



eRAD RIS

# RELEASE ANNOUNCEMENT

Build 4.2025.055

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## PUBLICATION HISTORY

Revision	Author	Description
November 6, 2025	Kevin Brooks	▪ Commercial release.
November 21, 2025	Hilary Saltmarsh, Kevin Brooks, Clover Daise	▪ Clarifications and corrections.

# SUMMARY

## Release Announcement

*This release of eRAD RIS 4.2025.055 extends the Inbound Document Worklist to support automated order creation using a configured image recognition engine. This enhancement introduces a flexible integration framework that supports multiple OCR / Document AI engines and includes a user feedback loop to help improve recognition accuracy over time.*

## New Features

This release introduces the following features and enhancements:

Category	Redmine #	Subject	Description
Image Recognition	35392	Order Creation from Inbound Document Worklist using Image Recognition	This enhancement to Image Recognition introduces an automatic order creation workflow using an image-recognition engine and establishes a flexible OCR /Document AI framework.
Image Recognition	35464	Document AI Error Feedback and Correction Workflow	This enhancement to Image Recognition introduces the ability for users to provide feedback on text recognition / Document AI.

SORTED BY CATEGORY AND REDMINE

Refer to the FEATURE DETAILS section below for configuration and usage information.

## Resolved Issues

This release resolves the following issues:

Category	Redmine #	Subject
Inbound Document	37071	Resolved error when adding a Script via Attach Inbound Documents WL
Inbound Document	37000	Updated Image Recognition Confidence Level to display values as a percentage.

SORTED BY CATEGORY AND REDMINE

## New Known Limitations

The following new Known Limitations were identified with this release:

- BUG #37773 - C\_ORDER.ORDER\_SOURCE\_CODE NOT POPULATED & INFIX THREADING ISSUE (FROM #35392)
- BUG #37782 - FAILS TO SAVE CHANGES ON IMAGE RECOGNITION DATA WINDOW (FROM #35392)
- BUG #37789 - DOCUMENT AI - FAXToORDERS WITH MULTIPLE PAGES CAN RESULT IN ALERT REPEATED (FROM #35392)

Refer to the FEATURE DETAILS section below for more information.

# FEATURE DETAILS

## Image Recognition

### Feature #35392 – Order Creation from Inbound Document Worklist using Image Recognition

#### Summary

This enhancement to Image Recognition enables automatic order creation workflow from inbound faxed referrals/scripts using a configured image recognition engine. It also establishes an extensible framework designed to support multiple recognition engines with minimal additional development effort.

This foundation prepares RIS for future phases, including the integration of DeepHealth OCR/AI document-processing capabilities.

#### Background

As image-recognition technology evolves, RIS requires the flexibility to support different recognition engines without extensive code changes.

Previous pilot efforts explored a variety of providers; however, these were prototype-level implementations and not part of the core RIS product.

The new framework formalizes a scalable, engine-agnostic approach that supports current needs and provides a clear path for future evolution of these capabilities.

#### Feature Description

With this change, RIS now offers an automatic order creation workflow that will process incoming scanned or faxed documents through a configured image recognition engine to automatically classify documents and create orders. This process:

- Identifies the document type
- Extracts key order information
- Matches to an existing patient
- Creates and populates orders when all required conditions are met

The recognition framework is fully extendable, allowing additional providers to be integrated in later phases without significant modifications to the RIS core.

#### Workflow

- RIS monitors the Inbound Document folder for scanned documents.
- As Image Recognition processes scanned documents, they are removed from the Inbound Document folder.
- Recognition data from incoming documents is used to locate a matching patient, create an order, and populate the order details.
  - The procedure code will either be auto-populated or provide the description returned from Document AI to assist in procedure selection.
  - Insurance Discovery will also attempt to match the policy.

#### Image Recognition

##### Document Type Identification

Incoming documents are first processed to identify the document type.



*Image processing requires processing time before the document is returned and order creation can be attempted. This could be up to ten minutes.*

## Duplicate Check

Recognition includes a check for duplicate order documents. If found, a `DuplicateDetectedIDWL` or `ExamMightAlreadyExist` log entry will be created, and the document will remain on the IDWL. Current duplicate detection logic is as follows:

1. Check incoming documents' image recognition data against existing image recognition data.
  - a. If there is a perfect match, mark it `DuplicateDetectedIDWL`
2. If the patient has an existing Ordered, Scheduled, or Rescheduled exam:
  - a. Compare the Procedure Code or Descriptions
    - i. If there is a match, mark it `ExamMightAlreadyExist`
  - b. Compare the Indication Codes
    - i. If there is a match, mark it `ExamMightAlreadyExist`
  - c. Compare the Referring Physicians
    - i. If there is a match, mark it `ExamMightAlreadyExist`

## Auto-Attachment

If an Insurance Card image is detected, it is attached at the patient level, as long as a matching patient and policy number are found. In a future phase, handling of other document types is planned.

## Order Creation

If the duplicate detection phase is passed, recognition data from incoming documents is then used to locate a matching patient, create an order, and populate the order details.

The search to match to a unique patient is based on a new

`InboundDocumentOCRPhoneNumberMatchingEnabled` SystemConfig setting to match by:

- Patient Name + DOB + Phone Number
  - If no unique match is found, Zip Code is used
- If the `InboundDocumentOCRPhoneNumberMatchingEnabled` is set to False, the phone number will not be used in matching. However, this will always be defaulted to True in Production environments.

An order will be created when all conditions are met:

- A unique patient match is found
- The order is not a duplicate
- A procedure code or description exists
- A referring physician is present
- A reason for order is present

## Procedure Codes & Other Fields

If a unique procedure is identified by matching the procedure description text via the `Image Recognition Procedure Mappings` lookup table, then that procedure code is chosen:

AUTO-POPULATED PROCEDURE.

Otherwise, the description returned from Document AI is added to assist in procedure selection:

PROCEDURE DESCRIPTION FROM DOCUMENT AI DATA.

Additionally, recognition data is used to populate:

- ICD Codes
- Reason for order
  - If not identified, the `Reason for order` will be populated with diagnosis.
- Referring Physician information
  - If the Referring Physician and Referring Physician's address is identified, it will be selected in the Referring Details.
  - If the Referring Physician cannot be identified,
    - it will default to the user configured as `UnknownReferringInternalID` SystemConfig:

- the unmatched data will be filled in the “Scheduling Notes” section:

- Insurance
  - When recognition data returning a policy number is available, RIS can use Insurance Discovery to possibly identify a patient's insurance information, if Insurance Discovery is configured.
  - If Insurance Discovery does not match the policy, user will need to take next steps to determine carrier selection.

## Worklists

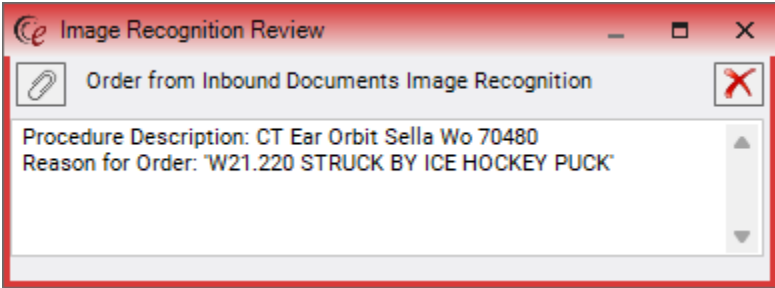
Created orders can be located on the `Orders To Schedule` worklist by filtering:

- the `Issuer of Ext. order #` column for the value configured in the `EMR` lookup table.
- the `Order by System` column for the value configured in the `CreatedBySystem` lookup table.

Inbound Documents		Patient Search	Orders To Schedule (14 of 107823)		Patient
(use location filter)		Main	Manager · Manager - EMR		
Issuer of Ext. Order #	Ordered by System	Flags		Status	Pro
StartsWith: DOC					
DOC AI	Inbound Document to Order Creation			Ordered	Ab
DOC AI	Inbound Document to Order Creation			Ordered	SC
DOC AI	Inbound Document to Order Creation			Ordered	XR
DOC AI	Inbound Document to Order Creation			Ordered	73
DOC AI	Inbound Document to Order Creation			Ordered	MF

Alerts

If desired, alerts may be configured with information like procedure description and ICD codes to notify users when an order that was created via image recognition is opened.



SAMPLE ALERT INDICATING AUTO-CREATED ORDER FROM INBOUND DOCUMENTS IMAGE RECOGNITION

Logging

This update also enhances logging of the actions taken by RIS auditing and reporting purposes. Logging of image recognition is saved to a new `c_inbound_doucment_image_recognition_log` table.

Known Limitations

The following significant limitations have been identified and should be communicated to affected users:

- **BUG #37773 - C\_ORDER.ORDER\_SOURCE\_CODE NOT POPULATED & THREADING ISSUE (FROM #35392)**  
RIS will intermittently send the receipt confirmation callback to the engine twice. This has no negative impact but does log a 500 error related to the receipt.  
The value of "c\_order.order\_source\_code" should be set to "OCR" when a procedure doesn't automatically get selected. However, the value for this order key is currently NULL.
- **BUG #37782 - FAILS TO SAVE CHANGES ON IMAGE RECOGNITION DATA WINDOW (FROM #35392)**  
Changes made in the Image Recognition Data window do not save if the data window is closed before clicking OK to close the attachment viewer.



Carefully review all Known Limitations identified here and in the release notes of all other versions being applied and communicate relevant items to all those affected.

Configuration Instructions

System Administrators must complete the following actions to enable this feature:

RIS Client

Changes to AccessString Lookup Table Settings

- Grant permissions as necessary.

The following related settings were added or updated:

Setting	Default	Purpose
Config.LookupEditor.ImageRecognitionProcedureMappings	Value=[None Full], Default=[None]	Controls access to the "Image Recognition Procedure Mappings" lookup table editor.

## Changes to AlertConfiguration Lookup Table Settings

Configure entry for image recognition alert popups:

- `Alert Generator` = `OrderFromInboundDocumentsImageRecognition`
- `Alert Configuration Code` = `OrderCreatedFromIDWL`
- `Description` = `Order Information from Inbound Document Worklist`

Configure entry for indication code population:

- `Alert Generator` = `IR_PatientIndicationCodes`
- `Alert Configuration Code` = `AlertIndicationCodes`
- `Description` = `New indication codes added`

Alert Configuration Code	Description	Alert Generator	Alert Parameters	Internal Comment	Display Order	Audit Flag
Contains: ▼	Contains: ▼	Contains: ▼	Contains: ▼	Contains: ▼	Equals: ▼	Contains: ▼
Click here to add a new row						
* GetLabWork	This MRI patient is over 65 years old and has heart disease. The patient is taking Lipitor and has an LDL greater than 100. Up-to-date lab result...	MRI65PlusHeartDiseaseLipitorA...			1	N
DOBChange	Patient's Birth Date has changed. Please ensure the data is correct.	PatientBirthChanged			5	N
FirstNameChange	Patient's First Name has changed. Please ensure the data is correct.	PatientFirstNameChanged			4	N
LastNameChange	Patient's Last Name has changed. Please ensure the data is correct.	PatientLastNameChanged			3	N
NoPhone	Patient has no phone number.	PatientMissingPhoneInfo			2	N
PatientDeceased	Patient is deceased.	PatientBirthChanged			6	N
Inactive_carrier	WARNING: Carrier is no longer active. Please choose a different carrier.	InactiveCarrierAppliedToVisit			1	N
CDS_02	The patient is over 65 years old, is on Lipitor and has an LDL of over 100.	CDS_02_HighCholesterol	sdfs		1	Y
x CDS_06	Discuss breast cancer screening with patient (CDS_06)	CDS_06_BreastCancerScreening			1	N
OrderCreatedFromIDWL	Order Information from Inbound Document Worklist	OrderFromInboundDocumentsI...			1	N
AlertIndicationCodes	New indication codes added	IR_PatientIndicationCodes			1	N
Scan Type Detected	Scan Type Detected from Image Recognition data	IR_BetaScanType			1	N

## Changes to DocumentType Lookup Table Settings

Configure the `DocumentType` lookup table to identify the fax lines with respect to their practice and site code, if they will be used for Document AI.

Populate the Inbound Document Image Recognition column as required for the fax line:

- `None` - Disables Inbound Document AI functionality.
- `ScriptSender` - Image recognition will be performed by ScriptSender (pilot project only).
- `Infinx` - Image recognition will be performed by Infinx.

Document Type Code	Description	Practice Code	Site Code	Scan Type Code	Create Folder Flag	Inbound Document Image Recognition	Last U...	Active
Contains: ▼	Contains: ▼	Contains: ▼	Contains: ▼	Contains: ▼	Contains: ▼	Contains: ▼	Eq...	Contai...
el	el	Advanced Radiology	EL	FI (OrderLevel)	Y	Infinx	04-10...	Y
Click here to add a new row								
* test	test	Advanced Radiology	EL	FI (Patient Information)	Y	None	12.05	Y

## Changes to CreatedBySystem Lookup Table Settings

Create an entry for use in the `Order to Schedule` tab to filter the Document AI orders:

- `Created by System Code` = `InboundDocToOrder`
- `Description` = `Inbound Document To Order Creation`

## Changes to EMR Lookup Table Settings

Create an entry for use in the `Order to Schedule` tab to filter the Document AI orders:

- `Emr Code` = `DOC AI`
- `Description` = `Document AI Process`

## New ImageRecognitionProcedureMappings Lookup Table



A new `ImageRecognitionProcedureMappings` lookup table has been added to map procedure descriptions from image recognition data to RIS procedure codes when creating an order.

This table is populated via a (manually run) `c_refresh_image_recognition_procedure_mapping` database stored procedure. A future enhancement is planned to allow for scheduled updates.

- `Maintained By System Flag` - When `N`, indicating a user has manually updated data for that row, will prevent the row from being updated during the update job.
- `Frequency` - A count of how many times that procedure description has been mapped to a procedure code in the past.

Procedure Description From Image	Procedure Code	Maintained By System Flag	Added Date	Note	Frequency	Last Updated	Active
Contains:	Contains:	Contains:	Contains:	Contains:	Equals:	Equals:	Contains:
Click here to add a new row							
(B) Mammogram Screening		Y	04-08-2025 10:43 AM		3	04-08-2025 10:...	Y
*Dexa Bone Density Scan	DX AXIAL SKELETON [77080] (77080)	Y	04-08-2025 10:43 AM		7	04-08-2025 10:...	Y
*Screen Mammogram b/l w/ Tomo and US if needed per protocol		Y	04-08-2025 10:43 AM		13	04-08-2025 10:...	Y
*Screening Mammogram Bilateral		Y	04-08-2025 10:43 AM		3	04-08-2025 10:...	Y
*Screening Mammogram Bilateral w/ Tomo and US if needed		Y	04-08-2025 10:43 AM		3	04-08-2025 10:...	Y
*US Pelvis Complete Transvaginal (Non-OB)	US Transvaginal [76830] (76830)	Y	04-08-2025 10:43 AM		4	04-08-2025 10:...	Y
*Chest 2 Views	XR CHEST PA LAT [71020] (71020)	Y	04-08-2025 10:43 AM		4	04-08-2025 10:...	Y
3D screening mammogram tomo		Y	04-08-2025 10:43 AM		4	04-08-2025 10:...	Y

## Changes to InboundStatus Lookup Table Settings

Optionally, InboundStatus `Display Order` can be configured to display selected statuses of the "DOC AI" in the category code column of the IDWL. Refer to an optional script in Redmine **FEATURE #35392** to assist with this configuration.

Status codes are maintained via `InboundStatus` lookup table:

Inbound Status Code	Description	Display Order	Note Required Flag	Practice Required Flag	Site Required Flag	Last Updated	Active
Contains:	Contains:	Equals:	Contains:	Contains:	Contains:	Contains:	Contains:
Click here to add a new row							
DuplicateDetectedIDWL	Similar Scan Document already exists	1	Y	Y	Y	01-17-2025 12:...	Y
ExamMightAlreadyExists	Exam might already exists	2	Y	Y	Y	01-17-2025 12:...	Y
NoPatientFound	No identifiable patient found for this document	3	Y	Y	Y	01-17-2025 12:...	Y
ScanDocumentAttachedToPatientF...	Scan Document attached to Patient Folder	4	Y	Y	Y	01-17-2025 12:...	Y
UnableToMatchInsuranceToPatient	Unable to Match Insurance Card to Patient	0	Y	Y	Y	01-17-2025 12:...	Y
Unsupported ScanType	This scan type is not supported at this time	5	Y	Y	Y	01-17-2025 12:...	Y
MissingPracticeFailedToCreateOrder	Missing Practice: A practice is a required field when creating an order. No order was...	6	Y	Y	Y	01-28-2025 11:...	Y
InfinixAttemptAborted	Infinix attempt aborted: Image Recognition Source in DocumentType is not longer s...	7	Y	Y	Y	04-03-2025 4:1...	Y
NoImageRecognitionSource	No Image Recognition Source Selected in Document Lookup.	7	Y	Y	Y	04-15-2025 10:...	Y
NoScanTypeFound	Image Recognition for ScanType is not properly configured	8	Y	Y	Y	04-15-2025 10:...	Y

## Changes to ScanType Lookup Table Settings

Enable image recognition per scan type:

- Configure entry for Insurance Card with `Image Recognition Document Type Code` as `Insurance Card` and `Image Recognition Flag` = `Y` to enable.
- Configure entry for Scripts/Orders with `Image Recognition Document Type Code` as `Order` and `Image Recognition Flag` = `Y` to enable. `Send Pages Individually For Image Recognition` must be set to `Y`.

Scan Type Code	Description	Display Order	Image Recognition Document Typ...	Image Recognition Flag
Contains:	Contains:	Equals:	Contains:	Contains:
Click here to add a new row				
IN	Insurance Card	1	Insurance Card	Y
RX	Physician Order	0	Order	Y

## Changes to SystemConfig Lookup Table Setting

Configure the sFTP connection for your installation for image retrieval:



- Confirm value for `RISSystemID`.
- Configure values for `InboundDocumentOCRHost`, `InboundDocumentOCRUsername`, `InboundDocumentOCRPassword`, and `UnknownReferringInternalID`.

The following related settings were added or updated:

Setting	Default	Purpose
<code>InboundDocumentOCRPhoneNumberMatchingEnabled</code>	Value=Boolean, Default=[True]	When True, the phone number will be considered in addition to name, DOB, and zip for Patient Match during Document AI order creation process.
<code>InboundDocumentOCRHost</code>	Value=String, Default=Blank	Hostname or IP address of SFTP server.
<code>InboundDocumentOCRUsername</code>	Value=String, Default=Blank	Password for authenticating to SFTP server.
<code>InboundDocumentOCRPassword</code>	Value=String, Default=Blank	Username for authenticating to SFTP server.
<code>UnknownReferringInternalID</code>	Value=Internal ID from <code>L_person</code> table as String, Default=Blank	Placeholder user used for unknown referring when processing <code>InboundDocumentOCR</code> .

## Feature #35764 – Document AI Error Feedback and Correction Workflow

### Summary

This enhancement to Image Recognition introduces the ability for users to provide feedback on text recognition / Document AI errors that can be utilized to improve recognition over time.

### Background

Previously, when Image Recognition / Document AI misread data or failed to parse a document, users could only correct it if an alert was triggered. There was no way to fix errors directly in the metadata or share feedback, leading to extra manual work and repeated errors.

### Feature Description

With this enhancement, users will be able to initiate feedback on Image Recognition / Document AI errors (optional). This structured feedback will flow directly to Document AI vendors for review, creating a closed-loop system where accuracy can be improved based on real-world usage. Updates and corrections will also be reportable within RIS for transparency and tracking.

### Review and Correct Values

Values displayed in the right-hand column of the `Image Recognition Data` popup can be corrected via a left-click action. Corrected properties will be indicated via an asterisk `*` symbol before the field name, and a tooltip will display both the `Current` and original (`Was`) values for context.



Upcoming **FEATURE #37141** will introduce an Access String to restrict which users can access the **Image Recognition Data** popup.

Users also have the ability to revert values to their original state by right-clicking and selecting **Reset to Original** from the context menu.

## Feedback Reporting & Storage

User feedback will be stored in a centralized OS database, which is accessible to vendors. Responses from vendors whether the error can be rectified or not will be captured within RIS for reporting purposes.

The following sample query will return items corrected in the past week:

```

001 -- query for items that were corrected.
002 select
003     (select top 1 patient_id from c_patient where patient_key in (select patient_key from
004         c_scan_document_association a where a.scan_document_key = d.scan_document_key)) mrn,
005     d.scan_type_code,
006     mdReg.attribute, mdReg.value original_value, mdOverride.value user_corrected_value,
007     a.path + p.archive_path filepath
008 from

```

```

008  c_scan_document_page_image_recognition_metadata mdReg
009  inner join
010    c_scan_document_page_image_recognition_metadata mdOverride on
011      mdReg.scan_document_page_image_recognition_key =
mdOverride.scan_document_page_image_recognition_key
012      and mdOverride.attribute like 'ir_override_%' and substring(mdOverride.attribute,
13,len(mdOverride.attribute)-12) = mdReg.attribute
013  inner join
014    c_scan_document_page_image_recognition ir on ir.scan_document_page_image_recognition_key =
mdReg.scan_document_page_image_recognition_key
015  inner join
016    c_scan_document_page p on p.scan_document_page_key = ir.scan_document_page_key
017  inner join
018    c_scan_document d on p.scan_document_key = d.scan_document_key
019  left outer join
020    l_scan_document_archive a on a.scan_document_archive_code = p.archive_code
021 where
022   -- data for today and last 7 days.
023   d.scanned_datetime between dateadd(day, -7, SYSDATETIMEOFFSET()) and dateadd(day, 0,
SYSDATETIMEOFFSET())

```

## Known Limitations

While there are no Known Limitations for this feature, there are expected behaviors that should be noted:

- EXPECTED BEHAVIOR BY DESIGN (FROM #999999)

Currently, all users have access to this feature. Upcoming FEATURE #37141 will introduce an Access String to restrict which users can access the `Image Recognition Data` popup.

## Configuration Instructions

No System Administrator actions are necessary to enable this feature.

# VERSION DETAILS

## Code Stream

The following source code branches have been merged into this release:

