

TEST AUTOMATION AND STRATEGY



SofTec Conference 2011
Bangalore

About Sabre

Sabre Holdings connects people with the world's greatest travel possibilities by retailing travel products and providing distribution and technology solutions for the travel industry.

Headquarters in Southlake, Texas

About 9,000 employees in 59 countries and 600+ In India

300+ airline customers in 113 countries

Sabre® system processes more than 32,000 transactions per second

Sabre-Holdings Business

SUPPLIER

- air
- hotel
- rail
- cruise
- car
- other

Sabre / *Travel Network.*

Sabre / *Airline Solutions.*

Sabre / *Hospitality Solutions.*

travelocity

CHANNEL

- direct
- corporations
- travel management companies
- leisure specialists & generalists
- online agencies



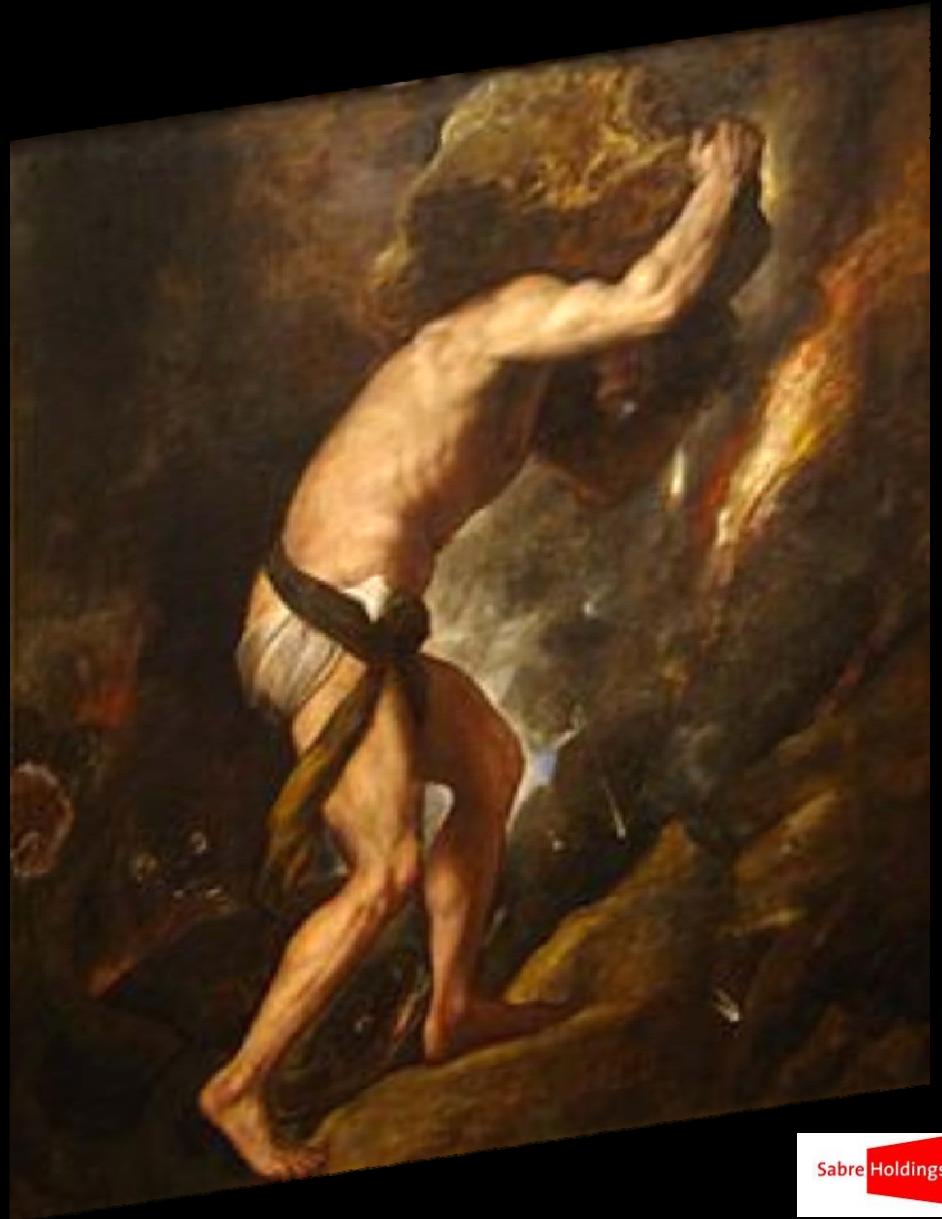
TRAVELER

- technology
- global presence
- best team in travel

ASSETS

The Myth of Sisyphus

- Sisyphus is from Greek mythology
- Sisyphean challenge can be equated to Testing & Automation challenges



The Problem

- Migration from Legacy Systems
- What to Test ?
- What to Automate?
- Primarily no automation coverage

Challenges

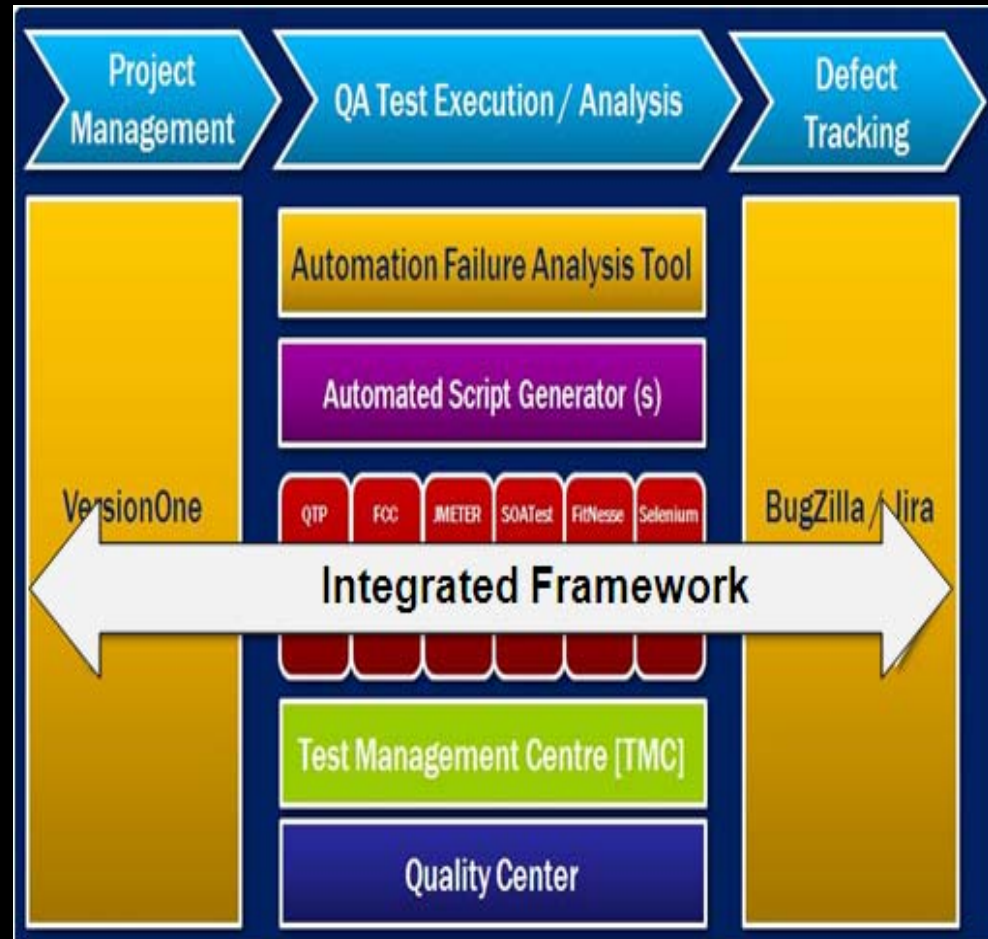
- Complex Product Landscape
- Distributed teams across the Globe
- Legacy System
- Prioritizing what to Automate
- Timelines & resource availability
- Choosing the “right tools” and “framework” for automation

Approach – [Goal-Question-Metric]



STEP 1 : Goal, Tools, Process, framework

- Identify & Automate test requirements to achieve/support challenging timelines of systems migration



STEP 2 : Automation Through SME's Expertise

Beginning State

- Average domain experience of 25 years
- All working on critical customer deliverables
- Automate Business critical Functions as defined by SME's

What we Did?

- Leverage SME's experience
 - ❖ Combined Math and SME's expertise and came up with the list of programs to automate
- Formed a core team
- Automated minimal functionality

SME – Subject Matter Expert

STEP 2-Retrospection

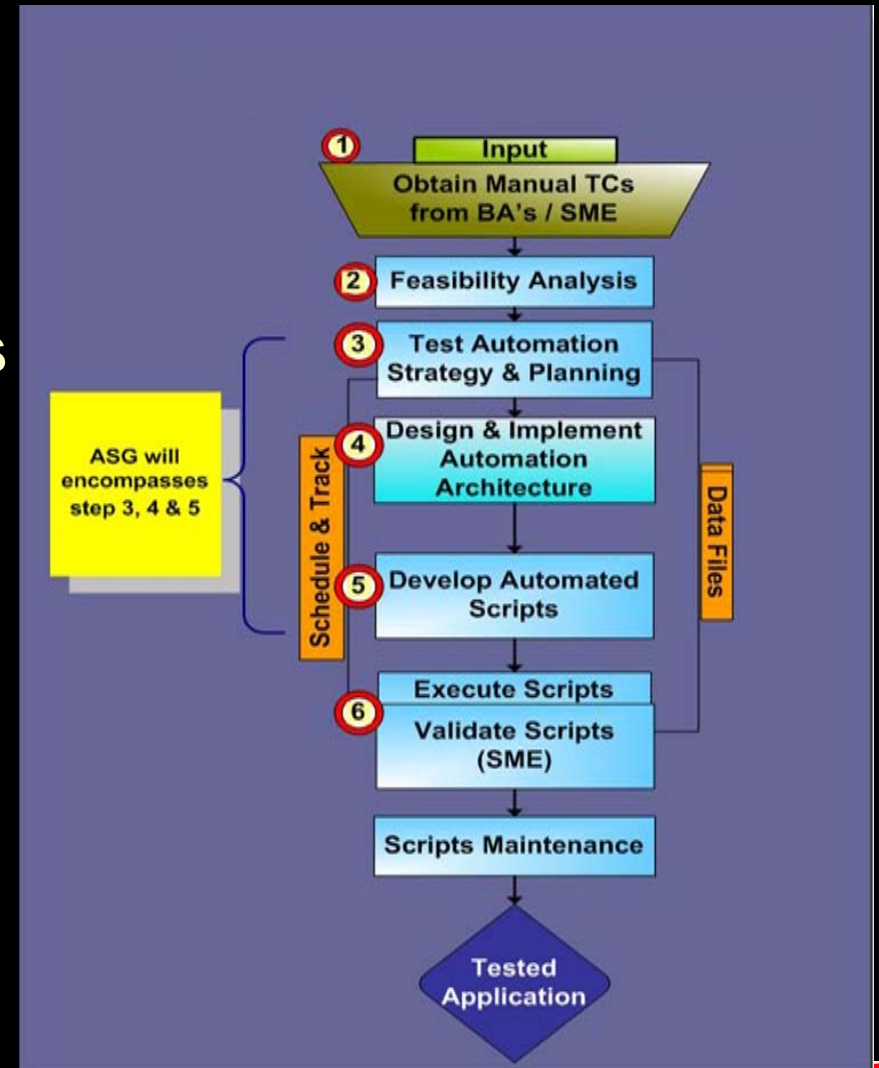
- Headed to right direction but got Stuck
 - ❖ Lasted for 8 months and SME's "GUT FEEL" didn't materialize
- What's the expectation from Product teams?
- Is it necessary to automate all functionalities?

• Tweaked the Goal -

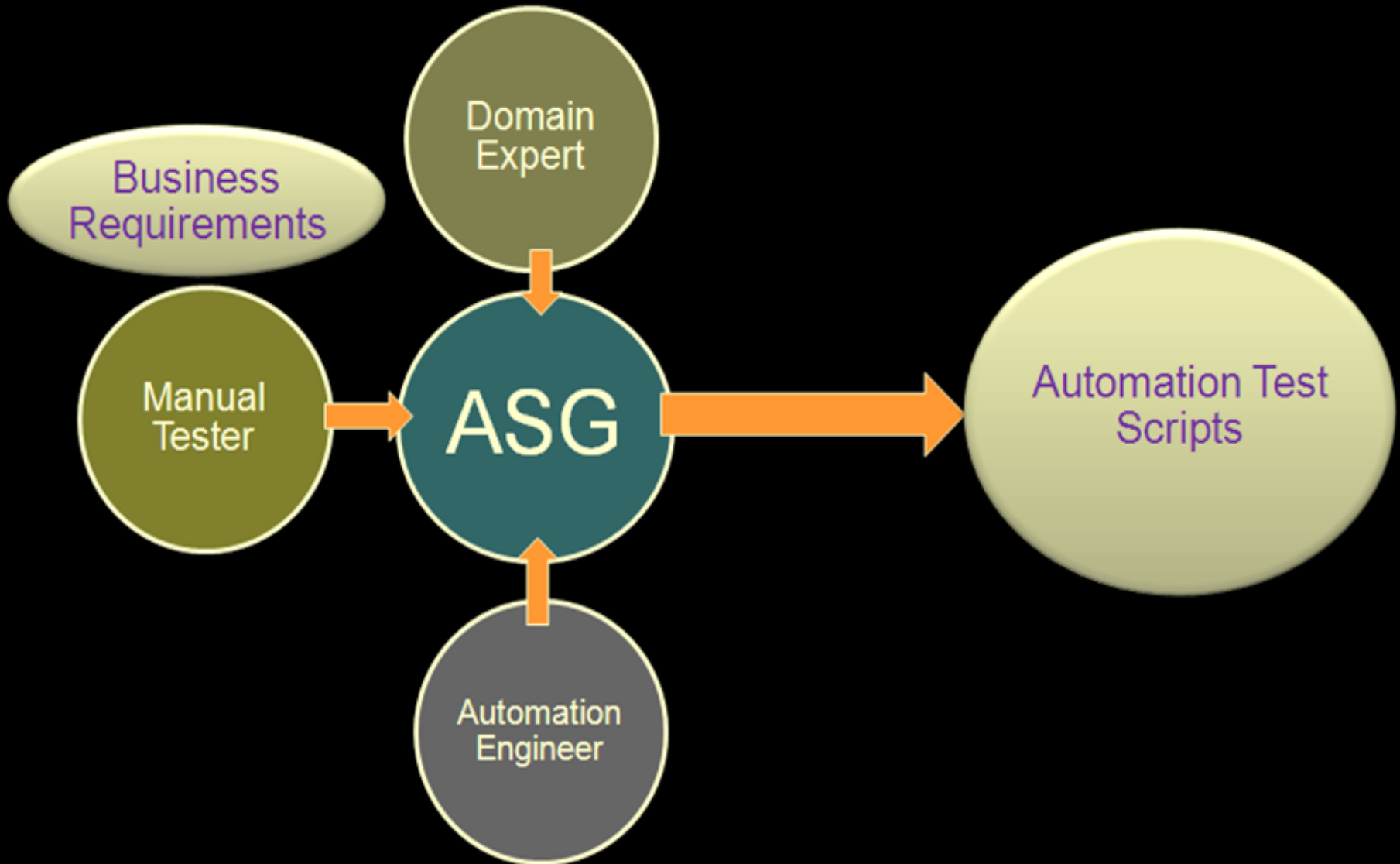
- ❖ Followed Statistical approach to get the programs number via calculated percentiles, Inter Quartile Ranges, averages, standard deviations
- ❖ Automate the Automation

Automated Script Generator (ASG)

Automated Script Generator [ASG - In-house tool] enables SME's/Test Engineers to accelerate the automation



ASG Role in Automation



Benefits

- Less effort & Faster automation
- Standardization by way of enforcing consistent framework across teams
- Easy maintenance & helps in reducing the recurring maintenance cost.
 - ❖ SME/Test Engineers does not need to know scripting

STEP 3 : Scientific Approach?

- How do we measure?
 - ❖ Analytics Tool
 - ❖ Metrics Dashboard
- Did the Above Steps Helped?
 - ❖ Achieved high Automation test coverage in short duration

Conclusions

- Identify the Goal & Success (GQM –Goal Question Metric) criteria
- Develop Statistical model and consistent framework is the key
 - ❖ Use logic and scientific approach in automation
- Enabled Repeatability to help the Migration
- Clear Visibility on What is being automated
- Enabled to test the new system thoroughly as the impact would be huge

Demo



Connecting people with the world's greatest travel possibilities



Q & A