PowerCurve

Strategy Management

A webinar series to empower users

28 November 2019, 10:00 – 10:45 CET

PowerCurve Strategy Management User Group

Product Briefing

Peter Sorenti
Head of Product Management, EMEA

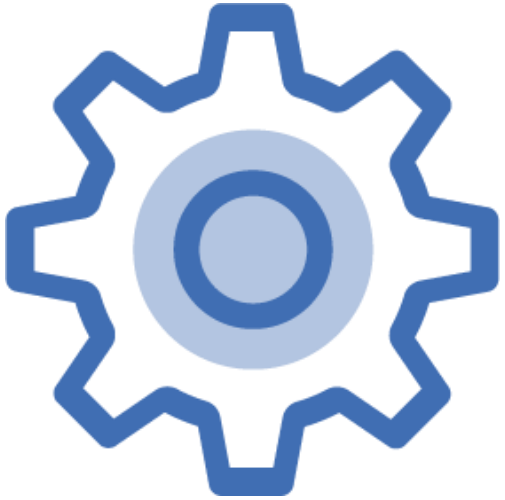
experian

Agenda

Roadmap Overview

Evolution of the UX

Deploying
Advanced
Analytics
Models

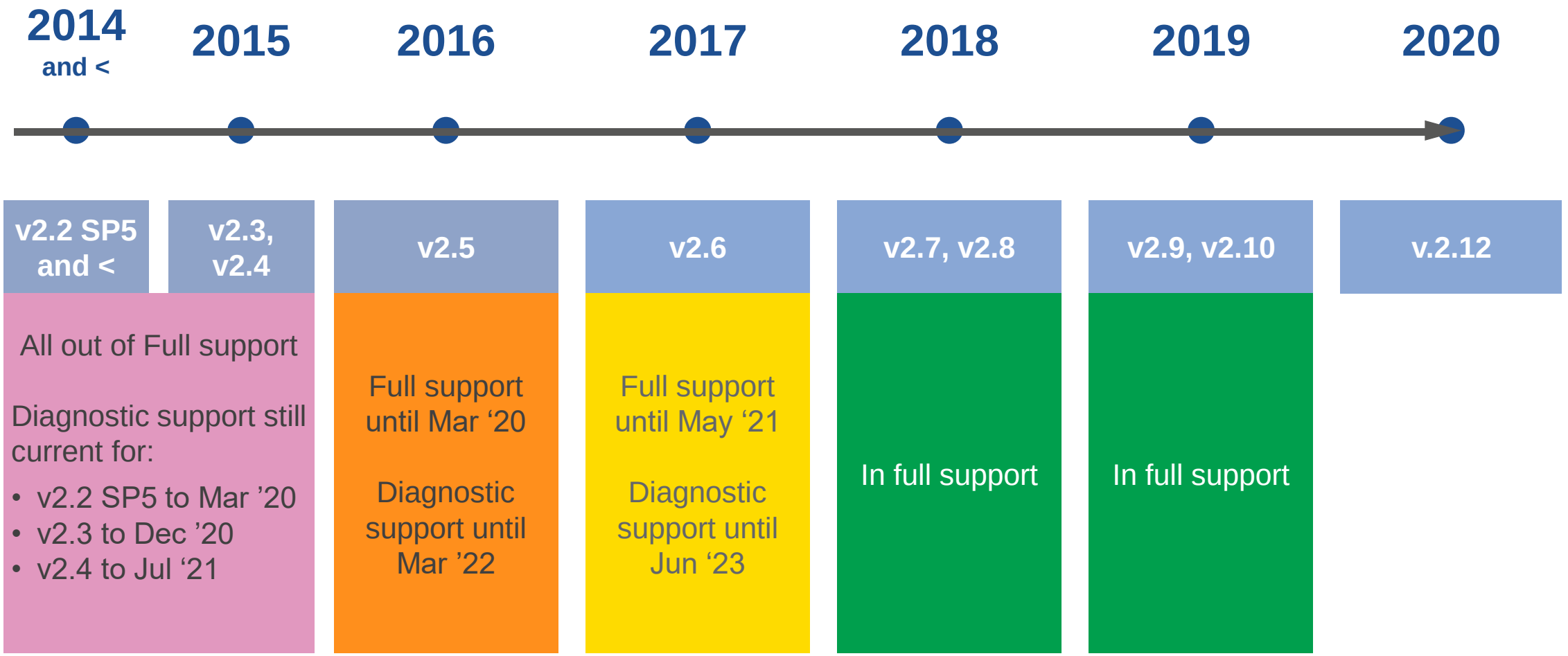


Business Intelligence

 © Experian

PowerCurve® Strategy Management

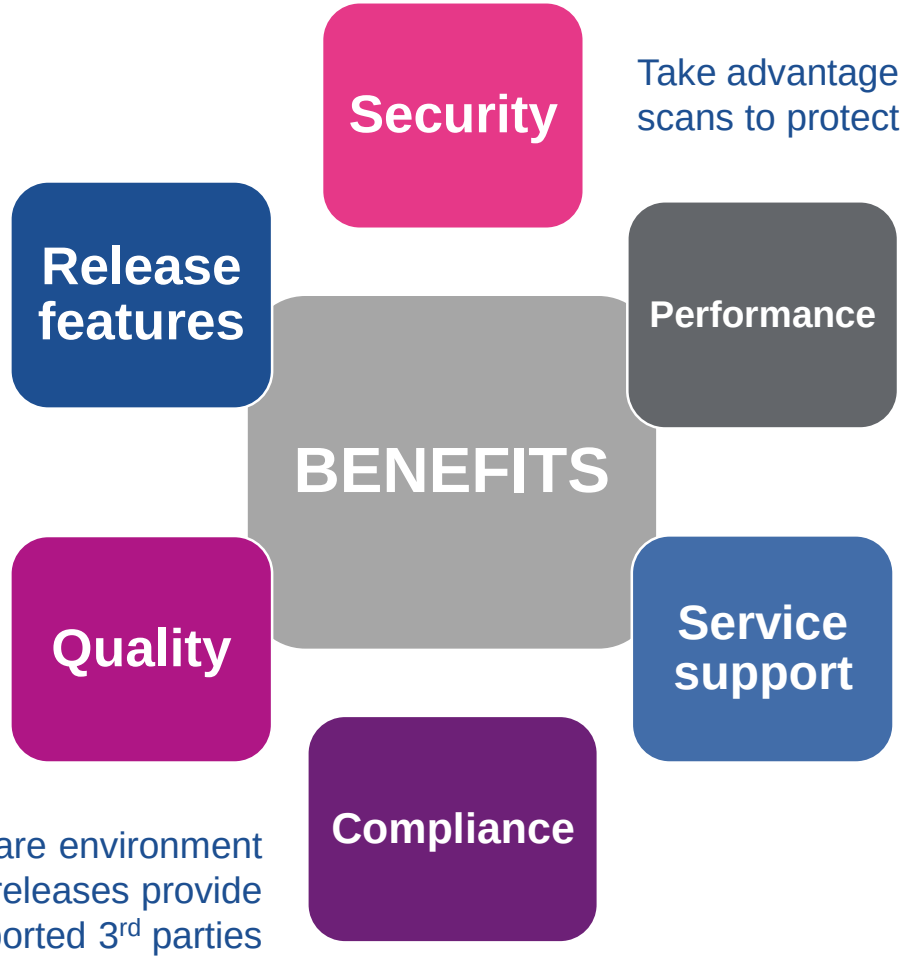
Version support status



 © Experian

Why software upgrades are important to you

In technology, upgrades are a continuous investment, not a cost



Each PowerCurve release includes new features and/or enhancements to answer immediate business needs or anticipate market needs

Take advantage of the latest security scans to protect your environment

Performance rates are continuously improved, as proven by client use cases and experiences

Bug fixing is cumulative. The latest PowerCurve version includes all latest hot fixes

Benefit from the highest level of support – and long-term support for the best ROI

In line with your internal software environment policies, new PowerCurve releases provide compliance with the latest supported 3rd parties

© Experian

PowerCurve Strategy Management Release Overview

 © Experian

PowerCurve® Strategy Management

Release overview

v2.2 and below

2011-2014

Leverage 20+ years of success with SMg3:

Integrated Data Management, Strategy Definition, Strategy Monitoring and analytically-driven Assisted Strategy Design to support continuous strategy improvement

- Significant and recurring event processing

- Business users have operational and strategic control from a single desktop studio

v2.3 and v2.4

2015

- Marketswitch Optimization integration in Decisioning

- Java and script compatibility for User Defined Functions implementations

- Added adaptors to support XML and JSON data interfaces

- Presented R Model Executor and R Model components

v2.5

2016

- Enhanced testing functionalities

- Enhanced template facility, adding convenience to re-use configured components

- Enhanced capabilities to build, share & manage design time content: Building block merge, automated mapping, recycle bin

v2.6

2017

- Entity Model, Database Physical Data Models and Database Stylesheets become supported component types

- Performance improvements between the studio and repository, improving performance in single user and multi-user scenarios

v2.7 and v2.8

2018

- Enhanced Interactive Tester capabilities

- UX improvements

- Security repository enhanced with additional segregation options

- Introduction of ACE Framework for Machine Learning

- Support for Big Data (Hadoop and Spark)

v2.9 and v2.10

2019

- Enhancements to facilitate migration from SMG3 to PCSM

- New ACE plug-ins

- Decision Store Basics

2020+

- Decision Store

- BI Reporting

- UX improvements

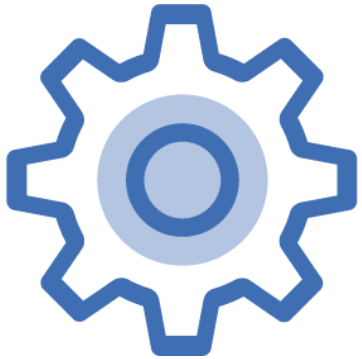
- Script enhancement

- ACE Framework Improvements

- SaaS Decisioning

© Experian

Deploying Advanced Analytics Models



 © Experian

Leveraging predictive power in operational decisioning

There are a number of challenges in leveraging advanced analytics

"Less than 15% of organizations believe they have fully operationalized the output of their advanced analytics" **IDC**

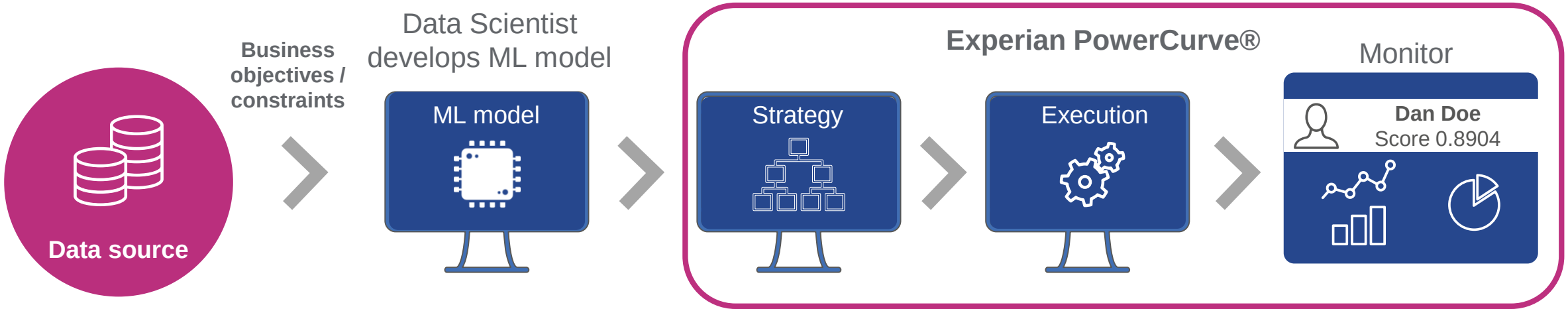
Where you build	How you code	What you build	…What are clients doing with it now?
Platforms for Machine Learning Microsoft ML SAS Open Python Open R DataRobot Dataiku H2O Salford TensorFlow **Etc.**	Programming Languages python sas R julia Scala	Learning algorithms (mathematical methodologies) Decision Tree, Random Forest, Gradient Boosting, Neural Networks, Support Vector Machine, Naïve Bayes, Etc.	Teams/technologies/processes in very different places within the organisation: **insight-to-action cycle disjointed** **Hardcoding models into the operational decisions**, requiring more skill and effort and imposes limitations ML models not always explainable: in a regulated environment, **decisions become difficult to explain** Changes to decisions made by machine learning sit with data scientists: **insight-to-action cycle becomes inflexible & slow**

© Experian

The ACE Framework

Automating the modelling lifecycle and live deployment

Simplify the process for deploying models into the live decision environment
Benefits for the business owner – line of business (Analytics & Risk)



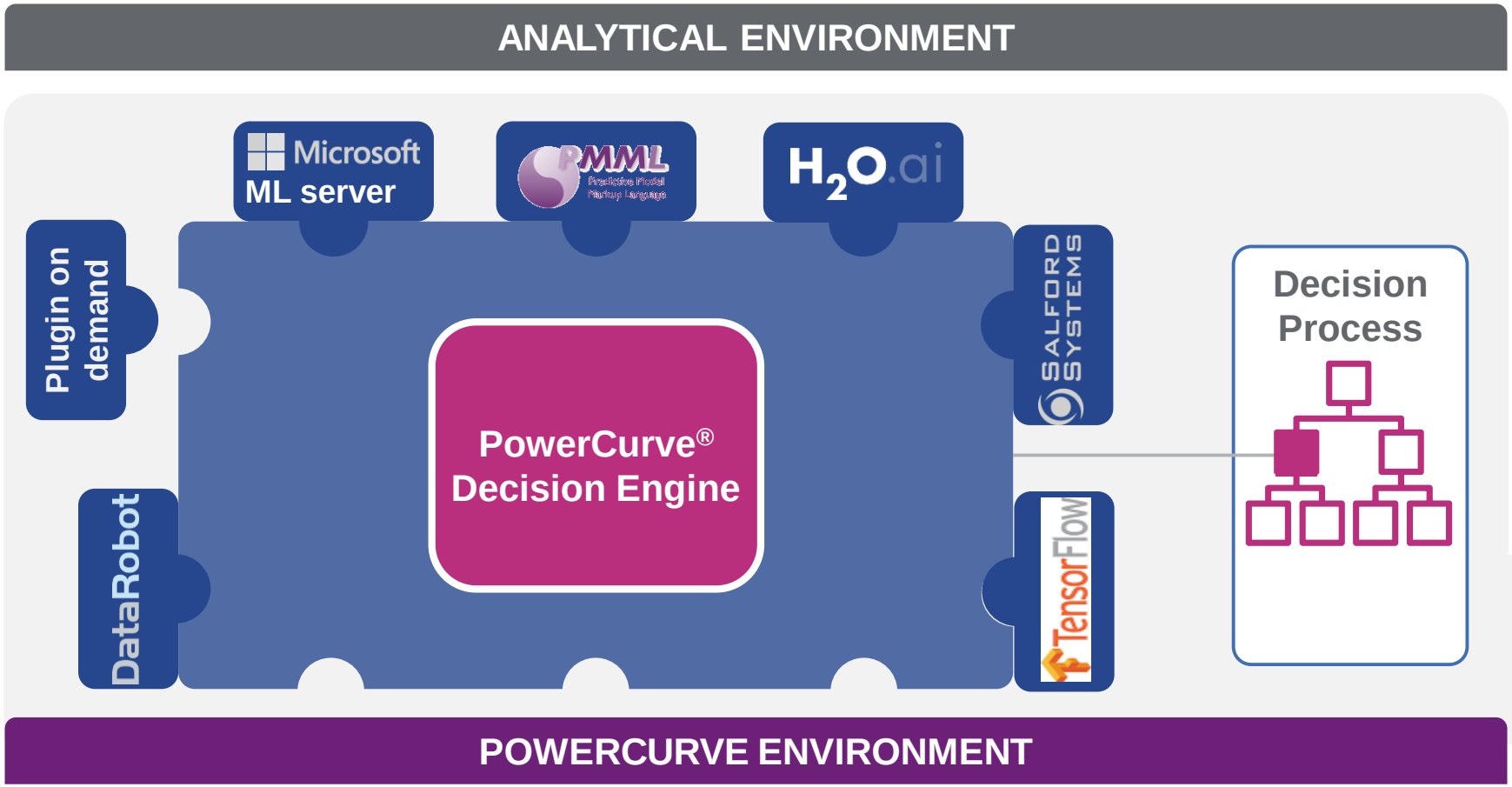
Build and export ML models on 3rd party analytic platforms	Drag and drop models into PowerCurve Strategy	Deploy and execute strategy incl. models in production	Make predictions and get insights

© Experian

The ACE Framework

Operationalizing models that use the latest Machine Learning techniques

Analytical Component Extension (ACE) framework



Available Now

- Microsoft Machine Learning Server
- R
- python
- PMML Predictive Model Markup Language
- DataRobot
- H2O.ai
- SALFORD SYSTEMS
- TensorFlow

Roadmap

Native execution of R & Python

- sas
- data iku

© Experian

experian

PowerCurve® delivers robust, automated decisioning

Our ACE framework – available from v2.8 onwards – allows any combination of rules, scorecards or advanced analytics, such as Machine Learning

Benefits of the open framework

Ease of integration

Each new plug-in can be easily added as and when they become available

Flexibility

Businesses are free to trial new machine learning methodologies and techniques

Self-serve

The decisioning process becomes intuitive and accessible to non data scientists and gives Business Users more control

Control

Decisions are clear and transparent for auditing and regulatory scrutiny

© Experian

PowerCurve® Strategy Management Roadmap Overview

 © Experian

PowerCurve Strategy Management

Strategic Roadmap

	2019	2020	2021+
Advanced analytics and Deployment	▪ Model Operationalisation for DataRobot, H2O, TensorFlow and Salford Systems ▪ Allow upgrade/downgrade plugin versions without PCSM upgrade/ downgrade	▪ New plugins incl. on demand ▪ Enhanced model governance including model monitoring, error management ▪ Explainability Introduction	▪ Plug-ins on Demand ▪ Enhanced model governance including Explainability ▪ Model re-learning ▪ Optimisation in PowerCurve
Enterprise-wide Decision Management	▪ Capture and record all decision data into platform data store ▪ Query, extract and replay strategies for testing ▪ Enable traceability and audit	▪ Improved and simplified studio testing ▪ New & enhanced strategy impact analysis ▪ Cloud ready studio ▪ BI reporting for better visualisation ▪ Studio UX/UI improvements	▪ Platform level Business Intelligence including dynamic audit and enhanced Strategy Monitoring ▪ End to end testing
Data Handling	▪ Open API , REST and JSON support	▪ Hierarchical, Dynamic and semi-structured data enhancements ▪ Visual data mapping and data transformations ▪ File Attachments and File integration	▪ Streamline gathering and preparation of data for model execution

© Experian

PowerCurve® Strategy Management UX

 © Experian

Our focus is on key themes to improve the Studio UX

Content-sensitive and dynamic help

Improve customer satisfaction when working with the studio and the adoption of the new capabilities.

Onboarding and training

Automatically introduce first time users to the product with basic onboarding, giving a high level tutorial of key areas within the studio.

Printing and exporting

Enabling better governance and audit through visualization.

Structure and navigation

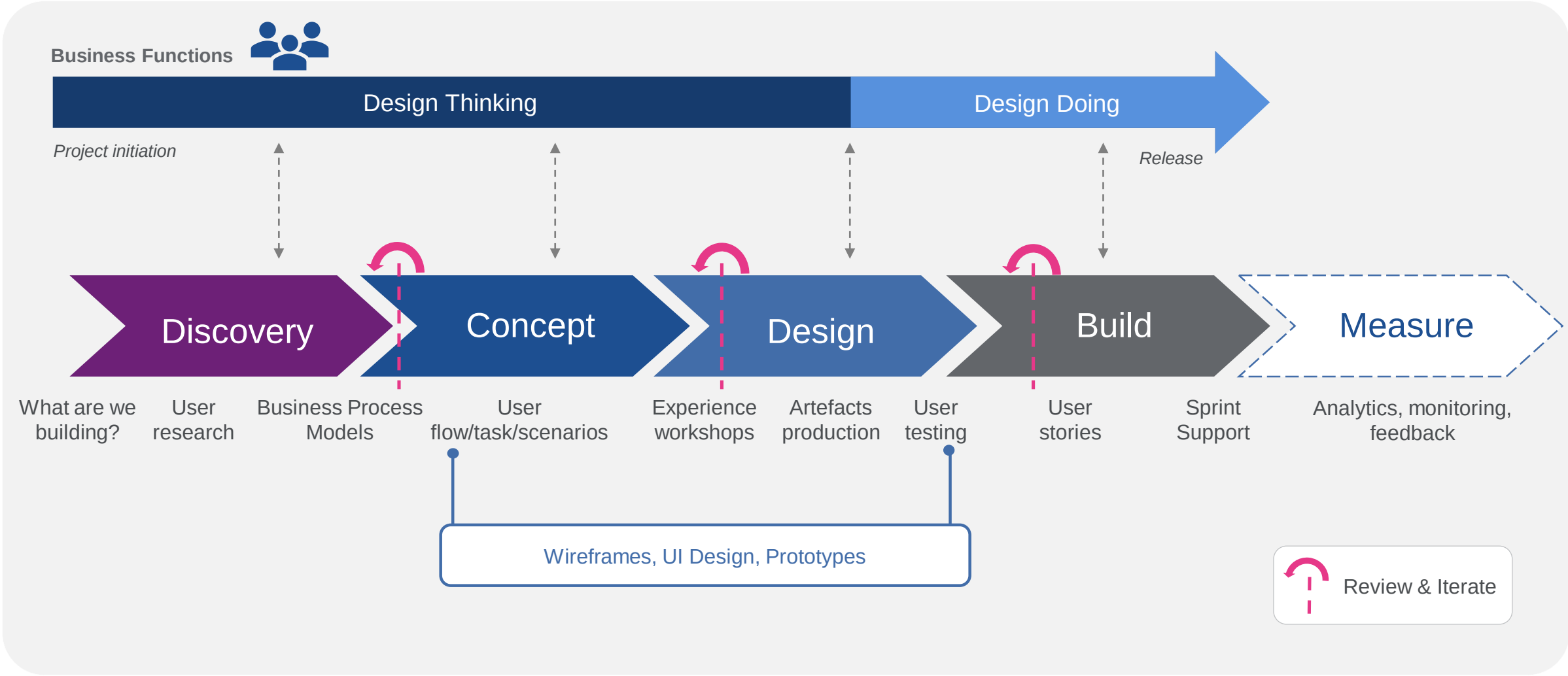
Improve the user interface to refresh the Studio and ease use.

Experian Design System

Restyle the studio to be aligned with the Experian Design System to improve the user experience.

© Experian

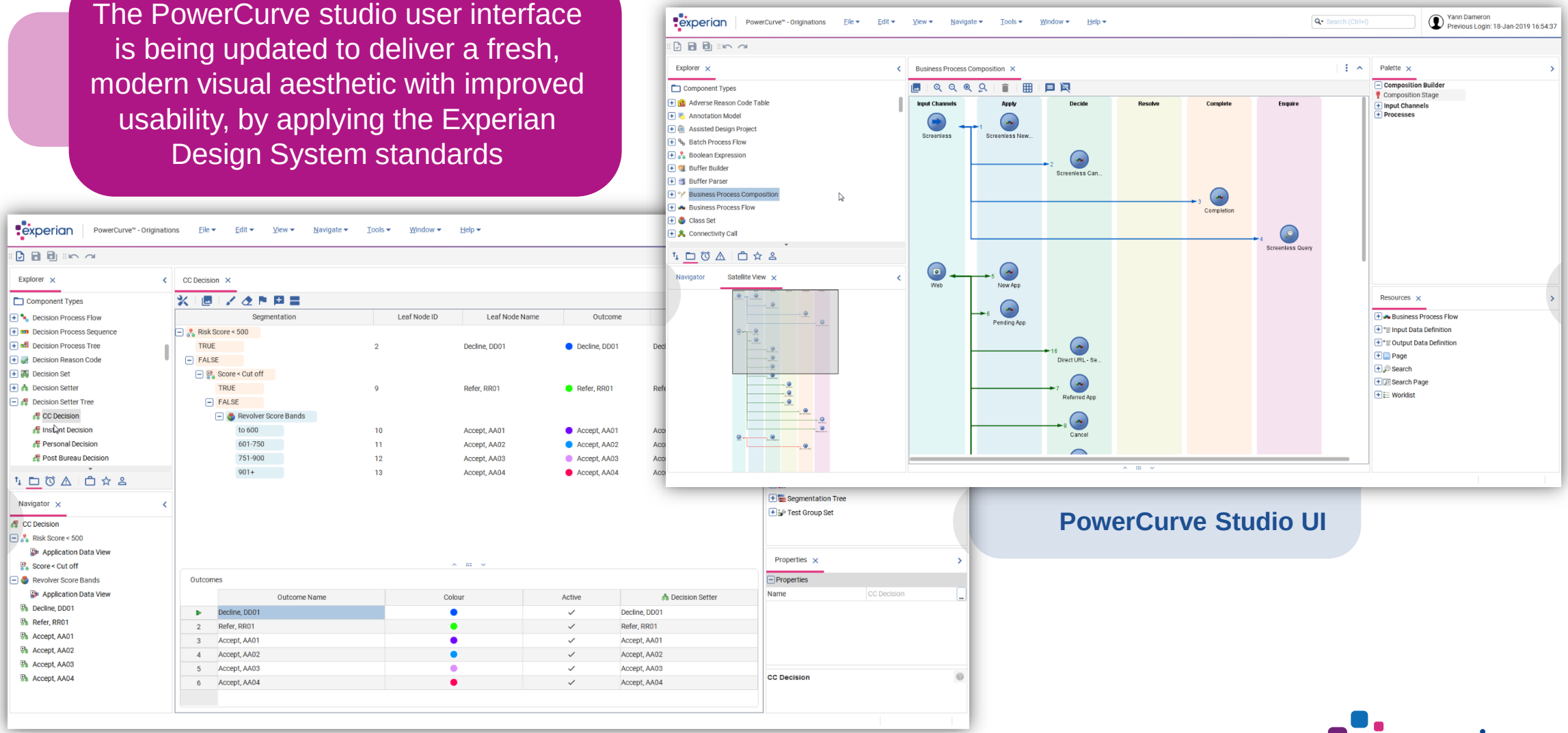
Our new UX framework follows industry standards



© Experian

Creating a modern, enhanced studio UX

The PowerCurve studio user interface is being updated to deliver a fresh, modern visual aesthetic with improved usability, by applying the Experian Design System standards



PowerCurve Studio UI

© Experian

High Level UX Roadmap (Design Studio scope only shown)

2019 - 2021

PowerCurve on-premise studio

- PowerCurve studio help restructure
- Enhance scripting functions in the studio with auto-formatting engine
- Error handling and messages in the studio

- ACE plug-ins help integration
- Content-sensitive and dynamic help
- Onboarding and training
- Printing and exporting
- Structure and navigation

- Experian Design System standards applied
- Structure and navigation

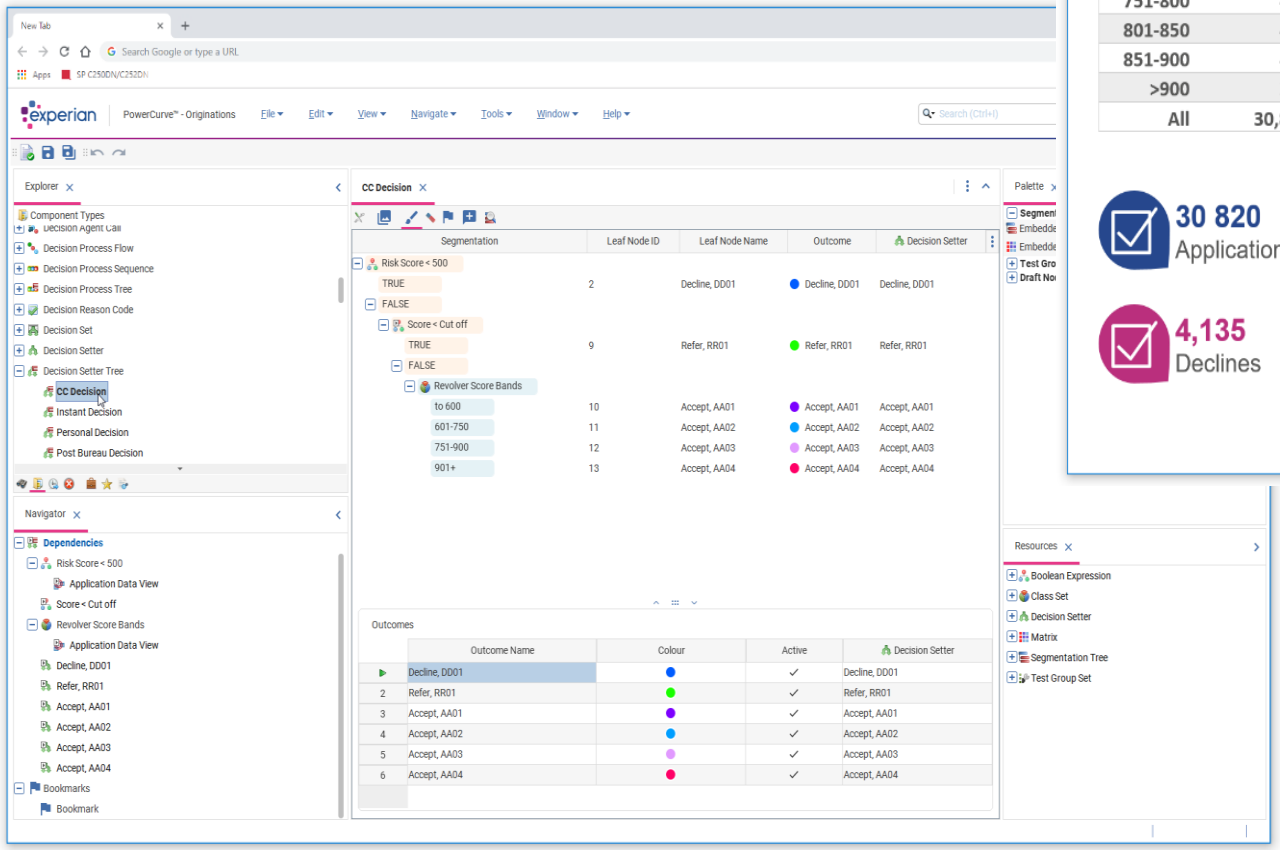
© Experian

Business Intelligence / Reporting

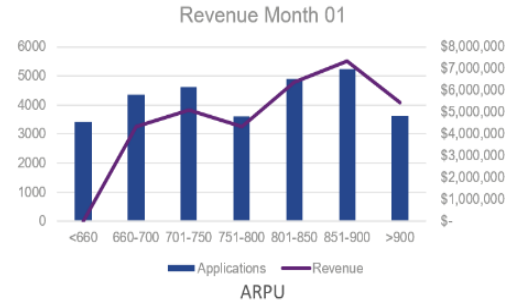
© Experian

Business Intelligence/ Strategy Monitoring

The PowerCurve studio Strategy Monitoring user interface will be updated to deliver a fresh, modern visual aesthetic with improved usability



Score	Applications	Revenue	ARPU
<660	4135 $	- $	-
660-700	4162 $	4,162,000 $	1,000
701-750	5156 $	5,671,600 $	1,100
751-800	4921 $	5,905,200 $	1,200
801-850	4416 $	5,740,800 $	1,300
851-900	4451 $	6,231,400 $	1,400
>900	3579 $	5,368,500 $	1,500
All	30,820 $	33,079,500 $	1,073

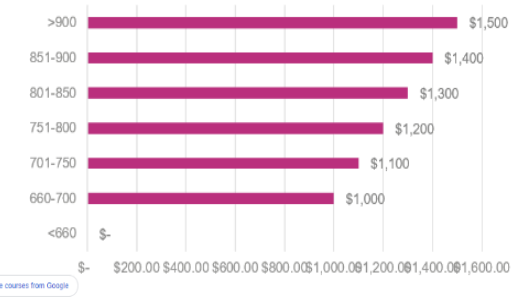


30 820 Applications

$33,079,500 Revenue

4,135 Declines

11.9% Decline Rate



Strategy Monitoring

© Experian

QUESTIONS

© Experian

experian
TM

APPENDIX

© Experian

PowerCurve Strategy Management

Release history

2011

PowerCurve Strategy Management launched SDS v2.2 with a huge number of enhanced features:

- Advanced search
- Assisted Design
- Creating user accounts
- Editors
- Explorer Window
- Import/ Export
- License Assistant Wizard
- Logical Data Model
- Logical Data Source
- Printing
- Scorecard
- Scripting
- Security Server
- SMG3 Import
- Strategy Monitoring
- Test Project
- Treatment Tree
- Value Setter

Also, important *new* features were added:

- Ability to sign on and connect to multiple Content\ Solution repositories in a Single Security server;
- Single installation for all product capabilities

2012

SDS v2.2 SP1 and SP2 were launched, adding:

- Enhanced Design and Runtime performance
- New component added to Interactive Tester and Test Project
- Enhanced Editors
- Assisted Design Project supporting Hierarchical Data Universe
- Individual characteristic mapping supported in the Decision Process Flow

© Experian

PowerCurve Strategy Management

Release history

2013

SDS 2.2 SP3 introduced:

- Derived Data Script - A SETSIZE function added to the scripting language. Enables a user to specify the size of a dynamic array at either an atomic or group level. The user can then populate the contents of that array up to the size specified
- Cycle processing
- Significant and recurring event processing
- Business users have operational and strategic control from a single desktop studio

2014

SDS v2.2 SP4 introduced:

- The Logical Data Source component can use a Working Storage type as its Data Source Type
- Groups editor supporting LDAP authentication
- Enhanced overall user experience
- Interactive Tester supporting User Defined Function components
- Improved Design and Runtime performance

© Experian

PowerCurve Strategy Management

Release history

2015

SDS v2.3 and v2.4 introduced:

- Functional Role accessibility improvements
- UX improved by newly added automated functions
- Treatment Table made compatible with Microsoft Excel
- Support of Dynamic Arrays
- Support for Marketswitch Optimisation
- Support XML and JSON data interfaces
- Added R Model and R Model Executor components
- Introduced major new feature allowing UDFs to be implemented in Java as well as script.

2016

SDS v2.5 introduced:

- A new Merge editor to map and bind imported content to the target solution
- Enhancements to the Test process
- Recoverable Delete facility
- Support of monitoring data for Marketswitch Optimized Decision (MOD).
- Enhancements to the Undo\Redo actions
- Improvements to the Management of allowed component types dialog and system composition templates

© Experian

PowerCurve Strategy Management

Release history

2017

SDS v2.6 introduced:

- Improved Design and Runtime performance
- Enhanced Batch Process Flow, Editors, UI,
- SW upgrade on Design studio and Runtime servers
- Assisted Design running jobs management;
- Strategy Definition – Support for Entity Model, Database Physical Data Models and Database Stylesheet types
- Performance improvements between the studio and repository
- Added Transact components
- Data View action added for the Credit Bureau Viewer feature

2018

SDS v2.7 and v2.8 introduced:

- Enhanced Interactive Tester capabilities
- UX improvements
- Improved template consumption.
- Security repository enhanced with additional segregation options
- Increased records limit to the Index Table
- Reports enhanced with customizable logos
- Introduced ACE Framework to support machine learning
- Support of PostgreSQL database
- Big Data (Hadoop and Spark)

© Experian

PowerCurve Strategy Management

Release history and roadmap

2019

SDS v2.9 (STS) and v2.10 (STS) introduced:

- Decision Store Basics (Export API to allow Search; Observation Data Capture and Tagging DA)
- ACE enhancements (show plugin versions; imported model info)
- New ACE plug-ins introduced
- Microsoft SQL Server data base authentication support
- Integrity verification of deployed files
- Design environment user management enhanced to allow a user having SysAdmin and a Business User role
- Extended dynamic data capabilities and removed constraints on dynamic arrays sizes
- Interactive tester: Copy/paste functionality and with better data control when exporting test data
- Characteristic chooser able to display LDS or LDM characteristics
- SMG3 to PCSM Migration enablement enhancements

2020+

Coming next:

Advanced analytics and Deployment:

- Enhanced plug-ins ingesting explainability documentation and plug-ins on demand
- Model governance: model monitoring, error management
- Explainability Introduction

Enterprise-wide Decision Management:

- Improved and simplified studio testing
- Discover test data with decision catalogue
- Strategy simulation for better decisions
- BI reporting for test results visualization
- Studio UX improvements

Data Handling:

- Hierarchical, Dynamic and semi-structured data enhancements
- File Attachments and File integration

© Experian