2020 Accessing Higher Ground
Automation for 508 Compliance

Pat Needles
Executive Director of Sales

www.Equidox.co

EquidoxSales@onixnet.com

800.664.9638

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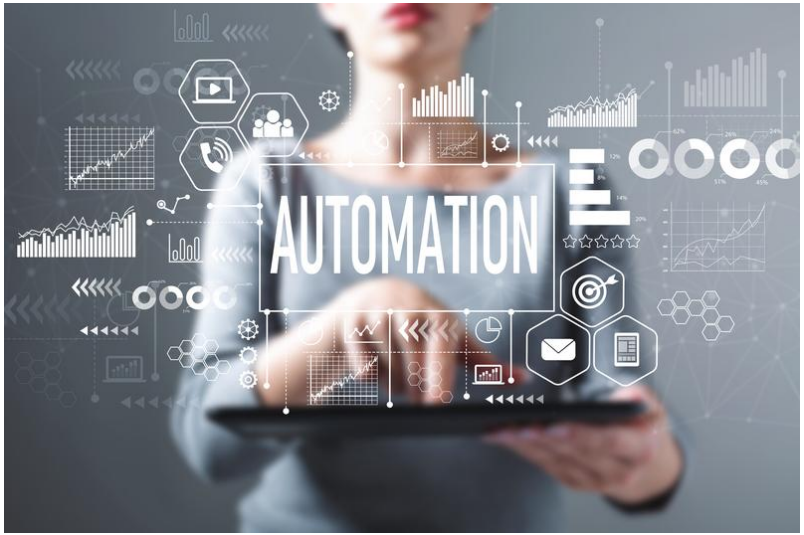
What is automation?

AI is made of various components



- **Artificial Intelligence** – A scheme of human-like learning by machines, particularly computer systems. This can include processes like computer vision and machine learning.
- **Computer Vision** – Automation of the tasks that humans do with vision. This includes acquiring, processing, and analyzing digital images.
- **Machine Learning** – The building of models (especially software models) that can analyze data, identify patterns, and make decisions based on learning from those data and patterns.

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Automation can’t work alone

Human interaction is still required

Humans still need to provide:

- Context
- Logical order
- Definitions

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What CAN be automated?

With human verification, AI can save a lot of work

- Identify and tag
  - Text
  - Images (detection but not alt-text)
  - Existing headings
  - Existing live links
- Some tools can semi-automate
  - Lists
  - Tables

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Context - Identifying Images

How humans and AI work together

- Many images can be correctly identified by AI
- Facial recognition technology is very sophisticated, but still lacks situational details
- AI results are still simplistic and lack context
- Identifying elements such as graphs, charts or diagrams is not yet possible
- Article: Can Image Recognition by AI replace Alt Text?

"Image may contain night and fire."

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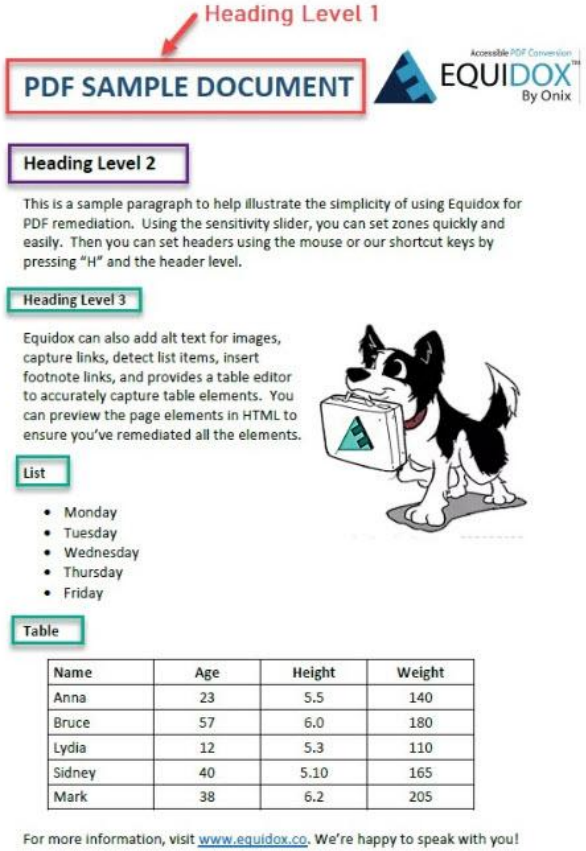
Logical Order - Heading Structure

Humans must set navigation structure

- Machines can identify headings by font, size and/or weight of characters. But humans must still define the levels that correspond to those characteristics
- Machines can recognize a skipped or out of order level but can't determined how to correct it
- Article: [Equidox PDF Academy – How to tag headings in PDFs]



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Logical Order - Reading Order

Still beyond capabilities of machines

- AI can set top-down, left-to-right order
- Human assistance is needed for documents with images overlapping or in between text
- AI cannot recognize documents with text in columns such as folded brochures. A human must set reading order.
- Article: [Equidox PDF Academy - How to set Reading Order in PDFs]

The Pittsburgh Press

—Baseball—
FINAL
Latest Stocks
70 Pages—5 Cents

VOL. 71, No. 291 TUESDAY, APRIL 12, 1955 WEATHER—Mild and wet.

POLIO IS CONQUERED

Public Airing Urged on Transit Bill

County Legislators Advocate Hearings

Biggest Thrill Came 31 Months Ago

It's Anti-Climax for Dr. Salk

He Was Confident of Success After Blood Check in 1952

Vaccine To By-Pass Wholesalers

Doctors, Hospitals, Druggists to Get It

Salk Shots 80 to 90% Effective

Some Scientists Weep

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Automation currently in use

What is possible NOW

Automated Features	Adobe Acrobat	Equidox
Recognizes existing tags (text, headings, links, images and alt-text)	Yes	Yes
Can “auto-tag” documents	Yes	Yes
Can set top-down, left-to-right reading order	Yes	Yes
Recognizes links within text	Yes	Yes
Auto-detect table elements (rows, columns, table summary)	No	Yes
Auto-detect list elements, including nested list elements	No	Yes

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Equidox Powerful AI Tools for Lists and Tables

Remediation time reduced by 90%

Smart List Detector

- Auto-tags lists and list items
- Auto-tags nested lists

Smart Table Detector

- Row and column sliders auto-define cells
- Auto-populates table summary

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Equidox Smart List Detector

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Equidox Smart Table Detector

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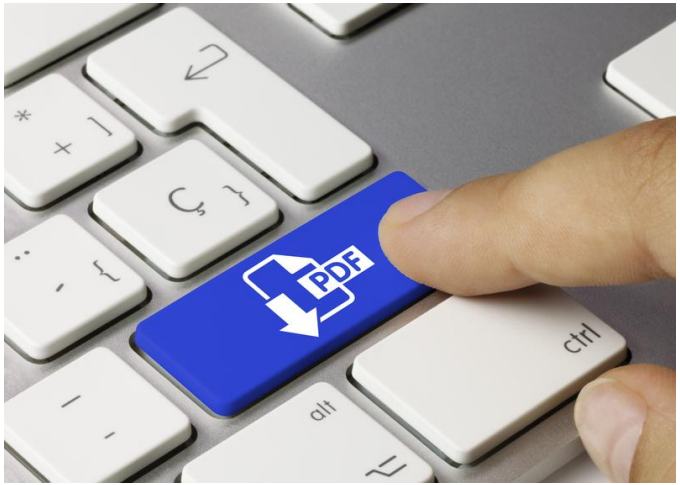
Is complete automation of PDF remediation possible?

With human programming, yes it is...



- **Only for documents with similar elements**
- Human programming defines elements for machine learning engines
- AI creates a digital template
- AI applies defined tags to documents
- Documents are 100% compliant provided template is correct

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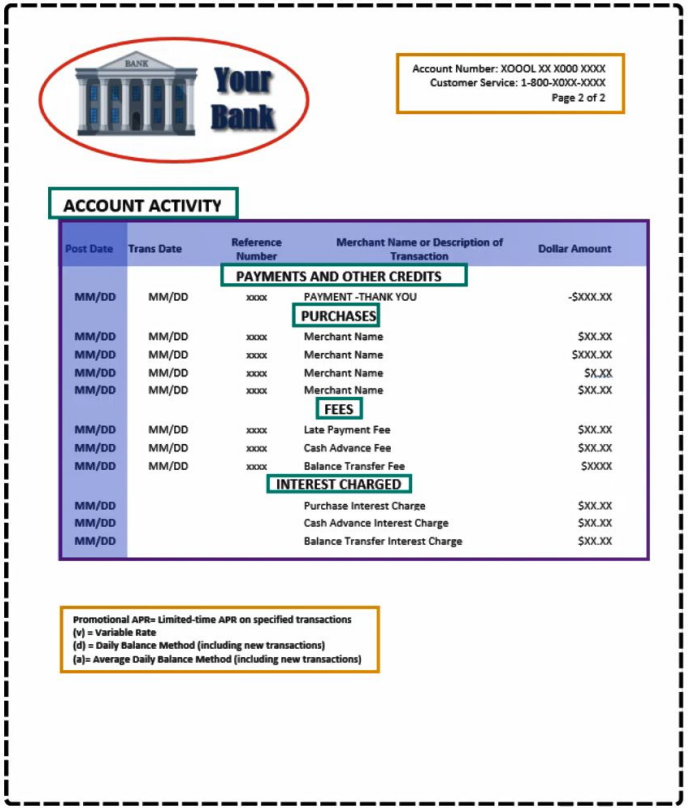
Equidox Batch Processing - Static Templates

Automation for static documents

- Templated documents with identical formatting
  - Create tags using Equidox for an initial document
  - Save a template with zones/tags
  - Apply template to similar documents using exact zone/tag transfer
  - Results will be full tagged and compliant



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Equidox Custom Batch Processing

100% ADA Compliant PDFs

- Custom process tailored to each client
- Suitable for repetitive, recurring documents with static elements
- Integrated into PDF production workflow
- Employs existing security protocols
- Local or cloud server
- On-demand results

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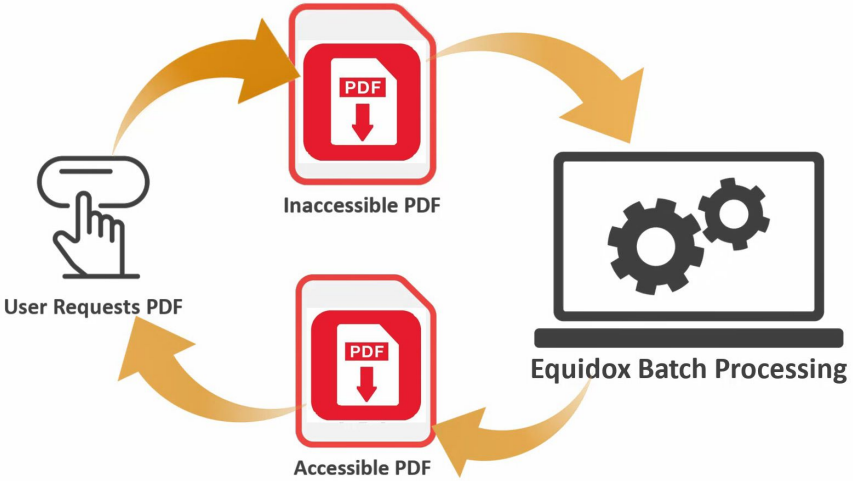
Equidox Custom Batch Processing - Integrated and On-Demand

Automation for multiple similar documents

- Machine learning creates template with defined tags/zones
    1. User requests PDF
    2. PDF is generated
    3. Equidox batch processing tags PDF
    4. 100% compliant PDF is delivered to user
- Integrated into PDF production workflow
- Instant and on demand for all users



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