a threat. Which would in turn cause instability and block the seamless functioning of the application. In that case it is recommended to whitelist all the directories used by InfoInputSolution as well as the opener on the respective workstations. This includes:

- The installation directory.
- \Users\\.scanclient
- \Users\\AppData\Local\ InfoInputSolution
- The opener executable on the respective workstations where InfoInputSolution will be used.

6.4. Requirements for Thick Client

Before launching the Thick Client, make sure the user's workstation meets the following pre-requisites.

- Operating Systems: All supported Windows OS versions (Windows 8.1, 10, 11, 2012, 2016, 2019 and 2022, Windows 10 or 11 at Windows 365 Azure Cloud PC). The Thick Client can also be accessed through the Microsoft Azure Virtual Desktop application.
- All contemporary web browsers are supported: Google Chrome, MS Edge, Mozilla Firefox, Mozilla Firefox ESR.
- With version 7.0, running the Application as an Applet inside a browser is no longer supported

6.5. Requirements for HTML Client

Before launching the HTML Client application, make sure the user's workstation meets the following pre-requisites.

- Operating Systems: All supported Windows OS versions (Windows 8.1, 10, 11, Windows Server 2012, 2016, 2019 and 2022, Windows 10 or 11 at Windows 365 Azure Cloud PC). The HTML Client can also be accessed through the Microsoft Azure Virtual Desktop application. All supported macOS versions.
- All contemporary web browsers are supported: Google Chrome v40+, MS Edge, Mozilla Firefox 40+, Mozilla Firefox ESR 40+, Apple Safari (on MacOS).