



White paper

Harness the power of AI with InSight Intelligent Document Processing

Quickly turn documents into information you can use by digitizing, extracting, classifying and verifying information with speed and accuracy.



Executive Summary

Successful organizations can leverage both physical and digital information to make informed decisions, better understand customers, innovate and grow, all while quickly responding to audit requests.

Too much knowledge and information remain trapped because organizations can't access, comprehend or use the data contained within documents. But even in organizations digitizing documents, challenges remain in managing unstructured, semi-structured and structured data types in a wide variety of siloed application environments.

The gulf between those organizations effectively extracting, managing, and leveraging their information and those that don't will continue to widen, as artificial intelligence (AI) and machine learning (ML) are rapidly making their way into every aspect of our lives. It's an AI world, and successful organizations will harness this technology.

With Iron Mountain Intelligent Document Processing (IDP), you can:

- Quickly turn documents into information you can use by digitizing, extracting, classifying and verifying information with speed and accuracy so you can make more informed decisions, and enhance customer service.
- Increase productivity by creating your own customized, automated document processing workflows, and/or leverage a team of AI experts, so you can innovate and grow.
- Reduce time, effort, cost and errors with intelligently extracted and classified data so you can speed time to discovery or audit response.



Iron Mountain InSight Intelligent Document Processing

The evolution of document processing

OCR helped to usher in the first wave of digital document management in a world that was still primarily driven by physical document handling. The conversion of paper documents to text-enabled enterprise document management solutions, however, the process and workflow revolved around storage and retrieval of documents. While an important step forward, teams needed to structure, enrich and tag the information.

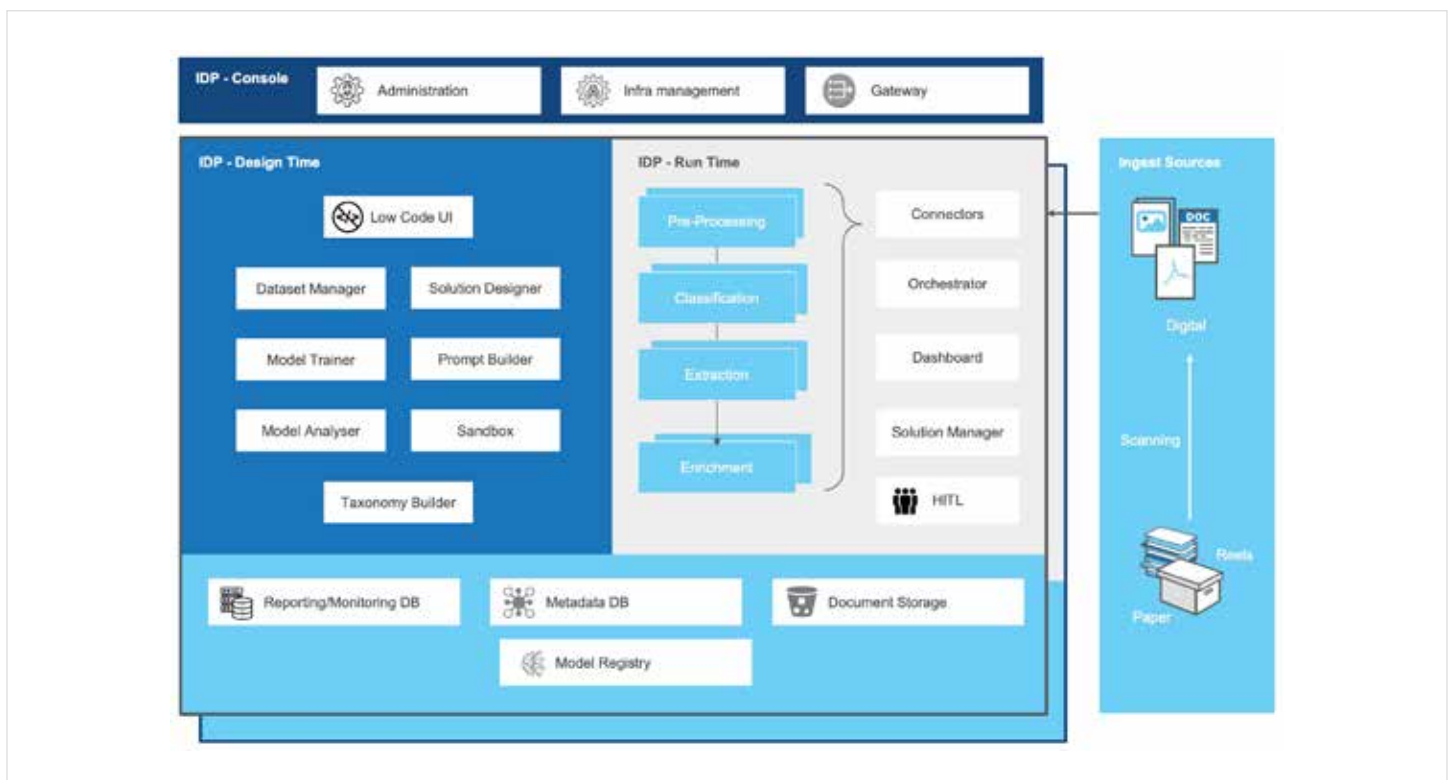
Document and information management has grown, fueled by the efficiency and productivity gains that electronic records could provide, but it was the addition of machine learning (ML) that truly unlocked the opportunity. By adding intelligence, through AI and ML, a new generation of document management has emerged: Intelligent Document Processing (IDP).

Iron Mountain InSight IDP includes high-speed scanning, data extraction, classification and enrichment. Human in the loop (HITL) is available to manage exceptions and to refine and retrain AI models leveraged in the system. The document processing workflow can be customized for your specific workloads, applications and environment via managed services. Or, you can create your own document processing workflow in the low-code development environment with an AI model library, tools for labeling and training, monitoring and exception processing.

The Intelligent Document Processing platform

The Iron Mountain InSight IDP platform is designed to integrate into an organization's content management and document workflows, providing intelligence that spans from ingestion of information through to data

The Iron Mountain InSight IDP architecture



visualization and processing automation. Key elements of the platform include accuracy, efficiency, predictability and visibility – areas where an IDP solution needs to be able to scale – to meet not only the needs for today, but also the needs of the future.

The entire orchestration of the solution is broken down into six phases, Import & recognition, Classification, Data extraction, Enrichment, Human-in-the-loop, and finally Integration. Each of these steps is critical to the overall accuracy and effectiveness of the solution.

Import and recognition

The first step in orchestration is importing the documents, often transitioning them from physical to digital. With high-speed scanning or computer vision, teams can ingest information into the system. Metadata, and data about the document is collected and stored.

Classification

Once in the system, the classification task can begin. In this step, the document’s structure and content are classified and information is validated. If there are separator sheets tied to the document ingested, these are removed to help streamline/optimize the process.

Data extraction

In this step, document types are aligned with applicable ML models that have been trained on that document type, enabling the system to extract information directly from the document, including fields like names, addresses, dates, currency amounts, and more. As the models have been trained to know where the content lies within the document, automating the extraction. Intelligent annotation is used to help extract unstructured data and information that can be used to help in the secure training and optimization of the machine learning models.

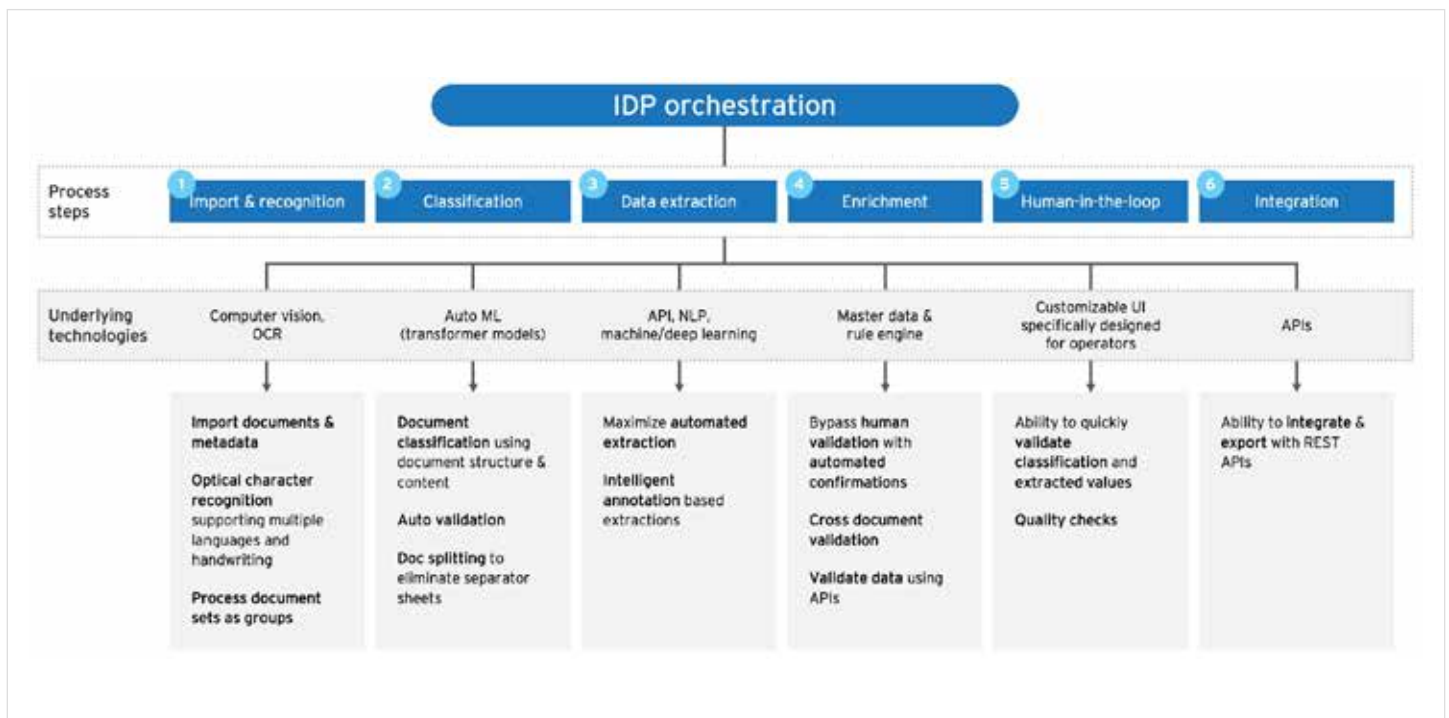
Enrichment

During the enrichment phase, the system adds structure, context and meta-data to information to make it more usable. The resulting enriched content can then enable enhanced automation, e.g. enabling the system to validate data using APIs, even across multiple documents.

Human-in-the-loop

While the capability and speed of ML models can aid in the automation of the process, humans in the loop can handle the exceptions, and perform quality control.

The Iron Mountain InSight IDP orchestration chain



Integration

Finally, after the data has been ingested, properly categorized, organized, and validated, it is then ready to be integrated back into the Iron Mountain InSight Content Management platform, or other document or data repository.

Boosting productivity through low-code environments

By building an intelligent document processing solution with a low-code environment, Iron Mountain has brought the power of IDP to existing workflows and empowered a wide range of employees to engage directly with the documents, models, and outcomes to drive the highest productivity in document processing. The intuitive drag-and-drop interface allows anyone to engage in the creation of workflows. Those that have a keen understanding of the documents, and the needs of the organization can easily create the workflows for document processing with little or no data science training.

The IDP low-code environment makes it possible for anyone working with documents to structure their data for analytics and automation. With InSight IDP, employees can leverage an AI model library, tools for classification, extraction, labeling and training, and exception processing. Their knowledge of workflows and documents enable them to build, with little or no coding expertise, customized business process (workflow) automation that can be immediately put into production to quickly drive productivity across the organization.

The large number of existing models and libraries enable employees to jumpstart the process, choosing the best components based on outcome accuracy. The *Try It!* functionality enables employees to quickly review the applicability of the different models. The included models and frameworks can be customized to help drive more accurate results so that organizations can model their AI/ML environments to match their document and data needs.

Key features of Iron Mountain InSight IDP

Iron Mountain InSight IDP is an innovative solution to help drive better productivity and automation within the document processing workflow. Key features include the following:

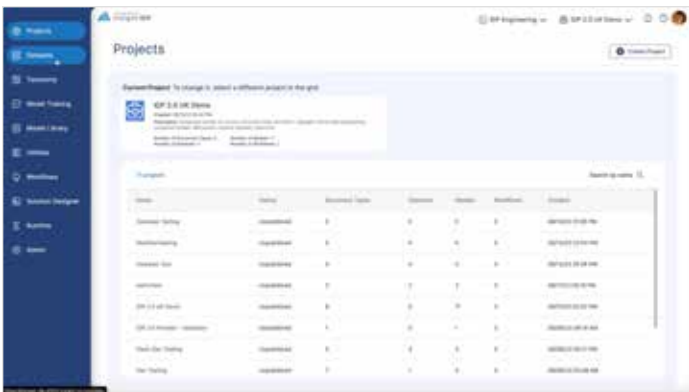
- > **Low-code environment** - The low-code environment eliminates the need for AI/ML specialists or data scientists to create workflows and models. By eliminating the need for these specialists that most organizations do not possess, employees are now able to create powerful solutions, boosting productivity through an intuitive interface.
- > **Secure spaces** - Enables teams to pull in all the tools they need and work with them in a secure environment, eliminating security considerations of competing products.
- > **Dataset management** - Enables the management of multiple document types from a standard set of pre-defined models with the ability to train or modify to add new documents or document types to the system.
- > **Taxonomy management** - Build and manage a taxonomy based on the fields and data types within documents. Flexible capabilities enable users to modify or extend the taxonomy as needed to accommodate new or changing document parameters.
- > **Model training** - AI models define how document data will be ingested into the solution. The model training is where AI and ML can be fine-tuned to help drive automation. By training the system based on actual documents and extracting data, users can fine-tune the model to increase accuracy and predictiveness for handling future documents.
- > **Generative AI and large language model (LLM) support** - IDP can utilize generative AI through a prompt-based interface that enables the user to query the document, and get immediate feedback as they are processing documents and automating document processing workflows.
- > **Model libraries** - The inclusion of model libraries provides a powerful baseline for processing documents. Designed around the most popular data types and constantly expanding, these models act as a starting point to drive immediate results, or as a base for customization to match an organization's exact needs.
- > **Try it! interface** - An integrated "what if" capability enables the user to view the outputs of a model based on processing against an existing piece of data to gauge effectiveness and accuracy. Background

processing enables the delivery of immediate feedback about the data extracted, empowering users to make a quick determination about using the model as is or modifying as a custom training.

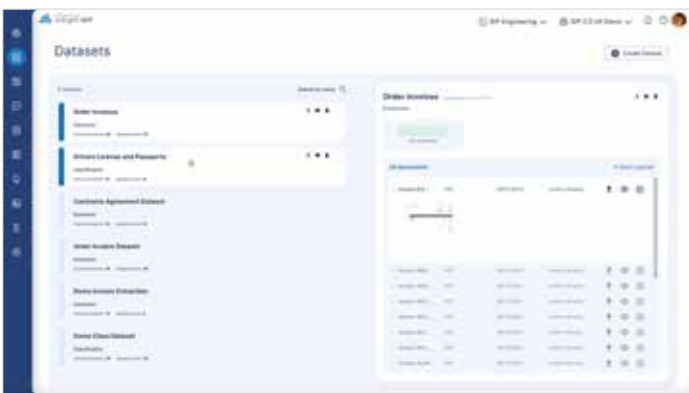
Together, these features create a solid and robust solution for intelligent document processing that can help reduce time, effort, cost and errors with intelligently extracted and classified data, making it easily searchable, speeding time to discovery or audit response.

Developing workflows example

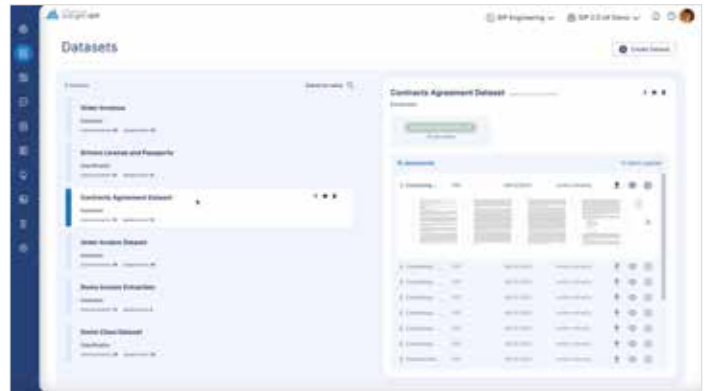
Creating and managing workflows is a snap based on the intuitive interface for Iron Mountain InSight IDP. Select an existing project or creating a new project:



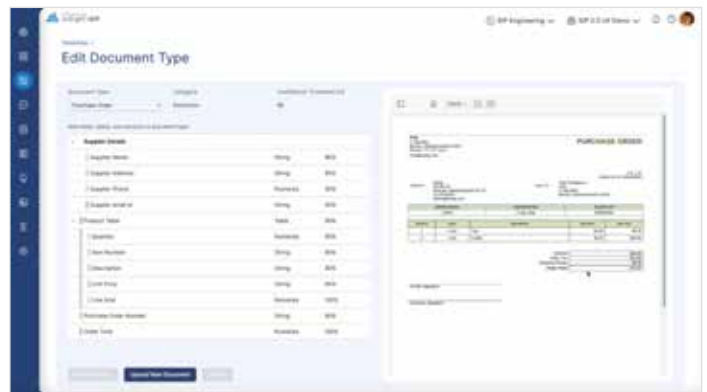
Within each project there are multiple datasets that can be utilized. Users can choose from existing stock datasets or create their own, depending on the document needs:



Each dataset is tied to a series of documents that can be seen in the thumbnails, enabling a user to verify visually how the dataset ties to existing documents:



Document types can be edited to reflect the fields that need to be captured as well as their locations on the document. A confidence threshold can be added to help drive accuracy around the data fields:



Model training is done by choosing documents and then highlighting the data that needs to be extracted, mapping that to fields within the document type:



The Try It! functionality enables a user to open a document and see how the data recognition is applied on the fly, boosting productivity through real-time feedback to the user.

Deploying Iron Mountain InSight IDP

Iron Mountain InSight IDP can be deployed as a managed service, with support for major cloud platforms, or deployed on-premises.

For organizations working with Google Cloud Platform (GCP), Iron Mountain InSight IDP can be deployed as an on-premises private cloud, enabling an organization to maintain complete control over their document repositories.

For organizations working with Amazon Web Services (AWS), Iron Mountain InSight IDP can be utilized as a complete software as a service (SaaS) solution where the application runs within the AWS infrastructure and all documents are hosted in the cloud, such as in an S3 data bucket.

For organizations that run in a multi-cloud environment and have access to both cloud services, there is flexibility to host in either depending on their specific workflow and document repository needs.

Decide for yourself

To see firsthand the power of the Iron Mountain InSight IDP, [contact Iron Mountain](#) directly to arrange for a demonstration or a proof of concept based on your actual documents.



Working with Iron Mountain

Iron Mountain has been a strategic partner with businesses for 70+ years, helping them manage not only their documents, but their information. This holistic view of the entire business process workflow, viewing the data as not only pages or bits and bytes but as knowledge, has helped Iron Mountain deliver a more cohesive information management landscape to its customers.

Whether organizations are interested in hosting their own instance, or relying totally on a SaaS-based solution, Iron Mountain InSight IDP brings the power of AI and ML to an organization's document workflows, enabling you to:

- Quickly turn documents into information you can use by digitizing, extracting, classifying and verifying information with speed and accuracy so you can make more informed decisions, and provide better customer service.
- Increase productivity by creating your own customized, automated document processing workflows, and/or leverage our team of AI experts, so you can innovate and grow.
- Reduce time, effort, cost and errors with intelligently extracted and classified data, making it easily searchable, speeding time to discovery or audit response.

Leverage Iron Mountain Intelligent Document Processing's low-code development environment available on AWS and GCP that has an AI model library, tools for labeling and training, monitoring and exception handling for customizable document processing workflow automation.

- 1 Source: <https://www.gartner.com/doc/reprints?id=1-29CD4W4G&ct=220308&st=sb>
- 2 Source: <https://www.seagate.com/files/www-content/our-story/trends/files/idc-seagate-dataage-whitepaper.pdf>

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