

Intelligent Automation with AI Builder



Overview

A major oil services company in Oman approached us after successfully migrating their data and documents to Dynamics 365 and SharePoint.

Challenge:

The client encountered the following challenges with their document migration:

PDF Text Visibility: In their retired system, PDF text was directly visible from the record. However, after migrating to Dynamics 365 and SharePoint, the PDF text was no longer easily accessible.

Advanced Actions on PDF Text: The client needed the capability to perform advanced actions on the text within PDFs. This included conducting searches on the content of PDFs across all records and making edits to the PDF text.



The Solution

At the time, we recognized that AI Builder text recognition was the ideal solution for addressing the issue in conjunction with Power Automate to perform the following tasks:

- Locating the PDF file in SharePoint linked to the corresponding Dynamics 365 record.
- Processing the content using AI Builder.
- Formatting the output.
- Storing the formatted text in the destination record field.
- Additionally, we had to assess the potential costs associated with using AI Builder."

The AI Builder solution necessitated the creation of a Power Automate flow designed for manual triggering. This flow would then scan the Dataverse for records with attached PDF files.

- To handle text recognition for thousands of individual PDF files, we established a primary Power Automate flow that could be manually initiated to locate the PDF files. This primary flow would in turn trigger a child Power Automate flow responsible for running the AI Builder model and updating the Dynamics 365 record with the extracted data. The child flow would be initiated with the ID of the relevant Dataverse record to carry out the necessary actions on that specific record.
- Anticipating potential errors, we faced uncertainty regarding the length of content within each of the PDFs and whether the allocated 50,000 characters per field would be sufficient for the extracted text. To resolve this uncertainty, we initially ran the flow once, solely for character count purposes. For character count calculations, we used a length expression as outlined below.
- We utilized the expression `length(variables('ExtractedContent'))` to ascertain the character count of the content, adding this count to an Excel sheet within the flow to record PDF character counts. Storing the results of all extractions in the Excel sheet, a sample run, taking over 24 hours, revealed the insufficiency of the 50,000-character field for hosting the extracted data. Consequently, we extended the multi-line field to accommodate 150,000 characters prior to the final run, which itself took an additional 24 hours to complete. This extra day of preparation before the final run ensured we could avoid any potential errors.
- The AI Builder's text recognition model extracts text line by line, regardless of the position of each line within the paragraph it belongs to. As a result, when these text lines are appended, the variable 'text' ends up without any line breaks, with each line merging directly into the start of the following line. This format makes the text difficult to read and renders it less useful for end-users. Our expectation is that the extracted text not only includes line breaks but is also structured with headers and paragraphs.

Benefits

- **Efficient Text Extraction:** AI Builder's text recognition model efficiently extracts text line by line, providing an automated and streamlined approach for handling large volumes of text data.
- **Versatility:** AI Builder can extract text regardless of the position of each line within a paragraph. This versatility ensures that it can handle a wide range of document

structures and formats.

- **Data Integration:** AI Builder can seamlessly integrate with other tools and platforms, such as Power Automate, to process and manage extracted text data, enabling better data handling and analysis.
- **Structured Data:** By using AI Builder, you can structure the extracted text with headers and paragraphs, making it more readable and user-friendly. This structured data is more valuable to end-users and can be easily incorporated into reports and analyses.
- **Time Savings:** The automation provided by AI Builder significantly reduces the manual effort required for text extraction, saving time and resources.
- **Accuracy:** AI Builder's text recognition model can provide high levels of accuracy in text extraction, reducing the risk of errors that may occur in manual data entry.
- **Scalability:** AI Builder can scale to handle large volumes of text data, making it suitable for projects with varying data sizes.
- **Consistency:** By using AI Builder, you can ensure consistent text extraction and formatting, reducing the variability that can occur when humans are involved in data extraction and processing.
- **Cost-Efficiency:** AI Builder can help lower operational costs by automating tasks that would otherwise require manual labor.

For Further Inquiries

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