

To automate and streamline the internal legal process of testing for a global automotive manufacturer.



The Challenges

The initial workflow for the Functional Safety Verification List was a PowerPoint file that required data entry and completion of steps. The file included a list of systems, project information, approvals, and the name of the approving engineer.

The Solution

The solution was built into their virtual server farm and delivered as a web-based solution. The solution supports the auto-generation of reports, from updates to management approvals.

Industry:
Automotive

Tools/Technologies/Skills:
Python, Django, PowerPoint

Challenges:

This process relied heavily on manual procedures performed by multiple individuals collaborating to complete the document. The manual steps involved a gatekeeper receiving content from various individuals and populating the correct data into the document in the proper order. This manual process had to be accurately performed for all systems listed in the document. The list of systems was manually compiled, and each engineer assigned a specific system to complete. The engineers would then email their file back to the project leader, who would have to compile all data into a master file, in the proper order and deliver a final master Power Point monthly.

This manual process was time-consuming and prone to human error. The engineers had to adhere to specific formatting requirements for each section, which often led to changes being made somewhere in the loop from the project leader to the engineers and back.

Services Delivered by LHP Analytics & IoT:

To solve these problems, LHP Analytics & IoT created a web-based solution for the process, converting the manual PowerPoint-based document into a simple, automated workflow. The solution addressed two primary problems: auto-generated reports and consistency.




The web interface allowed each engineer to insert their data without the need for formatting, and the tool auto-generated a properly formatted report. Separating formatting from the data significantly reduced the time required to complete the report and freed engineers to focus on data accuracy and completeness.

Lessons Learned:

Our solutions have been in use for over two years, and continues to receive positive feedback from project leaders, with more divisions asking to have their processes added. The web-based solution has saved the customer significant time, reduced human errors, and continues to add value, today.

Results and Future Plans:

LHP Analytics & IoT delivered a web-based solution that accomplished the following:

-  **70**
Web-based
Created seventy (70) web-based system processes that aligned with the legal processes.
-  The solution was built into their virtual server farm and delivered as a web-based solution.
-  The solution supports the auto-generation of reports, from updates to management approvals.

The formatting requirements were separated from the data and placed in the script, resulting in increased consistency and reliability of the final reports.

LHP Analytics & IoT also built an internal site compatible with the customer's sign-on process. The web-based solution, starting with a single workflow, was so successful that to date we have created 70 web-based system processes that aligned with the legal processes formerly done in the manual PowerPoint file.

We have converted five other division's internal reports to the web-based solution to date. Starting with a single project, which blossomed into over 70, LHP Analytics & IoT delivered on our commitments, which speaks volumes about our willingness and ability to be a true partner and pivot with our clients, even when their future-state vision is being both informed and driven by our work.