

 CAPITALARK

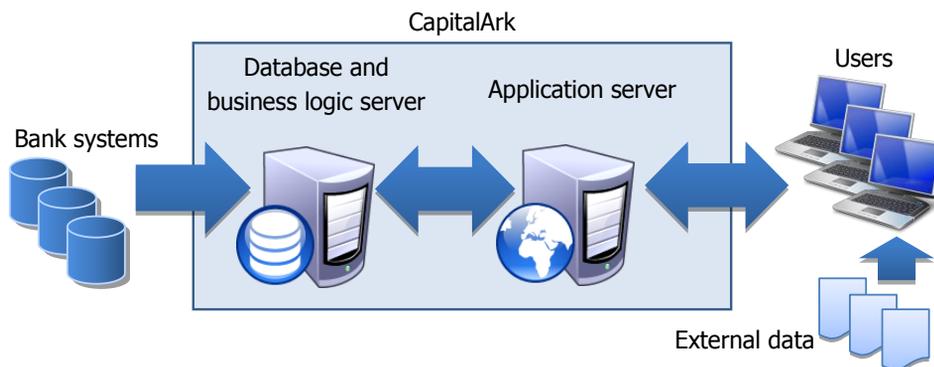
CAPITALARK® is a solid and robust application for assisting banks to achieve sound risk capital management in compliance with either regulatory (Basel II and III) or custom requirements.

Functionality

Collecting the required data from any available source and validating their accuracy and adequacy applying both predefined and custom checks.

- Storing the data in a dedicated database under an appropriate predefined structure. That structure fully supports historicity and may serve almost any requirement for statistical studies and reports on credit portfolios.
- Supporting data slots for storing data concerning the credit risk management process that are not kept in the banking system (e.g. external ratings, PDs per rating, LGD maps, customer or account numbers of the bank's subsidiaries etc.).
- Permitting authorized users to reload or even edit the current (not the historical) data in the database under a full auditable process.
- Allocating collateral to exposures aiming at optimizing regulatory capital estimation.
- Calculating the Expected Loss and the Risk Weighted Assets on exposure level under the appropriate approach (IRB or Standardized).
- Reporting the calculations results. The appearance and structure of all the created reports are fully customizable and the users may easily produce new kinds of reports. The relevant regulatory reports are already predefined as part of the package.
- Performing multiple scenarios (apart from the regulatory one) simultaneously by altering a rich set of parameters (e.g. EADs, PDs, LGDs, regulatory approaches per portfolio, mitigants eligibility etc.). CreditArk offers many different ways for altering the parameters (e.g. by setting absolute values for PDs per rating or by applying a percentage to them) so that the users achieve complex scenarios creation in a few simple steps.
- Supporting consolidation of the results on group level.

The Application



A critical point of the above depicted structure is the coexistence of the data and the business logic. In other words, the Database Management System (DBMS) itself is responsible to perform the relevant calculations. Since those calculations often involve huge volumes of data, the technique of relying on the data layer for performing time and resource consuming calculations ensures minimization of the calculation time. Thus, while other similar applications take several hours (or, in some cases, even days) to complete Basel II calculations on big datasets, CAPITALARK actually takes a few minutes. In front of the database layer there is an application server, which serves a web based front-end to the users isolating at the same time sensitive data and business logic.

CAPITALARK offers tight and comprehensive access control for the users. Each task supported by the system must be assigned to the users (or groups of users), otherwise it is not accessible. In addition, even if a task is accessible by a user, it can be performed only in the context (or contexts) for which the user is responsible.

On top of the access control system CAPITALARK supports full audit control through comprehensive logs. Any user's action and the relevant effects in the database are recorded. If an effect cancels already executed processes, then those processes are automatically invalidated and should be repeated by the user in order to incorporate the changes in the data. Also, completed and validated calculations are locked permanently for writing by any user. Even in that case, however, an authorized user may still experiment with different scenarios by manipulating replicas of the original data.

The Application

The technology of CAPITALARK supports full transparency and extensibility. The bank is provided with a flexible reporting tool through which a user with minimal training will be able to create complex reports by exploiting all stored data. In addition, ARKANALYTICS offers a set of plug-ins for extending CAPITALARK. Among others, those plug-ins contain an application of CreditRisk+ methodology (enhanced with additional features) for accurately estimating the full curve of loss on credit portfolios and the Credit-VaR under several confidence levels. That methodology fully satisfies the requirements of Pillar II concerning the issues of Credit and the Concentration Risk. Furthermore, the bank can build its own modules under CAPITALARK platform, for extending its functionality. ARKANALYTICS organizes training courses for this purpose.