ChainSys

Smart BOTS

Proven Test Automation Platform

Smart BOTS™

Why Smart BOTS?

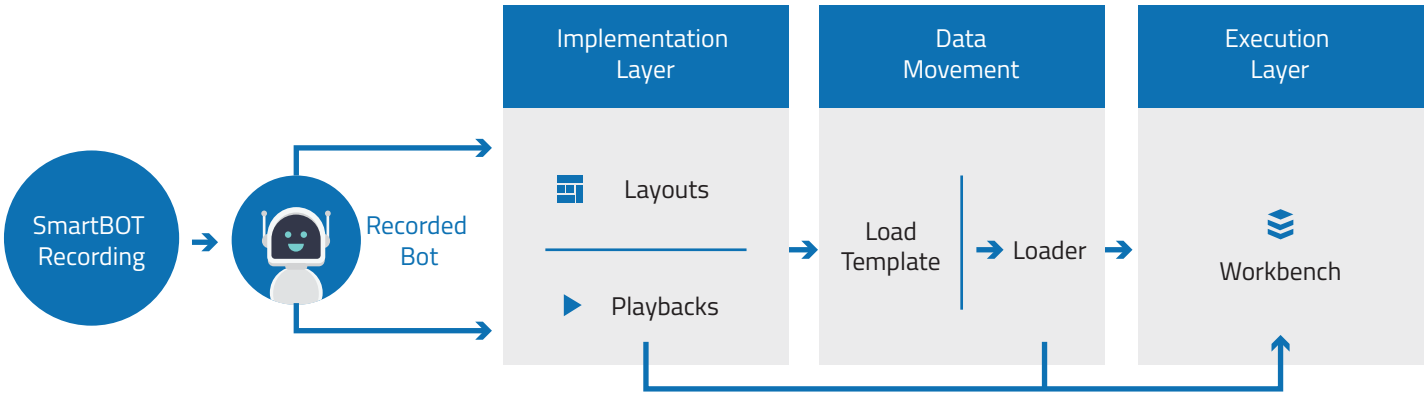
- Automated QA and functional testing
- Regression tests can be machine driven
- Automated mass data loads or data entries
- Repetitive business processes eliminated
- Robotic process automations are simplified
- Record and playback easily
- Compatible with custom applications & screens
- Tool Implementation is very simple
- No Programming

smart BOTS helps with Business process automations (BPA) that help accelerate back-office chores in finance, procurement, supply chain management, accounting, customer service and human resources.

smartBOTS's BPA can be an imitation of user keystrokes, or a condition-based process that can eliminate repetitive data entry or testing tasks, and save users hours of time.

smartBOTS supports all major ERPs including Oracle Cloud, SAP, Oracle E-Business Suite, MS Dynamics and custom applications. smart BOTS BPA process comprises multifarious automating features to elevate the competency of the business processes, and enable users achieve reliable automation upto a 6-sigma confidence.

A high level overview of smartBOT's implementation process is highlighted below. The recording (made in smartBOTS) is transferred into the' implementation' layer, or the 'data movement' layer depending on whether it is a playback or a mass data load automation need. The process is then repeatably achieved on the 'execution' layer.



Key Features

- Recording user keystrokes & functions
- Automated playback
- 6-sigma reliability of process playbacks
- 1000+ pre-defined templates for mass data loads
- 1000+ Data can be processed in a single shot
- Reusable & repeatable processes
- Status of the bot can be checked through workbench in real-time
- Cost Saving and Reusability
- Productivity and Test Coverage
- Application Stability

Interfaces With

Web Services/APIs/BAPIs

XML/SOAP

REST, JSON

Database Level

File systems

Smart Data Platform™

Support Endpoints

Cloud Applications	Oracle Sales Cloud, Oracle Marketing Cloud, Oracle Engagement Cloud, Oracle CRM On Demand, SAP C/4HANA, SAP S/4HANA, SAP BW, SAP Concur, SAP SuccessFactors, Salesforce, Microsoft Dynamics 365, Workday, Infor Cloud, Procore, Planview Enterprise One
Enterprise Applications	Oracle E-Business Suite, Oracle ERP Cloud, Oracle JD Edwards, Oracle PeopleSoft, SAP S/4HANA, SAP ECC, IBM Maximo, Workday, Microsoft Dynamics, Microsoft Dynamics GP, Microsoft Dynamics Nav, Microsoft Dynamics Ax, Smart ERP, Infor, BaaN, Mapics, BPICS
PLM, MES & CRM	Windchill PTC, Orale Agile PLM, Oracle PLM Cloud, Teamcenter, SAP PLM, SAP Hybris, SAP C/4HANA, Enovia, Proficy, Honeywell OptiVision, Salesforce Sales, Salesforce Marketing, Salesforce CPQ, Salesforce Service, Oracle Engagement Cloud, Oracle Sales Cloud, Oracle CPQ Cloud, Oracle Service Cloud, Oracle Marketing Cloud, Microsoft Dynamics CRM
HCM & Supply Chain Planning	Oracle HCM Cloud, SAP SuccessFactors, Workday, ICON, SAP APO and IBP, Oracle Taleo, Oracle Demantra, Oracle ASCP, Steelwedge
Project Management & EAM	Oracle Primavera, Oracle Unifier, SAP PM, Procore, Ecosys, Oracle EAM Cloud, Oracle Maintenance Cloud, JD Edwards EAM, IBM Maximo
Enterprise Storage Systems	OneDrive, Box, SharePoint, File Transfer Protocol (FTP), Oracle Webcenter, Amazon S3
Big Data	HIVE, Apache Impala, Apache Hbase, Snowflake, mongoDB, Elasticsearch, SAP HANA, Hadoop, Teradata, Oracle Database, Redshift, BigQuery
No SQL Databases	mangoDB, Solr, CouchDB, Elasticsearch
Databases	PostgreSQL, Oracle Database, SAP HANA, SYBASE, DB2, SQL Server, MySQL, memsql
Message Broker	IBM MQ, Active MQ
Development Platform	Java, .Net, Oracle PaaS, Force.com, IBM, ChainSys Platform

smart BOTS - Overview

smart BOTS alternates the strenuous manual processes with an automated system. The platform primarily helps automate Quality Assurance (functional) testing, day-to-day business processes and Mass data loads.

Here's a look at how these are achieved in the platform:

Test BOTS	Business Process Automation BOTS	Load BOTS
Readymade templates/BOTS	Configurable flow	UI Driven data loading
Automated Regression tests	Low-code Automation	Virtual mode loading
Dashboards	Condition based flow redirection	HTML tag based loading
Test Reports with screenshot	Controlled Flow executions	100% fidelity data loading
Live Execution Summary	Split to multiple child flows	Pre validations
Bulk data testing	Flows reusability	Standard validations
Data files as testing input	Independent Flow execution	Suitable for Non-API objects
Vulnerability testing	Live Flow Execution Summary	
Parallel testing	Flow Execution Reports	
UI Driven testing		

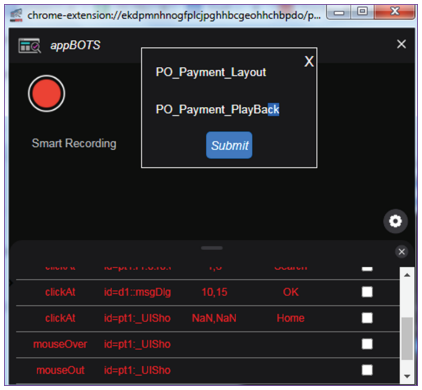
Automations are performed with preconfigured steps using Recordings, Layouts & Playbacks. These two functions form the core of the platform that enables a staggering 97% reduction in manual effort. Here's a detailed look at the three functions.

Smart BOTS™

smart BOTS - Recording

'Recording' is a specific functionality that forms the base for all future automations. The recorder follows the user steps and records it for future use. It performs the recordings exclusively on Web-based applications. The recorder can interact directly with an object, it isn't affected by the screen resolution or the size and position of the window.

Below is a picture of the recorder:

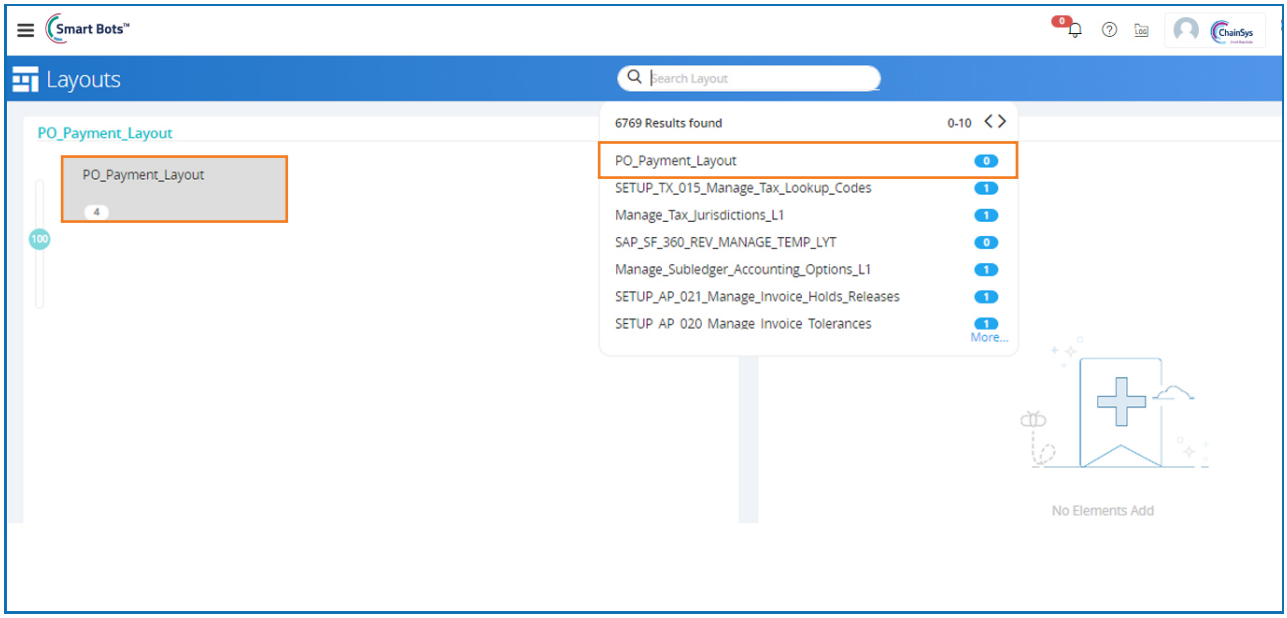


Once the recording has finished the user can create a Layouts and Playbacks.

Layouts

A preset action (usually repetitive) that users perform on a day to day basis are termed 'Layouts'. Layouts are the building block for process playbacks & test bots. For example, let's say a user goes through a series of 5 steps to get to the login screen. The 5 steps can be saved as a 'Layout', and can be used wherever and whenever necessary.

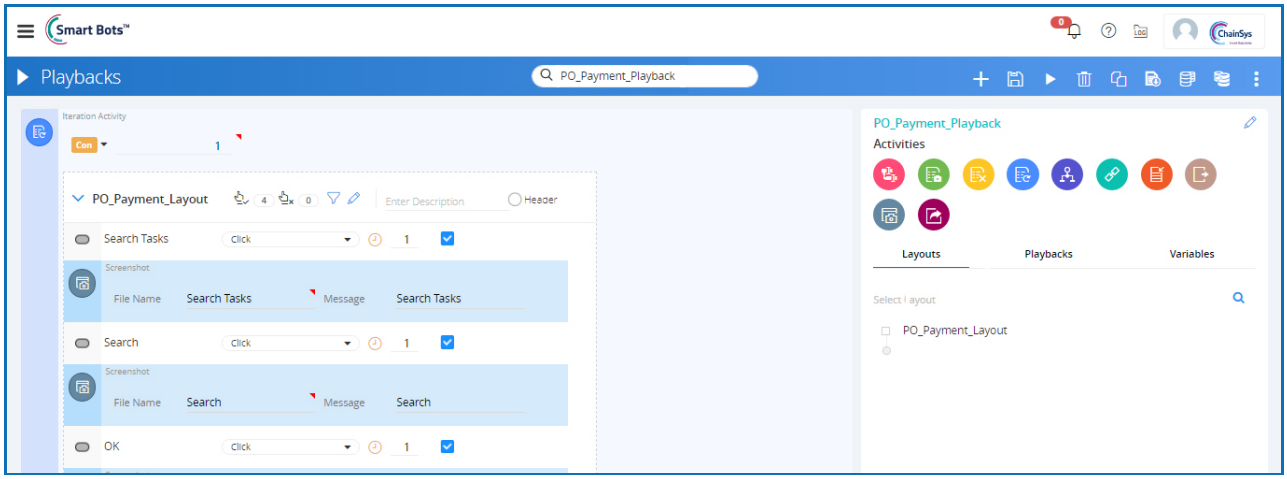
The screenshot below shows a 'layout dashboard' inside the smart application builder:



Playbacks

Playback is the process by which mass data loads, data entries & testing processes are executed in the application. Playbacks can be executed simultaneously or in sequence with 'Layouts', which allows the platform to intelligently and reliably execute the process.

A user can look at available playbacks, assign it to layouts and perform other drag & drop functions in a low code screen like the one shown below:



Playback Activities

Assignment activity

Using the Assignment Activity, the existing variables or newly created variables can be assigned to the elements.

Verification activity

Using the Verification Activity, the element value that was assigned to the variable will be compared and verified using various conditions. However, irrespective of the verification outcome, the execution process will continue to run.

Assertion activity

Using the Assertion Activity, the actual element value that was assigned to the variable will be compared with the value obtained. Here, if the obtained value meets the expectations, the assertion will be passed. Otherwise, the execution will be aborted with an exception.

Iteration activity

Using the Iteration Activity, a specific layout can be executed numerous times without going through the same procedure repeatedly.

Condition activity

Using the Condition Activity, depending upon the outcome, the layouts can be prioritized for execution with the preset conditions.

Open URL activity

Using the Open URL Activity, a URL can be created and inserted in a playback, so that the respective web page or the oracle form can be opened during the execution.

Login activity

Using the Login Activity, multiple logins can be created in a single execution.

Logout activity

Using the Logout Activity, we can logout the playback transaction. This activity will be added at the end of the playback.

Screenshot activity

Using the Screenshot Activity, a use can capture each and every step of the transaction in the playback.

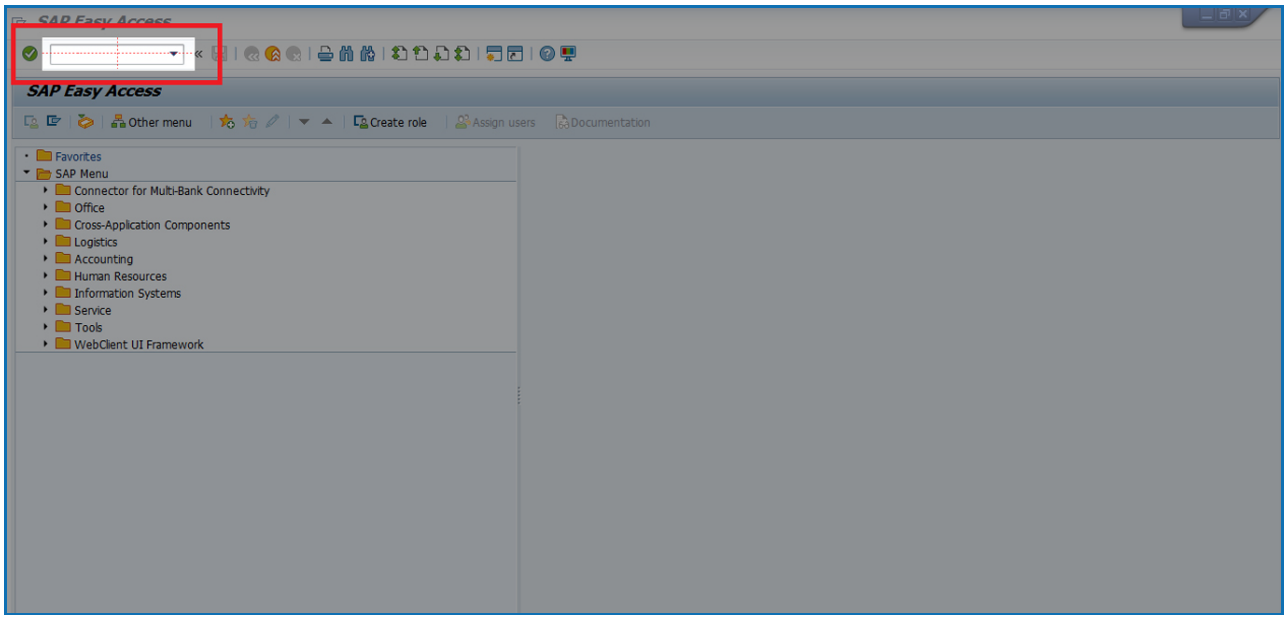
HotKey activity

Using this Hotkey Activity, a user can handle all the keyboard shortcuts.

Desktop Automation

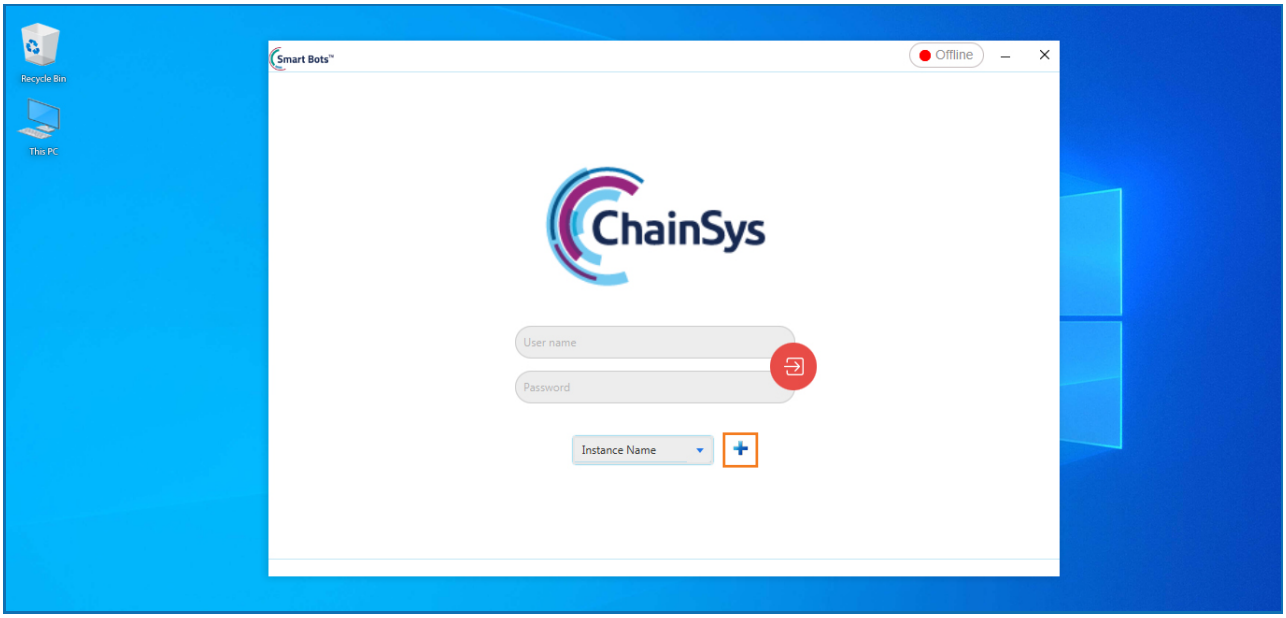
Using smartBOTS' Desktop Automation functionality, any desktop application (Cloud, On-prem and non-Html applications) can be recorded and executed automatically.

On every screen that is getting recorded, an indication mark with a + symbol is shown.

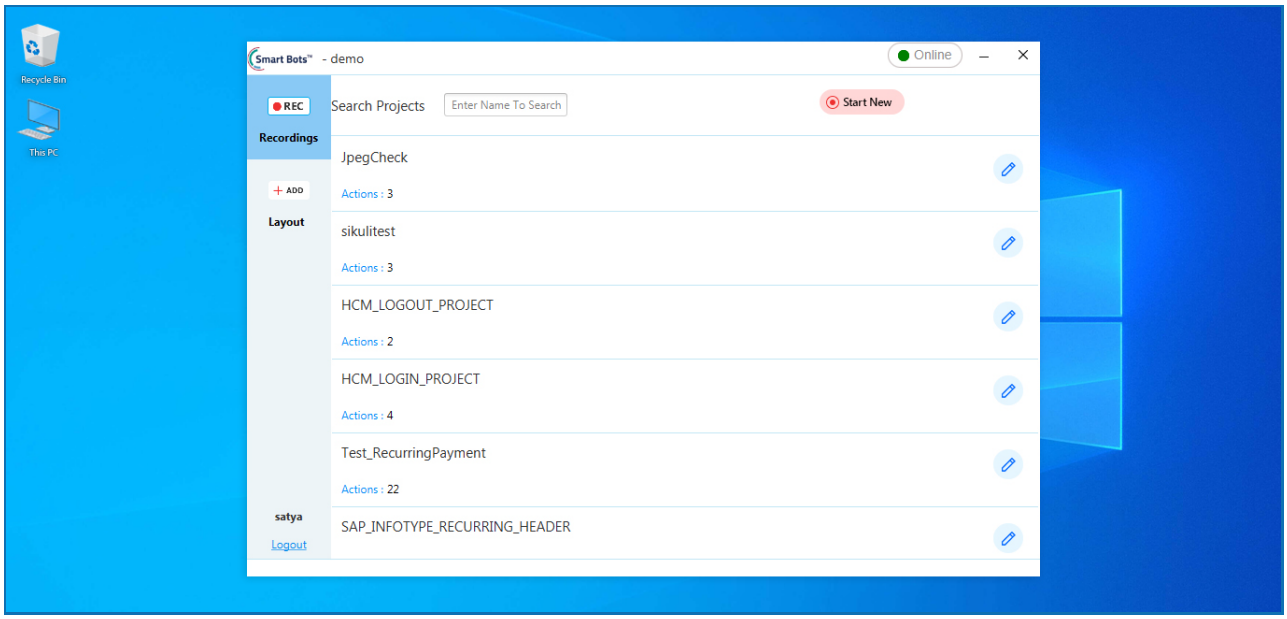


An example of how the Desktop application can be recorded and it can be saved.

Navigate to the Workbench under the execution layer and click on the Download Client icon to download the client jar.



Click on the + icon, add the Instance Name (URL), then login with the username and password to get to the screen as below:



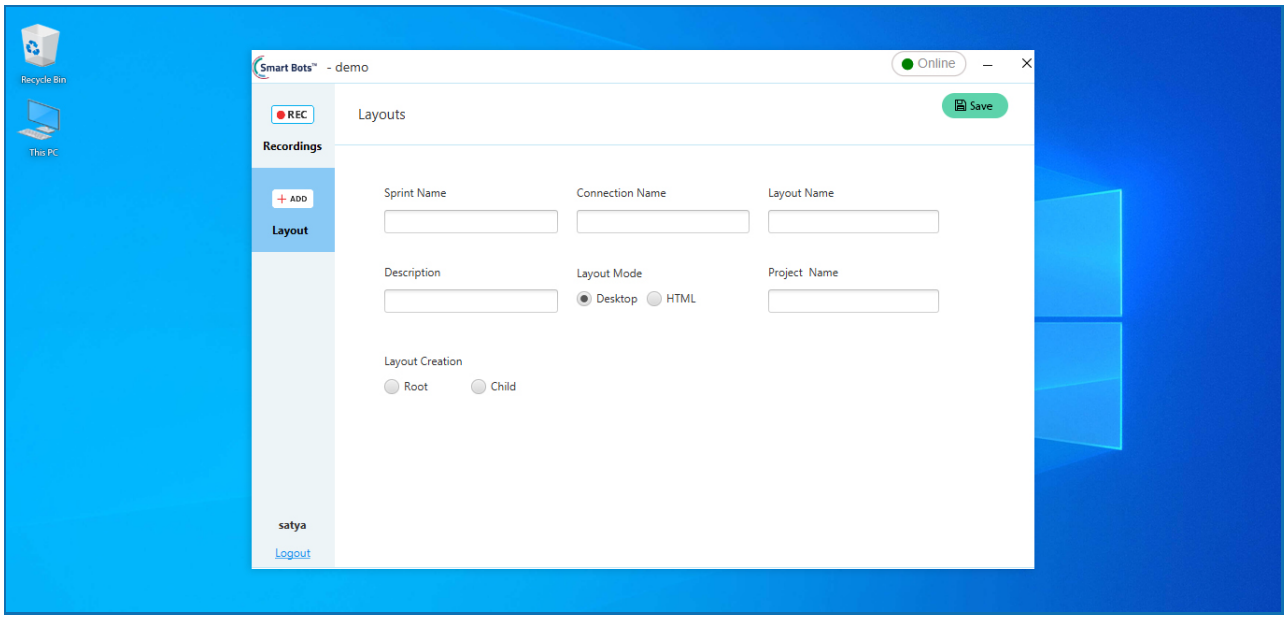
Click on the REC Recordings and click on Start New to start the recordings.

When the recording starts, the captured element will be recorded with an indication mark with a ✚ symbol.

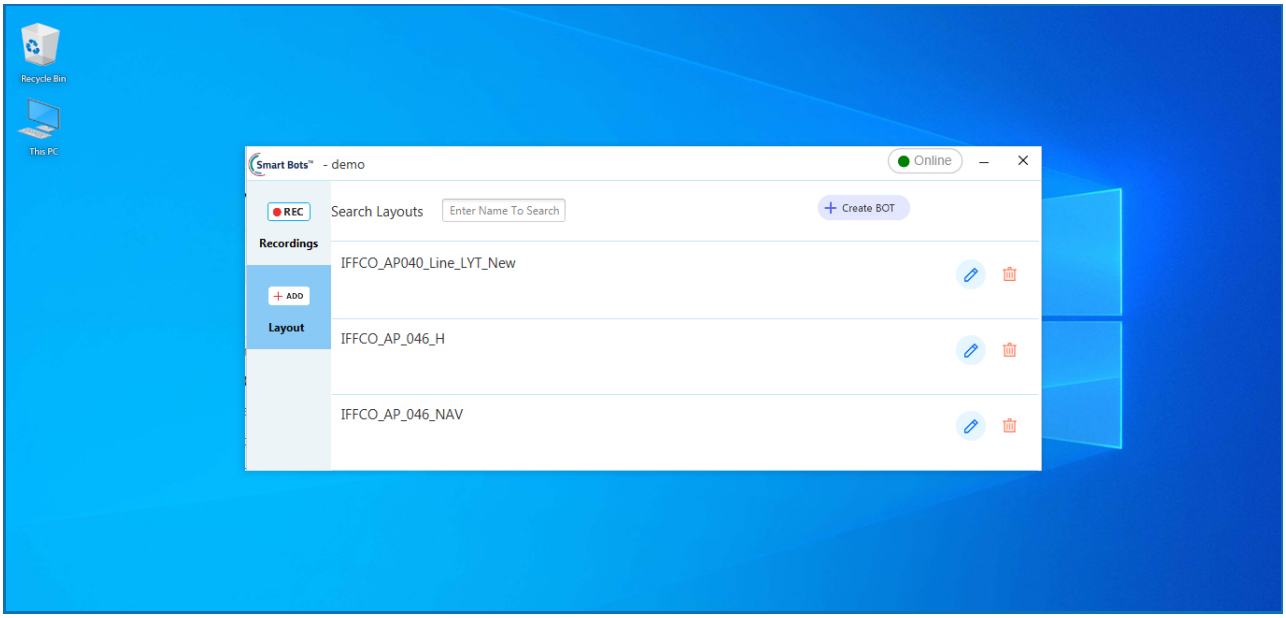
Once the recording is complete, enter the project name Enter Project Name and click on Save button.

To continue the recording, click on the Continue Recording button.

After saving the recording, click on the layout ADD Layout and click on the create bot image Create BOT and enter the layout information and choose the created project name from the LOV.



Once the layout is created successfully, It will be as shown below.



To continue the recording in the created layouts click on the icon.

To delete the created layout click on the icon.

Workbench

A Workbench is a dashboard where executed bots can be traced & audited.This section lists all the execution details related to a particular playback. Workflows and security consoles are provided to ensure the governance is maintained while viewing sensitive information.

Here's a list of summary & detailed information that can be viewed in the workbench

All Active Processes

All Active tabs will be displayed by default. Here, all the playbacks that are currently going through the execution progress will be displayed. When moused over any playback, the Log and Edit icon will be displayed as shown in the above screenshot.

All Active Processes

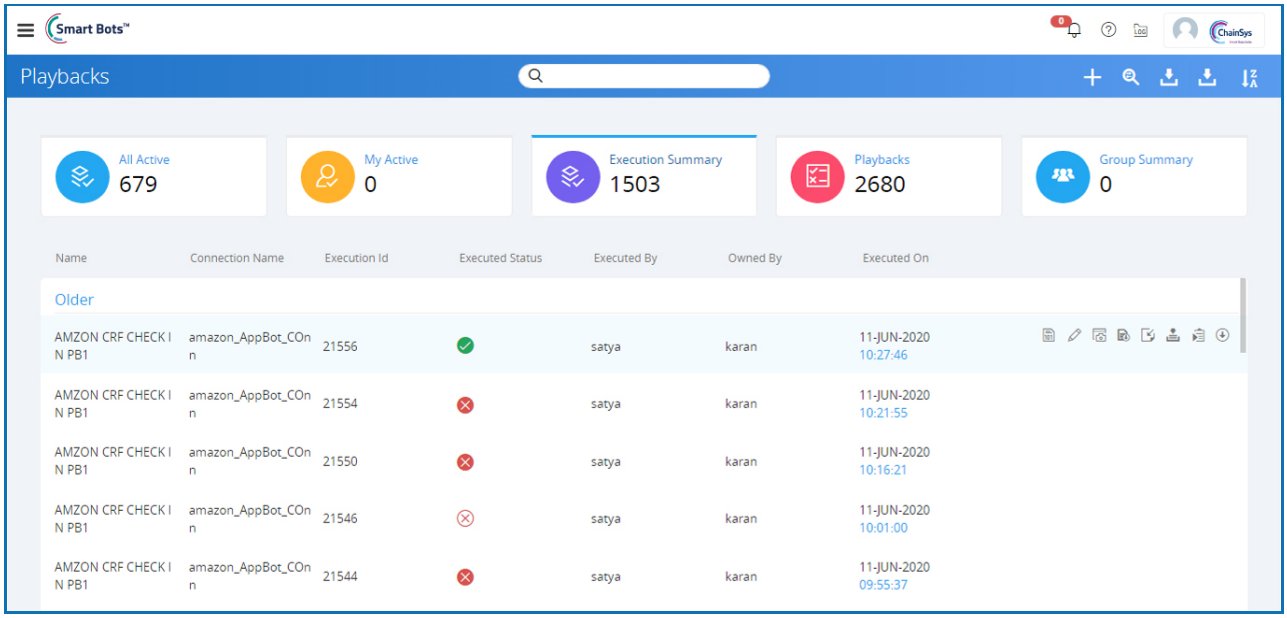
In the My Active tab, all the playbacks executed by the logged in user will be displayed. When moused over any My active playback, the Log icon, Stop icon and Edit icon will be displayed as shown in the above screenshot.

On clicking the Log icon, the log file for the playback will be displayed.

On clicking the Stop icon, the execution of the respective playback will be terminated.

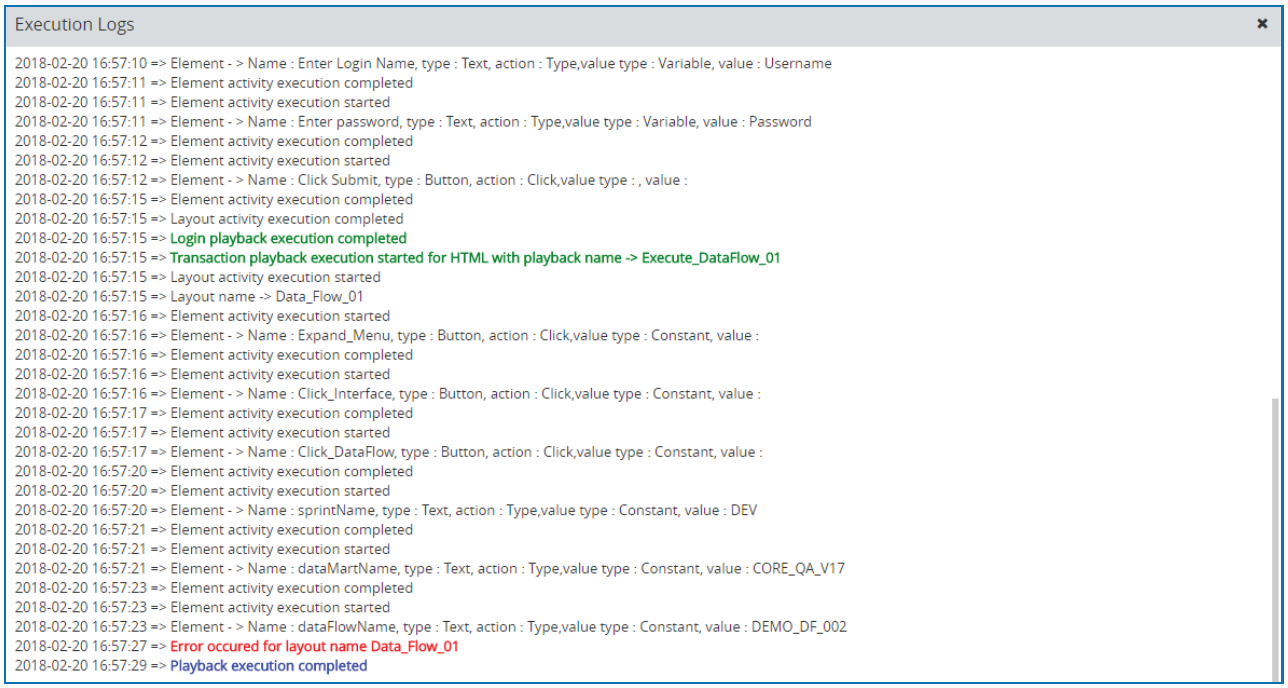
On clicking the Edit icon, the respective playback can be modified.

Execution Summary

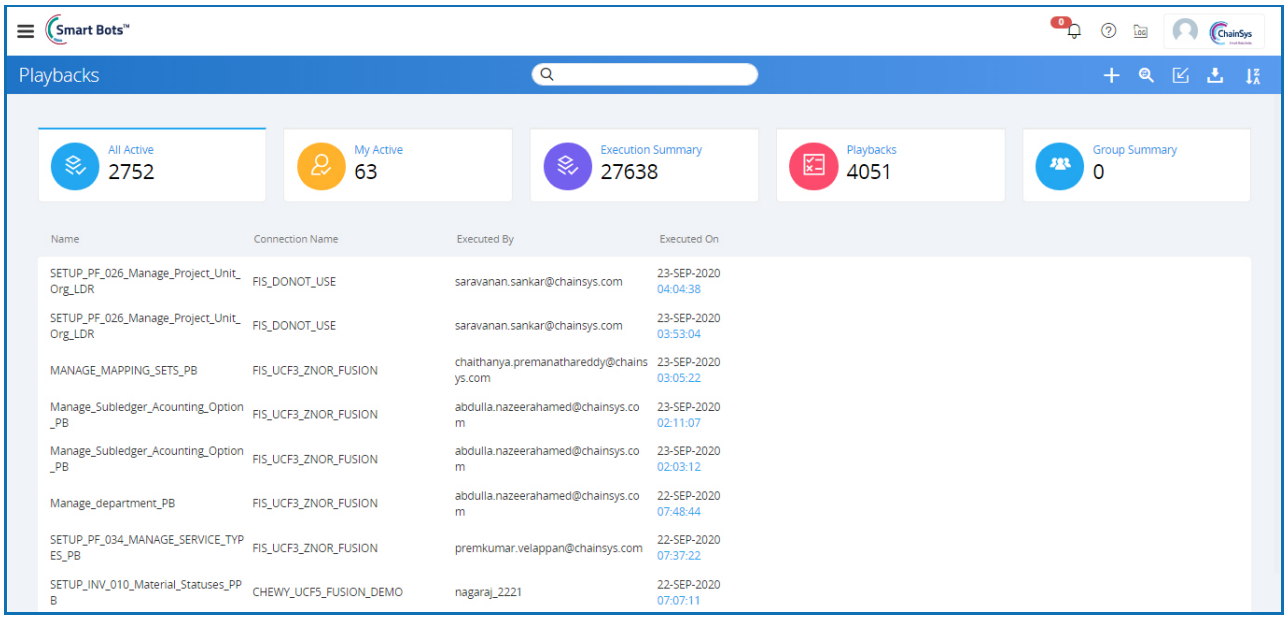


When moused over any playback, the Log , Edit icon, Screenshot Download icon , Playback Execution Report icon, Zap HTML Report icon, Test Case Report icon, Summary icon and Playback Execution Error Report icon will be displayed as shown in the above screenshot.

Execution Log



Dashboard



Supported Endpoints

For Case studies, references, or a no obligation trial & proof of concept, visit us at chainsys.com/appBOTS

About ChainSys

Chain-Sys is a trusted innovator in the API Economy , ChainSys is a leader in the data migration, integration, data maintenance, MDM, data quality, data cataloging, machine learning, AI, analytics, visualizations, audits, compliance and RPA based autonomous testing & low-code web/ mobile application building areas. ChainSys has successfully deployed its SmartBOTS in a Platform in several Fortune companies worldwide, and continues to grow and innovate rapidly. Headquartered in Lansing, MI, and spread across 5 continents, ChainSys prides itself on its Product, Process & People which constantly push the envelope on innovation & creativity

Smart Data Platform™

One Platform for your

End to End Data Management needs

Data Migration
Data Reconciliation
Data Integaration

Data Quality Management
Data Governance
Analytical MDM

Data Analytics
Data Catalog
Data Security & Compliance

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