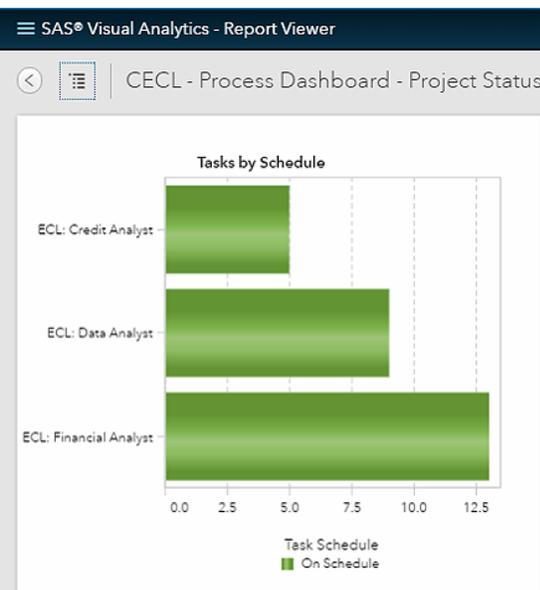


SAS® Expected Credit Loss

Meet the challenges of expected credit loss modeling for IFRS 9 and CECL compliance



New IFRS 9 and CECL regulations add significant complexity to credit impairment accounting. You need to quickly deploy a compliant auditable process and begin to assess the impacts to your balance sheet. You also need to ensure the process provides long-term efficiency and flexibility.

Unlike the spreadsheet approaches many financial institutions rely on today, SAS Expected Credit Loss provides a single centralized environment to coordinate workflows, manage large data and model inventories, quickly create and execute complex models, apply the accounting rules, and prepare drill-down reports and ledgers for regulatory and financial reporting purposes. SAS Expected Credit Loss is truly scalable to the complex demands of IFRS 9 and CECL.

In addition, the single management platform and modular structure also supports other risk initiatives, such as enterprise stress testing, allowing you to operate more effectively and achieve greater returns on your investment.

What does SAS® Expected Credit Loss do?

SAS Expected Credit Loss provides a centralized, flexible, high-performance analytics environment so banks can efficiently estimate expected losses as required by the new IFRS 9 and CECL credit impairment accounting standards. Financial institutions can orchestrate a controlled and transparent process to meet the challenges of financial reporting, and also create more sustainable stress testing, risk management and financial reporting capabilities.

Why is SAS® Expected Credit Loss important?

Implementation timelines are tight and the stakes are high. SAS Expected Credit Loss helps banks effectively meet the computational challenges of the new standards and at the same time reduce implementation and execution risks. Banks can create, test and manage analytical models and streamline their allowance processes, while ensuring essential controls, transparency and auditability.

For whom is SAS® Expected Credit Loss designed?

Designed for CFOs, CROs, risk managers and finance managers who need to comply with IFRS 9 or CECL accounting standards, SAS Expected Credit Loss enables financial institutions to efficiently produce credit loss allowance estimates with the controls and auditability required for financial reporting.

Benefits

- Quickly implement a compliant solution that streamlines the process for estimating expected credit losses.** Simplify model creation, deployment, management and maintenance for faster implementation of IFRS 9 and CECL compliant systems. A point-and-click interface greatly reduces coding requirements so you can build and execute your process quickly and reliably, and reduce ongoing maintenance costs. An open platform enables you to incorporate your proprietary impairment models, whether they are coded in SAS or other languages. Optimize and automate your workflows to create a sustainable process to deliver the quick turnaround time required for financial reporting.
- Establish control and transparency.** A centralized platform enables you to govern the entire modeling process so you can identify and resolve issues quickly. Automated reconciliations and comprehensive audit trails ensure reliable financial reporting and transparency to meet the stringent expectations of directors, regulators and auditors.
- Get results quickly.** Performance is important for dealing with large portfolios and complex models. Take advantage of optimized model templates and harness the power of distributed, in-memory processing to perform calculations quickly each period. Generate reports automatically and then perform on-the-fly aggregations and drill-down in near-real time.
- Adapt and grow.** With a flexible and scalable infrastructure that integrates risk and finance capabilities, you can quickly adapt to evolving interpretations of the standards during implementation. Understand and assess the impacts of changing data, models and assumptions, and add functionality as regulations and business needs change.

Capabilities

Controlled, centralized model building and deployment

An easy-to-use interface simplifies the setup and maintenance of complex forecasting and analytical models. You can save and catalog models in a centralized, controlled environment and easily group and manage interconnected model components with minimal coding required. With fewer lines of code to maintain, opportunities for coding errors are greatly reduced. This enables fast, efficient model implementation, test and maintenance efforts.

The searchable centralized model library promotes sharing of best practices and easier reuse of models and modeling components. Model versioning supports strong governance and decreases modeling risk.

Centralized process and workflow orchestration

A user-friendly dashboard allows centralized management of the entire expected loss modeling process. Quickly monitor task progress and identify potential bottlenecks. The unified workflow provides greater control and leads to improved collaboration and transparency across organizations.

You can easily customize and manage accounting rules and data flows from the interface, and synchronize all risk and finance processes to improve auditability, transparency and repeatability.

Flexible reporting

Easy-to-use, self-service reporting and out-of-the-box visualizations enable you to quickly design and deploy reports across any hierarchy and level of granularity down to the transaction or loan level. Aggregate or drill into results on the fly to understand the drivers and assess the financial impacts.

Specify and edit scenarios, and automate the consolidation of data into financial statements and reports to meet regulatory and internal requirements in an efficient and auditable manner.

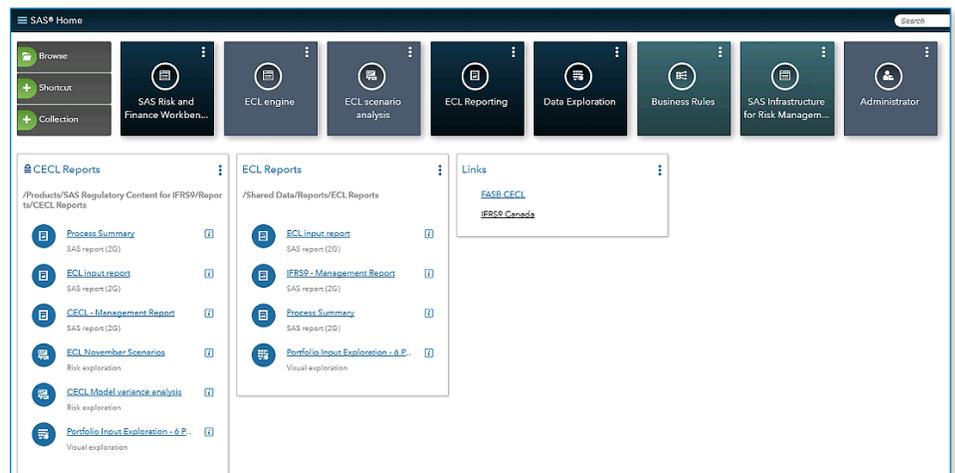
Strong controls

Comprehensive tracking and audit trails provide strong control, and ensure the soundness and repeatability of the entire process. Document changes to models and process exceptions, and quickly quantify their impacts. Graphical visualizations of model linkages provide full transparency and enable users to clearly understand interrelations within the system.

The solution captures overrides and allocates them down to the transaction level, maintaining a full audit trail of changes and ensuring a robust and dependable process.

Open, modular platform

Manage and deploy models built with SAS, Python, R or other programming languages. This openness allows you to leverage existing modeling assets and skill sets within an efficient controlled execution environment.



Centrally orchestrate the entire process from the unified dashboard.

A screenshot of the SAS Model Implementation Platform interface. It displays a table titled 'Model Groups' with the following columns: Name, Modeling System, Description, Model Associations, Kind, Monte Carlo, Created By, Modified By, and Date Modified. The table contains several rows of data, including models like 'Retail_Hazard', 'Retail_Landmark_Hazard', 'Retail_Markov_Chain', 'Retail_Monte_Carlo', and 'Retail_PDcurves'.

Name	Modeling System	Description	Model Associations	Kind	Monte Carlo	Created By	Modified By	Date Modified
Retail_Hazard	Retail_Hazard (1.0.0.0)	Competing hazards models with...	3	Evaluation	No	SAS Demo User	SAS Demo User	Jan 3, 2017 03:23 PM
Retail_Landmark_Hazard	Retail_Landmark_Hazard (1.0.0.1)	Competing hazards models usin...	13	Evaluation	No	SAS Demo User	SAS Demo User	Jan 13, 2017 07:00 PM
Retail_Markov_Chain	Retail_Markov_Chain (1.0.0.0)	Markov Chain Transition Models...	22	Evaluation	No	SAS Demo User	SAS Demo User	Jan 3, 2017 03:23 PM
Retail_Monte_Carlo	Retail_Monte_Carlo (1.0.0.0)	Monte Carlo transition models	22	Evaluation	Yes	SAS Demo User	SAS Demo User	Jan 3, 2017 03:23 PM
Retail_PDcurves	Retail_PDcurves (1.0.0.0)	PD Model (Cumulative Default R...	3	Evaluation	No	SAS Demo User	SAS Demo User	Jan 3, 2017 03:24 PM

Manage models and model groupings in a centralized library.

Fast and scalable in-memory distributed processing

Accelerate the performance of all your models with massively parallel distributed processing. You can quickly execute complex computations on large granular data sets, allowing you to spend more time on analysis and exploration and less time waiting for results. This shortens implementation times and ensures expedient delivery each production cycle.

This automatic parallel processing is configurable through the user interface, eliminating the need to write specialized distributed processing code.

Implementation flexibility

SAS Expected Credit Loss supports both IFRS 9 and CECL implementations, and it can also be used for regulatory stress testing. The flexibility to use a common platform can greatly streamline processes and provides the ability to use common data and models across multiple functions.

Optional content packages further accelerate implementation by providing customizable out-of-the-box model templates, workflows and reports. This allows you to focus on the business impacts of the new standards.

Key Features

Controlled, centralized model deployment

- Easy-to-use front end for constructing and managing complex systems of models.
- Program editor for run-time analysis of single models or model systems.
- Provides open framework for deployment of models created in SAS, Python, R and other programming languages.
- Enables user-specified outputs.
- Supports both single path and stochastic modeling.

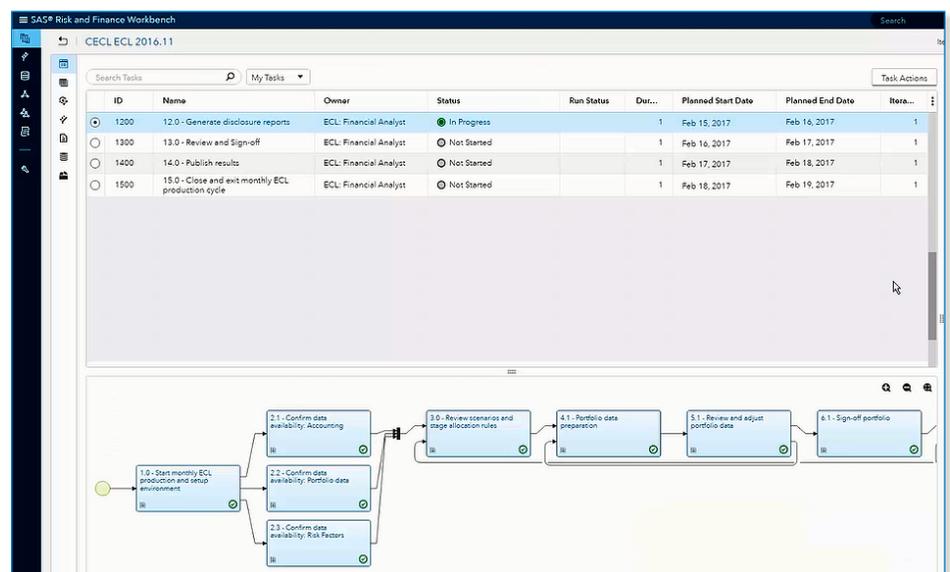
Common model execution library

- Provides a model governance platform with interactive dashboards.
- Automatically documents all changes to data models to ensure auditability.
- Facilitates model control by enabling all models and model groups to be versioned and searched.
- Enables promotion of models from development to production, and archiving of previous model versions.
- Supports tracking of model versioning, modeling systems and model approvals.

Process orchestration and coordination

- Provides an embedded workflow engine for specifying tasks, timelines and approval paths.
- Enables central monitoring of status with ability to track approvals, attachments and comments for each step.
- Includes automatic, user-driven data and model loading.
- Maintains complete data lineage.
- Produces comprehensive audit reports.
- Manages security for protection of project data, models, model groups, scenarios, hierarchies and configuration.

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Create, manage and troubleshoot complex technical execution workflows through an intuitive user interface. Quickly monitor task progress to identify and resolve potential issues.

TO LEARN MORE »

Learn more about SAS Expected Credit Loss software and services at sas.com/ecl.

Key Features (continued)

Results consolidation and reporting

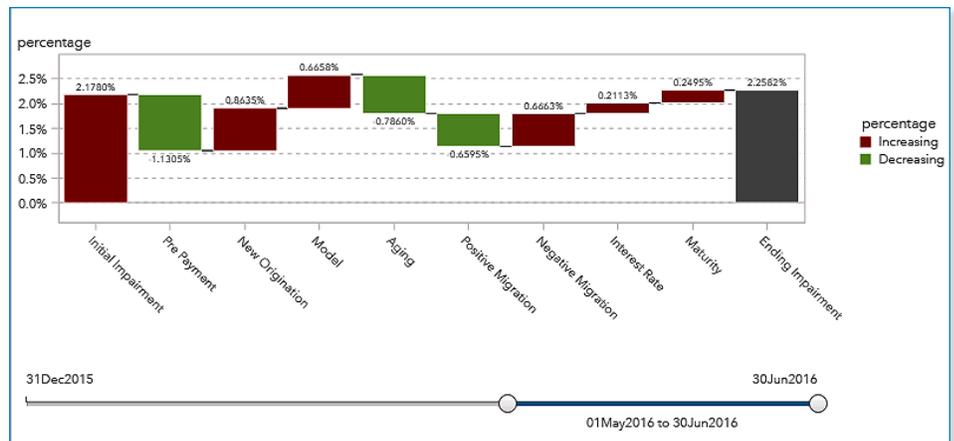
- Provides consolidation, reconciliation and aggregation of results.
- Generates regulatory and financial accounting reports.
- Includes templates for balance sheet, income statement and capital planning.
- Defines legal entity structures and hierarchies.
- Establishes mappings between different financial hierarchies, such as those used by accounting and treasury.
- Manages allocation and application of financial rules.
- Supports and tracks management overlays and overrides.

Web-based interface

- Provides centralized hub for orchestrating the entire allowance estimation process.
- Includes flexible, on-demand reporting capabilities.
- Enables visual exploration and drill-down through results.

Scalable, in-memory risk engine

- Distributed computing allows massively parallel processing without the need to write specialized distributed processing code.
- Flexible risk analysis capabilities enable complex exposure-level modeling, simulations, sensitivity testing and risk contribution analysis.



View the drivers of results, at any level of granularity, to ensure the ongoing integrity of your process.

To contact your local SAS office, please visit: sas.com/offices

