



# Automated Contract Processing and Normalisation with Scan2x

## 1. Use Case Overview



### Goal

To automatically ingest legal contracts in various formats (PDFs, scanned images, digital documents), extract and analyze essential metadata using the Scan2x Contracts AI model, normalize this data into a consistent format, and provide it to downstream systems (e.g., contract management platforms, legal databases, or other document repositories) for further processing and record-keeping.



### Primary Actor

- **Legal Officer / Contract Manager or Document Processing Specialist**



### Supporting Actors

- **Scanning Hardware** (if physical contracts are scanned)
- **Downstream Systems** (Contract Management Software, Legal Repositories, Document Management Systems)

## 2. Stakeholders and Interests



### Legal Department

- Needs an efficient and accurate way to manage a high volume of contracts.
- Requires consistent metadata for quick retrieval, contract renewals, and audits.



### Compliance / Regulatory Teams

- Must ensure contracts adhere to internal policies and industry regulations.
- Needs to track key clauses and contract terms for compliance purposes.



### IT Department

- Maintains the infrastructure and integration between Scan2x and downstream systems.
- Ensures secure handling of sensitive legal documents.



### Finance / Procurement

- Requires visibility into financial obligations, renewal dates, and vendor details.
- Relies on accurate contract metadata to manage payments or contract terms effectively.

### 3. Preconditions



#### System Configuration

- Scan2x is installed, configured, and accessible to authorised users (including the Contract AI model).
- Normalised contract data fields are defined in the system (e.g., contract parties, start and end dates, renewal options, jurisdiction, signatures).



#### AI Model Setup

- The Scan2x Contracts AI model is trained or configured to recognise and extract key legal metadata.
- Mappings exist between the AI-extracted fields (e.g., “Parties,” “Effective Date,” “Termination Clause”) and the standard normalised schema.



#### Downstream System Integration

- Network connectivity and APIs are configured so Scan2x can push data to contract management or document management systems.
- Proper security controls are in place to handle confidential or sensitive information.



#### User Access

- Legal Officers or Contract Managers have the necessary permissions to upload, scan, and review contracts within Scan2x.

### 4. Triggers



#### Manual Upload / Scan

- A user scans physical contracts using a scanner connected to Scan2x or uploads digital contract files (PDFs, Word documents).



#### Automated Ingestion

- Contracts saved in a monitored folder or arriving via email are automatically imported into Scan2x.

### 5. Main Success Scenario (Basic Flow)

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#### Contract Ingestion

- The user or an automated process submits contract documents to Scan2x (through scanning, direct upload, or email monitoring).

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#### Document Classification

- Scan2x identifies each file as a legal contract using document layout, text analysis, or user-defined categories.
- If multiple contract types (e.g., NDAs, service agreements, lease agreements) are recognized, the system classifies them accordingly.

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#### Metadata Extraction (Scan2x Contracts AI Model)

Using OCR, natural language processing (NLP), and predefined AI models, Scan2x extracts key contract metadata such as:

- Contract Parties (e.g., “Company A” and “Company B”)
- Effective Date
- End Date (or renewal/termination dates)
- Contract Type (e.g., NDA, Service Agreement, License Agreement)
- Jurisdiction / Governing Law

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  - Key Clauses (e.g., confidentiality clause, termination clause, liability clause)
  - Signatories (e.g., names/titles of signers)
  - Payment Terms (if applicable)
  - Renewal/Auto-Renewal Terms
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**Data Validation**

  - Scan2x identifies each file as a legal contract using document layout, text analysis, or user-defined categories.
  - If multiple contract types (e.g., NDAs, service agreements, lease agreements) are recognised, the system classifies them accordingly.
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**Normalisation**

Extracted metadata is transformed into a standardised schema for consistent reporting and downstream processing:

  - Consistent formats for dates, currency, and party names
  - Standardised naming conventions for contract clauses
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**Mapping to Downstream Systems**

  - Using predefined integrations or file exports (e.g., JSON, XML, CSV), Scan2x maps the normalised contract metadata to the fields required by the receiving contract management or legal repository system.
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**Data Export / Posting**


  - The validated, normalized data is securely transferred to the target system, or generated as a structured file.
  - A confirmation or reference ID is returned to Scan2x, acknowledging successful transfer.
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**User Notification**

  - The Contract Manager or Legal Officer receives confirmation within Scan2x.
  - The newly processed contract metadata and any associated PDFs/images can be viewed in both Scan2x and the downstream platform.


**6. Alternative Flows and Exceptions**

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Unrecognised Contract Type (Alternative Flow)

- Trigger:** The AI model cannot classify a contract or key clauses (e.g., unusual formatting).
  - Action:** System flags the contract and places it in a review queue. A user can manually classify the contract type and train or fine-tune the AI model for future recognition.
- 2



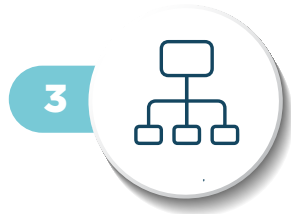
Incomplete Metadata Extraction (Alternative Flow)

- Trigger:** Certain fields (e.g., “End Date” or “Parties”) are not identified due to document complexity.
  - Action:** A user is prompted to fill in missing information or confirm fields. Once updated, the workflow continues normally.



**System Integration Failure (Exception)**

- **Trigger:** Connectivity or API issues prevent posting to the contract management system.
- **Action:** Scan2x queues the data and retries. If repeated failures occur, the user is alerted for manual intervention.



**Version Control or Amendments**

- **Trigger:** An updated or amended contract is uploaded.
- **Action:** Scan2x detects it as a revision (if version control is configured), extracts any new data, and updates existing metadata accordingly.

**7. Postconditions**



**Successful Posting**

- All contracts have been ingested, normalised, and transferred to the downstream system.
- Stakeholders can see comprehensive metadata and the original contract images/-documents in their contract management system.
- Audit trails are available in both Scan2x and the receiving platform.



**Error Handling and Notifications**

- Any contracts flagged for manual review remain in the queue until validated.
- System logs all issues for troubleshooting and compliance auditing..

**8. Benefits and Outcomes**



- **Improved Efficiency and Accuracy:** Manual data entry is minimised, freeing legal personnel to focus on higher-value tasks.



- **Enhanced Compliance and Risk Management:** Key clauses and contract terms are consistently captured, aiding compliance checks and reducing risk.



- **Better Visibility:** Normalised metadata enables quick searching, filtering, and reporting on contracts across the organisation.



- **Scalability:** Automated ingestion and AI-driven extraction allow the system to handle large volumes of contracts efficiently.

## Use Case Summary

With the Scan2x Contracts AI model, organizations can streamline their legal contract workflows—from initial document ingestion and classification to extracting and normalizing key legal metadata. By integrating with existing contract management or legal repository systems, Scan2x provides transparency, consistency, and efficiency in managing legally binding agreements, ensuring all stakeholders have fast, accurate access to critical contract details.



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