Product Announcement

Alfabet 10.9

ABOUT SOFTWARE AG

Software AG reimagines integration, sparks business transformation and enables fast innovation on the Internet of Things so that organizations can pioneer differentiating business models. We give you the freedom to connect and integrate any technology, from app to edge. We help free data from silos so it's shareable, usable and powerful—enabling you to make the best decisions and unlock entirely new possibilities for growth. To learn more, visit www.softwareag.com.

Introduction

The current business environment is being driven by digitalization and disruption. These two interdependent forces create the need for more application and data integration, adaptable funding for IT, agile decision-making, and business stakeholder involvement. Alfabet 10.9 provides new capabilities, enhancements and product architecture changes that target these demands. New integrations with webMethods Integration Server and Apptio for IT Finance Management further Alfabet's already extensive third-party integrations to add information on portfolios and the architecture landscape. A new AlfaBot intent allows users to ask qualitative questions about the portfolio to derive needed answers faster. A considerable amount of product development on release 10.9 has gone into ensuring performant and scalable processing via the product architecture to meet the requirements of enterprise-scale business transformation in the years to come. Here are the highlights of Alfabet 10.9:

- **Integration with webMethods Integration Server:** Capture design- and run-time information from webMethods in Alfabet for a structural understanding of the integration landscape. Assess, plan, and optimize application and data integrations using Alfabet's broad portfolio assessment capabilities.
- **Integration with Apptio for IT Finance Management:** In Apptio, use this bi-directional integration to better understand costs relating to the enterprise landscape in terms of business capabilities, applications, technologies, services, and projects. In Alfabet, be better equipped for cost-centered IT portfolio assessments.
- **Data Capture Template for Cost Information:** Use the new cost-based data capture template to capture actual and planned costs of various cost types for accurate budgeting of applications, deployments, and ICT objects.
- **AlfaBot Qualitative Analysis Intent:** Ask the AlfaBot questions on various qualitative aspects of your IT portfolio, using facetted search capabilities to pinpoint the precise answers needed and choose from possible report templates to present the findings.
- **Alfabet Product Infrastructure Enhancements:** Enjoy the benefits of a state-of-the-art product architecture that handles massive data amounts and complex processing sequences to deliver needed information on architecture and portfolio changes fast.
- **Enhanced Connections in Node Arc Reports:** Have a better understanding of the connections between objects by using nested-node rendering to depict multi-level information.
- **Enhancements to the Slider Control:** Filter displayed results according to absolute values and designated units of measure - also available now for date ranges.
- **Relational Representation of the Presentation Model:** Get clarity into your Alfabet solution's presentation model by using new object classes to store information and configure reports about it.
- **Enhancements to Integration with MS Azure DevOps:** Keep Agile strategy and execution aligned by synchronizing projects, releases, builds and work items between Alfabet's IT portfolio management structures and MS ADO. Use the new export capability to add project issues from Alfabet to ADO's work items.
- **Enhancements to AI-Enabled Data Quality Analysis:** Monitor the progress of data quality improvement initiatives and use workflows for reminders and escalations to keep data quality on track.

Integration with webMethods Integration Server

With digital transformation comes an increased dependency on data. Nearly every digital innovation built requires access to more data, more complex data, and better quality of data. Data needs to flow freely across and between organizations to deliver on the promise of digitalization. This requires intimate knowledge of how it flows – through applications, technologies, deployments, and locations – and which integrations are conducting its journey. It is essential to understand the integration landscape in all its facets to leverage the power of data – the currency of the digital age.

Yet there are challenges that come with large integration landscapes. With the massive number of integrations and the fast pace of organizational change, it is difficult to maintain full transparency of the integration landscape and stay current on their integrations. Many enterprises procrastinate from updating their integrations because of the archaeological effort involved in finding the needed knowledge – if it hasn't already been lost to organizational change. A formal, comprehensive, and cohesive understanding of the integration landscape could allow a company to:

- Ensure business continuity by knowing about all integration points and potential points of failure
- Avoidance of technical debt by regularly upgrading and updating integrations with the confidence of knowing the impact of any change
- Assess the value of the integration portfolio

Alfabet 10.9 provides an integration with webMethods Integration Server, Software AG's market-leading application integration platform, for reliable planning and management of the integration landscape. Alfabet for enterprise architecture, IT planning and portfolio management provides full transparency into the integration landscape. It offers impact analyses and risk management to identify potential threats and points of failure in the integration landscape so that mitigation measures can be defined, and alternative integrations implemented. It provides insights into what integration services there are, how they are used and how they will be impacted by any change so that upgrades can be made with confidence and certainty in their integrity. Alfabet provides a single view across the whole integration landscape for an understanding of how data flows between all systems – on-prem, cloud and hybrid. Relevant KPIs and integration with other IT portfolios enable tactical and strategic assessment of the integration portfolios for value maximization.

This first phase of the Alfabet-webMethods integration enables import of information from webMethods into Alfabet using the Alfabet data integration framework (ADIF). The integration feeds Alfabet all services managed via a connected webMethods Integration Server instance and the data flow between the services. Alfabet uses this design-time information to provide a structural understanding of the integration landscape. It brings transparency into the applications, technologies, APIs, information flows etc. that make up the integration landscape and enables identification of individual elements and their interdependencies with other elements. Additionally, run-time information provides Alfabet with execution statistics. This is used to complement the design-time information and remove the clutter of unfinished, outdated, or dormant parts of the integration landscape. It also provides the basis for evaluation of the performance of individual integrations and enables optimization of the integration portfolio.

In Alfabet, webMethods Integration Server „packages" are represented as components and „services" are represented as technical services of the components. The dependencies between webMethods' „services" are represented as information flows in Alfabet making it easy to see how services call other services. Being able to identify up- and downstream dependencies is essential when planning change or assessing the impact of a technology failure.

Service statistics such as how often an integration runs and when, with how much data volume, other throughput characteristics and any errors that may have occurred are recorded to gauge the health and future-readiness of the integration landscape.

webMethods Integration Server instances are represented as portfolios in Alfabet, thus enabling optimization of individual instances with Alfabet's comprehensive portfolio assessment capabilities. Instances can also be compared with one another to see, for example, where the same data is being processed by different services or when services are being re-used. This provides better insights when upgrading and helps with consolidation efforts.

This is the first phase of the integration between Alfabet and webMethods. More features will be delivered in later releases.

Integration with Apptio for IT Finance Management

In volatile economic times, organizations are challenged to not only reduce costs but, moreover, re-route financing to the business areas that will ensure operational continuity, market viability and positioning for growth when downturns give way to a more favorable business climate. For IT, this means allocating funding to the IT supporting critical business capabilities. It requires an IT finance management (ITFM) practice that is built on a knowledge base of business and IT dependencies. Most operational tools such as CMDBs, ERP, asset management systems and business performance monitoring systems do not have knowledge of the business-IT relationship. Business intelligence solutions – though able to synthesize information from these systems to identify cost distribution patterns - can't provide the business and IT architecture context needed for tactical and strategic cost planning. An architecture-based IT portfolio management system such as Alfabet is the ideal counterpart to an ITFM system as it owns the relevant cost factors (ICT objects) and can provide the business context for cost allocation at any level.

Apptio offers market-leading enterprise applications for assessing the cost of IT services for planning, budgeting, and forecasting purposes. Apptio was a catalyst in developing the Technology Business Management (TBM) Framework which provides technology leaders and their business partners a common perspective onto cost, consumption, and performance of IT for collaborative decision-making. It enables informed evaluation of financial and performance tradeoffs to optimize run-the-business spending. It enables internal comparability, e.g. between business units using meaningful ratios, e.g. IT cost per user. As a standard practice, it can be used for benchmarking. Alfabet also supports the TBM framework.

Alfabet 10.9 provides a bi-directional integration with Apptio. With Alfabet, Apptio users have reliable, current information on the IT portfolio for a better structural understanding of the IT landscape. They can understand the IT landscape in terms of its business capabilities, applications, technologies, services, and projects and how they are all related. Apptio provides Alfabet users with cost information for cost-related portfolio assessment KPIs.

Together, Alfabet and Apptio make a strong team for understanding the finances of business and IT change.

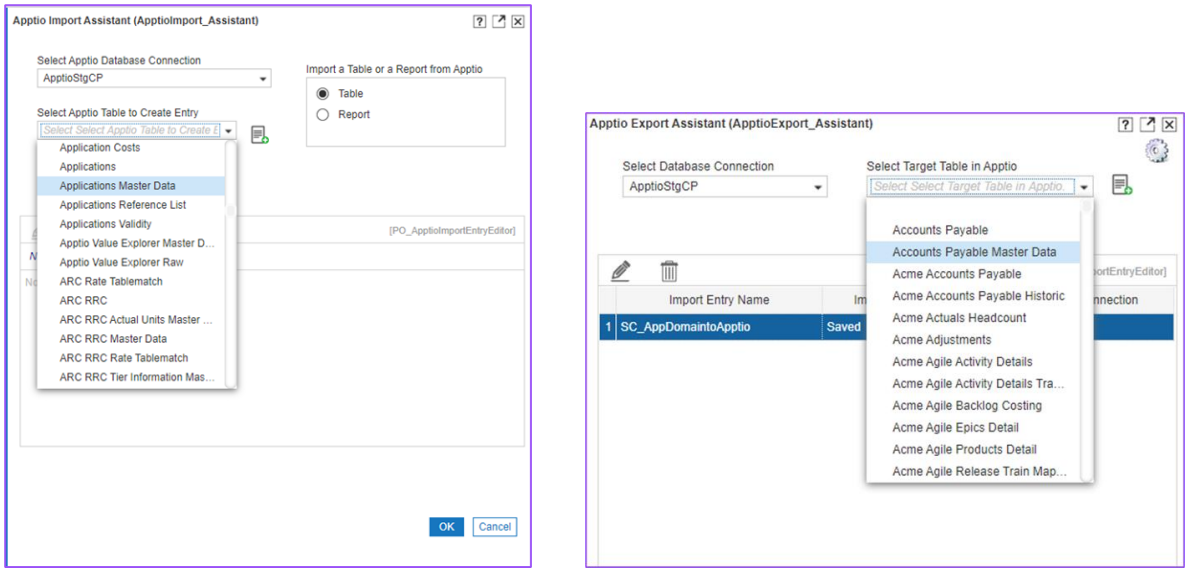

Figure 1: The new Alfabet-Apptio integration capability provides assistants for easy import of cost information from Apptio into Alfabet and export of architecture information from Alfabet into Apptio.

Data Capture Template for Cost Information

Alfabet release 10.4. delivered a new data capture method to easily define the various required data for individual object classes, translate the templates into Excel spreadsheets, collect the data and upload it into the Alfabet repository using quality checks. This data capture method ensures more completeness, better quality, and greater user productivity. It allows the enterprise to speed up and simplify the collection and maintenance of the initial dataset by capturing a large amount of data via spreadsheets.

From the data capture template, an Excel sheet is generated that guides the user with type of input, picklists, and helpful comments on what kind of input is expected. Even sample data can be provided to show exactly what needs to be captured. Upon import of the XLSX file, all data captured for an object in the XLSX sheet will overwrite existing data in the database.

Completed Excel sheets are uploaded to the database using a quality check, for example, for dates and references, to ensure improperly entered data is flagged and can be corrected immediately and subsequently uploaded. Faulty records are made available in a status report that has the same format as the data capture Excel sheet making it easy for users to correct data quality problems.

Alfabet 10.9 provides a data capture template that is specifically configured for the class “Budget Value”. Costs are captured as cost buckets for various portfolio elements on a yearly basis that can extend over multiple years. The template can be used for budgeting of applications, deployments, and ICT objects. Costs can be of the type “requested”, “current” or “budget”. One or more currencies can be specified for the data capture template. Their internal processing is based on the currency exchange rate information available in Alfabet.

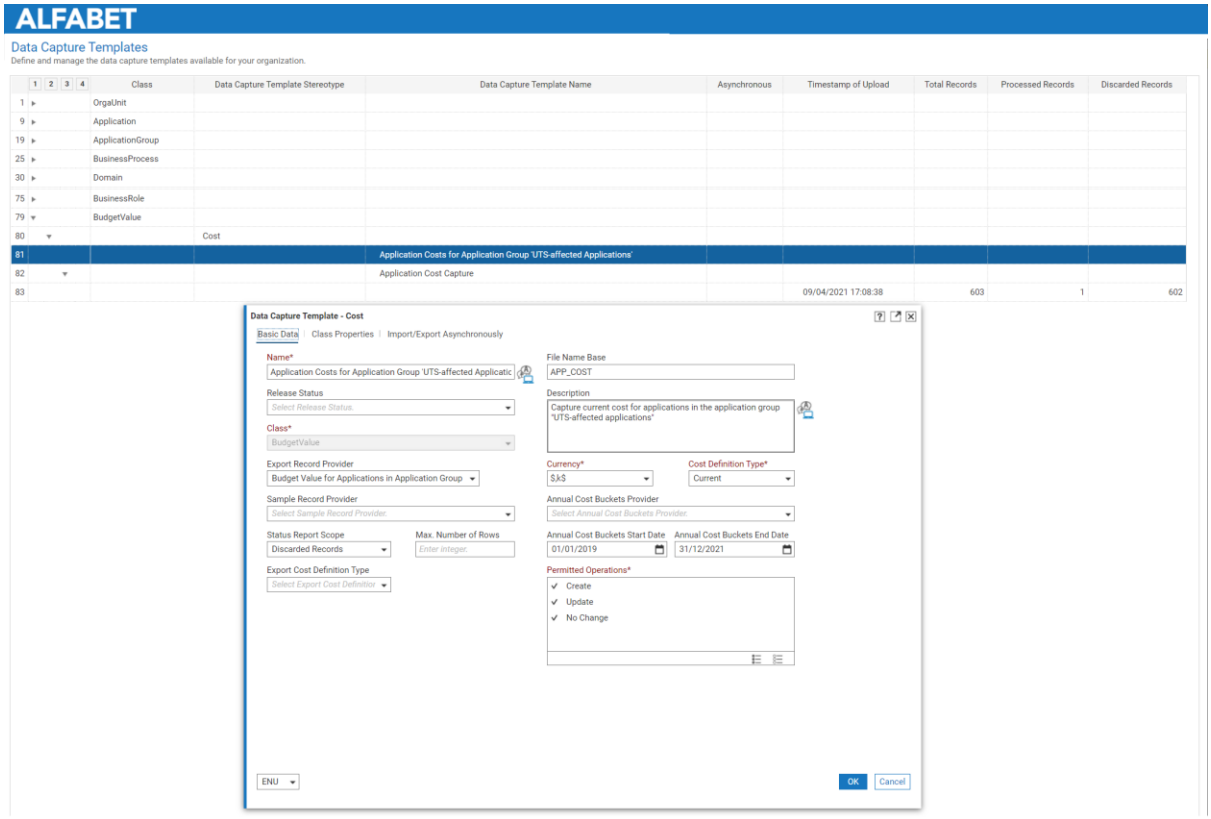

Figure 2: Alfabet 10.9 provides a data capture template specifically for capturing cost information. This data capture method ensures more completeness, better quality, and greater user productivity.

AlfaBot Qualitative Analysis Intent

The “AlfaBot” capability - initially released in Alfabet 10.4 - provides a textual and voice-enabled chatbot to help Alfabet users in general tasks such as creating, editing, and finding objects, navigating to diagrams and configured reports, and starting workflows.

Alfabet 10.9 adds a new intent to help users perform qualitative analysis on the portfolio, i.e. to ask questions about the portfolio that may not be present in the meta data provided by the solution designer with an individual report (in which case the term in the question would be likely searchable in the title or description of a report). For example, a user searching for information about the usability of the enterprise's applications could find the report "Market Readiness of Applications" which includes an indicator for usability even though the term "usability" is neither in the title nor description of the report. Another example would be a user asking the AlfaBot for the enterprise’s most expensive applications and being served up a final report on “Cost Distribution across the Application Inventory” in which the desired information could be found.

The search invoked by this new intent is based on pre-defined training phrases and can include synonyms and related words. For example, a search request including the word "expensive" would also find configured reports about "budget" and "costs" as these are in the thesaurus of the search engine. To this end, a new Alias attribute has been added to object classes that allows one or more keywords to be defined that can be indexed as synonyms for the semantic searches.

Search results are displayed in a new Card View format (the Card View report was introduced in Alfabet release 10.7). One card is displayed for each report matching the search conditions. The user can navigate from the card directly to the configured report. Information about when the user last viewed the configured report is also displayed on the card in addition to a popularity score indicating which report has been most frequently viewed by the user community at large.

Reports are ranked according to a scoring based on how long the document is and how often the terms are found in the document.

The report set can be reduced through facetted search. The user chooses from three facets:

- Report Template (e.g. Business Chart, Data Table, Portfolio Chart)
- Apply To (apply to e.g. Application Group, Business Function, Domain, ICT Object or Organization)
- Evaluation (e.g. Criticality, Technological Coherence or Operations Simplicity)

which are applied to the entities of the report (such as class, alias, class property, report template, evaluation type and indicator type) to filter down the results of the search.

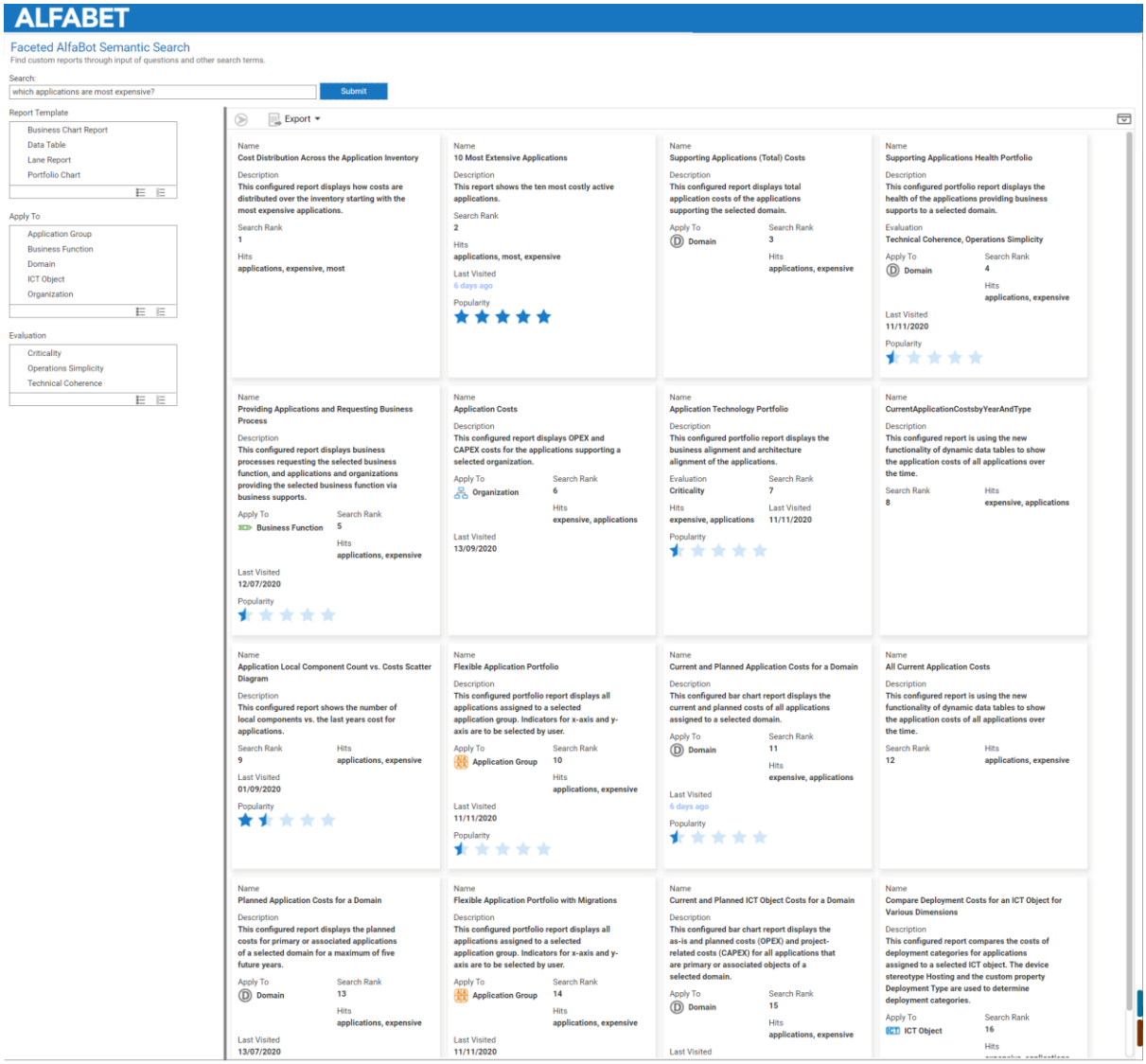

Figure 3 : The new AlfaBot Qualitative Analysis Intent helps users search reports for needed information based on pre-defined training phrases, synonyms and related words. In this example, a search request including the word "expensive" would also find configured reports about "budget" and "costs" as these are in the thesaurus of the search engine.

Alfabet Product Infrastructure Enhancements

A significant part of development effort was spent on modernizing the Alfabet product architecture in preparation for the transition to .NET Core. .NET Core is a simpler clientless architecture. As a result, more processing – in particular for ADIF - will be done in parallel removing bottlenecks with massive amounts of data and complex sequences. Processes that were designed to work via a remote alias configuration are now executed with event queuing in the Alfabet database. The queued events are then executed via an Alfabet Server connected to the Alfabet database that is independent of the Alfabet Web Application. Event queuing enhances performance based on a sophisticated queueing concept for pending jobs and parallel job execution via multi-threading. Database-centered time management means that the relevant time for executing events has changed from application or web server time to database server time. These changes in the architecture will be especially noticeable for:

- Jobs scheduled via the Job Schedule functionality
- Import and export of data capture templates
- Events generating questionnaire indicators
- Events triggered via the event management capability

In Alfabet 10.9, both the remote processing as well as event queuing are supported to ensure backward compatibility.

Enhanced Connections in Node Arc Reports

The Node Arc report - introduced in Alfabet release 10.1 - helps to better understand dependencies in the architecture with a rich set of representation options. It lets users automatically generate information flows, data lineage, migrations, and other relationships on various levels in one representation. Queries are used to determine the nodes and the arcs. Alfabet 10.9 allows a richer representation format using node nesting to include more information, thus providing more context to the user. For example, information flows between applications can be displayed with greater detail to distinguish the information flows associated with local components and provide insight into the interface systems involved in processing and transfer. A single level of nesting can be configured for nodes, and arcs can connect both inner and outer level nodes. Node sizing can be configured to dynamically resize either inner or outer nodes to ensure that all inner nodes can be displayed up to a maximum number of nodes.

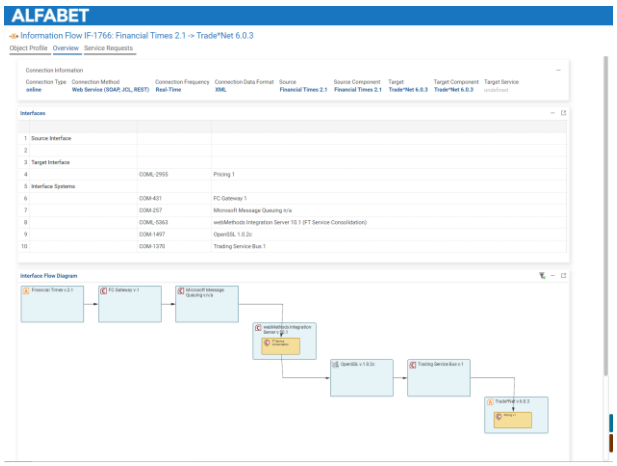

Figure 4: The new node nesting feature in Alfabet 10.9 provides layered details for more context. For example, here we see more detail in the interface systems involved in information flow “Financial Times v.2.1” -> “Trade*Net v.6.0.3”.

Enhancements to the Slider Control

Slider Controls are used on filter panels for range selection. By moving a handle along a line, the user can indicate a value, between a minimum and a maximum value. In Alfabet 10.9, slider controls have been enhanced as follows:

- Definition of the minimum-to-maximum range of the slider bar, step, unit of measure, and color via the slider query definition
- The minimum and maximum value are displayed beneath the ends of each slider bar
- Start and end dates, also in a from-to range, can be selected in slider controls

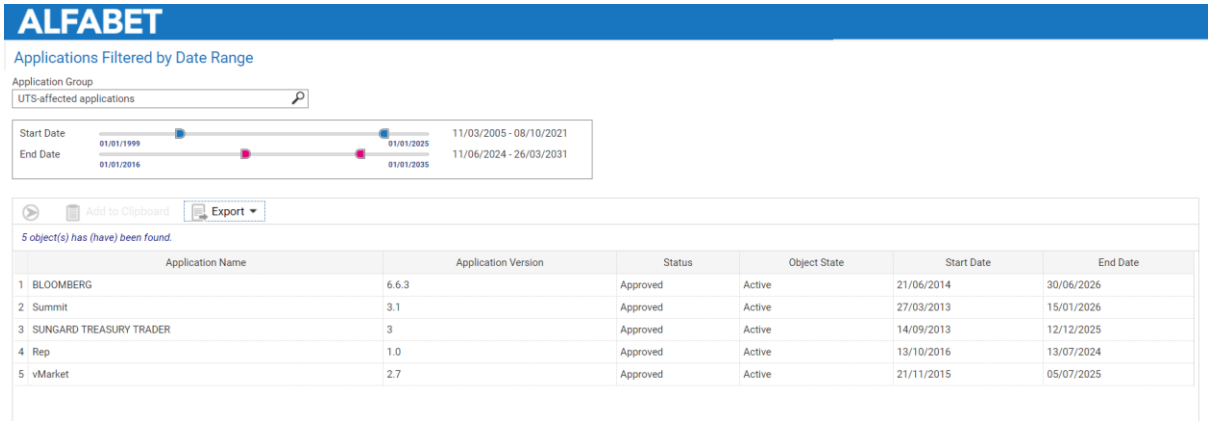

Figure 5: Date ranges have been added to the slider control filter to display results according to specific time periods.

Relational Representation of the Presentation Model

Alfabet's high configurability is one of its distinguishing characteristics and market differentiators. It enables companies to tailor the solution to fit their organizational structures, processes, internal policies, regulatory restrictions, and any of their use cases for EA portfolio management. Thus, just as important as understanding the Alfabet meta model is understanding the individual solution configuration. Much like the ALFA_MM_*_INFO tables provide a comprehensive representation of the meta model, Alfabet 10.9 provides the means to inspect and assess your solution configuration. Using this new functionality, you can see, for example, which object cockpits have been configured and which standard Alfabet views and reports are embedded in them. Solution designers can raise the quality of the configuration by assessing consistency and completeness of the configuration using this relational representation:

- Identify lineage and dependency across the configuration
- Surface inconsistencies and dead ends in the configuration
- Understand where a configured report might be reused in several different object views
- Analyze user behavior as a reflection of the configuration

New object classes have been added to the Alfabet class model to store information about the current presentation model configuration. The new object classes represent object views, object cockpits, configured reports, page views, workspaces, conditions, wizards, and editors. Solution administrators can use these classes to configure reports about the current configuration of the presentation model.

Enhancements to Integration with MS Azure DevOps

Release 10.6 was Alfabet's first foray into integration with MS Azure DevOps (ADO). ADO provides version control, reporting, requirements management, operational project management (for both Agile software development and waterfall teams), automated builds, lab management, testing and release management capabilities. It covers the entire application lifecycle. Alfabet release 10.6 – and subsequently Alfabet release 10.7 - delivered support for importing projects, releases, builds and work items (these can be epics, features, user stories, product backlog items, requirements, tasks, impediments, issues, and bugs) from ADO into its portfolio management and planning structure. MS ADO's Rest API is used to import the ADO elements. Assistants help define what should be imported and how it should be mapped to Alfabet's portfolio structure.

Alfabet 10.9 provides the means to export projects and work items from Alfabet to ADO. The new Azure DevOps Export Assistant helps create an ADIF export scheme. Upon successful export, Alfabet automatically maps the newly exported ADO artifact to an Alfabet object using response mapping thereby leveraging the semantic analysis of the Alfabet report used to assemble the information to be exported from Alfabet to ADO.

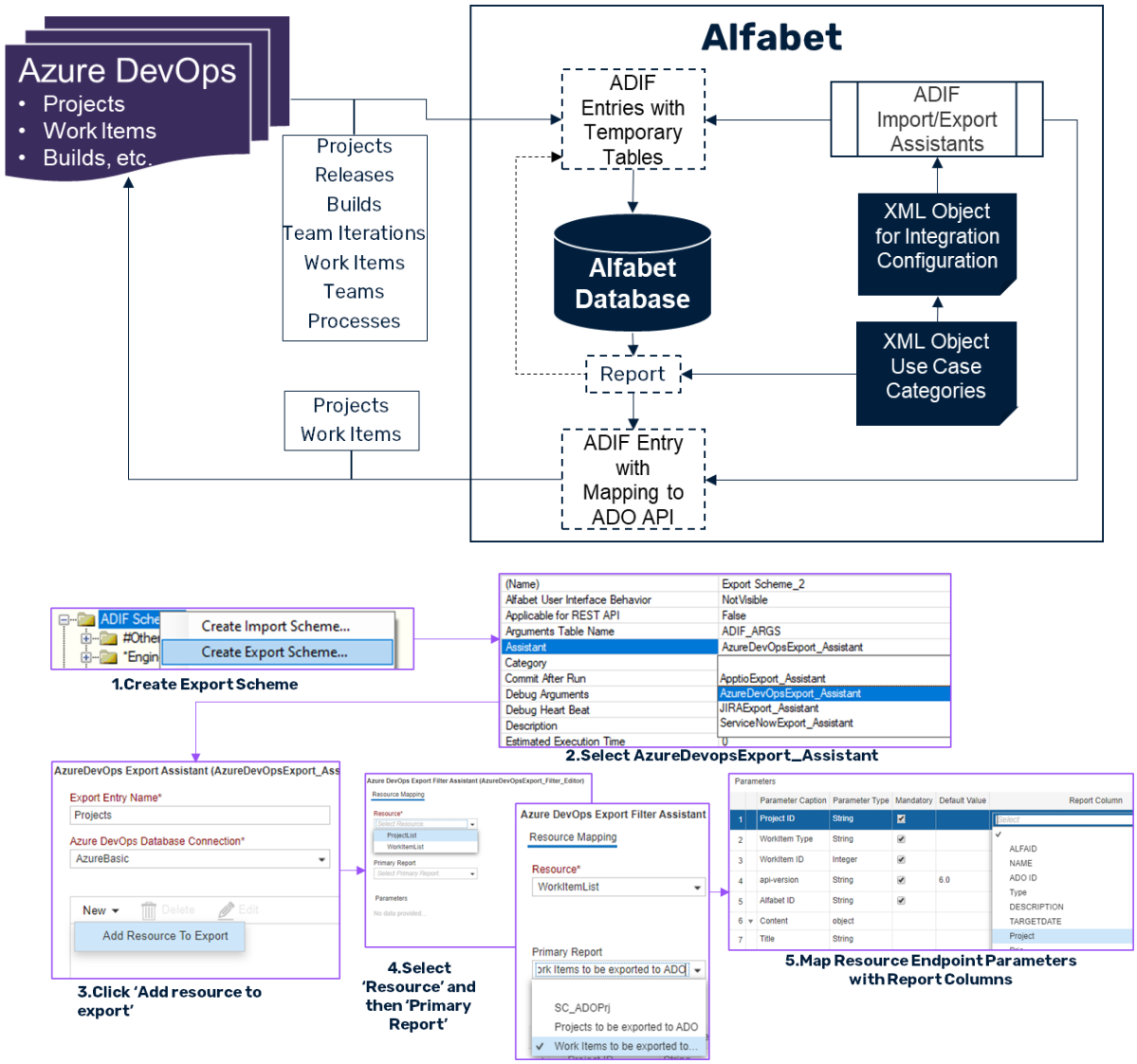

Figure 6: The top figure shows the schematic concept of the integration with Microsoft Azure DevOps. The bottom figure shows the steps involved in the new capability for exporting information from Alfabet to MS ADO.

Enhancements to AI-Enabled Data Quality Analysis

Alfabet release 10.7 introduced AI-enabled data quality analysis to ensure data completeness for well-informed decisions on IT change. This capability scans the data about objects of an object class for similarity in attribute settings, forming clusters of objects that are structurally related. Within these clusters, objects deviate if they have a few uncompleted attributes yet high similarity in other settings. The AI-enabled data quality analysis is available for all object classes that can be structured in groups such as application groups, project groups, etc.

Alfabet 10.9 improves upon the way data quality analysis findings are stored. The new data structure allows progress in data quality improvements to be easily monitored and, for example, findings to be leveraged in workflows to be able to take direct action on the finding (i.e. reminder and escalation management) to keep data quality initiatives moving forward.

Enhanced Technical Architecture Maintenance

New features in Alfabet 10.9 simplify component and standard platform replacement in multiple application platforms in bulk. The Component Usage page view offers features for substitution to ease the maintenance of a component in application/component platforms, standard platforms, and information flows as well as easily upgrade technology versions in platforms. The Standard Platform Usage page view for a standard platform has similarly been changed to support the maintenance of and substitutions in standard platforms.

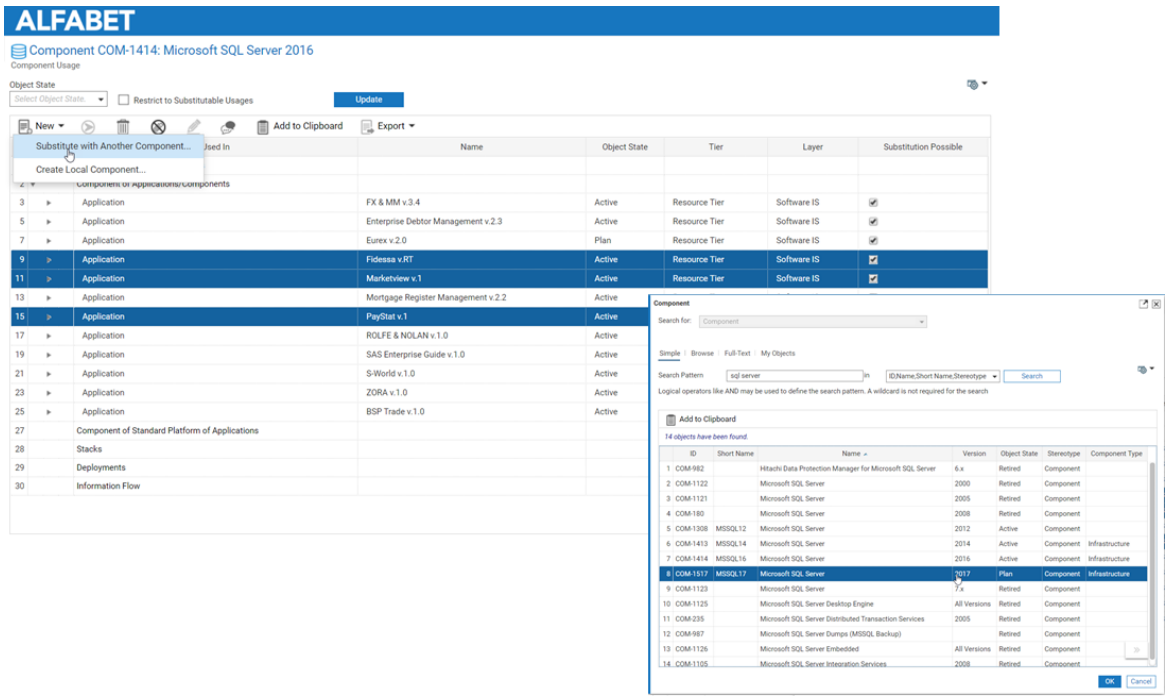

Figure 7: A new feature in Alfabet 10.9 greatly simplifies bulk substitution for components as here substituting “Microsoft SQL Server 2016” in three applications. In a next step, the user chooses the replacement component.

Ad-Hoc Milestones for Projects & Enterprise Releases

Create ad-hoc milestones on demand in the context of a selected project or enterprise release. This new capability provides complete flexibility in the creation of milestones and allows companies to forego the configuration of milestone templates. Ad-hoc milestones can be created for projects and enterprise releases. The Ad-Hoc Milestone editor lets you define the milestone's caption, short name of up to three characters, target date, and foreground and background colors. An ad-hoc milestone can be defined as “Completed” indicating that the milestone has been met.

Stereotype Specific Object ID

Stereotypes are used in Alfabet to extend the meta model to allow for the specifics of an organization. They are sub-classifications within a class. For example, the class “Organization” may have the stereotypes “Holding”, “Enterprise”, “Business Unit” and “Department” to be able to differentiate functional specifics along the organizational structure. The class “Location” may have the stereotypes “District”, “Country” and “Region” to cater to the different levels of granularity of information needed at these different structural levels.

Stereotypes allow for:

- planning and managing at a more refined level of detail
- keeping the amount of information available for a user at a manageable level
- capturing specific data relevant only to the stereotype
- refined access control

Alfabet 10.9 now allows prefixes in object IDs to better identify stereotyped objects. All new objects for a stereotype are created with the stereotype-specific ID Prefix instead of the class-defined prefix. An ADIF job SetStereotypeID is available to update existing objects.

Email Test Accounts & Test Text Template

Alfabet solution designers often need to test a configuration in which emails are triggered. For these situations and where the solution designer doesn’t have access to the Alfabet Administrator, Alfabet 10.9 allows the solution designer to use the user interface to define a test email account and sender email address that will override the settings in the server alias configuration of the Alfabet Web Application. Different test scenarios performed by various testers might require different test email account specifications. Therefore, multiple override definitions can be created and activated or deactivated as needed.

Diagram List Report

Alfabet 10.9 extends the configurable Diagram List Report to permit all available standard and custom diagrams available for an object (or any subset thereof as defined in a customer-specific query logic). The navigation view for opening standard diagrams is a standard page view and dynamically defined via the query of the Diagram List Report. For custom diagrams, the navigation view is a configured report that can optionally be defined in the query or can be defined in the Definition element for the custom diagram.

Handling Jobs in Queues

Job schedules can be defined without a schedule definition and configured to be executed each time a job for a master job schedule is executed. This sequencing is particularly helpful in recurring situations. For instance: running a daily integration job with the CMDB and subsequently running a job to calculate critical portfolio performance metrics for the applications and business capabilities associated with the configuration items (CI) retrieved from the CMDB.

Enhancements to MS Teams Integration

A new “Join MS Teams” button has been added to the MS Teams Collaboration panel if an MS Teams collaboration has been started for an object and the team or channel in MS Teams is public but the user is not in the team.

A new Include “Current View as Snapshot” button has been added next to the message field in the MS Teams Collaboration panel. The new button allows a snapshot of the current view to be added to the channel including a backlink to the view itself. The snapshot is displayed in the MS Teams Collaboration panel as well as in MS Teams. It gives users in MS Teams a view of the portfolio aspect at hand and lets them jump to more, live content with a single click.

Usability Enhancements

- **New Animated User Interface Elements for an Enhanced User-Experience**: Add to users’ understanding of the data in standard views and configured reports by having the graphics build dynamically as a view is opened. Animation is enabled for portfolio charts, Gantt charts, branching diagrams, sunray diagrams, circular roadmaps, and more.
- **New Share Documents Capability**: Easily share documents among multiple objects of the same class or stereotype by using the new “Shared Documents” button. Stipulate in a list of other objects which ones should have the document as an attachment and click on “Share with other Applications" to make the document available to the chosen objects. Likewise, stop sharing documents among objects using the same procedure and the “Detach Shared Documents” button.
- **Enhanced Permissions for Broadcast Messages**: Alert specific users, groups of users or users with specific user profiles to issues and news items with the new tabs that have been added to the Broadcast Message editor. Each tab opens a list of the desired recipient type for easy selection.
- **Enhanced Workflow Activity Explorer**: Keep your My Workflow Activities “in-box” neat and better manageable using the automated functionality to delete finished, refused, and expired workflow activities after a pre-defined maximum number of days. Further, move on automatically to the next open activity upon completion of a workflow activity.
- **Enhanced Column Usability in Editable Class View Reports**: Define the desired number of columns to freeze for better visibility during horizontal scrolling. The frozen columns in the dataset are reflected in the editor considering visibility differences between the dataset and the editor.
- **Improved Visualization in Object Cockpits**: Clearly indicate that filters are in use - or mandatory filter settings are missing - in the page views and custom reports that are displayed in cockpits by using a filter icon and tooltip with a filter summary. Further, inline editing fields in object profiles and cockpits have a lighter and cleaner appearance in alignment with other Alfabet UI elements.
- **Change to Non-Editable Object Symbol**: Clearly indicate to users in which contexts their current permissions are insufficient to use interactions for the current view.

Miscellaneous Enhancements

- **Comments in Business Case:** A new Comment field has been added to the Business Case editor that allows the user to add text for each row, representing either a cost type or an income type. The comments are displayed in the new Comment column in the Business Case page view for a project.
- **Enhancements to Technopedia Integration:** When creating vendor products for an ICT object based on Technopedia software and hardware products, only vendor products with the Technopedia product attribute “create_date” greater than the value of the Alfabet property ICTObject.TP_UPDATE will be updated. Furthermore, customers using Technopedia can benefit from the Technopedia interactions, e.g. creating components or new component versions when managing and maintaining Components subordinate to the ICT Object originating from Technopedia
- **Managing Object Status in “Create as Copy” Interactions:** In previous releases, a new object created as a copy, version, or variant of another object inherited the value of the Status attribute of that base object. In Alfabet 10.9, a new configuration allows the default status configured for the relevant object class to be used as the value of the Status attribute of the copied object. This might be relevant in situations where the Status attribute is used to implement and enforce stringent governance processes.
- **Configure Affected Architecture for Value Nodes by User Profile:** The visibility of the Add Existing<Object Class> options available in the Affected Architecture page view for a value node can be controlled in the Customization Editor available for the view.