Alfabet 10.15.0 Release Notes

What's New in Alfabet 10.15 for Alfabet End Users?

This release contains many new capabilities and enhancements. These are described below:

- [Enhancements to the Data Workbench](#)

- [New Data Quality Rules](#)

- [Other Solution Enhancements and Changes](#)

Enhancements to the Data Workbench

With Alfabet release 10.13, Alfabet introduced the smart data workbench, an innovative approach to data management and analytics in Alfabet that places usability and the customer journey at the center. Data workbenches require minimal configuration and allows users to edit, manage, understand, and choose the right data visualization at runtime.

With Alfabet 10.15, further enhancements have been made to the data workbench and its out-of-the-box visualizations. The data workbench is foundational to Alfabet 's forthcoming and highly-anticipated new user interface that spotlights usability and end-user experience.

- Gantt charts and Kanban reports have been added to the predesigned visualizations available in data workbenches. These streamlined analytics preclude the need to configure and manage multiple complex reports for various parts of the user community. The dataset specified via filters in the data table is the data source for the Gantt chart and Kanban visualizations. In this way, the user can decide at runtime the data that is relevant to visualize.

  - The new Gantt chart displays the data on a timeline so that time dependencies can be understood. Users can specify the calendar units and start and end years of the timeline, the data to show for the objects in the Gantt chart, and whether to include milestone information.

  - The new Kanban board-style view enables display of data in multiple lanes or in a matrix with X- and Y-dimensions. Users can select an attribute, role, indicator, or data quality score for the column definition and row definition.

    - A column with an empty header will be displayed if the object in the Kanban board do not have a value defined for the selected attribute, indicator, role, etc. These objects can be assigned the missing value by moving them to the relevant column

    - Drag-and-drop enables users to move an object from one column to another to easily redefine the object. Objects can only be moved if the attributes specified for the corresponding column and row definitions are configured to have write access permissions.

    - CTRL+C can be used to copy a selected object to multiple columns if the attribute specified for the column definition supports multiple references. For example, an

application can be assigned to multiple application groups or an application may be specified to have multiple users responsible for it via a role.

- Business charts have been revised so that multiple values may be selected in the **X-Value Definition** field or the **Series Definition** field. The resulting X-value is a string concatenation (with a blank space as separator) of the selected X-value properties.

- A **Graphic Title** field has been added to the **Business Charts Settings** editor. A default title based on the data workbench caption and the X-value definition will be displayed if a graphic title is not defined.

- Generic attributes can be displayed in the data workbench. If one or more generic attributes are available for the object class displayed in the data workbench, the **Add/Remove Generic Attributes** option will be displayed in the **Structure Data** menu.

- Icons for object class stereotypes are displayed in the **ID** column next to the object's ID. The icons are configured in the class settings of the object class stereotype.

- Data workbench columns representing a property of type String that is associated with an enumeration will display the configured background color and icon specified for the enumeration item.

- Selectors that open in the context of a data workbench have been extended to show permissible objects based on relevant object class stereotypes.

- Inline editing in data workbenches has been enhanced:

  - The selector icon is displayed for fields in which a referenced object can be selected and users no longer need to type the name of the referenced object in the field.

  - The formatting of strings, integers, real numbers, email addresses, and URLs will be validated when entered in a field.

- The sequence of the toolbar buttons in the data workbench has changed to enhance usability.

- The following enhancements have been made regarding the configuration of data workbenches:

  - The assignment of the data workbench to a guide view/guide page has been simplified. The data workbench can be assigned as an application link to the top menu of a guide page as well as to a Guide View Text, Guide View Picture, or Panel interface control. The `DataWorkbench` option has been added to the **Link Destination** attribute of the application link definition in the Guide Pages Designer.

  - Data workbenches can be displayed in object cockpits. The **Source** attribute available for a Presentation Object has been enhanced to specify a data workbench. The solution designer can set the **Source Type** field to **Data Workbenches** and select the relevant data workbench in the **Source Object** field. Inline editing is not supported in data workbenches embedded in an object cockpit. To edit data in the data workbench, the **Inline Navigation** attribute must be set to `True` so that users can navigate to a full view of the data workbench where the edit mode can be changed.

  - Only users with explicit permission will have access to the **Data Workbench Designer** in Alfabet Expand. The option **Data Workbench Designer** has been added to the **Alfabet Expand Access Options** field in the **User** editor. The option will be disabled per default and the checkbox must be explicitly checked to enable the **Data Workbench** tab in Alfabet Expand Windows and the **Data Workbench Designer** in Alfabet Expand Web.

- The permissible settings for the **Access in Data Workbenches** attribute have been changed for private properties. The following changes are possible:

  - A private property set to `Write Access` can be changed to `Read Access` or `No Access`

  - A private property set to `Read Access` can be change to `No Access`

- Colors and icons used in data visualizations can be configured by the solution designer. **Background Color** and **Icon** attributes have been added to enumeration items and can be specified for all protected and custom enumerations in Alfabet Expand.

New Data Quality Rules

Software AG introduces new data quality analysis. Based on customer-defined data quality rules, a data quality score is calculated for objects to indicate the quality of data completeness and correctness. The data quality score as well as an icon indicating the severity of the issue can be displayed in data work-benches. The data quality score can also be added to object cockpits and configured reports. Data quality scores are calculated based on the data quality rule definition and are therefore not editable in the user interface.

A new **Data Quality Rule Configuration** functionality is available in the Alfabet user interface to create the data quality rules for object classes and object class stereotypes. The data quality rule definition includes the following information for end users:

- A security level for the violation of the data quality rule. Possible security levels are hint, warning, and error. The security level determines the color used to visualize the data quality score (yellow for hints, orange for warnings, and red for errors).

- Information about how the user can fix the issue detected by the data quality rule.

- A link that navigates the user to the view where the data issue can be fixed. If no target view is defined, navigation to the object editor is available per default.

To ensure that a wide range of use cases are addressed, three different data quality rule types can be configured to check data input:

- **Value Exists**: Checks the availability of any input for a defined object class property of a defined object class/object class stereotype.

- **Regular Expression**: Checks the composition of a string for a defined object class property of a defined object class/object class stereotype via a regular expression. For example, a rule can check whether a string starts with a specific letter or contains no special characters. This type of data quality rule enables naming conventions to be checked for objects.

- **SQL Query**: Checks the input of an object class property based on the definition of other object class properties. For example, a rule can check whether business support is defined for an application. Or a rule could check only that a custom attribute is set to define the cloud service provider for applications specified as cloud relevant.

Data quality rules are calculated via a private ADIF scheme. The ADIF scheme can calculate the data quality for all objects, a single object, or objects of a defined object class. The calculation results in the following:

- For each data quality rule plus object whose data violates the rule, an object of the new **Data Quality Violation** (`ObjectDataQualityFinding`) object class is created. The data quality

violation stores the information about the issue. Configured reports can be created for this object class to provide information about data quality violations, the proposed fixes, and navigation to the views or editors relevant for fixing the issues.

- A data quality score is calculated for each object. The results of the data quality score calculations are stored in the new object class properties **Data Quality Score** and **Data Quality Max Severity**. These object class properties are available for all object classes that capture information about the IT and business infrastructure.

Other Solution Enhancements and Changes

- Income types can be hierarchically structured. A parent income type may have multiple subordinate income types. All income types must first be created at the top level of the hierarchy. Once they are created, you can go to the parent income type and move all relevant income types so that they are subordinate to the selected income type. The income type hierarchy will be displayed in the **Business Case** and **Benefit Tracking** page views. All income types must be assigned to the class **Project** in the **Class Configuration** functionality.

- If a custom text template is selected, the email assignments sent out for the consistency monitor and the assignments generated for the objects found by the consistency monitor will display the same information. The caption specified for the text template is displayed as the subject line of the email and the name of the assignment. The text specified for the text template will be shown as the description of the assignment and the body of the email, which will also include links to each object targeted by each assignment.

- Icons shown for platform elements displayed in the **Platform Architecture** page view can be customized. A custom icon can be configured via the class setting for the class **Platform Element**.

- Enhancements have been made to the diagramming capabilities that foster Archimate-style modeling in Alfabet:

  - Object-less shapes can be created via the Custom Shape diagram item template. To permit editing, the Content Placeholder attribute shall be set to True. A rectangle can be placed on the diagram item template to allow a name to be added to the shape by users when placed in the diagram.

  - Connections can be created via the Connection diagram item template to allow links to be defined between all diagram items with object-less and object-related shapes. The Generic Link shape may be defined as needed.

What's New in Alfabet 10.15 for Solution Designers?

The following is relevant to solution designers using the configuration tool Alfabet Expand.

- New Meta-Model Configuration Objects for the Definition of Data Quality Rules

- Enhancements and Changes to the Class Model

- Enhancements and Changes to Reports Configuration

- Additional Changes to Solution Configuration Capabilities in Alfabet Expand

- [Enhancements to Browser-Based Alfabet Expand for Alfabet Cloud Enterprise](#)

New Meta-Model Configuration Objects for the Definition of Data Quality Rules

This section lists the amendments to the class and configuration model relevant for configuration of the new data quality management approach via customer defined data quality rules. While standard functionality is available for the creation and management of data quality rules, information of the user about the data quality of objects requires definition of configured reports. Data quality scores are only visible by default in data workbenches.

- The following object classes have been added to the Alfabet meta-model. For each object class, standard class settings, a standard editor, and a standard object profile are available.

  - The object class **Data Quality Rule** `(DataQualityRule)` for storage of configured data quality rules.

  - The object class **Data Quality Rule Group** `(DataQualityRuleGroup)` for structuring of data quality rules in folders.

  - The object class **Data Quality Violation** `(ObjectDataQualityFinding)` stores a separate data quality violation for each combination of object class and data quality rule that is violated.

- The following object class properties have been added to all object classes storing customer data. They are defined to be visible but non-editable in data workbenches.

  - **Data Quality Score** `(DataQualityScore)` for storage of the calculated data quality score of the object. The data quality score returns the percentage of relevant data quality rules an object obeys to. If no issues are found for the data quality of an object, the data quality score is zero.

  - **Data Quality Max Severity** `(DataQualityMaxSeverity)` for storage of the highest severity level detected for any data quality issue found for the object.

  - **Data Quality Calculation Date** `(DataQualityCalcDate)` for storage of the last date and time the data quality score was re-calculated for the object.

- Data quality rules and data quality rule groups can be defined and managed in the new **Data Quality Rules Configuration** (DataQualityRuleGroups) functionality.

- An ADIF job based on the new private ADIF scheme *RescanDataQualityRules* must run to scan the data provided for objects of the relevant object classes for violation of data quality rules. The ADIF job will update the **Data Quality Violation** `(ObjectDataQualityFindings)` object class according to the evaluated results and will calculate the data quality score and the maximum severity for each applicable object. The ADIF scheme has parameters which allow the ADIF job to be run for all objects, objects of a selected object class or a single object only and either as complete re-calculation or delta calculation for objects changed since the last run of the ADIF job for the object.

- Data quality rules can be added to AMM files as reference data.

Enhancements and Changes to the Class Model

- Colors and icons used in data visualizations can be configured by the solution designer. **Background Color** and **Icon** attributes have been added to enumeration items and can be specified for all protected and custom enumerations in Alfabet Expand.

- The class `Question` has been changed from a private class to a protected class.

- Protected class keys have been added to the classes `ProjArch` and `DemArch`.

Enhancements and Changes to Reports Configuration

- The default color for the **Label** > **Label Connection Color Column** attribute has been changed from black to white for configured sunray diagram reports.

Additional Changes to Solution Configuration Capabilities in Alfabet Expand

- The following enhancements are available for the definition of resource bundles for the generic API integration interface:

  - The **Update using OAS Assistant** functionality has been improved. The assistant is now returning issue-specific messages if the open API specification file imported to the assistant contains an invalid specification.

  - Resource bundles can be stored in an AMM file for implementation in a target database.

- It is possible to launch BOTs configured in Microsoft Virtual Agent® or OpenDialog® in the Alfabet user interface. External Virtual Agents are accessible in the Alfabet user interface in a small window that opens if the user selects the bot icon in the slide-in toolbar. To embed an external BOT, the URL for the external BOT must be configured in the new XML object **ExternalVirtualAgentConfig**. Additionally, the desired icon, and slide in toolbar colors need to be configured in the GUI scheme.

Enhancements to Browser-Based Alfabet Expand for Alfabet Cloud Enterprise

- The ability to define events for filter fields has been added to the filter field definition in the **Design View** functionality for configured report views. The **Switch to Events** button on top of the attribute panel opens the event list. The definition of events is required to configure filter fields for special object class properties like release status or object state.

What's New in Alfabet 10.15 for System Administrators

The following is relevant to system administrators.

- [Changes to the Technical Requirements](#)

- [Changes to the Embedding of Third-Party Components](#)

- [Changes to Database Maintenance Options](#)

- [Additional Changes to System Administration](#)

Changes to the Technical Requirements

- Microsoft Server® 2022 is now supported to run the Alfabet components. Customers planning to upgrade to Alfabet 11 in the future are advised to migrate to Microsoft Server® 2022. Microsoft Server® 2016 and Microsoft Server® 2019 versions will not be supported with Alfabet 11.

Changes to the Embedding of Third-Party Components

- The embedded third-party component yFilesNet has been updated to a licensed version of yFilesNet library version 5.4.0.1, Copyright © 2017-2022 yWorks GmbH, All Rights Reserved.

Changes to Database Maintenance Options

- A new mechanism has been added to allow configuration data from a case-sensitive database to be restored to a case-insensitive target database. The new **Ignore case sensitivity validation** attribute has been added to the AMM selection dialog of the Alfabet Administrator and Alfabet Expand Windows to update the meta-model from AMM files. The attribute is deselected by default.

  In Alfabet Expand Web, the context menu of the **Meta-Model Configuration** explorer node of the **Utilities** designer offers distinct options for meta-model update with or without the case-sensitivity check.

- AlfaAdministratorConsole.exe can now be used to generate AMM files containing configuration objects of defined types only. A new **Export** button is available in the AMM file editor in Alfabet Expand. The export results in a JSON file containing the current settings of the AMM file editor. When generating an AMM file with AlfaAdministratorConsole.exe using the command line option – `mm_create_update`, the JSON file can be defined with the new command line parameter – `MmConfigFile`. As a result, only current configuration objects of the configuration object types specified as relevant in the JSON file are added to the AMM file. For example if the JSON file defines that only configured reports and icons shall be added to the AMM file, all configured reports and icons available in the source database are added to the AMM file.

Additional Changes to System Administration

- Logging for RESTful service calls has been improved to provide more detailed information if the log level assigned to the log **Subject** `REST` is set to `Information` or `Debug` in the **Server Settings** > **Logging Details** tab of the server alias. Please note that this will have a negative impact on performance. The log levels `Information` and `Debug` are only for purposes of evaluation of system problems and should not be used in daily operations.

- OAuth authentication with Azure Active Directory (Azure AD) is supported with Alfabet 10.15.

Issues Resolved with Alfabet 10.15

The following fixed issues are available:

- Resolved End User Issues

- Resolved Solution Configuration Issues

- Resolved System Administration Issues

- Empower Issues Resolved in Alfabet 10.15

- Brainstorm Issues Resolved in Alfabet 10.15

Resolved End User Issues

- Access permissions specified for evaluation types were not honored in the context of data workbenches. This has been corrected and indicator types will only be visible in the Add/Remove Indicators menu if they are associated with an evaluation type that has a user profile assigned that the current user is logged in with.

- Issues have been addressed to improve performance when executing various actions in the Alfabet user interface as well as Alfabet Expand Web.

- After migration to Alfabet release 10.13, line breaks were removed in the **Description** fields when rendered in HTML. This issue has been fixed and the line breaks will be converted upon migration.

- Indicators that were calculated in the **Application Evaluation Report** page view were not saved and therefore were no longer displayed when the browser was refreshed. This issue has been fixed.

- An issue with the display of the bars for resource requests in the **Project Resource Planning** page view has been addressed. The bars will display the background color defined in the class setting for the object class/object class stereotype.

- An error message was displayed when trying to merge two solution applications in the **To-Be Architecture** page view. This has been fixed and solution applications set to Updating can be merged.

- Not all workflow activities were displayed in the **My Workflows** and **My Workflow Activities** views. This issue has been fixed.

- It was not possible to navigate to objects displayed in sunray diagrams. This issue has been resolved.

- Filters did not work correctly in configured console reports. This issue has been resolved.

- The following issues have been addressed for data capture templates:

  - Error messages have been improved to provide more detail if the upload of the XLSX file to Alfabet fails.

  - If an XLSX file was uploaded to Alfabet with objects with a start date later than the end date, the objects were erroneously imported to the Alfabet database. This issue has been fixed and invalid data will be discarded before import and the reason for the error will be written in the status report.

  - A layout issue in the **Data Capture Template - Reference Arrays** editor that caused fields to overlap has been fixed.

- In some rare cases, an error stating "Object reference not set to an instance of an object" was displayed when trying to create an object that had no class settings defined via a RestAPI call. The error message has been changed to "Class settings not found."

- The **Open online Help for the current view** option in the **Help** menu in the Alfabet user interface was displayed although the online help was not installed. An error occurred when the link to the online help was clicked. This issue has been resolved and the menu option will be hidden if the online help is not installed.

- Batch jobs for sending emails for notification monitors or consistency monitors that were started via the **Job Scheduler** functionality did not send out email to all specified recipients. This issue has been resolved.

- Slider controls to select dates were not working if the Alfabet user interface was rendered in German. This issue has been resolved.

- An error occurred when configured sunray diagram reports were opened. This issue has been resolved.

- Indicator values showing a range only displayed the hyphen for the range value in data workbenches. This issue has been resolved.

- In configured questionnaire evaluation reports, questions in a question set were not sorted according to the sort order specified in the configuration of the question set. This issue has been resolved.

Resolved Solution Configuration Issues

- An error was fixed if the value in the **Property Name** attribute of a property defined in the context of the **Modify Access for Data Workbenches** functionality was changed.

- In configured reports based on the Alfabet query language, it was not possible to change the name of a new filter field to the name of the parameter used for the filter field in the Alfabet query. This was because the colon used by the Alfabet Query Builder as the first character in Alfabet query language parameters was not accepted as the first character in the **Name** attribute of filter fields. This issue has been resolved and filter fields with a name starting with a colon can be defined.

- Import was performed persistently when ADIF imports were triggered as non-persistent test jobs from the **ADIF Jobs Administration** functionality. This issue has been resolved and changes will be rolled back for non-persistent test jobs.

- The **Whole Number of Lanes** attribute displayed in the report assistant for configured Kanban reports has been renamed to **Total Number of Lanes**.

- Long numbers were exported to a publication if the publication definition included an object class property of the type `Real` and the value was empty for this property. This issue has been resolved.

- It was not possible to configure a custom selector for a button in the **Customization Editor** if a standard selector was not defined. This issue has been resolved.

- It was not possible to create a class key for properties of type `Email`. This issue has been resolved.

- The **Show Usage** functionality for configured reports was not working in Alfabet Expand Web. This issue has been resolved.

- Import of data from ServiceNow® via the ServiceNow integration fails if a mismatch between the ServiceNow data structure and the import definition is detected. The log file of the ADIF job importing the data included information that the execution was successful after the error message about the failed import. This issue has been resolved.

- Import of data from ServiceNow database views via the ServiceNow integration failed with a message regarding structural inconsistencies between runtime and design time. This issue has been resolved and now the log states this as an error.

- In Alfabet Expand Web, the **Cascading** attribute was missing for the *Query* element. This issue has been resolved.

Resolved System Administration Issues

- If workflows were started via the batch tool `AlfaWorkflowCommandPrompt.exe` run with a remote alias, sending emails for the workflow failed. This issue has been resolved.

- The control mechanism to check native SQL queries for impermissible statements like `DELETE` or `DROP` in Alfabet configurations has been improved. Impermissible statements will be searched in the main statement of the native SQL query as well as other parts of the query definition. This change aligns the security level of internal configurations made by permissible users with the security measures implemented for attacks by unauthorized parties.

- File upload to the **Internal Document Selector** via ADIF failed if the ADIF job was started via a self-reflective event. This also affected processing return values via the generic REST API. This issue has been resolved.

- Files and folders that are deleted in the **Internal Document Selector** will also be deleted in the external system if `ExternalFileSystem` was specified for the **Document Storage Type** attribute in the server alias.

- An error occurred when starting the `AlfaAPIServer` web application. This issue has been resolved.

- Logging for RESTful service calls has been improved to provide more detailed information if the log level assigned to the **Subject** `REST` is set to `Information` or `Debug` in the **Server Settings** > **Logging Details** tab of the server alias. Please note that this will have a negative impact on

performance. The log levels `Information` and `Debug` are only for purposes of evaluation of system problems and should not be used in daily operations.

- An issue occurred for ADIF import or ADIF export triggered via the Alfabet RESTful services. Variable values specified in the `UserArgs` field containing a comma or equal sign (=) were substituted with a blank during import. This issue has been resolved. Strings that include commas must be opened and closed with escaped quotation marks. Also an additional `"ParseUserArgs"` `: true` field must be added to the JSON object of the RESTful service call.

- If the role type configuration of a target database was updated via an AMM file that contained role types from a source database, the configuration of the **Manage Transitions**, **Role Transitioning Workflow** and **Disable Deletion** attributes of the role types were not taken over from the source database to the target database. This issue has been resolved.

- The `UpdateFile_<timestamp>.xlsx` log file generated during migration to new Alfabet releases or patch releases contained a long list of translations for which an original was not found. This issue was caused by a change in the translation environment and has been resolved. Most of the original strings that were not found have been removed, with the exception of a few remaining strings that shall be ignored.

- Performance issues were reported for Alfabet 10.11.2. This issue has been resolved and the performance of Alfabet 10.15 has been enhanced as compared to previous Alfabet releases.

- In Azure cloud environments, the handling of database connection was changed which led to errors caused by forcefully terminated database connections in Alfabet deployments in the Azure cloud. This issue has been resolved. The handling of database connections has been adapted to the environmental changes for Alfabet 10.15.

- If the batch tool `AlfaServiceMonitorConsole.exe` was run to monitor an Alfabet Server service running in Event Queue mode, an error was reported about a port not opening even though the server service was running without issues. This issue has been resolved.

- The content of AMM files generated with the command line tool `AlfaAdministratorConsole.exe` was different from the content of AMM files generated via Alfabet Expand. This issue has been resolved.

Empower Issues Resolved in Alfabet 10.15

- SI-460531

- SI-464177

- SI-464339

- SI-465711

- SI-465859

- SI-466001

- SI-468044

- SI-468466

- SI-469112

- SI-472485

- SI-473627

- SI-475957

- SI-476482

- SI-479400

- SI-479653

- SI-480188

- SI-481862

- SI-482667

- SI-483137

- SI-483621

Brainstorm Issues Resolved in Alfabet 10.15

- 09894

Forthcoming Changes

- Alfabet release 10.15 is the last planned major release of Alfabet Enterprise with the current user interface.

  With this and coming releases, we are modernizing the product infrastructure and designing a simpler and joyful end-user experience aimed to remove the barriers of adoption in the user community. Alfabet 11 promises a clean, modern, and intuitive user interface, powerful and smart data workbenches, a standardized navigation structure, better contextualized searches, dashboard design in real time, in-product guidance and simplified user interface, easier integration configuration, simplification of Alfabet configuration tasks, and an easy-to-use and streamlined end user help.

  We recommend that you migrate to 10.15 and stay tuned for upcoming announcements about Alfabet 11.

- Support for Oracle® database servers will end with Alfabet releases 11.X, scheduled to be generally available in 2023. New customers should host the Alfabet database on Microsoft® SQL Server®. Customers hosting the Alfabet database on an Oracle database server should contact their Software AG success manager to discuss possible migration strategies to Microsoft SQL Server.

Known Limitations

- ADIF execution cannot be logged via the Windows® Event Log.

- The reports that can be opened via the **Business Charts** sub-menu of the **Visualize** menu in data workbenches cannot be exported.

Migration Issues Relevant to Alfabet 10.15

The following information is relevant for the migration from Alfabet release 10.13.X to Alfabet release 10.15:

- The file format for the Microsoft® Excel® log file generated during update of the meta-model via the AMM file delivered with the new Alfabet release has changed from .xls to .xlsx.

Alfabet Documentation Available with Alfabet 10.15

The following English language documentation has been updated and is available for Alfabet10.15:

- Alfabet Expand Online Help

- Alfabet Online Help

- ADIF Online Help for Alfabet meta-model

- Alfabet Reference Manuals:

    - Alfabet Glossary

    - *Getting Started with Alfabet*

    - *Enterprise Architecture Management*

    - *Portfolio Management Basic*

    - *Portfolio Management Advanced*

    - *Portfolio Management Complete*

    - *IT Planning Basic*

    - *IT Governance, Risk and Compliance*

    - *Designing IT Landscape Diagrams in Alfabet*

    - *System Administration*

    - *Configuring Alfabet with Alfabet Expand*

    - *Configuring Alfabet with Alfabet Expand - Appendix*

    - *API Integration with Third-Party Components*

    - *User and Solution Administration*:

- *Configuring Evaluation and Reference Data in Alfabet*

- *Designing Guide Pages for Alfabet*

- *Web Services for Alfabet*

- *Alfabet Data Integration Framework*

- *Alfabet Meta-Model*

- *ARIS - Alfabet Interoperability*

- *Alfabet RESTful API*

- Examples of Configured Reports Available in the Showcase Database

Service and Support

Should you have any questions or require additional information about Alfabet, please contact Software AG Support.

Please open a ticket in the Empower eService for any service request as well as all non-standard support incidents such as training requests, scripting, or data integration:

https://empower.softwareag.com

When you submit a ticket for a service request, you should include the main release number and patch version of your Alfabet product. This information can be accessed by clicking **Help** < **About Alfabet**. Tickets will be recorded and transferred to the relevant team.

Empower eService also includes:

- tracking ticket statuses

- local telephone numbers for support.

In addition to the local support telephone numbers, you can use the following toll-free number:

+800 2747 4357