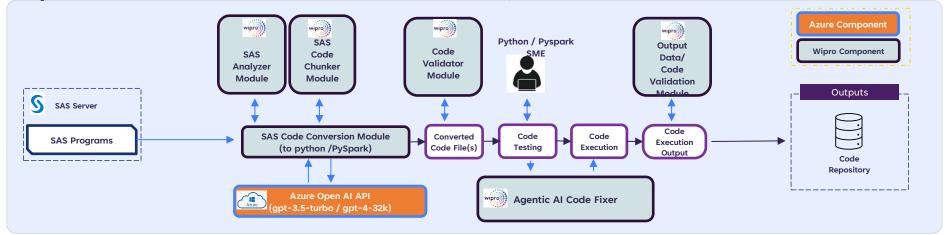


Wipro's Legacy Modernization Tool for Seamless SAS to Open-Source Migration

Powered by Azure OpenAl

Wipro Gen AI SAS Code Conversion Tool (Functional Flow)



Key Highlights



Powered by Azure Open AI, the tool automates SAS code conversion into Python, PySpark, and R.



Comprehensive syntax support for SAS including data steps, macros, procedures and functions.



Built in features for quality assurance to ensure that the code is converted accurately and completely.



Automatically analyzes SAS codes to derive key metrics like lines of codes, complexity, code components etc.

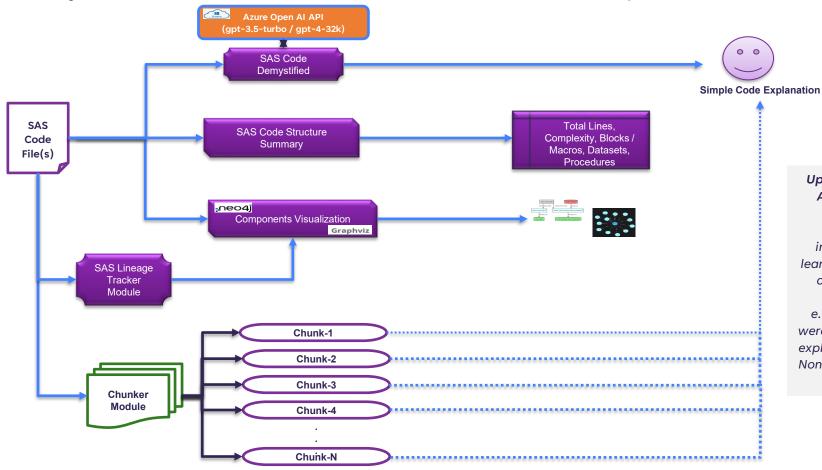


Reduces manual effort from 50% to 70% for any complex to medium complex SAS conversion projects.



Easy-to-use interface that allows developers to quickly & easily convert code from SAS to open-source languages.

Wipro Gen AI SAS Code Conversion Tool – SAS Analyzer Module

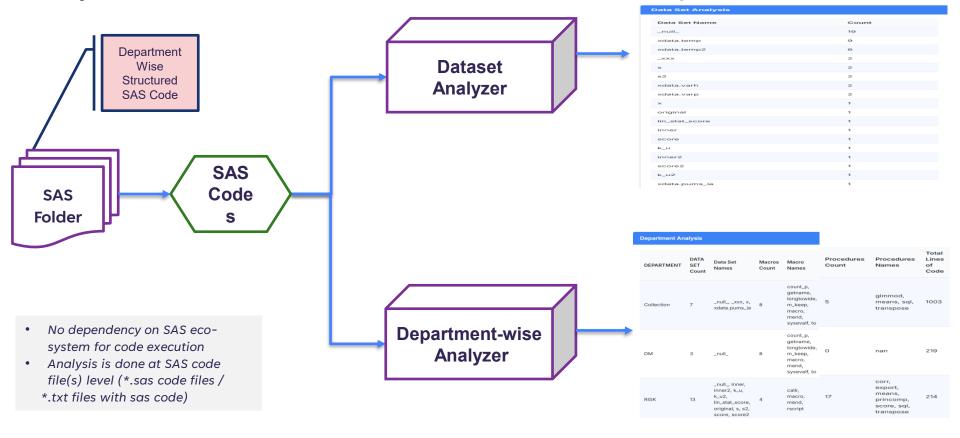


Upgraded SAS Code Analyzer Module

New features introduced as per learnings from various customer demos.

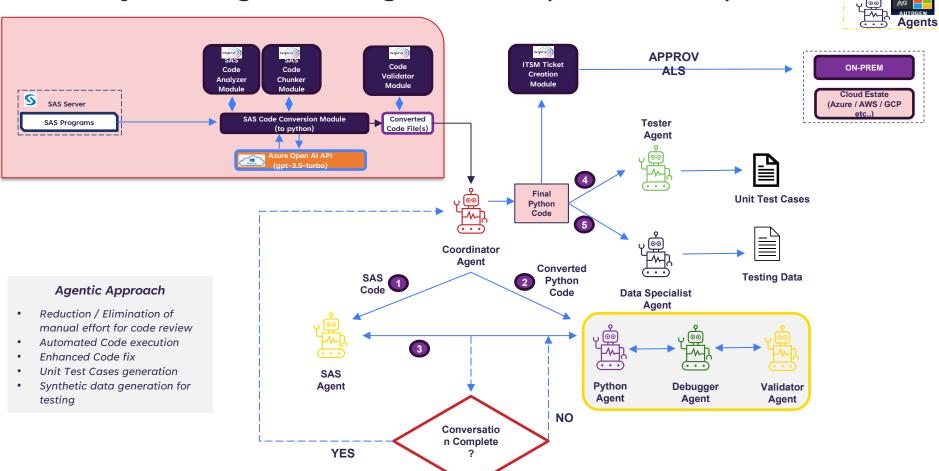
e.g. Few Customers were looking for simple explanation of code for Non-technical Business Users.

Wipro Gen AI SAS Code Conversion Tool – SAS Analyzer Module



SAS to Python Migration – Agentic Flow (Lift and Shift)

Internal to Wipro



Azure Component

Wipro Component

Achieving a Well-constructed Legacy Modernization Tool by Wipro

Incorporating these foundations helps generate well-constructed tool.

Reliability





- To ensure fault tolerance and high availability, multiple OpenAI resources can be created in different regions.
- This way, if one of the resources fail, we can guickly switch to the service in the other region.
- This, however, requires custom development of the functionality on the client side of your application.

Security



The OpenAI service can be reached only through the Azure Web App hosting the application which has AD authentication enabled. This ensures that only authorized users can access the service for their requirements.



- Azure OpenAI supports both encryption at rest and at motion and customer-managed keys.
- Authentication is provided through both AD and RBAC based authentication.
- API access is regulated through access keys

Cost optimization





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- Preprocessing is done on the SAS codes to keep the number of prompt tokens optimal.
- Azure OpenAI's cost optimization capabilities include automated scheduling and scaling of resources, budget monitoring, and cost analysis to help identify and reduce wasteful spending. It also provides cost-effective access to powerful computing resources, allowing users to take full advantage of cloud computing without breaking the bank.

Operational Excellence





- The web app is connected to Azure Repos containing the application code. This ensures that changes are smoothly reflecting in the web app, and the application always remains up to date.
- Having a repository on DevOps also helps the team in collaborating during the development/improvement phase.

Performance efficiency





- The web app's app service plan can be scaled up and down based on the usage patterns. This ensures a low latency experience for the end
- The code conversion results are regularly validated to ensure the accuracy of the model.



Thank you