



CLASSIFICATION AND DATA EXTRACTION

“I have been waiting twenty-five years for this technology to arrive! This is really going to drive down our operational costs by allowing us to use fewer people at the data entry level and ultimately at the verification level too.”

CEO

Advanced Document Classification and Data Extraction in Healthcare

BACKGROUND

Paper document processing solutions have been on the market for years but in many cases the complexity of document formats have limited the ability for software to capture and process the critical data. Axis now offers document processing solutions for all your document challenges.

In many instances, client documents come in complex semi-structured and unstructured document formats. These have traditionally been the hardest -- if not impossible -- to enable automated document classification and data extraction for a number of factors.

Traditional document extraction solutions have relied on templates or keyword searching for information capture. This doesn't work well for a large number of document format scenarios, which include:

Semi-structured documents – Much of the document may stay the same but many of the key data elements vary. For example, a table list can randomly come and go on a page, whereas templates just doesn't work that well for EOBs and Claim forms like UB92 and HCFA.

Unstructured documents – Most of the index information is buried within the depth of a paper, often within sentences within a paragraph.

The data positioning is continually changing, where the only consistency is the actual language around the index. Legal contracts and correspondence are good examples of this.

CHALLENGE

80% of data resides in these type of documents. So how are clients able to capture this critical information? Unfortunately, the best solution has been manual data extraction. This results in three main issues: slow processing time, erroneous manual data entry, and excessive labor costs, even though off-shoring could negate some of those costs.

SOLUTION

Axis' robust, leading-edge software technology Axis AI was leveraged in this case, which uses advanced document classification and data extraction capabilities and utilizes sophisticated algorithms to read and understand the context of documents. It also studies patterns and can compare documents to find information as you would train a human.

Machine Learning is also incorporated so that it can train as it operates -- the more documents it processes, the more it learns. Automated data extraction can process documents many times faster than a human. In one case, a client was taking months to extract data from a huge repository. With Axis they were able to do it in a matter of days.

Life and Casualty
PO Box 5321
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02/12

TRICARE (ID#/DoD#) CHAMPVA (Member ID#) GROUP HEALTH PLAN (ID#) FECA BULK/LUNG (ID#) OTHER (ID#)

1a. INSURED'S I.D. NUMBER: 12345ABCD

3. PATIENT'S BIRTH DATE: MM | DD | YYYY: 01 | 12 | 1964 SEX: M F

4. INSURED'S NAME (Last, First, Middle Initial): DOE, JOHN

6. PATIENT RELATIONSHIP TO INSURED: Self Spouse Child Other

7. INSURED'S ADDRESS: 123 MAIN S

8. RESERVED FOR NUCC USE: STATE: CA CITY: ANYTOWN ZIP CODE: 12345

10. IS PATIENT'S CONDITION RELATED TO: EMPLOYMENT? (Current or Previous) YES NO ACCIDENT? YES NO PLACE (State): CA

11. INSURED'S POLICY NUMBER: ABC1234

a. INSURED'S DATE OF BIRTH: MM | DD | YYYY: 01 | 12 | 1964

b. OTHER CLAIM ID (Designated by NUCC):

c. INSURANCE PLAN NAME: Medicare

d. IS THERE ANOTHER HEALTH PLAN? YES NO

13. INSURED'S OR AUTHORIZED REPRESENTATIVE'S ASSIGNMENT: INFORMATION NECESSARY FOR ASSIGNMENT

SIGNED: _____

16. DATES PATIENT UNABLE TO WORK: FROM MM | DD | YYYY: FROM MM | DD | YYYY:

18. HOSPITALIZATION DATES: FROM MM | DD | YYYY: FROM MM | DD | YYYY:

20. OUTSIDE LAB? YES NO RESUBMISSION CODE: 40200638

OR AUTHORIZATION CODE: 40200638

What Makes Axis AI The Right Choice?

With Axis AI, organizations have a superior alternative to manual keying or the costly and ineffective results of other data extraction solutions.

BENEFITS

Computers don't forget! As the product runs, it improves both classification and extraction quality. The results are predictable, consistent and very reliable. The technology never tires, never forgets and never quits.

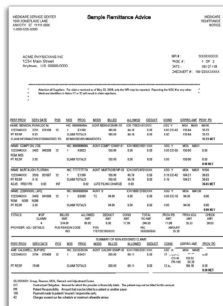
By reducing the number of SMEs (subject matter experts) performing data entry, you can use these trained resources on exception handling and invest time with your team in meaningful document processing workflow rather than monotonous keying from error-prone image typing.

EXPLANATION OF BENEFITS (EOB)

Complex forms and a countless number of formats due to documents originating from your clients.

Organizations cannot control the type and number of varieties coming from their business associates.

The format is complex including both structured form headers and random table and index positioning. In many cases, these documents can range over a single page, when sent as a batch

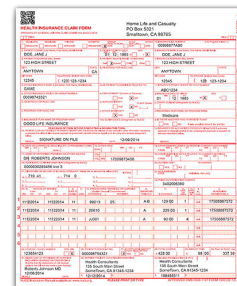


of images there are no clear separation of pages, user interaction was generally required to separate pages and classify the documents.

CLAIMS - UB92, CMS1500, HCFA

Although these are formatted as forms, the clients enter the data into these forms with little concern

about doing it carefully. Index values appear in somewhat standard positions but never consistently, which presents real challenges to template based extraction solutions.



Other examples include Legal Files, Employee and Customer Files, Insurance, Patient, and Medical Records, Benefits and Scientific Studies.

THE BOTTOM LINE

Axis AI now offers solutions that are faster, cheaper and extend to a wider range of document processing challenges than ever before. No other vendor on the market today has the experience, technology and know-how to address the most complex document processing opportunities out there today.

INDUSTRY EXPERIENCE

- HEALTHCARE
- REAL ESTATE
- MORTGAGE
- LAND AND TITLE
- OIL & GAS
- FINANCIAL SERVICE
- BANKING
- INSURANCE

Since 2002, Axis has served as a trusted technology advisor to leading companies in the mortgage, title, healthcare and financial services industries. Fast, fluid and focused, our global team offers unmatched technical and business expertise at a reasonable cost. We combine the comprehensive skills and resources of a global consulting firm with a personal, solution-oriented approach.

**It's not just about technology.
It's about what technology can do for your business.**



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