

CASE STUDY



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Sherwin-Williams



SHERWIN-WILLIAMS.

PROJECT

Product Sheet Attribution

OVERVIEW

Sherwin-Williams, a Fortune 50 company known for its wide range of coatings, partnered with Improving to enhance their internal AI capabilities through the Sherwin Assist project. This project aimed to create a sophisticated AI tool to leverage and protect Sherwin-Williams' extensive product data. The goal was to improve data searchability and knowledge management within the organization by focusing on their own data rather than external sources.

BUSINESS PROBLEM

Sherwin-Williams faced the challenge of effectively managing and utilizing their vast repository of over 600,000 product data sheets. The inconsistency in data formats and terminologies, resulting from numerous acquisitions over the years, made it difficult for their sales and technical teams to quickly access accurate and relevant information. The manual process of extracting and standardizing this information was time-consuming and prone to errors.

OUR APPROACH

Improving approached the problem by first expanding the capabilities of the previously implemented Sherwin Assist AI tool. We utilized Azure AI Search and Azure Document Intelligence to analyze and classify the product data sheets based on their content. By creating a series of document inspectors and pipelines, we were able to extract key attributes and normalize the data. Additionally, we developed a Canvas Power App to allow users to define synonyms, enhancing the search functionality and accuracy of the AI tool.

BUSINESS BENEFITS

- **Improved Data Accessibility:** Enabled users to efficiently search and retrieve information from over 600,000 product data sheets.
- **Enhanced Accuracy:** Achieved high accuracy in data extraction, with success rates in the high 80s to low 90%.

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- **Time and Cost Savings:** Automated the data extraction process, eliminating the need for manual data entry and reducing associated labor costs.
- **Data Normalization:** Standardized inconsistent data formats and terminologies, improving the overall quality of the data.
- **Organizational Learning:** Increased Sherwin-Williams' understanding of AI capabilities and limitations, aiding in future AI projects.
- **Continued Partnership:** Fostered ongoing collaboration, leading to new projects focused on further enhancing their sales knowledge and data management systems.

TECHNOLOGIES AND METHODOLOGIES USED

- **Azure AI Search:** Used for indexing and searching the product data sheets.
- **Azure Document Intelligence:** Employed for document analysis and key data extraction.
- **Python Pipelines:** Implemented for data manipulation and processing workflows.
- **Canvas Power App:** Developed for user interaction, allowing the definition of synonyms and enhancement of search results.
- **Machine Learning:** Applied for document identification and attribute extraction.
- **Data Validation and Standardization:** Ensured data consistency and reliability across different formats.

PARTNERSHIPS

The project leveraged a multidisciplinary team from Improving, including Bill Curry, Scott Poulin, Michael Slater, and Daniel Amore. The collaboration with Sherwin-Williams' data analytics team was crucial in understanding their business lines and technology adoption needs. This partnership facilitated a seamless integration of AI solutions tailored to Sherwin-Williams' specific requirements.

LESSONS LEARNED

1. **Data Consistency:** The importance of standardizing data formats and terminologies to ensure accurate AI results.
2. **AI Expectations Management:** Understanding and communicating the realistic capabilities and limitations of AI technologies.
3. **Organizational Maturity:** Recognizing the need for organizational readiness and cultural shifts to fully leverage AI.

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4. **Document Quality:** Addressing challenges related to the quality of scanned documents, especially older ones.
5. **Synonym Management:** The necessity of building comprehensive synonym lists to improve search accuracy.
6. **Continuous Improvement:** The value of iterative development and feedback loops in refining AI solutions.

CONCLUSION

The Product Sheet Attribution project exemplifies Improving's expertise in delivering tailored AI solutions that address complex business problems. By leveraging advanced technologies and fostering strong client partnerships, we successfully enhanced Sherwin-Williams' data search capabilities and organizational knowledge. This project not only solved immediate challenges but also paved the way for future innovations, demonstrating our commitment to continuous improvement and client success.

GET STARTED

Learn more about how Improving can help you get started by contacting us today at sales@improving.com