

STAR CASE STUDY

*Transforming Program and Project Management
with Power BI-Powered Automation: A Data
Analytics Solution for Los Angeles County - ISD*



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Client: Verdieu St Fleur, Los Angeles County - Internal Service Department (ISD)

Background (B):

The Los Angeles County - Internal Service Department (ISD), a significant government agency overseeing a multitude of complex programs and projects, faced a substantial challenge in efficiently tracking and reporting on project data. The ISD's critical project information was stored in eBuilder, a project management system. However, there was a pressing need for a streamlined solution to extract, visualize, and share this vital project data with stakeholders. Recognizing the need for innovation in data analytics, the ISD approached Verdieu St Fleur for a data analytics solution.

Objective (O):

The primary objective of this project was to design and implement a comprehensive data analytics solution using Power BI that would:

- **Automate Data Extraction:** Develop an automated process to extract project data from eBuilder daily, ensuring the capture of the latest information.
- **Enable Scheduled Reporting:** Implement a mechanism to send the extracted data to ISD stakeholders via Outlook email every morning at 5:00 AM, providing them with instant access to critical project information.
- **Facilitate Secure Data Storage:** Utilize Power Automate to move the data file to a secure SharePoint repository, maintaining data integrity and ensuring a centralized location for authorized personnel to access the latest information.
- **Optimize Data Analysis:** Implement advanced data modeling techniques with DAX calculations in Power BI to derive complex metrics and KPIs, providing deeper insights into project performance.
- **Enhance Data Visualization:** Design Power BI dashboards and reports tailored to the agency's specific needs, enabling stakeholders to gain valuable visual insights into program and project performance.

- **Ensure Data Currency:** Configure automatic data refresh in Power BI Service to ensure that the dashboards are always up to date with the latest project information.

By achieving these objectives, the ISD aimed to improve data visibility, enhance project management, and drive more informed decision-making across its programs and projects.

Situation: Los Angeles County- Internal Service Department (ISD), a large government agency responsible for managing numerous complex programs and projects faced a significant challenge in efficiently tracking and reporting on project data. The ISD's data resided in eBuilder, a project management system, and they needed a streamlined solution for extracting, visualizing, and sharing critical project information with stakeholders. They approached Verdieu St Fleur for a data analytics solution.

Task: The task at hand was to design and implement a comprehensive data analytics solution using Power BI that would automate data extraction from eBuilder, enable scheduled reporting, and improve data visibility for program and project management. Verdieu St Fleur was tasked with:

1. Automating daily data extraction from eBuilder.
2. Sending extracted data to stakeholders via Outlook email every morning at 5:00 AM.
3. Moving the data file to a secure SharePoint repository using Power Automate.
4. Developing Power BI dashboards and reports to visualize project data.
5. Scheduling automatic data refresh in Power BI Service to ensure up-to-date information for stakeholders.

Action: Verdieu is a data analyst, Power BI experts, and automation specialists to address the task. Here's a breakdown of the actions taken:

1. **Data Extraction Automation:** Verdieu created custom scripts to automate the daily data extraction process from eBuilder, ensuring that the latest project data was captured.
2. **Scheduled Email Reports:** Using Power Automate, Verdieu designed a workflow to send the extracted data as email attachments to ISD email every morning at 5:00 AM.
3. **SharePoint Integration:** Power Automate was used to move the data file to a secure SharePoint repository, maintaining data integrity and providing a centralized location for storage. This ensured that decision-makers had access to the latest information as they started their day.
4. **Advanced Data Modeling with DAX:** The team implemented advanced data modeling techniques in Power BI, optimizing the data structure for efficient analysis. DAX calculations were used to derive complex metrics and KPIs, providing deeper insights into project performance.
5. **Power BI Development:** Verdieu designed Power BI dashboards and reports tailored to the agency's specific needs. These dashboards provided visual insights into project status, Project

Schedule, Task duration and timeless, Board letter status, budgets and Commitments, Cash Flow, Contracts, and other key performance indicators.

6. **Scheduled Data Refresh:** Verdieu configured automatic data refresh in Power BI Service, ensuring that the dashboards were always up to date with the latest project information.

Result: The results of Verdieu's intervention were highly impactful:

1. **Efficient Data Access:** Through automated email Stakeholders received the reports every morning, providing them with instant access to critical project information, leading to more informed decision-making.
2. **Centralized Data Storage:** Data was securely stored in SharePoint, making it easily accessible for authorized personnel and ensuring data consistency.
3. **Data Visualization:** Power BI dashboards and reports allowed stakeholders to gain valuable insights into program and project performance, leading to improved project management.
4. **Time and Cost Savings:** Automation reduced the manual effort required for data extraction and reporting, resulting in significant time and cost savings.
5. **Data Accuracy:** With automated processes, the risk of data errors and discrepancies was minimized, enhancing data accuracy.
6. **Enhanced Data Security:**

By utilizing Power BI Service, Verdieu ensured that only authorized executives and individuals had access to critical project information. This was achieved through:

- **User Authentication:** Power BI Service allows for user authentication and role-based access control, ensuring that only authorized personnel could log in and view sensitive data.
- **Secure Sharing:** Reports and dashboards were securely shared within the organization, with options to restrict access to specific individuals or groups. This prevented unauthorized users from accessing confidential information.
- **Data Encryption:** Data transmitted through Power BI Service was encrypted, adding an additional layer of security to protect against data breaches.
- **Data Governance:** The solution included data governance policies that defined who could access, edit, or share reports and datasets. This ensured that data was handled in accordance with the organization's security standards.

In conclusion, Verdieu St Fleur's innovative use of Power BI, Power Automate, SharePoint, and advanced data modeling with DAX transformed the agency's program and project management processes. The automation of data extraction, reporting, and visualization, combined with sophisticated calculations, not only saved time and resources but also improved data accuracy and decision-making. The agency now had a powerful tool at its disposal to manage its complex programs and projects more effectively and efficiently.

Verdieu's solution not only provided valuable insights through data analytics but also prioritized data security and compliance. Executives and authorized personnel could access critical information with confidence, knowing that stringent access controls were in place to protect sensitive data from unauthorized access or breaches.