



Transforming Dashboard Creation: Indium's Automation Solution for a Global Ride-Hailing Giant

SUCCESS STORY

Client Overview

Timely and accurate data is crucial for making informed decisions. For a global ride-hailing company operating in over 900 metropolitan areas, the challenge of creating complex, data-driven dashboards became increasingly time-consuming and resource-intensive. To overcome this, the company sought a solution to automate the generation of Tableau dashboards, ensuring coherence, scalability, and consistency across the organization. Indium stepped in to provide a game-changing solution.

The Challenge: Manual Dashboards, Data Spilled All Over the Place

The client's dashboards, created in Google Sheets, were limited by data size, flexibility, and sharing capabilities. Transitioning to Tableau, while solving some issues, introduced new complexities. Each dashboard required intricate calculations for metrics like month-over-month and year-over-year values. The manual process of creating these dashboards involved setting up multiple sheets and calculations was time-consuming and prone to errors. The client needed a way to automate this process to save time and ensure consistency.

Indium's Solution: Automated Dashboard Generation with Python and Jinja2

Indium designed an automated solution using Python and Jinja2 to streamline the dashboard creation process. The automation process involved three key components:

1 Finished Tableau Dashboard Template: A pre-designed template was the foundation for all dashboards, ensuring a consistent structure and layout.

2 Template Inputs: Metrics and other details were fed into the template via Google Sheets, allowing easy management and updates.

3 Python Script with Jinja2: The Python script dynamically generated Tableau workbooks by parameterizing the XML code underlying the dashboards. This process automated the creation of data sources, views, actions, worksheets, and dashboards, reducing the time and effort required to produce each dashboard.

Implementation and Impact: Dramatic Time Savings, Consistency, and Scalability

The implementation of this automation solution delivered significant business benefits:

Dramatic Time Savings:
The time required to create dashboards was reduced from days to minutes, saving over 500+ person-hours to date—a number will only grow as more teams adopt the solution.

Consistency Across Dashboards:
Automation ensured that all dashboards maintained a consistent structure and formatting, minimizing errors and improving usability.

Scalability for Diverse Needs:
The solution supported the generation of multiple dashboards with varying data sources and metrics, making it highly scalable across different teams and use cases.

User-Friendly Implementation:
Even users with basic Tableau knowledge could easily generate complex dashboards using the predefined templates, simplifying the process and reducing the learning curve.

Sample Tableau Dashboard

Geography Level: Mega region | Geography: US & Canada | Currency Type: USD

| Business Unit | | Sparkline L18M | May 2024 | Apr 2024 | May 2023 | MoM | YoY |
|---------------|----------|----------------|----------|----------|----------|-----------|-------------|
| Reliability | Metric 1 | | 5786.67% | 5563.90% | 5540.75% | 222.77pp | 245.92pp |
| | Metric 2 | | 7268.78% | 7944.61% | 8412.06% | -675.83pp | -1,143.28pp |
| | Metric 3 | | 3097.15% | 2998.71% | 3327.86% | 98.44pp | -230.72pp |
| Efficiency | Metric 4 | | 612.91% | 568.28% | 728.73% | 44.63pp | -115.82pp |
| | Metric 5 | | 770.19% | 799.26% | 1815.63% | -29.07pp | -1,045.43pp |
| Experience | Metric 6 | | 1606.41% | 1573.16% | 1530.61% | 33.25pp | 75.80pp |

| | A | B | C | D | F | G | H | I |
|-----|--------|---------|------------------|----------------|---|------------------|--------------|--------|
| 1 | Team | Section | metric in Metric | metric formula | Metric Type | Metric Direction | metric level | |
| 487 | Team 1 | Growth | 1 | Metric 1 | 1.0 * sum([column A]) / sum([column B]) | Number | UPWARD | metric |
| 488 | Team 1 | Growth | 2 | Metric 2 | 1.0 * sum([column A]) / sum([column B]) | Percentage | UPWARD | metric |
| 489 | Team 1 | Growth | 3 | Metric 3 | 1.0 * sum([column A]) / sum([column B]) | Number | DOWNWARD | metric |
| 490 | Team 1 | Growth | 4 | Metric 4 | 1.0 * sum([column A]) / sum([column B]) | Number | DOWNWARD | metric |
| 491 | Team 1 | Revenue | 5 | Metric 5 | 1.0 * sum([column A]) / sum([column B]) | Percentage | UPWARD | metric |
| 492 | Team 1 | Revenue | 6 | Metric 6 | 1.0 * sum([column A]) / sum([column B]) | Number | DOWNWARD | metric |
| 493 | Team 1 | Revenue | 7 | Metric 7 | 1.0 * sum([column A]) / sum([column B]) | Number | NONE | metric |
| 494 | Team 1 | Revenue | 8 | Metric 8 | 1.0 * sum([column A]) / sum([column B]) | Number | NONE | metric |
| 495 | Team 1 | Revenue | 9 | Metric 9 | 1.0 * sum([column A]) / sum([column B]) | Currency | UPWARD | metric |

Transforming Data Visualization: Indium's Automated Solution for Streamlined Tableau Dashboard Generation

Indium's automated solution transformed the way the client generated Tableau dashboards. By automating the process, the client saved valuable time and resources and enhanced the accuracy and consistency of their data visualization efforts. This streamlined approach supports better decision-making through timely, reliable insights, ultimately driving the client's business forward.

Indium's expertise in automation and data visualization proved invaluable. We provided the client with a scalable, efficient solution that could adapt to their growing needs.



About Indium

Indium is an AI-driven digital engineering company that helps enterprises build, scale, and innovate with cutting-edge technology. We specialize in custom solutions, ensuring every engagement is tailored to business needs with a relentless customer-first approach.

Our expertise spans Generative AI, Product Engineering, Intelligent Automation, Data & AI, Quality Engineering, and Gaming, delivering high-impact solutions that drive real business impact.

With 5,000+ associates globally, we partner with Fortune 500, Global 2000, and leading technology firms across Financial Services, Healthcare, Manufacturing, Retail, and Technology—driving impact in North America, India, the UK, Singapore, Australia, and Japan to keep businesses ahead in an AI-first world.

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