



IBM Algo: On-premise risk management solutions

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At a glance

IBM® Algo industry solutions available:

- IBM Algo Financial Modeler
- IBM Algo Audit and Compliance
- IBM Algo Collateral
- IBM Algo Credit Manager
- IBM Algo Strategic Business Planning

Overview

Algorithmics is a provider of financial risk management solutions, including solutions for market, credit, operational, collateral, capital, and liquidity risk management. Algorithmic risk analytics capabilities provide you with extensive financial risk expertise. Algorithmics focus on credit and market risk, and its strong footprint in insurance and key operational risk customers, strengthen and expand the depth and breadth of risk advisory and consulting services including:

- Risk related advisory services
- Risk modeling and scenario analysis
- Implementation of models for derivatives and complex financial instruments
- Liquidity risk
- Credit lifecycle management
- Credit and Operational risk subscription services for loss data

IBM Algo Financial Modeler is a model development environment used by a global client base that allows actuaries to build life insurance models to perform different calculations, and is most commonly used for product pricing and design, budgeting, production of management information, statutory valuation, market consistent embedded value valuations, International Financial Reporting Standards (IFRS), asset and liability modeling, economic capital, and Solvency II calculations on a single platform with a common set of code. The advanced design of Algo Financial Modeler specifically addresses the need for more real-world and complex modeling in life insurance, helping users to more easily face the challenges of Solvency II and other risk-based regimes is a less daunting prospect.

Algo Financial Modeler features include:

- A highly flexible modeling platform
- Modular structure supporting reusable code

- Advanced actuarial modeling
- Highly optimized calculation engine delivers efficient results
- Scalable modeling and production infrastructure supports full transparency

IBM Algo Audit and Compliance is a workflow, governance, and process control application designed to support efficient business analytics and reporting in financial services firms. It is used to orchestrate risk and finance processes, roles, and existing IT infrastructure, bringing control and efficiency to data gathering, validation, and processing. This results in more timely, auditable, repeatable, and reliable reports and decision intelligence, based on verified data and approved expert opinion.

Algo Audit and Compliance has built-in integration with Algo Financial Modeler to help support insurance Solvency II Standard Formula reporting and compliance. This security-rich and auditable web-based system supports regulatory compliance with Pillar 2 and Pillar 3 of Solvency II by offering insurers the cost-effective capability to integrate and control information from their existing infrastructures. By efficiently streamlining workflow, Algo Audit and Compliance reduces reporting time and allows insurers to focus on risk analysis and their primary business activities.

IBM Algo Collateral provides an enterprise-wide margining solution dedicated to reducing operational risk and mitigating credit risk. It supports the management of the key tasks associated with collateral management for the trading book. These include legal agreement management, margin call calculation and processing, collateral payments, interest payments, and reporting. In addition to providing credit risk management, it also delivers reduced operational risk through adoption of key market practice methodology. Using workflows, users are able to manage multiple tasks in a controlled manner while following standardized procedures. The system helps support growing business volumes for both increased agreements and margin calls without potential increase in headcount or risk.

The system provides the central infrastructure for management of collateral tasks associated with derivatives margining. It is able to source both trade and market data from multiple sources, combining this with application legal parameters, to calculate margin requirements per counterparty. Further automation and control, including automated downstream processing, may be supported.

Algo Collateral provides the following functionality:

- Storage of legal data (ISDA and CSA) including eligible collateral, thresholds, and minimum transfer and rounding amounts.
- Trade capture from front office and risk systems (including MTM)
- Automated margin calculations
- Workflow for margin call process, including 4-eyes approval process
- Interest accrual calculations and workflow
- Dispute identification and tracking
- Inventory management, rehypothecation, and substitution workflow reporting

IBM Algo Credit Manager helps financial institutions manage credit risk and process, over the credit lifecycle from origination, monitoring, and review to credit default and recovery management. Designed to deliver a complete, singular view of credit risk, users are provided access to relevant credit risk information. At its foundation is a credit exposure and limits management engine, within a specialized, credit enabled business process management framework that delivers consistent and efficient pre-approval and post-approval processing for measurement and consolidation of credit risk data across banking book and treasury products.

IBM Algo Strategic Business Planning provides banks with an enterprise wide integrated risk modeling, stress-testing, and forecasting solution. Its predefined, extensible, data model aggregates analytics from existing risk and finance systems. Bank management can view the results of its purpose built risk and forecasting models to evaluate total risk position, projected capital, and risk adjusted performance. Flexible reporting capabilities are provided and different

risk strategies can be planned, reviewed and improved. It also provides support for regulation including macro-economic stress testing, reverse stress testing and living wills.

Key prerequisites

Refer to the [Hardware and software requirements](#) section.

Planned availability date

- October 5, 2012: Electronic delivery (all other products)
- October 12, 2012: Media delivery

Description

Algo Financial Modeler

Algo Financial Modeler Foundation

Designed to make actuarial models easier to use, understand, and review, Algo Financial Modeler is a model development environment allowing actuaries to build models to perform different calculations. These calculations include product pricing and design, budgeting, statutory valuation, market consistent embedded value valuations, International Financial Reporting Standards (IFRS), asset and liability modeling, economic capital, and Solvency II performed on a single platform with a common set of code. A unique modular structure allows maximum code reuse in a highly accessible manner, helping to ensure all business lines and units within an organization can produce consistent information quickly, at the required level of detail and can capture complex interactions within a group structure.

Algo Financial Modeler has a user-friendly Windows™ interface, with full on-screen help function and documentation for model developers. The natural actuarial programming language of Algo Financial Modeler gives you access to standard mathematical and actuarial functions along with standard features such as dates, characters, flags, arrays, and actuarial tables. Calculation steps are flexible giving the model developer the ability to vary time steps and recalculation frequencies over the projection period and enabling them to choose the appropriate balance between accuracy and run times.

Algo Financial Modeler simplifies the building and understanding of large and complex company models. It is designed to enable complex actuarial models by combining layers of code components to realistically reflect the products, processes, and interactions within an insurance company. Models, enhanced for performance, are created that enable iterative runs, each referencing external data and assumptions. This model can be transferred to the Algo Financial Modeler Enterprise application for management, scheduling, and production of runs.

The modular nature of Algo Financial Modeler means that once you are happy with your code for a specific product, you can use that code in every other calculation across the full range of requirements, Helping to promote quick implementation times and consistency across the business and range of calculations.

Algo Financial Modeler Enterprise allows signed off model executable code from the Algo Financial Modeler development environment to be published to a security-enhanced web server where it can be safely prepared, managed, and scheduled for run using IBM or third-party proprietary grid capabilities. This capability makes Algo Financial Modeler Enterprise a distinct interface for users, totally separate from the modeling environment.

Use of the application requires no prior knowledge of the Algo Financial Modeler development environment. Within the application, users can prepare models for

results creation, including key decisions at run-time without altering the underlying calculations. For instance, users can change the model projection step length, or the external assumptions used within the run. Exposed parameters can be defined as part of the model development process to suit the type of resources utilized within a structured, operational model development and production system.

Once set up, models can be scheduled to run using the Algo Financial Modeler Worker or the proprietary grid systems. Algo Financial Modeler Enterprise also supports a Computing on Demand environment.

To protect the integrity of production models, Algo Financial Modeler Enterprise comes with an integrated security capability so that the production of models can be safeguarded and managed across all users throughout an organization. Access to Algo Financial Modeler Enterprise is managed through customizable user profiles and defined roles and permissions. Any aspect of usage within Algo Financial Modeler Enterprise can be enabled or restricted, giving maximum flexibility for application setup and control to those administering it. The system setup is traceable so the system administrator can monitor activity performed within Algo Financial Modeler Enterprise.

Numerous internal controls and audit features are included within Algo Financial Modeler to verify the production process is auditable and supports Sarbanes-Oxley (SOX) and other IT compliance standards:

- Versioning of models and files
- Model run validations
- Audit compliance
- Full runtime progress and summary log files

Solution packaging - Algo Financial Modeler

IBM Algo Financial Modeler Foundation is designed to be used standalone. You can purchase either Algo Financial Modeler Foundation or Algo Financial Modeler Lite as the base install. Algo Financial Modeler Lite customers can upgrade to the full Algo Financial Modeler Foundation capability by purchasing IBM Algo Financial Modeler trade-up from Algo Financial Modeler Lite. The broader range of chargeable add-ons and solution enhancements are only available with Algo Financial Modeler Foundation.

A package of components supports the requirements for Solvency II to fast track new customer compliance. IBM Algo Economic Capital and Solvency II Compliance and Reporting Edition includes:

- IBM Algo Financial Modeler Foundation
- IBM Algo Financial Modeler Solvency II Model Add-on
- IBM Algo Financial Modeler Enterprise Add-on
- IBM Algo Audit and Compliance

Algo Audit and Compliance

Algo Audit and Compliance is a workflow, governance, and process control application design to support efficient business analytics and reporting in financial services firms. It is used to orchestrate risk and finance processes, roles, and existing IT infrastructure, bringing control and efficiency to data gathering, validation, and processing, resulting in timely, auditable, repeatable, and reliable reports and decision intelligence, based on verified data and approved expert opinion.

Algo Audit and Compliance has built-in integration with Algo Financial Modeler to support insurance Solvency II Standard Formula reporting and compliance. This security-rich and auditable web-based system supports regulatory compliance with Pillar 2 and Pillar 3 of Solvency II by offering insurers the cost-effective capability to integrate and control information from their existing infrastructures. Algo Audit and

Compliance reduces reporting time allowing insurers to focus on risk analysis and their primary business activities by efficiently streamlining workflow.

Algo Audit and Compliance provides financial services firms with outstanding levels of security. Designed to mitigate the risk of critical reporting data being tampered, product features include version control as well as checks and approvals for data use and assumptions. It also offers smooth cost-effective integration with existing infrastructure.

Reporting time is reduced and efficiency is enhanced by streamlining workflow processes. Algo Audit and Compliance enables financial services firms to reduce reporting times, while conforming to governance and reporting requirements, by streamlining workflow production and execution processes.

In addition to Solvency II, Algo Audit and Compliance is designed to support any analytic or reporting processes with actuarial, risk, and finance systems.

Solution packaging - Algo Audit and Compliance

IBM Algo Audit and Compliance is designed for standalone use or with IBM Algo Financial Modeler.

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- IBM Algo Financial Modeler Foundation
- IBM Algo Financial Modeler Solvency II Model Add-on
- IBM Algo Financial Modeler Enterprise Add-on
- IBM Algo Audit and Compliance

IBM Algo Collateral

Algo Collateral enables effective collateral management and risk mitigation for any firm using collateral. Risk mitigation may be performed globally across a large number of counterparties for multiple legal entities. Calculation of margin requirements, communication of margin call to counterparties, and receipt of collateral helps mitigate the underlying exposure on counterparty portfolios. This mandatory market practice in over the counter (OTC) derivatives can also enable increased trading capacity and better pricing, through reduced impact on credit line utilization and reduced capital requirements.

With automation of the collateral management process, Algo Collateral effectively manages collation of data from a wide range of sources, using large volumes of both legal, trading, and market data. Increased automation is required to effectively process ever growing volumes of data. Automated data capture and margin calculation can effectively help manage this data. Communication of margin call requirements and client reporting is also automated via email. The objective of automation is to shorten timeframes, reduce manual effort, and to minimize user error. Automation is the key criteria for choosing a vendor platform. Algo Collateral Operations can successfully automate the collateral process from data collation, to calculation, to client communication, and reporting.

The collateral management process depends on direct interaction with other market counterparties, so a high-level of key market practices are required. Reduced counterparty disputes and shortened operational timeframes provide overall organization confidence. Implementation of key market practices is increasingly being cited by regulators as a requirement in the collateral space, as evidenced by Basel III, ISDA Dispute Protocol, and commitments made to the NY Federal Reserve Bank by the Fed 15 group of banks. Algo Collateral Operations is designed to help firms achieve key market practices. Over the past 14 years, it has evolved to meet the growing market needs.

The OTC market is undergoing significant market reforms, at a pace not seen in the past 15 years. These wide reaching reforms (Dodd Frank, EMIR, Basel III, and MIFID) are placing significant pressure on financial firms of all sizes, in all markets. Reforms are far reaching in terms of internal impact, requiring changes to underlying operational processes and systems. A challenge for all firms is having an ability to follow all reforms and understand their impact on collateral management. The introduction of mandatory OTC clearing of derivatives by Dodd Frank and EMIR causes a significant change to the day-to-day operations for firms using derivatives. There are also impacts on costs and credit exposures as well as impacts on the operational processing of derivatives. Algo Collateral Operations can help support new mandatory clearing of OTC derivatives, both for direct members of CCPs and those who use clearing brokers.

The use of collateral has consistently increased over the last decade. This reflects both a wider use of derivatives and improved risk management. This has increased the underlying collateral volumes firms must manage. The operational burden for collateral managers has been increased by market volatility, creating not only larger volumes of margin calls, but also disputes, reconciliations, and interest payments. To meet the operational burden of growing volumes, firms must achieve scalability. Scalability can help reduce operational costs and is mandatory to support future business growth. The introduction of new market practices increases the operational burden of collateral management, mandating the need for enhanced scalability.

For many firms, traditional collateral management has largely been a manual process. This may have been acceptable in a precredit crisis environment, with small volumes or in emerging markets, but firms are being required, by internal audit departments, to improve the collateral process. This is related to the large volume of manual steps involved, but also due to external client communication and payments, as well as regulatory requirements such as SOX.

Demand for straight through processing is becoming increasingly important for both upstream and downstream data. Examples of frequent data interfaces include front office exposure valuations, risk warehouses, market data providers, and accounting and payment systems (including SWIFT). A three-tier system oriented architecture allows flexible deployment and interaction with other systems.

Solution packaging - IBM Algo Collateral

IBM Algo Collateral Foundation

Provides automated business process management to support the collateral process. The solution supports data collation from internal and market data sources, storage of legal agreements, margin calculation, workflow processing, interest calculation, dispute tracking, inventory management, and reporting. Using a workflow, users are able to mitigate credit and operational risks.

IBM Algo Business Line Add-on

Algo Business Line Add-on describes the type of business a client uses in the Algo Collateral application. Licenses are available for the following business lines:

- OTC
- Repo
- Securities Lending
- OTC Clearing

IBM Algo Reconciliation

Provides an engine to auto-match large portfolio sets in order to support investigation of the margin call dispute process. You can use this to identify mark-to-market and trade booking differences with the capability to manually approve and match transactions.

IBM Algo Collateral Manager

Provides users with a browser-based platform for viewing current collateral requirements and available collateral positions for use to fulfill those requirements. Users are able to create custom data views to focus on specific areas of interest. This data is sourced directly from Algo Collateral and can be enriched with additional data from external sources to provide a view of collateral positions and obligations.

IBM Algo Open Connect

A data transformation platform for automating data integration of third-party systems data and services such as Central Counterparties. It provides adaptors that transform the standard data from these sources into formats to be loaded directly into Algo Collateral.

IBM Algo Management Information Dashboard

A web-based browser providing a platform for viewing management information and key performance indicators related to the collateral process, including workflow, collateral positions, exposures, disputes, system imports and calculations, and underlying collateral agreements. The system can be used to review both current and historical metrics providing a unique oversight of the collateral process.

IBM Algo 3rd Party Service: Client Clearing

Extends usage rights of Algo Collateral beyond that of your business in order to run a clearing service. This enables you to use the software to help support the business process associated with clearing OTC transactions and managing associated collateral as an intermediary on behalf of a client and a Central Counterparty (CCP).

IBM Algo 3rd Party Service: Service Bureau

Extends usage rights of Algo Collateral beyond that of your business in order to run a collateral service bureau. This enables you to use the software, including workflow and reporting, to provide an OTC collateral margining service on behalf of third-party clients.

IBM Algo Self-Service Portal

A web-based browser used to deploy data to both internal and external users to review for interacting with the core collateral management process. This portal allows users to interact with the underlying collateral operations such as margin call workflow, interest, and collateral movements without access to the core system. It may be prepared for an end user to use in their collateral service bureau.

Licensing

You require Algo Collateral Foundation plus at least one Algo Business Line Add-on, but likely two or three. Most users also include Algo Reconciliation. A license for Algo Self-Service Portal is needed when a third-party service bureau is included. Other components are selectable depending your business needs. Some examples include:

Example 1:

- IBM Algo Collateral Foundation
- Algo business line add-on x 2
- IBM Algo Reconciliation

Example 2:

- IBM Algo Collateral Foundation
- Algo business line add-on x 3
- IBM Algo Reconciliation
- IBM Algo Management Information Dashboard

Example 3:

- IBM Algo Collateral Foundation
- Algo business line add-on x 4
- IBM Algo Reconciliation
- IBM Algo Management Information Dashboard
- IBM Algo Open Connect

Example 4:

- IBM Algo Collateral Foundation
- Algo business line add-on x 1
- IBM Algo Reconciliation
- IBM Algo Management Information Dashboard
- IBM Algo 3rd Party Service: Service Bureau
- Third-party service: Service Bureau
- IBM Algo Self-Service Portal

Algo Credit Manager

Foundation

Algo Credit Manager enables financial institutions to manage credit risk and processes over the credit lifecycle. This solution is designed to deliver a *single customer view* providing users a single tool to access relevant credit risk information.

The solution foundation consists of a credit exposure and limits management engine supported by credit-enabled business process management tools that deliver consistent and efficient workflow management and measurement, and the consolidation of credit risk data across banking book and treasury products. User-set limits can be imported or automatically generated in accordance with policy rules and metrics.

Exposure Management

Algo Credit Manager provides a view of consolidated credit risk enterprise wide. Flexible and extensive support for counterparty, facility, limit, and collateral structures within an open interface architecture enables an organization to load, consolidate, and dissect risk across the both banking and trading books.

This solution is designed to tightly interface with your key data sources, such as core banking, transactional and trading systems, and counterparty records. This reduces the administrative burden on users manually collating data from multiple sources and verifies data consistency across the infrastructure. Validation and field restrictions ensure data created or enriched is consistent with policy and downstream system requirements.

Through the use of defined counterparty, the individual exposures of the owning bank and product structures can be aggregated and viewed at any point of a legal structure, as well as wider portfolio views such as industry, country, or business area.

This solution supports multiple risk measures, as well as the ability to compose or calculate new measures using existing risks. Algo Credit Manager applies these risks to limits and facility lines, and calculates excesses and availability. Secured and unsecured risks are generated through the application of collateral at any level of product hierarchy on a one-to-one or many-to-many basis. Support includes both tangible collaterals as well as risk transfers such as guarantees.

Credit Origination and Application management

Incorporating an extensive credit data model, Algo Credit Manager supports the management of singular and structured facility and mitigation agreements while delivering streamlined origination, approval, perfection, and ongoing monitoring. Specific control can be defined for the creation and sanction of counterparty, limit, facility, and mitigant records.

This solution permits incorporating existing credit processes while retaining full flexibility to modify or streamline processes as required. Credit applications can be created directly through the user interface utilizing existing information including the latest exposure and risk measures. Delegated authority and committee approvals help ensure submissions are reviewed and approved by the relevant authority offering control avoiding the restrictive and cumbersome levels of manual oversight. The latest integration of content management software documents can be imported, stored, and created within the application.

Product definition is flexible and supports typical commercial and treasury types including margin lending facilities.

User prompts and notifications help ensure that covenants and conditions are met and necessary steps are completed. Historical records are maintained to provide accountability in decision making processes while reducing the exposure to workarounds outside of approved policies.

Documentation generation and integrated support for documentation management tools reduce dependence on manual form completion and filing. Users can create, store, and retrieve relevant documents directly.

Leveraging records of user tasks and notifications provides management a picture of operating efficiency and measurable indicators of user activity and processing times, including time-to-market for new transactions, as well as the ability to track outcomes during submission and approvals.

Multiple views of results are available through the Algo Credit Manager user interface and may be updated on batch or online basis. Exposure results automatically feed into new and existing credit applications. Triggers can be configured to initiate business process market changes and to effectively allocate limits.

Reporting

Reporting provides valuable insight into portfolio metrics and operating efficiency. The powerful combination of business process management and limit and exposure management provides insight.

Structures and transactions are smoothly created as part of the credit origination and approval processes are used to consolidate risks, from downstream and transactional systems to provide a picture of risks at any level.

Portfolio reports provide picture of risks at the counterparty level and of the complete book. Historical records permit analysis of trends and the impacts of new and rolling-off transactions on portfolio composition, as well as changes to client credit worthiness.

Solution packaging - Algorithmics Credit Lifecycle Management

IBM Algo Credit Manager Foundation - Base

Provides a consolidated view of credit risk exposures across both banking and trading book at points within a customer portfolio hierarchy.

Functions include:

- Capture of credit related static data and creation of counterparty, facility, limit, and mitigation structures.
- Automated generation of risk appetite limits in accordance with policy based metrics.
- Aggregation engine that provides powerful and consistent framework for consolidation of exposures from multiple sources and transaction systems across an organization. Exposure navigation from highest portfolio levels down to individual transaction records.
- Support for mitigation at facility level individually or on a multiple basis.
- Support for mitigation through legal master agreement netting.

IBM Algo Credit Manager Foundation Reporting Library

Requires:

- IBM Algo Credit Manager Foundation - Base
- IBM Cognos® Business Integration

IBM Algo Credit Manager Foundation Reporting Library provides an integrated historical reporting database populated through a proprietary extraction and transformation layer, as well as a Cognos Framework configured over this database for custom report development. A series of standard reports is also provided.

IBM Algo Credit Manager Credit Origination and Application Management

Requires:

- IBM Algo Credit Manager Foundation
- Integration document management and rendering capabilities provided by either IBM FileNet or Documentum. A license is required.

Enhanced process and data controls that build on Algo Credit Manager Foundation deliver support to credit origination and lifecycle management.

Functions:

- Origination and enrichment of credit data beyond that required for consolidation
- Integrated workflow management and control for all aspects of the credit process
- Inbox and reminders support workflow task management
- Data and functional permissioning to ensure user data access
- Automated data validation and decisioning
- Document management with generation and content management available directly from counterparty, limit, facility, mitigant, and application proposal records
 - Automatic document creation from any point in business process
 - Support for multiple rendition template types

IBM Algo Credit Manager Pricing for Profit

Requires:

- IBM Algo Credit Manager Foundation
- IBM Algo Credit Manager Credit Origination and Application Management

Algo Credit Manager Pricing for Profit enables users to generate multiple risk versus reward scenarios at the company, group, or subsidiary level, supporting the credit application approval process for individual and groups of companies.

Functions include:

- Risk Adjusted Return on Capital calculator
- Ability to utilize pricing records for both existing and proposed transactions
- Entity and facility data uploads for selected customer groups
- Creation and saving of multiple future scenarios including assumptions and results to credit applications
- Importing Loss Given Default and Exposure at Default data from external models

IBM Algo Credit Manager Default and Recoveries Management

Requires:

IBM Algo Credit Manager Foundation

IBM Algo Credit Manager Credit Origination and Application Management

Algo Credit Manager Default and Recoveries Management provides support for the management of counterparties and associated facilities, exposures, and mitigants in or near default.

Functional highlights

- Ratings driven automatic classification of watch or impaired, counterparties
- Estimation, timing, amount, and cost of recoveries
- Recording of milestone exposure values for the debtor in recovery for subsequent analysis
- Provisions management
 - Specific provisions are calculated for the Debt in Recovery.
 - Cash flows attached to forecast recoveries are dated and identified as the due dates occur.
 - Two parallel calculation methods, BEEL and IAS39, are configurable. Typically BEEL is used to calculate the specific provisions in the bank financial statements, profit and loss, and balance sheet, while IAS39 is provided as a comparison in the financial statement notes.

Algo Strategic Business Planning

Algo Strategic Business Planning meets a need, identified by the recent financial crisis, for bank senior managers and board members to incorporate a broader range of risk indicators in setting the framework for risk appetite, with the objective of anticipating and controlling possible losses with greater certainty, while promoting overall sustainable growth potential.

Algo Strategic Business Planning offers senior executives a decision support tool that combines a view of bank operations with the ability to stress, forecast, and improve portfolios over a range of possible changes and key risk drivers at the enterprise level. A web-based dashboard interface, designed for ease of use and supported by Algorithmics advanced aggregation and calculation capabilities, Algo Strategic Business Planning facilitates both day-to-day oversight and long-term strategic planning by providing senior managers and decision makers with a holistic overview of their risk and return profile.

Enterprise wide integrated risk and stress testing

Algo Strategic Business Planning allows for combining multiple risk types - each being associated with potential losses. By consolidating data from across geographies and lines of business, management can assess group risk at any level in an organization.

Management can model the potential impact of financial market events (instantaneous shock to interest rates and stock markets) as well as economic measures, such as recession and decline in GDP, unemployment levels, inflation, or house prices, enabling them to assess the negative impact on a bank's capital (buffer against loss) or other key risk indicators under differing levels of severity. Using shock or full recalculation methods Algo Strategic Business Planning enables the assessment of how much stress a bank can afford to take (usually defined by certain measures such as capital or liquidity ratios), and what events could trigger a breach of these levels.

Algo Strategic Business Planning allows management to monitor risk appetite and key risk indicators including capital and liquidity, Economic Capital, and risk adjusted values such as Risk Adjusted Return on Capital.

Risk adjusted performance, forecasting, and optimization of capital

Algo Strategic Business Planning enables banks to make efficient use of their capital by modeling the anticipated returns within their business lines. Management can evaluate different strategies, and identify which are more likely to return stable (for example, acceptable risks), healthy returns required by the stakeholders. The measure used is generally Economic Capital (EC). The Analytic Credit VaR model is calibrated and used in the projections and full EC is recalculated for each time step. The projected growth rates for each analysis level are captured as annualized percentage or directly from bank forecasts.

Combining balance sheet forecasts with risk estimation and the potential impacts of longer term econometric stress tests to project future expectations (such as GDP), banks can assess longer term impact on profitability and capital measures.

Back-testing helps ensure projections correlate well to past performance and a range of confidence levels are provided.

Regulation

Algo Strategic Business Planning enables management to assess the impact of macroeconomic stress testing and reverse stress testing required by banks or regulatory agencies, supporting the methods required by large banks and undertaken by the US Fed CCAR stress tests, FR-Y14 reports and European Banking Authority.

Banks are now required to create Resolution and Recovery Plans, generally known as Living Wills, which assess measures to survive a major economic downturn with plans and planned actions to provide an orderly windup of the business or selected business lines.

Algo Strategic Business Planning enables management to model the impact of the complete removal of a department, business line, or region. These projections provide expected survival scenarios for the remaining units.

Solution packaging - Algo Strategic Business Planning

Algo Strategic Business offers you one user license.

Algo Strategic Business Enterprise Edition offers you unlimited users.

Accessibility by people with disabilities

A US Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be requested at

http://www.ibm.com/able/product_accessibility/index.html

Reference information

For information about IBM Algo On-Premise offerings, refer to Software Announcement [212-410](#), dated October 02, 2012 .

For information about IBM Algo Cloud offerings, refer to Software Announcement [212-411](#), dated October 02, 2012 .

Program number

Program number	VRM	Program name
5725-H46	2.1.0	IBM Algo Financial Modeler
5725-H47	2.1.0	IBM Algo Audit and Compliance
5725-H48	5.2.0	IBM Algo Collateral
5725-H49	5.1.0	IBM Algo Credit Manager
5725-H50	1.2.0	IBM Algo Strategic Business Planning

Education support

For education information, visit

<http://www-304.ibm.com/jct03001c/services/learning/ites.wss/us/en?pageType=page&c=U431952F76355G56>

Offering Information

Product information is available via the Offering Information website

<http://www.ibm.com/common/ssi>

Also, visit the Passport Advantage® website

<http://www.ibm.com/software/passportadvantage>

Publications

Product documentation will be provided as part of the software install.

Specified operating environment

Hardware and software requirements

Algo Financial Modeler

Algo Financial Modeler Enterprise

- Processor: 1 GHz or faster x86 32-bit or x64 64-bit
- Memory: 1GB RAM for 32-bit or 2 GB RFA for 64-bit
- Hard disk space: 50 MB for Algo Financial Modeler Enterprise and accompanying software
- Screen: 1024 x 768, 16-bit/65536 colors
- Microsoft™ .Net Framework 2.0 or 4.0

IBM Algo Financial Modeler Foundation

Prerequisite: Microsoft Excel (optional)

Operating systems: One of the following:

- Microsoft Windows XP 32-bit Professional (SP3)
- Windows Server 2003 (R2) 32-bit (SP2)
- Windows Server 2003 (R2) 64-bit (SP2)
- Windows Vista 32-bit Business (SP2) or Windows Vista 32-bit Enterprise (SP2)
- Windows Server 2008 32-bit (SP2)
- Windows Server 2008 64-bit (SP2)
- Windows Server 2008 64-bit R2 (SP1)
- Windows 7 32-bit Professional (SP1) or Windows 7 32-bit Enterprise (SP1)
- Windows 7 64-bit Professional (SP1) or Windows 7 64-bit Enterprise (SP1)

Microsoft Office software:

- Microsoft Office Excel 2003 (SP3)
- Microsoft Office Excel 2007 (SP3)
- Microsoft Office Excel 2010 (SP1)
- Microsoft Office Access 2003 (SP3)
- Microsoft Office Access 2007 (SP3)
- Microsoft Office Access 2010 (SP1)

IBM Algo Financial Modeler Enterprise Add-on

Prerequisites:

- IBM Algo Financial Modeler Foundation
- SQL Server

Operating systems: One of the following:

- Windows Server 2003 (R2) 32-bit (SP2)
- Windows Server 2008 32-bit (SP2)
- Windows Server 2008 64-bit (SP2)
- Windows Server 2008 64-bit R2 (SP1)

Databases: One of the following:

- Microsoft SQL Server 2005
- Microsoft SQL Server 2008
- Microsoft SQL Server 2008 R2
- Microsoft SQL Server 2012

Algo Audit and Compliance

Prerequisites:

- Hardware requirements - minimum
 - Processor: x84 32-bit or x64 64-bit - 1 GHz
 - RAM: 1 GB (32-bit) or 2 GB (64-bit)
 - Storage: 500 MB for Algo Audit and Compliance with accompanying software
 - Display screen: 1024 x 768, 16-bit, 65536 colors
- Hardware requirements - recommended
 - Processor: Multi-core, 2 GHz or higher
 - RAM: 4 GB or higher
 - Display screen: 1280 x 1024, 1440 x 900, or higher
- Software requirements
 - Prerequisites:
 - IBM Algo Financial Modeler Foundation (optional)
 - IBM Algo Financial Modeler Enterprise Add-on (optional)
 - Microsoft SQL Server or Oracle 9
 - Data Stage (optional)
 - Microsoft Excel (optional)

Operating systems: One of the following:

- Microsoft Windows Server 2003 R2 32-bit (SP2)
- Windows Server 2003 R2 64-bit (SP2)
- Windows Server 2008 32-bit (SP2)
- Windows Server 2008 64-bit (SP2)
- Windows Server 2008 64-bit R2 (SP1)

Databases: One of the following:

- Microsoft SQL Server 2005
- Microsoft SQL Server 2008
- Microsoft SQL Server 2008 R2
- Microsoft SQL Server 2012
- Oracle 9i, or higher

Apache Tomcat 6.0 or higher

IBM WebSphere® Application Server V6.1 or later

Java™ 5, or higher JVM

Algo Collateral

Client: One of the following:

- Microsoft Windows 7
- Microsoft Vista
- .Net 4.0
- Report Viewer

Database: One of the following:

- Oracle 10 or 11
- SQL Server 2005 or 2008

Application Server: One of the following:

- Microsoft Windows 2003 sp2 or 2008
- Microsoft .Net 2.0
- Microsoft .Net 4.0
- Report Viewer
- Azman
- ADAM
- MSMQ
- IIS enabled

Algo Credit Manager

Red Hat Linux™

- Hardware requirements - Application server (minimum)
 - Processor: 16 cores, 32 threads (Intel™ 64 or AMD64 architecture)
 - RAM: 96 GB
 - Storage: 320 GB
- Hardware requirements - Database server (minimum)
 - Processor: 8 cores, 16 threads (Intel 64 or AMD64 architecture)
 - RAM: 32 GB
 - Storage: 320 GB
- Software requirements (minimum)
 - Application server: Red Hat Enterprise Server Linux 6.1
 - Database server: Oracle 11G Enterprise Edition R2 11.2.0.2 running with Red Hat Enterprise Server Linux 5.7
 - Content management: One of the following (optional):
 - IBM FileNet P8 V5.1.0
 - EMC Documentum 6.7 SP1 (requires 32-bit client library)
 - Windows desktop: Windows 7 64 bit
 - Browser: Microsoft Internet Explorer 8 or 9
 - Messaging middleware: One of the following (optional):
 - IBM WebSphere MQ V7.1.0.1
 - Glassfish MQ V4.5.2
 - IBM WebSphere Application Server V7.0 (recommended)

Algo Credit Manager Foundation Library

Red Hat Linux

- Hardware requirements - Application server (minimum)
 - Processor: x86 or x64
 - RAM: 4 GB
 - Storage: 7 GB
- Software requirements (minimum)
 - Operating system: Red Hat Enterprise Server Linux 4, 5, or 6
 - Database: Oracle 10G or 11G
 - Business integration: one of the following:
 - IBM Cognos Business Intelligence V10.1.1
 - Business Objects Enterprise XI 3.1 SP5
 - Java Development Kit 1.6

Solaris

- Hardware requirements - Application server (minimum)
 - Processor: SPARC 64 1 x 2.0 GHz DCP
 - RAM: 4 GB
 - Storage: 7 GB
- Software requirements (minimum)
 - Operating system: Solaris 9, 10, or 11
 - Database: Oracle 10G or 11G
 - Business integration: one of the following:
 - IBM Cognos Business Intelligence V10.1.1
 - Business Objects Enterprise XI 3.1 SP5
 - Java Development Kit 1.6

POWER®

- Hardware requirements - Application server (minimum)
 - Processor: POWER
 - RAM: 4 GB
 - Storage: 7 GB
- Software requirements (minimum)
 - Operating system: AIX® 5, 6, or 7
 - Database: Oracle 10G or 11G
 - Business integration: one of the following:
 - IBM Cognos Business Intelligence V10.1.1.
 - Business Objects Enterprise XI 3.1 SP5
 - Java Development Kit 1.6

Algo Strategic Business Planning

Red Hat Linux

- Hardware requirements - Application server (minimum)
 - Processor: x86 or x64
 - RAM: 8 GB
 - Storage: 12 GB

- Software requirements (minimum)
 - Operating system: Red Hat Enterprise Server Linux 4, 5, or 6
 - Database: Oracle 10G or 11G
 - Business integration: one of the following:
 - IBM Cognos Business Intelligence V10.1.1.
 - Business Objects Enterprise XI 3.1 SP5
 - Java Development Kit 1.6

Solaris

- Hardware requirements - Application server (minimum)
 - Processor: SPARC 64
 - RAM: 8 GB
 - Storage: 12 GB
- Software requirements (minimum)
 - Operating system: Solaris 9, 10, or 11
 - Database: Oracle 10G or 11G
 - Business integration: one of the following:
 - IBM Cognos Business Intelligence V10.1.1.
 - Business Objects Enterprise XI 3.1 SP5
 - Java Development Kit 1.6

POWER

- Hardware requirements - Application server (minimum)
 - Processor: POWER
 - RAM: 8 GB
 - Storage: 12 GB
- Software requirements (minimum)
 - Operating system: AIX 5, 6, or 7
 - Database: Oracle 10G or 11G
 - Business integration: one of the following:
 - IBM Cognos Business Intelligence V10.1.1.
 - Business Objects Enterprise XI 3.1 SP5
 - Java Development Kit 1.6

Software requirements

The program's specifications and specified operating environment information may be found in documentation accompanying the program, if available, such as a README file, or other information published by IBM, such as an announcement letter. Documentation and other program content may be supplied only in the English language.

Planning information

Installability

Software Subscription and Support (also referred to as Software Maintenance) is included with licenses purchased through Passport Advantage and Passport Advantage Express®. Product upgrades and technical support are provided by the Software Subscription and Support (Software Maintenance) offering as described in the Agreements. Product upgrades provide the latest versions and releases to entitled software, and technical support provides access to IBM support organizations, worldwide.

IBM includes one year of Software Subscription and Support (also referred to as Software Maintenance) with each program license acquired. The initial period of Software Subscription and Support (Software Maintenance) can be extended by the purchase of a renewal option, if available.

Packaging

The following media packs are available:

IBM Algo Financial Modeler (5725-H46)

- IBM Algo Financial Modeler Foundation V2.1
- IBM Algo Financial Modeler Toolkit Add-on V2.1
- IBM Algo Financial Modeler Grid Connector Add-on V2.1
- IBM Algo Financial Modeler Standard Model Add-on V2.1
- IBM Algo Financial Modeler Solvency II Model Add-on V2.1
- IBM Algo Financial Modeler Enterprise Add-on for Non-Production Environment V2.1
- IBM Algo Financial Modeler Lite V2.1

IBM Algo Audit and Compliance (5725-H47)

- IBM Algo Audit and Compliance V1.0
- IBM Algo Audit and Compliance for Non-Production Environment

IBM Algo Collateral (5725-H48)

- IBM Algo Collateral Foundation V5.2
- IBM Algo Collateral Third Party Service Provider Self-Service Portal Option V5.2
- IBM Algo Collateral Open Connect Add-on V5.2
- IBM Algo Collateral Reconciliation Add-on V5.2
- IBM Algo Collateral Manager Add-on V5.2
- IBM Algo Collateral Management Information Dashboard Add-on V5.2

IBM Algo Credit Manager (5725-H49)

- IBM Algo Credit Manager V5.1
- IBM Algo Credit Manager Reporting V5.1
- IBM Algo Credit Manager V5.1

IBM Algo Strategic Business Planning (5725-H50)

- IBM Algo Strategic Business Planning V1.2

This program, when downloaded from a website, contains the applicable IBM license agreement and License Information, if appropriate, and will be presented for acceptance at the time of installation of the program. For future reference, the license and License Information will be stored in a directory such as LICENSE.TXT.

Software Services

IBM Software Services has the breadth, depth, and reach to manage your services needs. You can leverage the deep technical skills of our lab-based, software services team and the business consulting, project management, and infrastructure expertise of our IBM Global Services team. Also, we extend our IBM Software Services reach through IBM Business Partners to provide an extensive portfolio of capabilities. Together, we provide the global reach, intellectual capital, industry insight, and technology leadership to support a wide range of critical business needs.

To learn more about IBM Software Services or to contact a Software Services sales specialist, visit

<http://www.ibm.com/software/sw-services/>

Ordering information

This product is only available via Passport Advantage . It is not available as shrinkwrap.

Product group: Algo
Product Identifier Description (PID)
IBM Algo One Enterprise 5724-H42

Product category: Customer solutions

Charge metric

Program name	PID number	Charge metric
IBM Algo Financial Modeler	5725-H46	Authorized user Per Value unit
IBM Algo Audit and Compliance	5725-H47	Per Value unit
IBM Algo Collateral	5725-H48	Resource Value unit Connection
IBM Algo Credit Manager	5725-H49	Currency Value unit Authorized user
IBM Algo Strategic Business Planning	5725-H50	Currency Value unit Authorized user

Authorized User

Authorized User is a unit of measure by which the program can be licensed. An Authorized User is a unique person who is given access to the program. The program may be installed on any number of computers or servers and each Authorized User may have simultaneous access to any number of instances of the program at one time. Licensee must obtain separate, dedicated entitlements for each Authorized User accessing the program in any manner directly or indirectly (for example, via a multiplexing program, device, or application server) through any means. An entitlement for an Authorized User is unique to that Authorized User and may not be shared, nor may it be reassigned other than for the permanent transfer of the Authorized User entitlement to another person.

Note: Some programs may be licensed where devices are considered users. In that case, the following applies. Any computing device that requests the execution of or receives for execution a set of commands, procedures, or applications from the program or that is otherwise managed by the program is considered a separate user of the program and requires an entitlement as if that device were a person.

Connection is a unit of measure by which the Program can be licensed. A Connection is a link or association of a database, application, server, or any other type of device to the program. Licensee must obtain entitlements for the total number of Connections which have been or are made to the Program.

Currency Value Unit

Currency Value Unit (CVU) is a unit of measure by which the program can be licensed. A conversion unit (CU) is a currency independent measure of monetary amounts relevant to the licensing of the program. Currency specific monetary amounts must be converted into CUs in accordance with the table located at

http://www.ibm.com/software/licensing/conversion_unit_table

The CUs are then divided by the designated measure of the program to obtain the resulting units for which licensee must obtain sufficient CVU entitlements, as

specified in the table below. CVU entitlements are specific to the program and may not be exchanged, interchanged, or aggregated with CVU entitlements of another program.

- From 1 to 2 CU, 1.00 CVUs per CU
- From 3 to 5 CUs, 2 CVUs plus 0.90 CVUs per CU above 2
- From 6 to 10 CUs, 4.7 CVUs plus 0.80 CVUs per CU above 5
- From 11 to 20 CUs, 8.7 CVUs plus 0.70 CVUs per CU above 10
- From 21 to 35 CUs, 15.7 CVUs plus 0.60 CVUs per CU above 20
- From 36 to 50 CUs, 24.7 CVUs plus 0.45 CVUs per CU above 35
- For more than 50 CUs, 31.45 CVUs plus 0.30 CVUs per CU above 50

IBM Algo Strategic Business Planning and IBM Algo Strategic Business Planning Enterprise Edition use the Currency Value Unit pricing metric.

The Currency Value Unit pricing metric for IBM Algo Credit Manager is:

The Monetary Amount is the maximum amount of **balance sheet assets** processed or managed by the program at any time. The designated measure is **one hundred billion** (10 to the 11th power) CUs.

The IBM Algo Credit Manager components are:

- IBM Algo Credit Manager Foundation
- IBM Algo Credit Manager Foundation Reporting Library Add-on
- IBM Algo Credit Manager Pricing for Profit Add-on
- IBM Algo Credit Manager Default and Recoveries Management Add-on

IBM Algo Strategic Business Planning uses the following Currency Value Unit pricing metric:

The Monetary Amount is the maximum amount of **balance sheet assets** processed or managed by the program at any time. The designated measure is **ten billion** (10 to the 10th power) CUs.

Resource Value Unit (RVU) - Applicable to

- IBM Algo Collateral
 - IBM Algo Collateral Foundation
 - IBM Algo Collateral Reconciliation Add-On
 - IBM Algo Collateral Collateral Manager Add-On
 - IBM Algo Collateral Management Information Dashboard Add-On

The resources for the purpose of RVU calculation are Documents. A Document is defined as a finite volume of data that is enveloped within a document header and trailer record that marks its beginning and end or any physical or electronic document as defined in the program, including but not limited to: invoices, sales orders, purchase orders, quotes, schedules, plans, returns, shipments, receipts, and financial instruments.

Resource Value Unit conversion table

- From 1,000 to 10,000 Resources, 1.00 RVU per Resource
- From 10,001 to 50,000 Resources, 10,000 RVUs plus 0.87 RVUs per Resource above 10,000
- From 50,001 to 100,000 Resources, 44,800 RVUs plus 0.60 RVUs per Resource above 50,000
- From 100,001 to 500,000 Resources, 74,800 RVUs plus 0.43 RVUs per Resource above 100,000
- From 500,001 to 1,000,000 Resources, 246,800 RVUs plus 0.30 RVUs per Resource above 500,000

For more than 1,000,000 Resources, 396,800 RVUs plus 0.24 RVUs per Resource above 1,000,000

Processor Value unit - Applicable to

- IBM ALgo Financial Modeler Enterprise
- IBM ALgo Audit and Compliance

Processor Value Unit (PVU) is a unit of measure by which the Program can be licensed. The number of PVU entitlements required is based on the processor technology (defined within the PVU Table by Processor Vendor, Brand, Type and Model Number at

http://www.ibm.com/software/lotus/passportadvantage/pvu_licensing_for_customers.html

The PVU entitlement is determined by the processor technology and the number of processors made available to the Program. IBM continues to define a processor, for the purpose of PVU-based licensing, to be each processor core on a chip. A dual-core processor chip, for example, has two processor cores.

Licensee can deploy the Program using either Full Capacity licensing or Virtualization Capacity (Sub-Capacity) licensing according to the Passport Advantage Sub-Capacity Licensing Terms (see webpage below). If using Full Capacity licensing, Licensee must obtain PVU entitlements sufficient to cover all activated processor cores* in the physical hardware environment made available to or managed by the Program, except for those servers from which the Program has been permanently removed. If using Virtualization Capacity licensing, Licensee must obtain entitlements sufficient to cover all activated processor cores made available to or managed by the Program, as defined according to the Virtualization Capacity License Counting Rules at

http://www.ibm.com/software/lotus/passportadvantage/Counting_Software_licenses_using_specific_virtualization_technologies.html

* An Activated processor core is a processor core that is available for use in a physical or virtual server, regardless of whether the capacity of the processor core can be or is limited through virtualization technologies, operating system commands, BIOS settings, or similar restrictions.

In addition to the entitlements required for the Program directly, Licensee must obtain PVU entitlements for this Program sufficient to cover the processor cores for the systems on which the resources managed or processed by the Program reside.

Cumulative Entitlements

Authorized User and Currency Value Unit (CVU) entitlements are not alternative means for licensing the Program. Licensee must obtain sufficient Authorized User entitlements to cover the users of the Algo Strategic Business Planning program as well as the appropriate number of Currency Value Unit (CVU) entitlements for the Algo Strategic Business Planning program.

Passport Advantage

Program name/Description	Part number
IBM Algo Financial Modeler (5725-H46)	
IBM Algo Financial Modeler Foundation per Authorized User	
- License and Subscription & Support 12 Mo	D0UP3LL
- Subscription & Support Renewal 12 Mo	E0F01LL
- Subscription & Support Reinstatement 12 Mo	D0UP4LL
- License and Subscription & Support 12 Mo	D0UTKLL
Trade up from IBM Algo Financial Modeler Lite	

IBM Algo Financial Modeler Toolkit Add-on per Value unit	
- License and Subscription & Support 12 Mo	D0UNZLL
- Subscription & Support Renewal 12 Mo	E0EZZLL
- Subscription & Support Reinstatement 12 Mo	D0UP0LL
IBM Algo Financial Modeler Grid Connector Add-on per Authorized user	
- License and Subscription & Support 12 Mo	D0UNXLL
- Subscription & Support Renewal 12 Mo	E0EZYLL
- Subscription & Support Reinstatement 12 Mo	D0UNYLL
IBM Algo Financial Modeler Standard Model Add-on per Authorized User	
- License and Subscription & Support 12 Mo	D0UPLLL
- Subscription & Support Renewal 12 Mo	E0F0ALL
- Subscription & Support Reinstatement 12 Mo	D0UPMLL
IBM Algo Financial Modeler Solvency II Model Add-on per Authorized User	
- License and Subscription & Support 12 Mo	D0UPQLL
- Subscription & Support Renewal 12 Mo	E0F0CLL
- Subscription & Support Reinstatement 12 Mo	D0UPRLL
IBM Algo Financial Modeler Enterprise Add-on per Value Unit	
- License and Subscription & Support 12 Mo	D0UQKLL
- Subscription & Support Renewal 12 Mo	E0F0SLL
- Subscription & Support Reinstatement 12 Mo	D0UQLLL
IBM Algo Financial Modeler Enterprise Add-on for Non-Production Environment per Value unit	
- License and Subscription & Support 12 Mo	D0UQILL
- Subscription & Support Renewal 12 Mo	E0F0RLL
- Subscription & Support Reinstatement 12 Mo	D0UQJLL
IBM Algo Financial Modeler Lite per Value unit	
- License and Subscription & Support 12 Mo	D0UQGLL
- Subscription & Support Renewal 12 Mo	E0F0QLL
- Subscription & Support Reinstatement 12 Mo	D0UQHLL
IBM Algo Audit and Compliance (5725-H47)	
IBM Algo Audit and Compliance per Value unit	
- License and Subscription & Support 12 Mo	D0UQELL
- Subscription & Support Renewal 12 Mo	E0F0PLL
- Subscription & Support Reinstatement 12 Mo	D0UQFLL
IBM Algo Audit and Compliance for Non-Production Environment per Value unit	
- License and Subscription & Support 12 Mo	D0UQALL
- Subscription & Support Renewal 12 Mo	E0F0MLL
- Subscription & Support Reinstatement 12 Mo	D0UQBLL
IBM Algo Collateral (5725-H48)	
IBM Algo Collateral Foundation per Resource Value unit	
- License and Subscription & Support 12 Mo	D0UQ8LL
- Subscription & Support Renewal 12 Mo	E0F0LLL
- Subscription & Support Reinstatement 12 Mo	D0UQ9LL
IBM Algo Collateral Business Lines Add-on per Connection	
- License and Subscription & Support 12 Mo	D0UQ4LL
- Subscription & Support Renewal 12 Mo	E0F0JLL
- Subscription & Support Reinstatement 12 Mo	D0UQ5LL
IBM Algo Collateral Third Party Service Provider Add-on for Client Clearing per Connection	
- License and Subscription & Support 12 Mo	D0UQ2LL
- Subscription & Support Renewal 12 Mo	E0F0ILL
- Subscription & Support Reinstatement 12 Mo	D0UQ3LL

IBM Algo Collateral Third Party Service Provider	
Add-on for Service Bureau per Connection	
- License and Subscription & Support 12 Mo	D0UPYLL
- Subscription & Support Renewal 12 Mo	E0F0GLL
- Subscription & Support Reinstatement 12 Mo	D0UPZLL
IBM Algo Collateral Third Party Service Provider	
Self-Service Portal Option per Connection	
- License and Subscription & Support 12 Mo	D0UPWLL
- Subscription & Support Renewal 12 Mo	E0F0FLL
- Subscription & Support Reinstatement 12 Mo	D0UPXLL
IBM Algo Collateral Open Connect Add-on per Connection	
- License and Subscription & Support 12 Mo	D0UPULL
- Subscription & Support Renewal 12 Mo	E0F0ELL
- Subscription & Support Reinstatement 12 Mo	D0UPVLL
IBM Algo Collateral Reconciliation Add-on per Resource value unit	
- License and Subscription & Support 12 Mo	D0ULZLL
- Subscription & Support Renewal 12 Mo	E0EYZLL
- Subscription & Support Reinstatement 12 Mo	D0UM0LL
IBM Algo Collateral Collateral Manager Add-on	
per Resource Value unit	
- License and Subscription & Support 12 Mo	D0ULCLL
- Subscription & Support Renewal 12 Mo	E0EYNLL
- Subscription & Support Reinstatement 12 Mo	D0ULDLL
IBM Algo Collateral Management Information Dashboard Add-on	
per Resource value unit	
- License and Subscription & Support 12 Mo	D0UQ0LL
- Subscription & Support Renewal 12 Mo	E0F0HLL
- Subscription & Support Reinstatement 12 Mo	D0UQ1LL
IBM Algo Credit Manager (5725-H49)	
IBM Algo Credit Manager Foundation per Currency Value unit	
- License and Subscription & Support 12 Mo	D0UQ6LL
- Subscription & Support Renewal 12 Mo	E0F0KLL
- Subscription & Support Reinstatement 12 Mo	D0UQ7LL
IBM Algo Credit Manager Foundation Reporting Library Add-on	
per Currency Value unit	
- License and Subscription & Support 12 Mo	D0UQCLL
- Subscription & Support Renewal 12 Mo	E0F0NLL
- Subscription & Support Reinstatement 12 Mo	D0UQDLL
IBM Algo Credit Manager Credit Origination and Application	
Management Base per Authorized user	
- License and Subscription & Support 12 Mo	D0UPSLL
- Subscription & Support Renewal 12 Mo	E0F0DLL
- Subscription & Support Reinstatement 12 Mo	D0UPTLL
IBM Algo Credit Manager Credit Origination App Mgmt workflow	
Add-on per Authorized user	
- License and Subscription & Support 12 Mo	D0UP1LL
- Subscription & Support Renewal 12 Mo	E0F00LL
- Subscription & Support Reinstatement 12 Mo	D0UP2LL
IBM Algo Credit Manager Pricing for Profit Add-on	
per Currency Value unit	
- License and Subscription & Support 12 Mo	D0UPDLL
- Subscription & Support Renewal 12 Mo	E0F06LL
- Subscription & Support Reinstatement 12 Mo	D0UPELL
IBM Algo Credit Manager Default and Recoveries Management Add-on	
per Currency Value unit	
- License and Subscription & Support 12 Mo	D0UPJLL
- Subscription & Support Renewal 12 Mo	E0F09LL
- Subscription & Support Reinstatement 12 Mo	D0UPKLL

IBM Algo Strategic Business Planning (5725-H50)	
IBM Algo Strategic Business Planning per Currency value unit	
- License and Subscription & Support 12 Mo	D0UQMLL
- Subscription & Support Renewal 12 Mo	E0F0TLL
- Subscription & Support Reinstatement 12 Mo	D0UQNLL
IBM Algo Strategic Business Planning per Authorized user	
- License and Subscription & Support 12 Mo	D0UR5LL
- Subscription & Support Renewal 12 Mo	E0F12LL
- Subscription & Support Reinstatement 12 Mo	D0UR6LL
IBM Algo Strategic Business Planning Enterprise Edition per Currency Value unit	
- License and Subscription & Support 12 Mo	D0UQVLL
- Subscription & Support Renewal 12 Mo	E0F0XLL
- Subscription & Support Reinstatement 12 Mo	D0UQWLL

Media packs

Passport Advantage customer: Media pack entitlement details

Customers with active maintenance or subscription for the products listed are entitled to receive the corresponding media pack.

Media packs description	Part number
IBM Algo Financial Modeler (5725-H46)	
IBM Algo Financial Modeler Foundation V2.1	B5009EN
IBM Algo Financial Modeler Toolkit Add-on V2.1	B500AEN
IBM Algo Financial Modeler Grid Connector Add-on V2.1	B500BEN
IBM Algo Financial Modeler Standard Model Add-on V2.1	B500CEN
IBM Algo Financial Modeler Solvency II Model Add-on V2.1	B500DEN
IBM Algo Financial Modeler Enterprise Add-on V2.1	B500EEN
IBM Algo Financial Modeler Enterprise Add-on for Non-Production Environment V2.1	B500FEN
IBM Algo Financial Modeler Lite V2.1	B500GEN
IBM Algo Audit and Compliance (5725-H47)	
IBM Algo Audit and Compliance V2.1	B500HEN
IBM Algo Audit and Compliance V2.1 for Non-Production Environment	B501VEN
IBM Algo Collateral (5725-H48)	
IBM Algo Collateral Foundation V5.2	B5002EN
IBM Algo Collateral Third Party Service Provider Self-Service Portal Option V5.2	B5003EN
IBM Algo Collateral Open Connect Add-on V5.2	B5004EN
IBM Algo Collateral Reconciliation Add-on V5.2	B5005EN
IBM Algo Collateral Collateral Manager Add-on V5.2	B5006EN
IBM Algo Collateral Management Information Dashboard Add-on V5.2	B5007EN
IBM Algo Credit Manager (5725-H49)	
IBM Algo Credit Manager V5.1	B500JEN
IBM Algo Credit Manager Foundation Reporting Library Add-on V5.1	B500KEN
IBM Algo Strategic Business Planning (5725-H50)	
IBM Algo Strategic Business Planning V1.2	B500MEN

Terms and conditions

The information provided in this announcement letter is for reference and convenience purposes only. The terms and conditions that govern any transaction with IBM are contained in the applicable contract documents such as the IBM International Program License Agreement, IBM International Passport Advantage Agreement, and the IBM Agreement for Acquisition of Software Maintenance.

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License Information form number

L-JCOS-8VARR9: IBM Algo Collateral Foundation
L-SWOG-8W2HC5: IBM Algo Audit and Compliance
L-SWOG-8VMRRG: IBM Algo Financial Modeler
L-LASY-8VNHX4: IBM Algo Credit Manager
L-EENH-8VARTN: IBM Algo Strategic Business Planning

The program's License Information will be available for review on the IBM Software License Agreement website

<http://www.ibm.com/software/sla/sladb.nsf>

Limited warranty applies

Yes

Limited warranty

IBM warrants that when the program is used in the specified operating environment, it will conform to its specifications. The warranty applies only to the unmodified portion of the program. IBM does not warrant uninterrupted or error-free operation of the program or that IBM will correct all program defects. You are responsible for the results obtained from the use of the program.

IBM provides you with access to IBM databases containing information on known program defects, defect corrections, restrictions, and bypasses at no additional charge. For further information, consult the IBM Software Support Handbook found at

<http://www.ibm.com/support/handbook>

IBM will maintain this information for at least one year after the original licensee acquires the program (warranty period).

Program technical support

Technical support of a program product version or release will be available for a minimum of three years from the general availability date, as long as your Software Subscription and Support (also referred to as Software Maintenance) is in effect. This technical support allows you to obtain assistance (via telephone or electronic means) from IBM for product-specific, task-oriented questions regarding the installation and operation of the program product. Software Subscription and Support (Software Maintenance) also provides you with access to updates (modifications or fixes), releases, and versions of the program. You will be notified, via announcement letter, of discontinuance of support with 12 months' notice. If you require additional technical support from IBM, including an extension of support beyond the discontinuance date, contact your IBM representative or IBM Business Partner. This extension may be available for a fee.

Money-back guarantee

If for any reason you are dissatisfied with the program and you are the original licensee, you may obtain a refund of the amount you paid for it, if within 30 days of your invoice date you return the program and its PoE to the party from whom you obtained it. If you downloaded the program, you may contact the party from whom you acquired it for instructions on how to obtain the refund.

For clarification, note that (1) for programs acquired under the IBM International Passport Advantage offering, this term applies only to your first acquisition of the program and (2) for programs acquired under any of IBM's On/Off Capacity on Demand (On/Off CoD) software offerings, this term does not apply since these offerings apply to programs already acquired and in use by you.

Volume orders (IVO)

No

Passport Advantage applies

Yes, and through the Passport Advantage website at

<http://www.ibm.com/software/passportadvantage>

Usage restriction

Yes

For additional information, refer to the License Information document that is available on the IBM Software License Agreement website

<http://www.ibm.com/software/sla/sladb.nsf>

Software Subscription and Support applies

Yes. Software Subscription and Support (also referred to as Software Maintenance) is included with licenses purchased through Passport Advantage and Passport Advantage Express. Product upgrades and Technical Support are provided by the Software Subscription and Support offering as described in the Agreements. Product upgrades provide the latest versions and releases to entitled software and Technical Support provides access to IBM support organizations, worldwide.

IBM includes one year of Software Subscription and Support with each program license acquired. The initial period of Software Subscription and Support can be extended by the purchase of a renewal option, if available.

While your Software Subscription and Support is in effect, IBM provides you assistance for your routine, short duration installation and usage (how-to) questions, and code-related questions. IBM provides assistance via telephone and, if available, electronic access, only to your information systems (IS) technical support personnel during the normal business hours (published prime shift hours) of your IBM support center. (This assistance is not available to your end users.) IBM provides Severity 1 assistance 24 hours a day, 7 days a week. For additional details, consult your IBM Software Support Handbook at

<http://www.ibm.com/support/handbook>

Software Subscription and Support does not include assistance for the design and development of applications, your use of programs in other than their specified operating environment, or failures caused by products for which IBM is not responsible under the applicable agreements.

For additional information about the International Passport Advantage Agreement and the IBM International Passport Advantage Express Agreement, visit the Passport Advantage website at

<http://www.ibm.com/software/passportadvantage>

Other support

Passport Advantage

System i Software Maintenance applies

No

Variable charges apply

No

Educational allowance available

Not applicable.

Statement of good security practices

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