

# **CODEMANTRA INCREASES THE VALUE OF DIGITAL DOCUMENTS**



About

codemantra enhances the accessibility and value of digital documents



Serving

CEO

COO

President

Directors



Products/Solutions

- Document Accessibility Compliance & Remediation
- Content Lifecycle Management
- Full-Service Content Production
- Intelligent Document Processing



More than  
**1M+**  
Documents  
Processed



**10M+** pages  
produced with  
impeccable quality



**300+**  
Customers



Certifications & Accreditation



ISO 9001:2015 primarily reinforces the process robustness and the quality management practices at codemantra



Benetech's Global Certified Accessible (GCA) Program. The GCA program is a formal process of evaluating a digital book to ensure it incorporates all of the accessible features



codemantra is a W3C Member that helps lead the development of Web standards



Report on Controls at a Service Organization Relevant to Security, Availability, Processing Integrity, Confidentiality or Privacy

# Our Key Customers

## Publishers



## Education



## Government



## Non-profits



## Finance/Banking



## Other



The background is a solid dark green color, overlaid with a pattern of lighter green speech bubbles and quotation marks of various sizes and orientations, creating a conversational or communicative theme.

“ With codemantra we have been able to  
**configure a platform** that supports  
our workflow while capturing, consolidating  
and validating metadata in a logical sequence.  
Metadata is in a ready state when we need it. ”

Jeremy Clift Publisher,  
International Monetary Fund





## Accessibility Compliance & Remediation

A SaaS-based application with intelligent content and process automation, enabling rapid remediation through the consolidation of machine learning and human-assisted oversight.



## Content Lifecycle Management

A SaaS-based Digital Asset Management application with intelligent content and process automation, enables consolidation of information and content across disparate silo sources, thereby providing visibility to business-critical information, across the product lifecycle in a single view.



## Full-Service Content Production

A blend of technology, process automation, and human intelligence, codemantra's Full-Service Content Production expedites the process through automated workflows resulting in faster turnaround time, improved quality, and lower costs.



## Intelligent Document Processing

The Intelligent Document Processing platform captures, classifies, extracts, and validates any digital document's data and transforms unstructured documents into digital assets, with minimal human intervention & increased productivity. This IDP platform synchronizes seamlessly with existing systems such as ERP, CRM, or any business application systems.

## Content Lifecycle Management

### Key Features



#### Communication Management

Streamlines the communication around the product lifecycle workflow. The multi-domain platform empowers better work focus and business efficiency.



#### Metadata & Content/Document Management

Content assets and associated metadata from multiple sources are housed in a single system to accelerate workflows and enhance collaboration.



#### Transformation & Packaging Management

With an intuitive business rule generator and a proactive monitoring system, the content platform achieves 100% error-free and secure distribution.



#### Engagement & Reconciliation Management

Sales reconciliation is conducted through continuous engagement with customer communities. The unified platform supports conversations and reviews and augments customer experience.

## Content Lifecycle Management



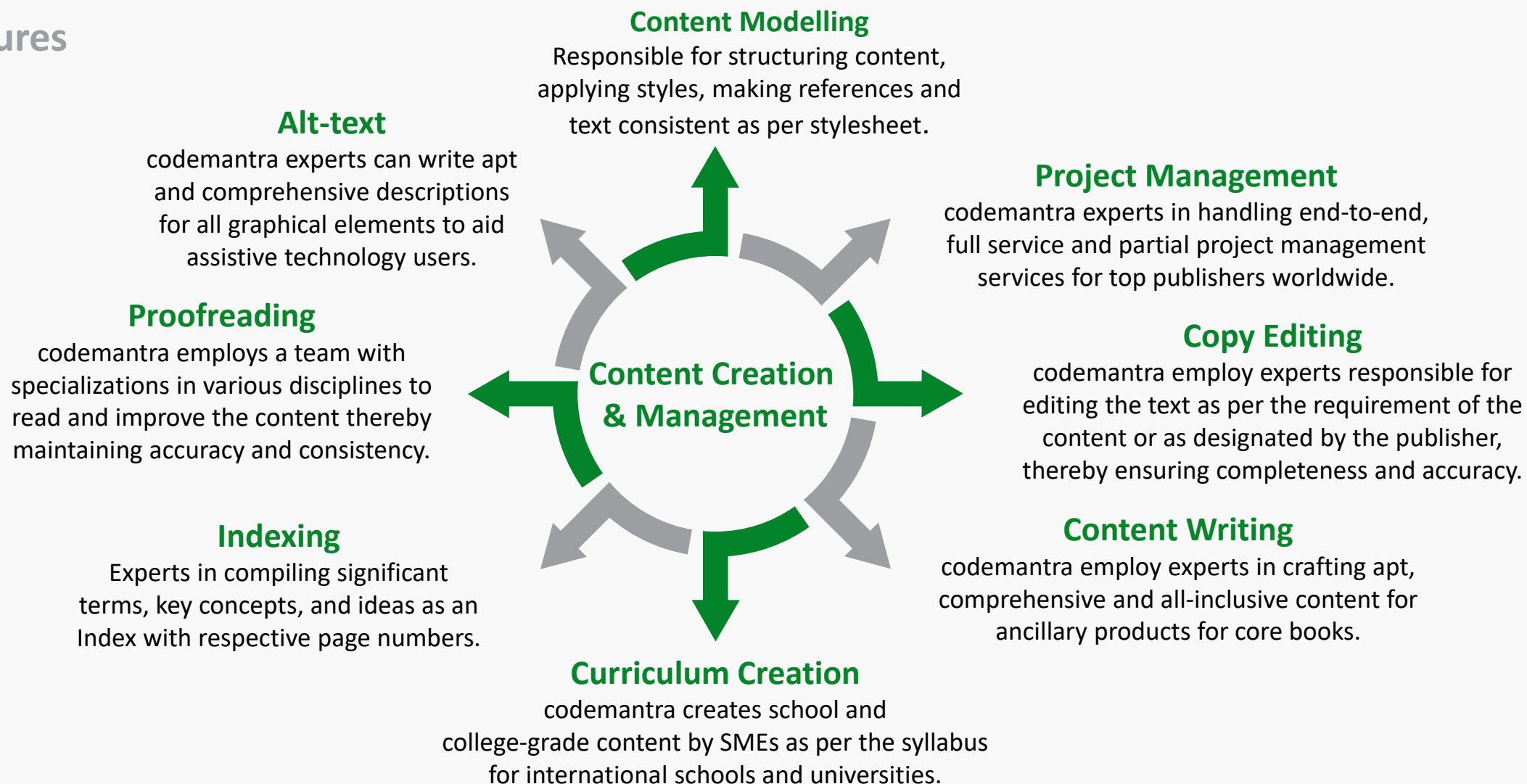
codemantra uses a secure AI-powered platform that seamlessly integrates with the in-house systems and steers through the entire content lifecycle from creation to delivery with extreme flexibility, thereby unlocking significant operational efficiencies and providing daily insights for business growth and market traction.

### Key Highlights

- codemantra's proprietary AI-powered platform is secure. It seamlessly integrates with the in-house systems
- It steers through the entire lifecycle from creation to delivery with extreme flexibility
- Significant operational efficiencies and daily insights for business growth and market traction
- Provides visibility to business-critical information, across the product lifecycle, in a single view

## Full-Service Content Production

### Key Features





## Content Lifecycle Management

### Case Study

**codemantra helps an international academic publisher to achieve digital conversion of 1 million pages in 150 days**

#### Client

Global leaders in publishing HSS & STEM content

- **7,000 new books and 2,600** journals every year
- **6,500 employees** working across the globe
- **Ranked #1** in social science journals in the world

#### Requirement

**1,000 books (about 250,000 pages)** had to be published in print and online

#### Challenge

Backlist content had to be digitized fast inorder to take it to the market quickly, necessitating an innovative process



#### Solution

An AI-based automated data conversion tool was used that enabled digitizing **1 million pages within 3 months**. The entire backlist of titles was converted into various formats as required. Special requests such as unique design and font requirements for specific titles were accommodated.



#### Result

- The client achieved digitizing the backlist titles within the stipulated timeframe
- An accuracy **level of 97.4%** and customer delight were accomplished

“ We rely on Content Lifecycle Management from codemantra for the conversion and distribution of the Bank’s publications. It is also an essential tool for our marketing team. Catalogs and new title sheets are generated, updated and distributed on demand through CLM providing ongoing **time and cost savings.**”

Randi Park,  
Publishing Officer, The World Bank Group

### Accessibility Compliance & Remediation

#### Key Features



**Document accessibility audits**  
codemantra's platform  
provides actionable insight on  
the current level of document  
accessibility compliance



**Consistent and efficient  
remediation**  
Remediation services driven  
by machine learning  
predictions consistently  
delivers PDF/UA and WCAG  
2.1 compliant documents.



**Scalable conformance  
validation**  
Instant cloud-based PDF/UA  
and WCAG 2.1 validation of  
PDF, DOCX, PPTX, XLSX, and  
EPUB formats.

Slide 1

354 17 Land Resources

Up to 78% of water is recycled by transpiration and evaporation in a forest.

In a forest, 85% or more of water deep into ground or runs off to rivers, streams, and lakes.

**Figure 17.5 Role of forests in the hydrologic cycle.** Forests return most (up to 75%) of the water that falls as precipitation to the atmosphere by transpiration. When an area is deforested, almost 100% of precipitation is lost as runoff.

Forests play an essential role in regulating global biogeochemical cycles, such as those for carbon and nitrogen. Photosynthesis by Earth's approximately 1 trillion canopy trees removes large quantities of heat-trapping carbon dioxide from the atmosphere and fixes it into carbon compounds. According to the Millennium Ecosystem Assessment, approximately as much carbon as is in the atmosphere is stored in trees. Forests thus act as carbon "sinks" that help mitigate global climate change. At the same time, oxygen, which almost all organisms require for cellular respiration, is released into the atmosphere.

Tree roots hold vast tracts of soil in place, reducing erosion and mudslides. Forests protect watersheds because they absorb, hold, and slowly release water; this moderation of water flow provides a more regulated flow of water downstream, even during dry periods, and helps control floods and droughts. Forest soils remove impurities from water, improving its quality. In addition, forests provide a variety of essential habitats for many organisms, such as mammals, reptiles, amphibians, fishes, insects, lichens and fungi, mosses, ferns, conifers, and numerous kinds of flowering plants.

**FOREST MANAGEMENT**

When forests are managed for timber production, their species composition and other characteristics are altered from their natural condition. Specific varieties of commercially important trees are planted, and those trees not as commercially desirable are thinned out or removed. *Traditional forest management* often results in low-diversity forests. In the southeastern United States, many tree plantations of young pine that are grown for timber and paper production are all the same age and are planted in rows a fixed distance apart (Figure 17.6). These "forests" are essentially *monocultures*—areas uniformly covered by one crop, like a field of corn. Herbicides are sprayed to kill shrubs and herbaceous plants between the rows. One of the disadvantages of monocultures is that they are more prone to damage from insect pests and disease-causing microorganisms. Consequently, pests and diseases must be controlled in managed forests, usually by applying insecticides and fungicides. Because managed forests contain few kinds of food, they cannot support the variety of organisms typically found in natural forests. Tree plantations, however, have the potential to benefit remaining natural forests, provided that remaining forests are conserved and protected and that the plantations themselves do not replace natural forests.

**monoculture:** Ecological simplification in which only one type of plant is cultivated over a large area.

**Figure 17.6 Tree plantation.** This intensively managed pine plantation is a monoculture, with trees of uniform size and age. Such plantations have little biodiversity and provide limited habitat, but they supplement the harvesting of trees in wild forests to provide the United States with the timber it requires. Photographed in Georgia. (© David R. Feaster PhotoLibrary, Inc./Alamy)

Slide 2

Open Access  
Video  
Library

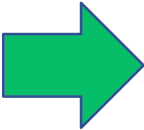
PowerPoint or SCORM file

**Role of Forests in Hydrologic Cycle**

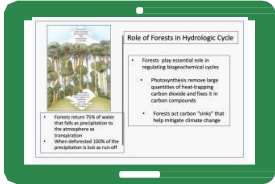
- Forests play essential role in regulating biogeochemical cycles
- Photosynthesis remove large quantities of heat-trapping carbon dioxide and fixes it in carbon compounds
- Forests act carbon "sinks" that help mitigate climate change

- Forests return 75% of water that falls as precipitation to the atmosphere as transpiration
- When deforested 100% of the precipitation is lost as run-off

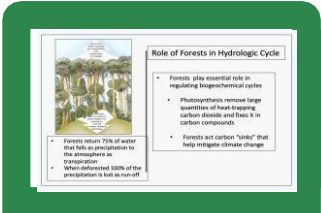
Embedded Video



Mobile



Chromebook /iPad



PC/Mac

**codemantra enables University of Westminster – London, to achieve 100% accessibility compliance.**

### Client

One of the oldest & top most among 15 International Universities in the World

- Operating since **1838**
- **19,200** Students

### Requirement

To meet the Public Sector Bodies Accessibility Regulations, 2018 (PSBAR <https://www.legislation.gov.uk/ukxi/2018/852/contents/made> ),the University of Westminster required around 1000 PDF documents to be made accessible.

### Challenge

Complexity of the PDFs  
PSBAR legislative deadline (project start by Aug 2020 & reach the deadline by Sept 2020)



### Solution

The conversion process utilised codemantra's *accessibilityInsightTM* platform which automates up to 80% of the process of making documents accessible to WCAG and PDF/UA standards (document remediation). *accessibilityInsightTM* uses machine learning to classify and auto-tag document elements. A document data lake comprising millions of documents informs the machine learning process and ensures document classification and tagging accuracy to a very high level. These processes delivered short delivery times and pricing economy for Westminster.

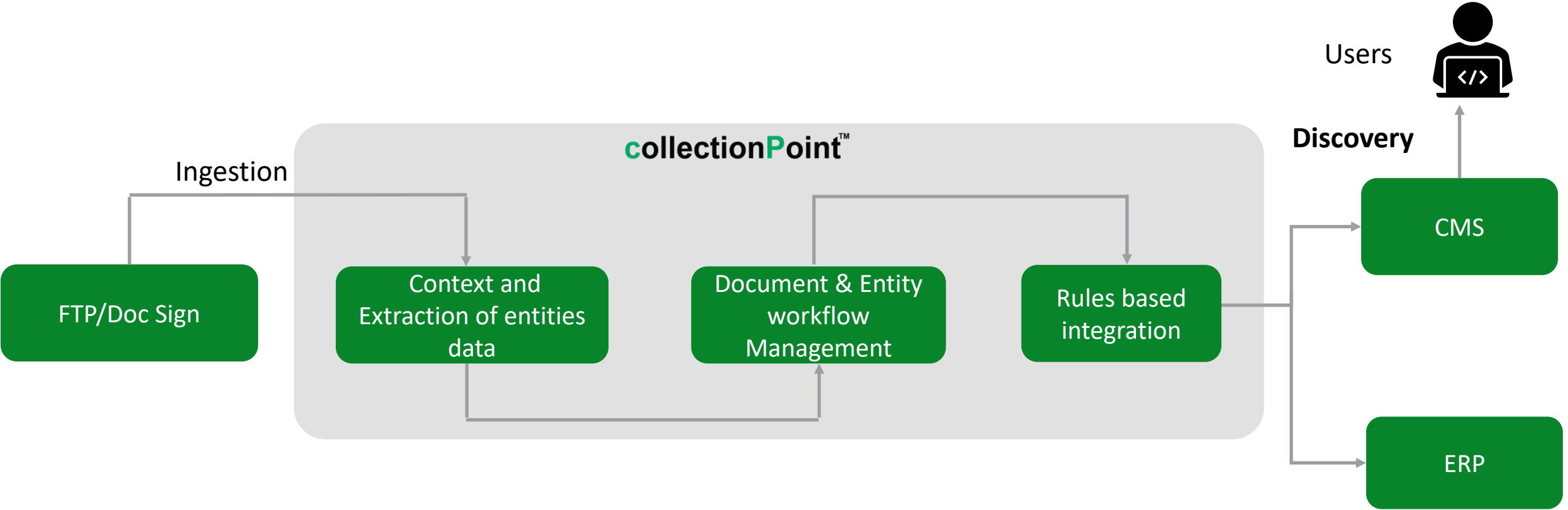


### Result

- Meet the challenging legislative deadline with complete accessibility compliance
- The 12000 document pages were made accessible in 8 working days, 60% faster time

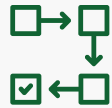
Need for Intelligent Document Processing

Discovering information from unstructured documents with no intelligence augmentation is a futile exercise. The reason; there is no context for machines to provide relevant results





### IMPACT



**5x** increase in processing speed



**30%** reduction in client onboarding time



**90-95%** highly sustainable accuracy



**20%** reduction in audit-related costs



### CHALLENGES

- Extract data of varying quality from various document formats such as PDFs, images, scans, etc., that cannot be processed by traditional RPA models
- Fragmented processes such as sales, onboarding, credit, legal, etc.; time-consuming manual tasks; and disconnected networks contribute to a highly inefficient process
- Achieve compliance with frequently changing complex, regulation guidelines



### SOLUTION

- Intelligent Document Processing platform uses advanced AI to extract data
- Large-scale implementation of seamless integration between AI and global business enterprises with minimal disruption to ongoing operations
- Cloud and on-premise solutions designed to maximize efficiency and ensure protection of customer data and privacy
- Domain expertise to understand and automate regulatory compliance processes

# A Leading European Bank Achieves Automation of Import Bill Collection Documents

## IMPACT



**6x improved** productivity  
with processing time reduced  
from **30 min to 5 min**



**500** documents processed  
per day



Obtained **100% accuracy**  
with elimination of manual  
errors



Achieved **80%** automation  
overall



## CHALLENGES

- Extensive process that involves the examination and validation of various types of documents related to trade finance, received from multiple banks
- Capture data from various unstructured documents related to import collection such as letter of credit, invoices, certificate of origin, etc.



## SOLUTION

- Intelligent Document Processing platform scans, reads, deciphers, and captures the information fields such as currency amount, LC number in the unstructured documents
- Auto-validates data such as date of shipment, amount of invoice, etc.
- The validated data is captured, rechecked for mismatch before sending for final payment

# A leading US-based Bank achieves auto-classification and consolidation of mortgage documents within two weeks

## IMPACT



**35M** documents classified and indexed into **275** categories



Mortgage documents were classified within **42 days**, with an accuracy of **87 percent**



Search and retrieval time of documents reduced from **48 hours** per mortgage to minutes



**150** man-hours per month were saved.



## CHALLENGES

- Digitize over **1.8M** unstructured mortgage documents comprising **35M+** pages
- Improve the search and retrieval of documents through auto-analysis, auto-indexing, and auto-classification into **275** categories
- Auto-process documents available across formats such as paper, scanned and pre-scanned versions



## SOLUTION

- IDP platform captures and converts the data in unstructured documents into digital assets
- Documents are auto-analyzed in a context-sensitive environment and key fields are extracted
- Document is indexed using key fields and digital assets are auto-classified into **275** predefined categories
- Classified documents are then auto-transferred to the document management system

## Get in Touch

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THANK YOU