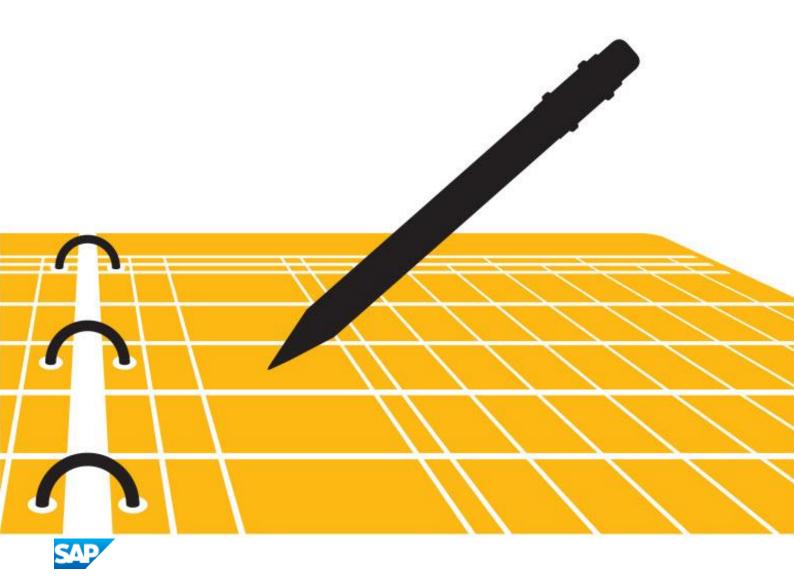
# **Administration Guide**

Document Version: 1.0 - Final

Date: September 2023

Administration Guide for SAP Data Maintenance by Vistex, Pricing option for SAP S/4HANA 2022V2 SAP Data Maintenance by Vistex, Resources option for SAP S/4HANA 2022V2



# **Typographic Conventions**

Type Style	Description	
Example	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options.  Textual cross-references to other documents.	
Example	Emphasized words or expressions.	
EXAMPLE	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.	
Example	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.	
Example	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.	
<example></example>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.	
EXAMPLE	Keys on the keyboard, for example, F2 or ENTER.	

# **Document History**

Document Version	Date	Comment
1.0	July 25, 2023	Initial version

# **Table of Contents**

1	About This Guide	6
1.1	About this release	6
2	Getting Started	7
2.1	Glossary of Terms and Abbreviation	8
2.2	Useful Links	8
3	SAP Solutions by Vistex — Product Overview	9
3.1	SAP Data Maintenance by Vistex, Pricing option for SAP S/4HANA	11
3.2	SAP Data Maintenance by Vistex, Resources option for SAP S/4HANA	14
4	High Level System Landscape	18
5	Preparation Planning	19
5.1	Overview of Technical Runtime Scenario for SAP Data Maintenance by Vistex, Pricing option for SAP S/4HANA	19
5.2	Overview of Technical Runtime Scenario for SAP Data Maintenance by Vistex, Resources option for	
<b>5</b> 0	SAP S/4HANA	
5.3	Minimum Requirements	20
6	Implementation	
6.1	Overview of Important SAP Notes	
6.2	Related Documents	
6.3	Explanation of Vistex Licenses	
6.4	Getting Support	
6.5 6.6	Important Considerations  Constraints	
7	Installing Solution Extensions by Vistex	
7.1	Prerequisites for Installation	
7.2	Post-Installation Tasks	
7.3	HELP Documentation	25
8	Release Upgrade	26
8.1	Upgrade paths to Release V/4 2022V2 and support packs:	26
9	Configure Solutions by Vistex for SAP S/4HANA	
9.1	Configure SAP Data Maintenance by Vistex, Pricing option for SAP S/4HANA	
9.2	Vistex Namespace	
9.3	Example of Tabs in the Workbench	
9.4	Workbenches look and feel	
9.5	Configure Deals	
9.5.6	Define Sets	
9.5.7	Remove local Sets/Local Flexible group	32

9.6	Configure Fiori	32
9.7	Configure SAP Data Maintenance by Vistex, Resources option for SAP S/4HANA	34
10	Solutions by Vistex Security Information	38
10.1	Other Required Documents for Security for SAP Data Management (DMp and DMr)	38
11	User Management	40
11.1	User Administration Tools	40
11.2	User Data Synchronization	40
11.3	Authentication and Single Sign-On	
11.4	Standard Roles and Authorization Concept	
12	Data Protection and Privacy	46
12.2	Security for Third-Party Applications	65
13	Business Continuity and Availability	66
14	Operating Solution Extensions for SAP S/4HANA by Vistex	67
14.1	Other Required Documents for Operations	
15	Periodic Tasks	71
15.1	Periodic Tasks for Data Maintenance Pricing and Resources ontions	

# **1 About This Guide**

This guide does not replace the daily operations handbooks that we recommend customers create for their specific production operations.

This guide provides a starting point for the optimal maintenance and operation for following solutions:

- SAP Data Maintenance by Vistex, Pricing option for SAP S/4HANA
- SAP Data Maintenance by Vistex, Resources option for SAP S/4HANA

Listed above applications developed in ABAP with its own /IRM/ namespace, the standard SAP Operations Guide should be referenced for most tasks. It can be found in the SAP Help Portal. For information on NetWeaver, please refer to the NetWeaver Guide for SAP NetWeaver 7.5 SP00 or higher found at SAP Help Portal.

This guide addresses the following target audience:

- System administrators
- · Technical consultants
- · Key users

# 1.1 About this release

1 Note

Release requirements and Installation/Upgrade Instructions have been updated for release 2022V2.

# **2 Getting Started**

Vistex designs and implements software solutions that enable your Go-to-Market strategies. The term "Go-to-Market" is a company's strategy to develop, sell, and deliver the products to partners while generating revenue.



Make sure to read the information in this section before you get started with:

- SAP Data Maintenance by Vistex, Pricing option for SAP S/4HANA
- SAP Data Maintenance by Vistex, Resources option for SAP S/4HANA

# 2.1 Glossary of Terms and Abbreviation

Term	Abbreviation	Definition
SAP Data Maintenance Pricing	DMp	The general business scenario addressed by the solution; a nickname for the solution
SAP Data Maintenance Resources and Business Register	DMr and DMr_BR	The general business scenario addressed by the solution, a nickname for the solution

# 2.2 Useful Links

The following resources provide access to more information about general topics, such as software downloads or customer incidents.

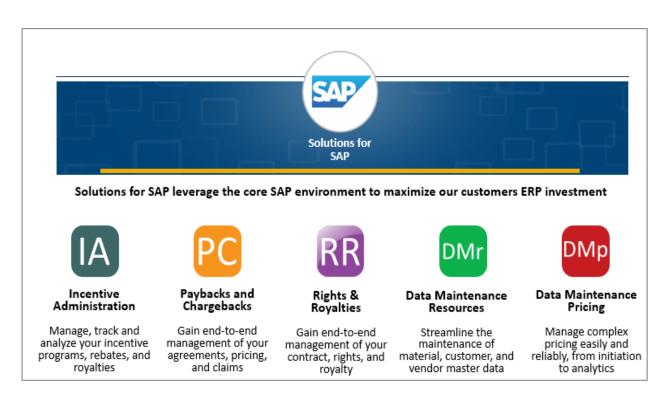
Resource	Where to Find It
User assistance for above listed solutions	Vistex, Inc   Revenue Management Solutions & Services SAP Help Portal
Information about creating customer incidents	Product Support (sap.com)
SAP Notes search	Knowledge Base (sap.com)
SAP Software Download Center	Software Downloads (sap.com)
SAP Operation Guide	Getting Started With SAP S/4HANA 2022
Product Availability Matrix	Maintenance (sap.com)
Solutions by Vistex	Solutions for SAP   Vistex, Inc
Early Knowledge Transfer and role-specific learning maps	Get Involved Early (sap.com)
Sizing	Benchmark   Sizing   SAP
Network security	SAP Help Portal
Performance	Introduction to Performance and Scalability   SAP
Information about support package stacks, latest software versions and patch level requirements	SAP Support Package Stacks
Information about Unicode technology	Browse Topics   SAP Community

# 3 SAP Solutions by Vistex — Product Overview

Vistex is a global provider of enterprise solutions and services. Vistex modules utilize the core SAP S/4HANA environment. The software and services provided by Vistex help companies increase revenue and reduce costs with their business partners by managing trade, channel and vendor programs, pricing, performance Incentive and rights & royalties. Optimized by industry and deployed on premise or in the cloud, enterprises are empowered with unprecedented visibility into the full life cycle of program performance through strategy, software, implementation, execution and analytics services. Enterprise software platforms, designed to provide a holistic view of operations and offer opportunities for growth and expansion, appear more constrained. Vistex tips the scale and brings back balance, providing exceptional visibility into the breadth and depth of Go-to-Market programs, enabling businesses with more insightful information.

SAP Data Maintenance by Vistex eases data maintenance of non-contract pricing data through a flexible user interface tool to manipulate and automate mass updates and manage deals. The solution also calculates and reports government pricing and Medicaid claims for life sciences manufacturers.

SAP Data Maintenance by Vistex enables the efficient maintenance of material, customer, vendor and other partner data in the SAP ERP application. The solution provides single-entry access to all your data, reducing manual errors and increasing data efficiency by automating updates and acting as a centralized repository.



# Vistex Solutions for S/4HANA embedded in SAP Core

# SAP IA – same "Core" as SAP S/4 HANA:

- Master & Transaction Data
- Native Integration to SAP Finance
- Configuration & Development Tools
- Integration Tools
- Security & Authorizations
- Workflow & Approvals
- Audit Trail
- System Management/Monitoring
- Reporting & Analysis Tools



# Vistex solutions install like a delivered SAP Component:

- Leverage existing SAP S/4 hardware & environments
- Leverage scalability and performance of SAP S/4 HANA
- Vistex development done in separate "Name Space" to simplify upgrades

### This Admin Guide is intended for the following solutions:

- SAP Data Maintenance by Vistex, Pricing option for SAP S/4HANA
- SAP Data Maintenance by Vistex, Resources option for SAP S/4HANA

# 3.1 SAP Data Maintenance by Vistex, Pricing option for SAP S/4HANA

This section provides an overview of SAP Data Maintenance Pricing by Vistex, including relevant business scenarios and technical system landscape:

SAP Data Maintenance for ERP – Pricing, is a comprehensive pricing solution that covers everything from agreement initiation to analytics for buy- and sell-side, while retaining the "core" SAP architecture. The solution footprint covers price administration, deal management, price execution and reporting. User-friendly layouts and intuitive functionality allow users to adjust prices without delay, while providing the ability to execute mass pricing updates, automating maintenance and eliminating hours of manual processes. Key Features of DMp- is fallibility and usability: wizards

(Data Maps); dashboards, "what - if" scenarios, load external data. For government reporting purposes, it is critical that the system be able to calculate and report the following price types as required by the Centers for Medicare & Medicaid Services (CMS) and the Veterans Administration.



- Price maintenance is delivered in standard when the price sheets are maintained. Classic Price Maintenance is used to maintain one price sheet at a time
- Approve and validate pricing systematically without duplication
- Gain full visibility from time of ale into deal management with multiple products
- · Analyze margin of products or agreements
- Create price proposals for review and publishing

# **3.1.1 Data Maintenance Pricing Definitions**

Visibility and in-depth analysis of pricing strategies to support planning and growth. Critical component(s) of effective Revenue Management include the ability to articulate and gain control of go-to-market programs, sync different elements, optimize margin and reduce revenue leakage. The objective is to charge the right price at the right time and give credits and rebates when needed to customers

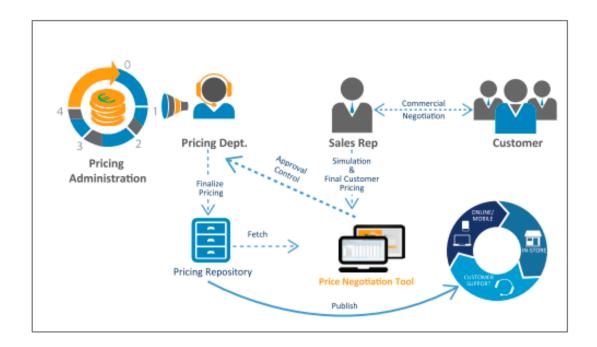
# 3.1.1.1 Data Maintenance Pricing Common Industry Terms

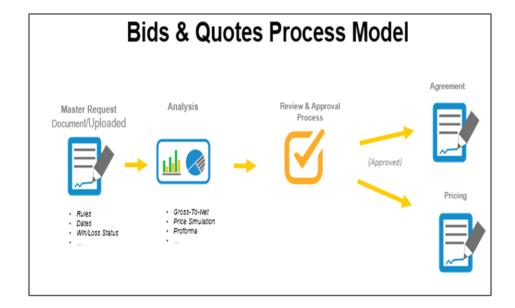
Price Management	Contract Management
Revenue Management	Profit Optimization
Price Policies	Direct & Indirect Price Controls
Government Pricing	Value of Transaction Pricing

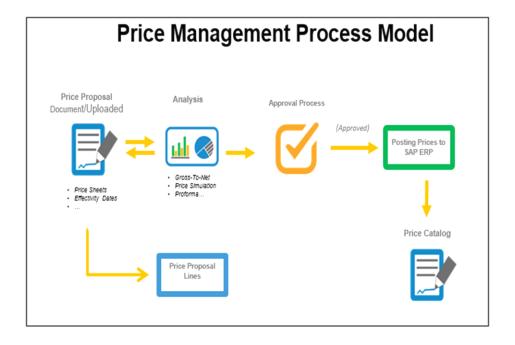
# 3.1.1.2 Data Maintenance Pricing Industries

Life Science	Pharma
Food Service	Wholesale Distribution
Retail	Manufacturing

# 3.1.1.3 Main Processes







# 3.2 SAP Data Maintenance by Vistex, Resources option for SAP S/4HANA

This section provides an overview of SAP Data Maintenance Resources by Vistex, including relevant business scenarios and technical system landscape:

SAP Data Maintenance for ERP – Resources, empowers the maintenance of vital product, customer and vendor data in the SAP S/4HANA application. Leveraging an intuitive user interface, you can interact with, and manage, your integral data. SAP Data Maintenance Resources provides a single-entry, centralized data repository for all your data, reducing manual errors and increasing data efficiency. Now it's easier than ever to apply rules for data validation and governance, execute mass changes, and process future effectivity date changes. Key Features of DMr: data transformation to feed other systems and catalogs. Describe your project from a business point of view, including key features and business benefits. If you describe business scenarios in detail, add one section per business scenario as required.

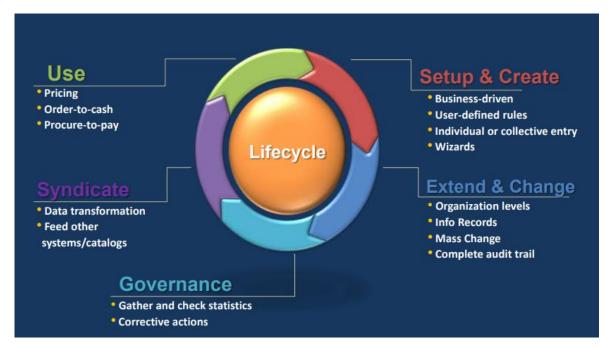


Figure 13

- Easily copy and extend data across customer, material (plants, ales distribution centers, etc.), and vendors
- Enables the creation and delivery of mass changes to master data
- Validate compliance and governance with a full audit trail and approval processes
- Maintain future -dated changes
- · Boost productivity with automated tools and an intuitive interface

# **3.2.1 Data Maintenance Resources Definitions**

DMr is used to increase business performance with actionable insights from your master data.

# 3.2.1.1 Data Maintenance Resources Common Industry Terms

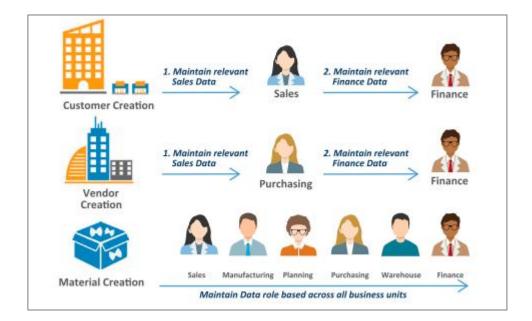
Order-to-cash	Procure-to-pay
Systems/catalogs	Mass Change
Audit trail	Data Information

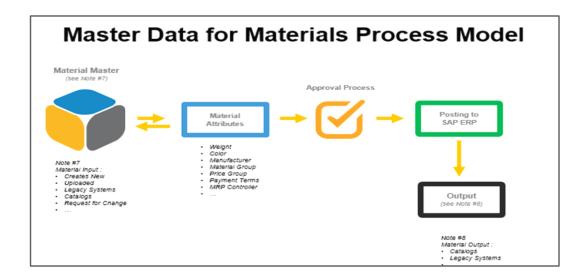
# 3.2.1.2 Data Maintenance Recourses Industries

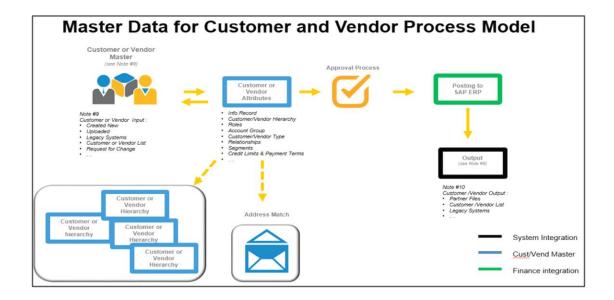
Life Science	Pharma
Food Service	Wholesale Distribution
Retail	Manufacturing

# 3.2.1.3 Main Processes

SAP Data Maintenance by Vistex enables the efficient maintenance of material, customer, vendor and other partner data in the SAP ERP application. The solution provides single-entry access to all your data, reducing manual errors and increasing data efficiency by automating updates and acting as a centralized repository.

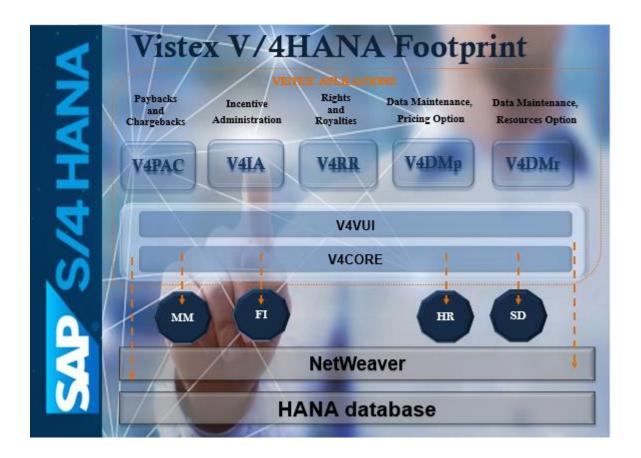






# 4 High Level System Landscape

This section describes the technical system landscape and the software components involved. The following figure provides an overview of the system landscape:



# **5 Preparation Planning**

# 5.1 Overview of Technical Runtime Scenario for SAP Data Maintenance by Vistex, Pricing option for SAP S/4HANA

Software Component	Required or Optional
V4DMP	Required
V4CORE	Required
V4VUI	Optional

# 5.2 Overview of Technical Runtime Scenario for SAP Data Maintenance by Vistex, Resources option for SAP S/4HANA

Software Component	Required or Optional
V4DMR	Required
V4CORE	Required
V4VUI	Optional

From a microeconomic perspective, a business scenario is a cycle that consists of several different logical processes interconnected in time. Typically, a business scenario includes several company departments and involves other business partners. Solutions by Vistex business scenarios need SAP S/4HANA to run. A business scenario is a unit that can be implemented separately and reflects the customer's prospective course of business.

# 5.3 Minimum Requirements

The solution is developed for an SAP S/4HANA 2022 server. You need to ensure that your system is exactly on the following release level:

### S/4 Minimum System Requirements

S4CORE 107 SAP\_ABA 75H SAP\_BASIS 757

# > FIORI Minimum Requirements (if installed on S/4 server)

SAP\_UI Version 757 SP01 & Minimum UI5 libraries 1.102

### > FIORI Minimum Requirements (if installed on a standalone FIORI server)

Minimum SAP\_UI Version 757 SP01, and Minimum UI5 libraries 1.102

i <sub>Note</sub>

For additional requirements please refer to Query Engine Admin Guide and Installation Guide at the SAP portal SAP Help Portal.

# **6 Implementation**

Please refer to the Installation Note to install Solutions by Vistex for SAP S/4HANA into your SAP S/4HANA 2022V2 system. Depend upon license you require, during the installation, the following ABAP Add-ons will be installed:

Implementing DMp	Implementing DMr
V4CORE release 2022V2	V4CORE release 2022V2
V4DMP release 2022V2	V4DMr release 2022V2

If using FIORI, the following component will be installed in the gateway server:

V4VUI release 2022V2

### Other Installation Information:

- All objects are delivered in the namespaces /IRM/, /VTA/, /VIZC/, /VIZI/, and /VUI/
- Add-On components listed below are available based on the customer's S/4 license:
  - V4CORE Core applications used for all other components
  - V4DMP Data Maintenance Pricing
  - V4DMR Data Maintenance Resources
  - o V4VUI Fiori applications used for all other components
- The software is available on the SAP Service Marketplace
- The software add-ons are installed using SAP tools (SUM, SAINT)
- The available support packages should be included in the installation queue along with the add-ons
- Post processing steps are required; see Installation SAP Note for more information

# **6.1 Overview of Important SAP Notes**

The following SAP Notes are essential for installing, upgrading, migrating and operating Vistex Solutions for SAP S/4HANA:

i <sub>Note</sub>

The SAP Notes relevant for installation and upgrade are also listed in the respective sections in this guide. Make sure that you have the latest version of each SAP Note, which is available on SAP Support Portal at. Knowledge Base (sap.com). Notes are frequently updated.

SAP Note Number	Title	Description
3341678	Vistex Release V/4 2022V2 Solutions Installation/Upgrade to S/4HANA OP 2022	Installation and Upgrade note
3341650	Uninstall Components of Vistex V4HANA 2022V2 Software Version for S/4HANA OP 2022	Uninstall note
3341643	Vistex IP and DM Module Conversion to Release V/4 2022V2 on S/4HANA OP 2022	Migrate process note

# 6.2 Related Documents

Refer to the "Release Summary" document by Vistex which is available on the Vistex company website. Customers may subscribe to receive the Release Summary document for each new release.

- Go to https://www.vistex.com
- Choose "Services" > "Customer Support" menu option
- Click "SAP Solutions Support" icon
- Scroll to the bottom of the page and fill out the form

# 6.3 Explanation of Vistex Licenses

Each Vistex add-on solution for SAP S/4HANA 2022 and 2022V2 is licensed separately. The solution add-ons will be available from the Knowledge Base (sap.com) download site according to the customer's licensing agreement. For missing solutions add-ons, please contact the customer's SAP account executive.

# 6.4 Getting Support

Vistex recommends that you upgrade your software in a timely manner to stay current with the latest functionality and corrections, and also to minimize the risk of the maintenance ending for an older release.

If you encounter any problems with solutions by Vistex for SAP S/4HANA, report an incident on SAP Support Portal. To report an incident, go to SAP Support Portal at SAP ONE Support Launchpad. The relevant component of each solution. First level support for Solutions by Vistex is provided through SAP ONE Support Launchpad via component XX-PART-DTM. All support and remote support tools are available as per the standard SAP service contract. Remote support is provided by SAP (and/or Vistex) via SAP Solution Manager, and the standard SAP support roles can be used for the support activities.

If you experience an issue with your Data Maintenance software, please first look for applicable SAP Notes as the issue may already be known and resolved. Search the SAP Note listing in the VOICE section of the website (Notes are cataloged by Release/Support Package level)

If you are unable to find an SAP Note to resolve the issue, please open a customer message with SAP under the component XX-PART-DTM.

For customers that require service and support for tailored/custom solutions, please visit our Services | Vistex, Inc page.

Software Package	Support is Provided Through	Use Component
Data Maintenance	SAP Service Marketplace Customer Message Channel	XX-PART-DTM

For additional information refer to Data Maintenance | Vistex, Inc.

# 6.5 Important Considerations

The Vistex add-on software can be installed simultaneously with the SAP S/4HANA 2022 software—or installed alone—using SAINT.

# 6.6 Constraints

None

# 7 Installing Solution Extensions by Vistex

This section provides information about how to prepare for installation and what to do before and after the installation of Solutions by Vistex for SAP S4/HANA:

# 7.1 Prerequisites for Installation

This section lists the prerequisites that must be met before you start installation.

### 7.1.1 SAP Notes for Installation

Read the following SAP Notes before you start installation. These SAP Notes contain the latest installation information, as well as any corrections.

i Note

Make sure that you have the latest version of each SAP Note, which is available on SAP Support Portal at SAP ONE Support Launchpad.

SAP Note Number	Title	Description
3341678	Vistex Release V/4 2022V2 Solutions Installation/Upgrade to S/4HANA OP 2022	Installation and upgrade

# 7.1.2 Pre-Installation Tasks

This section describes tasks that must be completed before you begin installation of Solutions by Vistex for SAP S/4HANA:

Download the following Vistex Add-on Installation packages and Support Packages from SAP ONE Support Launchpad.

Each add-on available according to your company's license:

### Implementation:

For all implementations, the following packages are installed:

- V4CORE release 2022V2
- V4VUI release 2022V2

Depending on the licenses your company is entitled, the following packages may be installed:

- V4DMP release 2022V2
- V4DMR release 2022V2

#### **Installation Tools:**

Standard SAP add-on installation tools such as SAINT (for installation) and SPAM (for Support Packages) should be used for loading the solution into your system.

# 7.2 Post-Installation Tasks

There are no post installation tasks that should be completed after you've finished installing Solutions by Vistex for SAP S/4HANA:

# 7.3 HELP Documentation

Help documentation is available online at Welcome to Vistex Help Portal | Vistex, Inc or SAP Help Portal.

DISCLAIMER: The scenario described in the procedure steps below reflects the use of strictly example configuration.

# 8 Release Upgrade

# 8.1 Upgrade paths to Release V/4 2022V2 and support packs:

- From V/4 2022 -> Upgrade to V/4 2022V2
- From V/4 2021 version 2 -> Upgrade to V/4 2022
- From V/4 2021 -> Upgrade to V/4 2021 version 2
- From V/4 2020 version 2 -> Upgrade to V/4 2021
- From V/4 2020 -> Upgrade to V/4 2020 version 2
- From V/4 1909 version 2 -> Upgrade to V/4 2020
- From V/4 1909 -> Upgrade to V4 1909 version 2



Refer to SAP Notes or Upgrading Vistex Software | Vistex, Inc

# 9 Configure Solutions by Vistex for SAP S/4HANA

# 9.1 Configure SAP Data Maintenance by Vistex, Pricing option for SAP S/4HANA

# 9.1.1 Glossary of commonly used terms

Glossary of commonly used terms for SAP Data Maintenance by Vistex, Pricing option for SAP S/4HANA and SAP Data Maintenance by Vistex, Resources option for SAP S/4HANA

Pricing Sheet	A combination of a condition type (such as price, discount, or surcharge) and a condition table (the fields that form the key for a condition record) for an application (sales or purchasing). Price sheets must be defined during configuration before condition records can be created and stored on each price sheet within DM Pricing.
Dynamic Pricing	Customer-defined condition tables are limited in number. To increase the number of pricing tables that can be defined, create dynamic pricing tables (and create fields to be assigned to the table) in configuration. A dynamic price sheet then is flagged as being maintained using dynamic pricing.
Price Policy	Price policies calculate thresholds for pricing exceptions and generate warnings when a price requirement on a price sheet has been violated. Price policies can be set to auto execute when price records are created, or they can be called on demand.
Classic Maintenance	Classic maintenance is the simplest maintenance method used to create, change, and display condition records. DM Pricing's pricing maintenance offers the ability to create, maintain, and display conditions in an easy-to-use, Excel-like centralized view, giving you greater control for mass changes. When using classic maintenance, saved pricing data instantly becomes accessible by all SAP ECC Sales and Purchasing transactions.
Price Proposal	Initiated to request approval for the creation of condition records.
Profile-based Maintenance	Utilizes the price profiles created during configuration to control how pricing information is fetched and displayed during maintenance activities.

### **Sample Scenario**

The Data Maintenance Pricing (DMP) allows condition records to be created, changed, and displayed to optimize the entry and maintenance for pricing records related to the business processes. The Price Proposal provides users a means to review changes prior to being posted in Fiori. In this use case, the pricing records will be changed and created, before the records are saved as a Price Proposal. Then, the Price Proposal will be posted from the new DMP Price Proposal Fiori interface.

DISCLAIMER: The scenario described in the procedure steps below reflects the use of strictly example configuration.

# 9.2 Vistex Namespace

How can users determine if they are in a Vistex transaction versus an SAP transaction?

Answer: Vistex Transaction Code (T-code) begins with /IRM/

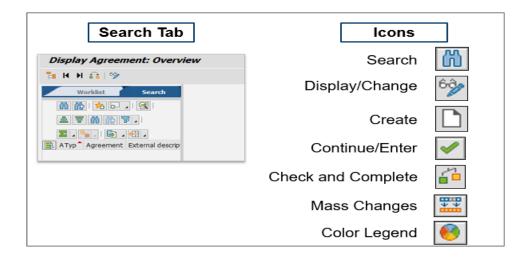
# 9.3 Example of Tabs in the Workbench

Vistex solutions workbenches are similar to SAP workbenches:

- Terms/Settlement tab Allows to set up the payment parameters (how and when payment is made).
- Status tab Allows to set up approval process and view current level reached.
- Date tab Displays business tasks and the timeframe for the duration of the task (planned/actual).
- Notes tab Stores and maintains comments for internal purposes.
- Document tab Stores, organizes and maintains documents associated with the Agreement. The stored document remains with the Agreement, Agreement Request, Claim, Transaction or Deal.
- Text tab Used to save predefined standard text that can be re-used (such as privacy policy).
- Clauses tab Displays the contract clauses assigned to the Agreement. This tab can be used to author an entire contract or specific sections (clauses) and then can be sent for review and approval.
- Admin tab Displays who created and/or changed information.
- General tab Displays information useful for searching and reporting.
- Org Data tab Displays the organization data entered when the Agreement was created which is required by SAP. Vistex allows to override this at the rule level to increase flexibility.
- Partner tab Allows to search by partner. A partner is an individual or a legal entity within or outside the organization, with which the organization is conducting a business transaction.

# 9.4 Workbenches look and feel

Solutions by Vistex for SAP S/4HANA are embedded in SAP Core. Vistex solutions have the look and feel of SAP workbenches:



# 9.4.1 Pricing

9.4.1.1 Price Record Number Range

Go to /N/IRM/GPRSPRO → Global Settings → Define Number Ranges for Price Records

9.4.1.2 7.1.2. Price Proposal Number Range

Go to /N/IRM/GPRSPRO → Global Settings → Define Number Ranges for Price Proposals

9.4.1.3 7.1.3. Price Sheet

Go to /N/IRM/GPRSPRO→ General Maintenance → Price Sheets → Define Price Sheets

9.4.1.4 7.1.4. Price Proposal Type

Go to /N/IRM/GPRSPRO→ Documents → Price Proposal → Define Price Proposal Types

# 9.4.2 Configure Fiori

The Pricing Workbench Fiori application is a web version of the standard pricing workbench transaction. Users can access and change the pricing area(s) price sheet data in the Pricing Workbench Fiori application

9.4.2.1 Create workspace

To create a workspace for the pricing workbench go to tcode /IRM/GWSM

9.4.2.2 Create pricing workbench UI Profile

To create UI profile go to tcode /IRM/GPRPWUPM

#### 9.4.2.3 Create User Roles

A role is defined as a collection of workspaces, search profiles, UI profiles and users. This will help determine which users have access to view and maintain particular information. To create a role, the user must enter the /IRM/GURLM transaction

- o Assign Workspace
- o Assign UI Profile
- o Assign The user

# 9.5 Configure Deals

#### Scenario

The purpose of this scenario is related to deals (e.g. a buy one and get one free deal), within the sales order. This requires the order to find the eligible Deal and determine if the order meets the necessary qualifications.

DISCLAIMER: The scenario described in the procedure steps below reflects the use of strictly example configuration.

# 9.5.1 Configure Deal Type

9.5.1.1 Maintain Condition Table

Create a new condition table

/IRM/IPSPRO > Incentive and Payback Module > Basic Functions > Pricing Sales > Pricing Control → Define Condition Tables

9.5.1.2 Define Access Sequences (refer to SAP)

9.5.1.3 Maintain Condition Types

Create a new condition table

/IRM/IPSPRO > Incentive and Payback Module > Basic Functions > Pricing Sales > Pricing Control > Define Condition Types

9.5.1.4 Maintain Additional Data for Condition Types

To maintain additional data, go to

/IRM/IPSPRO > Incentive and Payback Module > Basic Functions > Pricing Sales > Pricing Agreements > Maintain Additional Data for Condition Types

### 9.5.1.5 Deals Setup for Document Types

To maintain document types for Deals, go to

### /IRM/GPRSPRO > Deals > Deals Setup for Document Types

9.5.1.6 Define Price Sheet

To Define a View Profile, go to

/IRM/IPSPRO > Incentive and Payback Module > Basic Functions > Pricing Sales > Pricing Agreements > Set up Agreements > Agreement Rules > Define View Profiles

9.5.1.7 Maintain Condition Type Group

Create a new condition table by selecting

/IRM/IPSPRO > Incentive and Payback Module > Basic Functions > Pricing Sales > Pricing Control > Define Condition Types

- 9.5.1.8 Assign Condition Type to Condition Type Group (refer to SAP)
- 9.5.1.9 Maintain Number Range for Condition Contracts (refer to SAP)
- 9.5.1.10 Create Condition Contract Type (refer to SAP)
- 9.5.1.11 Define number Ranges for Deal
- 9.5.1.12 Create Deal Type

# 9.5.2 Configure Pricing Procedure

- 9.5.2.1 Define Pricing Procedure
- 9.5.2.2 Define Customer Pricing Procedure
- 9.5.2.3 Define Pricing Procedure Determination

# 9.5.3 Notes integration in rules

9.5.3.1 Assignment of Rule section as parent to Notes section

# 9.5.4 Date format based on user settings

9.5.4.1 User time zone should be set in 'Attributes' section

New Widget - a UI usability improvement

IPSPRO ->Basic functions -> Pricing -> Sales- Pricing Agreements -> Maintain IP Agreement Types -> Sales -> Setup Agreements -> Agreement Rules -> Define Sets and Dimensions

# 9.5.5 Added where-used list in global sets

### 9.5.6 Define Sets

IPSPRO ->Basic functions -> Pricing -> Sales -> Pricing Agreements -> Maintain IP Agreement Types -> Sales -> Setup Agreements -> Agreement Rules -> Define Sets and Dimensions

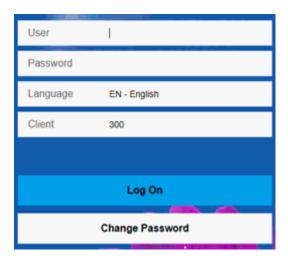
# 9.5.7 Remove local Sets/Local Flexible group

IPSPRO -> Basic functions -> Pricing - > Sales - Pricing Agreements -> Maintain IP Agreement Types -> Sales -> Setup Agreements -> Agreement Rules -> Define Sets and Dimensions

# 9.6 Configure Fiori

In order to provide a more user friendly and customizable user experience, many of the Vistex applications are available as Fiori applications. Fiori applications allow clients to develop role-based layouts and improve overall user experience for many applications. This is accomplished through the creation of UI profiles, search profiles, and role assignments. These applications are available through the Vistex Launchpad and are scalable for use on any device. To access the application, the user will have to provide the corresponding URL in the browser. This will take the user to the logon screen. Here the corresponding credentials must be entered.

To access the Fiori, the UI connection must be maintained between the ERP system and the Gateway system.



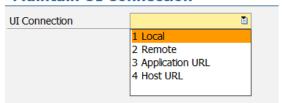
### 9.6.1.1 UI Connection Maintenance (ERP System)

The following steps must be completed to maintain the ERP system connection to the Gateway system:

- After executing the transaction /IRM/GUICNM, the user must select type of UI Connection as Remote.
- Then the RFC Destination of the Gateway System, based on the connection type selected.

The below example illustrates the information necessary for a remote connection.

### **Maintain UI Connection**

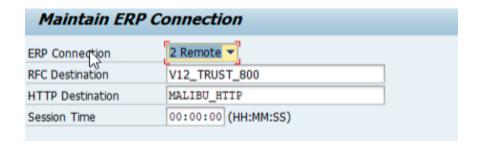


### 9.6.1.2 ERP Connection Maintenance (Gateway System)

With the connection completed on the ERP system side, the UI connection must be maintained in the Gateway System. For this, the following steps must be followed:

- Execute transaction /VUI/GERPCNM, to maintain ERP Connection type.
- · Specify the RFC Destination, the ERP System, for the corresponding connection type.
- Then specify the HTTP Destination, for example the HTTP Connection to the ABAP System from the transaction SM59. This will support the GUI navigations and IP Reports for Remote Connection.

The below example illustrates this connection using the remote connection.



# 9.6.1.3 Create Workspace

To creating the workspace for agreement go to tcode /IRM/GWSM

### 9.6.1.4 UI Profile Types

To create UI Profile Type go to tcode /IRM/IPAGUPM

#### 9.6.1.5 Create UI Profile

To create a UI profile go to tcode /IRM/GEVUPM

#### 9.6.1.6 Create Search Profile

A search profile will assist the user in finding existing documents in the Fiori application. The search profile can be created using the workbench, /IRM/GEVUSPM

#### 9.6.1.7 Create User Role

A role is defined as a collection of workspaces, search profiles, UI profiles and users. This will help determine which users have access to view and maintain particular information. To create a role, the user must enter the transaction /IRM/GURLM.

# 9.7 Configure SAP Data Maintenance by Vistex, Resources option for SAP S/4HANA

All DMR configuration nodes can be accessed through /IRM/EPSPRO

# 9.7.1 Scenario Customer creation

The Data Maintenance (DM) Customer creation practice is initiated to optimize the entry business process: dependencies, restricted selections, defaults, historical information, validations and uploads can be utilized.

## **Preparation for Create Customer Workbench**

9.7.1.1 Create Customer Types

### /IRM/EPSPRO → Customer Workbench → Define Customer Types

9.7.1.2 Maintain Customer Status

### /IRM/EPSPRO → Customer Workbench → Maintain Customer Status

9.7.1.3 Create Posting Blocks

### /IRM/EPSPRO → Customer Workbench → Maintain Posting Blocks

9.7.1.4 Log into the SAP system

In the Customer Workbench you can create a single customer or multiple customers by using Tcode /*N/IRM/EPKUM* or select *DM Customer* → Customer Workbench from the User Menu.

9.7.1.5 Create Customer List

### DM Customer -> /IRM/EPKULM

9.7.1.6 Create Attributes

/N/IRM/EPKUM or select DM Customer > Customer Workbench from the User Menu.

# 9.7.2 Scenario Material creation

The Data Maintenance (DM) Material creation practice is initiated to optimize the entry business process: dependencies, restricted selections, defaults, historical information, validations and uploads can be utilized.

### **Preparation for Create Material Workbench**

9.7.2.1 Create Maintenance Level Profiles

Select *Data Maintenance (Resources)* → *Materials* → Go to IMG-Activity button for *Define Maintenance Level*\*\*Profiles -> Create Basic Maintenance Profile\*\*

9.7.2.2 Create source categories:

In /IRM/ EPSPRO, select Data Maintenance (Resources) → Materials → Material Workbench → Click the IMG-Activity button for Maintain Material Source.

9.7.2.3 Create Posting blocks

In /IRM/ EPSPRO, select Data Maintenance (Resources) → Materials → Material Workbench → Click IMG-Activity button for Maintain Posting Blocks.

9.7.2.4 Create an Attribute

DM Material → Material Attributes → Material Attribute Workbench from the User Menu tree or by entering the T-Code: /N/IRM/EPPDATM in the Command field and pressing the Enter key

9.7.2.5 Create an Attribute Group

DM Material → Material Attributes → Material Attribute Group Workbench from the User Menu tree or by entering the T-Code: /N/IRM/EPPDAGM

9.7.2.6 Create Product Types:

/N/IRM/EPSPRO ->Materials → Material Workbench-> Define Product Types

9.7.2.7 Create Material

You can create a single material or multiple materials:

Enter Tcode /N/IRM/EPPDM or select DM Material → Material Workbench from the User Menu.

9.7.2.8 Create an Attribute Rule

DM Material → Material Attributes → Material Attribute Rule Workbench from the User Menu tree or enter /N/IRM/EPPDARM

9.7.2.9 Create an Attribute Set

DM Material → Material Attributes → Material Attribute Set Workbench or enter the T-Code: /N/IRM/EPPDASM

9.7.2.10 Material Hierarchy

/IRM/EPSPRO → Materials → Hierarchy → Hierarchy Types

9.7.2.11 Item Types

/IRM/EPSPRO → Materials → Composition → Item Types

9.7.2.12 Material Variants

/IRM/EPSPRO → Materials → Material Workbench → Define Product Types → Variant Types

# 9.7.3 Scenario Vendor creation

The Data Maintenance (DM) Vendor Information Record process is initiated to create a record that is a unique combination of a particular Vendor Master record and a particular Material Master record.

### **Preparation for Create Vendor Workbench**

9.7.3.1 Create Vendor Types

/IRM/EPSPRO → Vendors → Vendor Workbench → Define Vendor Types

9.7.3.2 Maintain Vendor Statuses

/IRM/EPSPRO → Vendors → Vendor Workbench → Maintain Vendor Statuses

9.7.3.3 Maintain Vendor Sources

/IRM/EPSPRO → Vendors → Vendor Workbench → Maintain Vendor Sources

9.7.3.4 Create Vendor Categories

/IRM/EPSPRO → Vendors → Maintain Vendor Categories

#### 9.7.3.5 Create maintenance Levels

#### /IRM/EPSPRO → Vendors → Review Maintenance Levels

9.7.3.6 Maintain Hierarchy

#### /IRM/EPSPRO → Vendors → Hierarchy → Maintain Hierarchy Categories

9.7.3.7 Create Vendor Attribute and Attribute Rules

/IRM/EPSPRO → Vendors → Attribute Rules → Maintain Attribute Rule Groupings

/IRM/EPSPRO → Vendors → Attribute Rules → Define Attribute Rule Categories

9.7.3.8 Create Vendor

You can create single or multiple vendors

DM Vendor → /IRM/EPLIM

9.7.3.9 Create Vendor List

DM Vendor → /IRM/EPLILM

9.7.3.10 Create a new Vendor Info Record

#### DM Vendor → /N/IRM/EPLIIRM

#### 10.5.3.11 Dependent Rule Sheets

Release 1909 version 2 introduced a new "parent - child agreement price sheet" concept, easily maintained in the SPRO under "Additional Price Sheets". This concept is available via Fiori app only for IA, PAC and DMp modules. From Rules Overview users can drill down to the parent price sheet record: "Agreement price record-> Parent sheet-record> Material Group/ Customer or Material Group/Material. The main purpose of this new functionality is to grand rights for titles.

Configuration path:

#### IPSPRO> Maintain IP Agreement Types > Additional Price Sheets > Additional Attributes

i <sub>Note</sub>

Additional information regarding configuration and training is available at https://www.vistex.com/services/training/.

10 Solutions by Vistex Security Information

This section deals with security topics relevant for following Solutions by Vistex for SAP S/4HANA:

SAP Data Maintenance by Vistex, Pricing option for SAP S/4HANA

SAP Data Maintenance by Vistex, Resources option for SAP S/4HANA

Since Solutions by Vistex for SAP S/4HANA are an embedded SAP Add-ons, standard SAP security authorizations are utilized. This includes communication security, user management and authentication concept, logging configuration for security relevant events. Security can be done at a transaction level as well as a field level. Please refer to SAP security guides found on the SAP Help Portal.

10.1 Other Required Documents for Security for SAP Data Management (DMp and DMr)

**Troubleshooting:** 

Please refer to the standard SAP Operations Guide found at SAP Help Portal for troubleshooting. Notes on Knowledge Base (sap.com) are also used for specific troubleshooting issues and resolutions. If there are issues when installing solutions by Vistex make sure the file size that is being installed matches the file size on Software Downloads - SAP ONE Support Launchpad. Security on some networks will not allow for a full download and will truncate the files. Also, if copying the files from a PC to an application server, make sure it is done in "BINARY" mode.

If there are issues when installing SAP Data Maintenance by Vistex (DMp and DMr), make sure the file size that is being installed matches the file size on SAP Help Portal. Security on some networks will not allow for a full download and will truncate the files. Also, if copying the files from a PC to an application server, make sure it is done in "BINARY" mode.

Below are some known tips.

Issue: Material will not post.

Cause: A required field is not filled in or an invalid value has been entered.

Troubleshooting: Try to create the material in the standard SAP material create transaction (MM01) with the

same data minus the Data Maintenance fields. If a required field does not have data, that attribute will need

to be added to an available attribute group or a new attribute group which is then associated with the product type in Data Maintenance. If an invalid value is entered, the value needs to be excluded from the applicable

attribute available values or the attribute will need to reference the correct table to provide a list of values

during entry.

Issue: Customer will not post.

Cause: A required field is not filled in or an invalid value has been entered.

Troubleshooting: Try to create the customer in the standard SAP customer create transaction (XD01) with

the same data minus the Data Maintenance fields. If a required field does not have data, that attribute will

need to be added to an available attribute group or a new attribute group which is then associated with the product type in Data Maintenance. If an invalid value is entered, the value needs to be excluded from the

applicable attribute available values or the attribute will need to reference the correct table to provide a list of

values during entry.

Issue: Vendor will not post.

Cause: A required field is not filled in or an invalid value has been entered.

Troubleshooting: Try to create the vendor in the standard SAP vendor create transaction (XK01) with the

same data minus the Data Maintenance fields. If a required field does not have data, that attribute will need

to be added to an available attribute group or a new attribute group which is then associated with the product type in Data Maintenance. If an invalid value is entered, the value needs to be excluded from the applicable

attribute available values or the attribute will need to reference the correct table to provide a list of values

during entry.

Issue: A pricing record will not save.

Cause: A required field is not filled in or an invalid value has been entered.

Troubleshooting: Try to create the condition record in the standard SAP condition record create transaction

(VK11) with the same data minus the Data Maintenance fields. If a required field does not have data, the field

may be missing from the layout and will need to be added. If an invalid value is entered, the correct value

should be added, or the defaults may need to be changed.

Administration Guide for SAP Data Maintenance by Vistex, Pricing option for SAP S/4HANA 2022V2 SAP Data Maintenance by Vistex, Resources option for SAP S/4HANA 2022V2

September 2023 © 2023 Vistex, Inc. All rights reserved. © 2023 SAP SE or an SAP affiliate company. All rights reserved.

# 11 User Management

This section provides an overview of how you manage and authenticate users in following Solutions by Vistex for SAP S/4HANA:

- SAP Data Maintenance by Vistex, Pricing option for SAP S/4HANA
- SAP Data Maintenance by Vistex, Resources option for SAP S/4HANA

Solutions by Vistex for SAP S/4HANA use the user management and authentication mechanisms provided by SAP for NetWeaver 7.5 SP00 or higher and SAP S/4HANA 2022 and support packages/versions. The security recommendations and guidelines for user administration and authentication are described in the SAP Operations Guide found at SAP Help Portal.

#### 11.1 User Administration Tools

Solutions by Vistex for SAP S/4HANA are an embedded solution and utilize the standard SAP user administration tool for which documentation can be found at SAP Help Portal.

# 11.2 User Data Synchronization

Solutions by Vistex for SAP S/4HANA use the supports the Single Sign-On (SSO) mechanisms provided by SAP NetWeaver. Therefore, the security recommendations and guidelines for user administration and authentication as described in the SAP NetWeaver Security Guide also apply. Refer to the SAP Operation Guide.

# 11.3 Authentication and Single Sign-On

This section describes how authentication and single sign-on for users are implemented in Solutions by Vistex SAP S/4HANA.

Solutions by Vistex for SAP S/4HANA support the Single Sign-On (SSO) mechanisms provided by SAP NetWeaver. Therefore, the security recommendations and guidelines for user administration and authentication as described in the SAP NetWeaver Security Guide also apply.

## 11.4 Standard Roles and Authorization Concept

Solutions by Vistex for SAP S/4HANA are embedded SAP Add-On solutions, and therefore, utilize these standard SAP concepts and use the authorization concept provided by SAP NetWeaver ABAP.

The SAP NetWeaver authorization concept is based on assigning authorizations to users based on roles. For role x5dxxxmaintenance, use the profile generator (transaction PFCG) on the AS ABAP and the User Management Engine's user administration console on the AS Java.

ACGR roles listed below provide all of the necessary Solutions by Vistex transactions for an individual to manage the applicable master data within their system. The "Display Only" roles are read only roles, and as such do not allow create or change access to the data.

ACGR Role	Description
/IRM/V4DMP_ANALYST	Data Maintenance Pricing Administrator
/IRM/V4DMP_DISPLAY	
/IRM/V4DMP_BR_ANALYT	Data Maintenance Pricing - Business Register Administrator
/IRM/V4DMP_BR_DISPLAY	
/IRM/V4DMR_ANALYST	Data Maintenance Resources Administrator
/IRM/V4DMR_DISPLAY	

# 11.4.1 Authorization Objects for SAP Data Maintenance by Vistex, Pricing option for SAP S/4HANA

The section lists the security-relevant authorization objects that are used by SAP Data Maintenance by Vistex, pricing option for SAP S/4HANA:

Since SAP Data Maintenance by Vistex is an embedded SAP Add-on, standard SAP security authorizations are utilized. This includes communication security, user management and authentication concept, logging configuration for security relevant events. Security can be done at a transaction level as well as a field level. Please refer to the security guides found on the SAP Help Portal. The following roles are delivered:

#### Roles /IRM/V4DMP\_\_ANALYST:

Object	Short Text	
V_GB_DLAGR	Authorization Group for Deals	
V_GB_FGTYP	Flexible Group Type Authorization	
V_GB_NOTES	Notes based on Business Object and Note Type	

V_GB_PBPTY	Price Book Type - Purchasing	
V_GB_PBTYP	Price Book Type - Sales	
V_GB_PPTYP	Price Proposal Type	
V_GB_PRCTY	Price Type	
V_GB_PAGRP	Pricing Record: Policy Authorization	
V_GB_PDLRQ	Purchasing Deal Request	
V_GB_PDEAL	Purchasing Deals Release and Delete	
V_GB_SDLRQ	Sales Deal Request	
V_GB_SDEAL	Sales Deals Release and Delete	

# 11.4.2 Authorization Objects for SAP Data Maintenance by Vistex, Resources option for SAP S/4HANA

The section lists the security-relevant authorization objects that are used by SAP Data Maintenance by Vistex, resources option for SAP S/4HANA:

Since SAP Data Maintenance by Vistex is an embedded SAP Add-on, standard SAP security authorizations are utilized. This includes communication security, user management and authentication concept, logging configuration for security relevant events. Security can be done at a transaction level as well as a field level. Please refer to the security guides found on the SAP Help Portal. The following roles are delivered:

#### Roles /IRM/V4DMR\_\_ANALYST:

Object	Short Text		
V_EP_SICHT	Authority Check by Class Type and Organizational Area		
V_EP_BPTYP	Authorization for Business Partner Type		
V_EP_KUHIE	Authorization for Customer Hierarchy Assignment		
V_EP_PDKUI	Authorization for Customer Info Record		
V_EP_KULML	Authorization for Customer List Maintenance Level		
V_EP_KULTY	Authorization for Customer List Type		
V_EP_KUMLV	Authorization for Customer Maintenance		
V_EP_KUTOI	Authorization for Customer Trade Record		
V_EP_KUTYP	Authorization for Customer Type		
V_EP_JAGRP	Journal Authorization Group assigned to Collection IDs		
V_EP_LIHIE	Authorization for Vendor Hierarchy Assignment		
V_EP_PDLII	Authorization for Vendor Info Record		
V_EP_LILML	Authorization for Vendor List Maintenance Level		
V_EP_LILTY	Authorization for Vendor List Type		
V_EP_LIMLV	Authorization for Vendor Maintenance Level		

V_EP_LITOI	Authorization for Vendor Trade Record	
V_EP_LITYP	Authorization for Vendor Type	
V_EP_PDLML	Authorization for Material List Maintenance Level	
V_EP_PDLTY	Authorization for Material List Type	
V_EP_PDMLV	Authorization for Material Maintenance Level	
V_EP_PDTYP	Authorization for Product Type	
V_EP_STTYP	Authorization for Structure Type	
V_EP_PDTOI	Authorization for Trade Info Record	

#### Roles /IRM/V4DMR\_\_BR\_ANALYST:

Object	Short Text	
V_GB_AUTDM	Automated Data Maintenance by Function and Action	
V_GB_AXREF	Agreement Cross Reference	
V_GB_CLCUS	Customer List Type (Customer as Primary Partner)	
V_GB_CLTYP	Clause Type	
V_GB_CNFTX	Configuration Transactions	
V_GB_FGTYP	Flexible Group Type Authorization	
V_GB_MSCUS	Membership List Submission for Trade Organization (Customer)	
V_GB_MSVND	Membership List Submission for Trade Organization (Vendor)	
V_GB_MXREF	Material Cross Reference	
V_GB_NOTES	Notes based on Business Object and Note Type	
V_GB_SDLRQ	Sales Deal Request	
V_GB_VNCUS	Vendor List Type (Customer as Primary Partner)	

# 11.4.3 Authorization Objects for Fiori

Object	Short Text	
V_GB_ASSTP	Aspect Sheet Type	
V_GB_ENTTP	Entitlement Type	

#### 11.4.4 Critical Combinations

There are no known critical combinations of roles and authorizations in Solutions by Vistex for SAP S/4HANA.

#### 11.4.5 Network and Communication Security

This section provides an overview of the network topology and communication protocols used by Solutions by Vistex for SAP S/4HANA.

Solutions by Vistex for SAP S/4HANA are an embedded SAP Add-Ons for SAP S/4HANA. The network topology for Solutions by Vistex for SAP S/4HANA is based on the topology used by SAP NetWeaver 7.5 SP00 or higher for SAP S/4HANA 2022. The security guidelines and recommendations described in the security guide for SAP NetWeaver 7.5 SP00 or higher on SAP S/4HANA on 2022 also apply to Solutions by Vistex for SAP S/4HANA.

#### 11.4.6 Internet Communication Framework (ICF) Security

This section provides an overview of the network topology and communication protocols used by Solutions by Vistex for SAP S/4HANA.

Solutions by Vistex for SAP S/4HANA are an embedded SAP Add-Ons for SAP S/4HANA. The network topology for Solutions by Vistex for SAP S/4HANA is based on the topology used by SAP NetWeaver 7.5 SP00 or higher for SAP S/4HANA 2022. The security guidelines and recommendations described in the security guide for SAP NetWeaver 7.5 SP00 or higher on SAP S/4HANA on 2022 also apply to Solutions by Vistex for SAP S/4HANA.

This section describes how Solutions by Vistex for SAP S/4HANA S/4HANA use Internet Communication Framework (ICF) services.

Only activate those services that are needed for the applications running in your system. The following services are needed for Solutions by Vistex for SAP S/4HANA:

Purpose	Hierarchy Type	Node(s)	Path
Communication Node	SERVICE	/VUI/APP	/default_host/sap/vui
Utility Nodes	SERVICE	/VUI/GLNPM, /default_host/sap/bc/bsp/vui, /VUI/GATDNL, /default_host/sap/bc/ui5_ui5/vui /VUI/GUTILS	
Application Nodes	SERVICE	/VUI/IPAGM, /VUI/GCRM, /VUI/IPARM, /VUI/IPCIM, /default_host/sap/bc/bsp/vui, /default_host/sap/bc/ui5_ui5/vui /VUI/IPMXM, /VUI/IPCIM, /VUI/IPCIM, /VUI/IPCIM and /VUI/IPPQM Activate other nodes as needed during implementation of Vistex functions according to project requirements.	
DMr specific	SERVICE	/VUI/EPKULM, /VUI/EPLILM, and /VUI/ EPPDLM.	

Use the transaction  ${\tt SICF}$  to activate these services.

If your firewall(s) use URL filtering, also note the URLs used for the services and adjust your firewall settings accordingly.

For more information, see the available user assistance for SAP NetWeaver. To find the relevant documents, go to SAP Help Portal at ABAP Platform and SAP NetWeaver - SAP Help Portal and open the product page for your SAP NetWeaver release. Search for activating and deactivating ICF services and ICF security.

Use the transaction  ${\tt SICF}$  to activate these services.

If your firewall(s) use URL filtering, also note the URLs used for the services and adjust your firewall settings accordingly.

For more information, see the available user assistance for SAP NetWeaver. To find the relevant documents, go to SAP Help Portal at ABAP Platform and SAP NetWeaver - SAP Help Portal and open the product page for your SAP NetWeaver release. Search for activating and deactivating ICF services and ICF security.

# 12 Data Protection and Privacy

This section provides information about how Solutions by Vistex for SAP S/4HANA complies with data protection requirements:

Data protection is associated with numerous legal requirements and privacy concerns. In addition to compliance with general data privacy regulation, it is necessary to consider compliance with industry-specific legislation in different countries. SAP provides specific features and functions to support compliance with regards to relevant legal requirements, including data protection. SAP does not give any advice on whether these features and functions are the best method to support company, industry, regional, or country-specific requirements. Furthermore, this information does not give any advice or recommendation in regard to additional features that would be required in particular IT environments; decisions related to data protection must be made on a case-by-case basis, under consideration of the given system landscape and the applicable legal requirements.



In the majority of cases, compliance with applicable data protection and privacy laws will not be covered by a product feature. SAP software supports data protection compliance by providing security features and specific data protection-relevant functions, such as simplified blocking and deletion of personal data. SAP does not provide legal advice in any form. Definitions and other terms used in this document are not taken from any given legal source.



#### Caution

The extent to which data protection is supported by technical means depends on secure system operation. Network security, security note implementation, adequate logging of system changes, and appropriate usage of the system are the basic technical requirements for compliance with data privacy legislation and other legislation.

You also need to make sure that no personal data enters the system in an uncontrolled or non-purpose related way, for example, in free-text fields, or customer extensions.

# 12.1.1 Glossary for Data Protection and Privacy

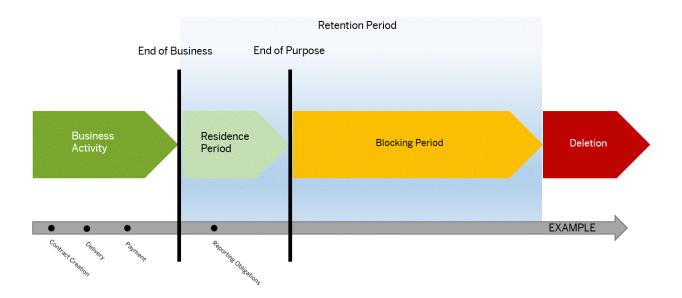
The following terms are relevant in the context of data protection and privacy. Not all terms may be relevant for Solution Extensions for SAP S/4HANA by Vistex:

Term	Definition
Blocking	A method of restricting access to data for which the primary business purpose has ended.
Consent	The action of the data subject confirming that the usage of his or her personal data shall be allowed for a given purpose. A consent functionality allows the storage of a

Term	Definition
	consent record in relation to a specific purpose and shows if a data subject has granted, withdrawn, or denied consent.
Data subject	An identified or identifiable natural person. An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural, or social identity of that natural person.
Deletion	Deletion of personal data so that the data is no longer available.
End of business	Date on which the business with a data subject ends, for example, the order is completed, the subscription is canceled, or the last bill is settled.
End of purpose (EoP)	End of purpose and start of blocking period. The point in time when the primary processing purpose ends, for example, a contract is fulfilled.
End of purpose (EoP) check	A method of identifying the point in time for a data set when the processing of personal data is no longer required for the primary business purpose. After the EoP has been reached, the data is blocked and can only be accessed by users with special authorization, for example, tax auditors.
Personal data	Any information relating to a data subject.
Purpose	The information that specifies the reason and the goal for the processing of a specific set of personal data. As a rule, the purpose references the relevant legal basis for the processing of personal data.
Residence period	The period of time between the end of business and the end of purpose (EoP) for a data set during which the data remains in the database and can be used in case of subsequent processes related to the original purpose. At the end of the longest configured residence period, the data is blocked or deleted. The residence period is part of the overall retention period.
Retention period	The period of time between the end of the last business activity involving a specific object (for example, a business partner) and the deletion of the corresponding data, subject to applicable laws.  The retention period is a combination of the residence period and the blocking period.
Sensitive personal data	A category of personal data that usually includes the following type of information:

Term	Definition
	Special categories of personal data such as data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership and the processing of genetic data, biometric data, data concerning health, sex life or sexual orientation or personal data concerning bank and credit accounts  Personal data subject to professional secrecy  Personal data relating to criminal or administrative offenses
	Personal data concerning insurances and bank or credit card accounts
Where-used check (WUC)	A process designed to ensure data integrity in the case of potential blocking of business partner data. An application's where-used check (WUC) determines if there is any dependent data for a certain business partner in the database.
	If dependent data exists, this means the data is still required for business activities. Therefore, the blocking of business partners referenced in the data is prevented.

The following figure illustrates the lifecycle of personal data:



#### 12.1.2 User Consent

Solution Extensions for SAP S/4HANA by Vistex use master data—including a possible mix of business partner companies and business partner persons—found in SAP S/4HANA. This master data is used to create pricing and/or agreements for the benefit of the companies or persons. If an agreement has been executed in legal form, then consent has been either explicitly or implicitly granted to use personal information to provide benefits (pricing, rebates, reimbursements, etc.) under the agreement executed by the company or person.

The application of data privacy protections should not pre-empt legal agreements executed between your company and any persons regarding the transaction of business. Since all business transacted in Solution Extensions for SAP S/4HANA by Vistex is designed to be legally binding, the legal agreement must be canceled or terminated before any withdrawal of consent or limitation placed on the use of personal data that prevents the fulfillment of the legal obligations specified in such agreement represented in the combined solution.

For example, if you have a legally binding agreement that you will pay a rebate to a person based on their purchases from you, the person should not withdraw consent without first terminating the legal agreement according to the terms allowed in the legal agreement. Otherwise, a conflict could arise where you are obligated to pay but are unable to pay.

### 12.1.3 Read Access Logging

Solution Extensions for SAP S/4HANA by Vistex are embedded SAP Add-On, and therefore, the SAP standard logging mechanism is used. Upload programs and batch jobs will store logs in the standard SLG1 transaction. However, the workbenches will not save the logs. The logs are available for display only. The details are below by application.

#### 12.1.3.1 DMp Read Access Logging

Object	Object text	Subobject	Subobject Text
/IRM/EPSG	Segment	CHANGE	Change
		CREATE	Create
/IRM/GAC	Activities	APRVL	Approvals
		AUTOOUTCM	Auto Outcome Set
		DTTYP	Date Type
		MASS	Mass Processing
		NFEVT	Notifications
		OUTCOME	Outcome Set
		RMNDR	Remainders
/IRM/GAM	Address Match	IDX_CUST	Customer Address Match
		IDX_VEND	Vendor Address Match
		SRCH	Search
/IRM/GAS	Aspect Sheets	CHANGE	Change records
		CHECK	Check Records
		MAINTAIN	Maintenance
		READ	Read Records
		UPLOAD	Upload from File
/IRM/GATG	Attribute Group	CHANGE	Change
,	· · · · · · · · · · · · · · · · · · ·	CREATE	Create
		TRANSFER	Transfer
/IRM/GATR	Attribute	CHANGE	Change
, ii (iii), <b>3</b> , ( i i i	7 tttiib dto	CREATE	Create
		TRANSFER	Transfer
/IRM/GAW	Award	AWARD_SAVE	Awards Save
/11 (IVI) O/ (VV	/ ward	CHECK	Check
		REVERSE	Reverse
		UPDATE	Update
/IRM/GAWR	Award Request	AWREQ_SAVE	Award Request Save
/11 (IVI) O/ (VVI)	/wara request	CREATE	Create
		POST	Post
/IRM/GAXR	Agreement Cross-	DOWNLOAD	Download
/II (IVI/OAXIT	Reference	READ	Read Records
	recipion	UPLOAD	Upload from File
/IRM/GCH	Change Type	CHANGE	Change
/IKIVI/GCH	Change Type		•
/IRM/GCL	Clauses	CREATE CHANGE	Change
/IRIVI/GCL	Clauses		Change
		CHECK	Check
/IDM/001 F	Oslandstian Famina	CREATE	Create
/IRM/GCLE	Calculation Engine	CHANGE	Change
/IRM/GCLFC	Calculation Flow	CHANGE	Change
/IRM/GCR	Claim	CHANGE	Change
		CHECK	Check
		CREATE	Create
		DELETE	Delete
		EXECUTE	Execute Corrections
		INDEX	Indexing
		ITEM_UPL	Upload Items from File
		POST	Post
		REPORTING	Reporting
		STAT_LOAD	Statistics Load

		UPLOAD	Upload Claims
/IRM/GCT	Catalog	CHANGE	Change
		CHECK	Check
		CREATE	Create
		DELETE	Delete
/IRM/GCUL	Customer List	CHANGE	Change
		CHECK	Check
		CREATE	Create
		CUST_UPLOAD	Upload
		_	Customers/Customer Catg.
			from File
		RELEASE	Release
		SAVE	Save
/IRM/GDL	Deal	CHANGE	Change
		COPY	Copy Deal
		MASS	Mass Changes
		PRICING	Pricing Procedure Execution
		REPORTING	Reporting
/IRM/GDLR	Deal Request	CHANGE	Change
	1	COPY	Сору
		CREATE	Create
		MASS	Mass changes
		POST	Post
		REPORTING	Reporting
/IRM/GDM	Dimension Maintenance	CHECK	Check Records
,, 02	2	MAINTAIN	Maintenance
		READ	Read Records
		UPLOAD	Upload from File
/IRM/GDMXR	Dimension Cross Reference	UPLOAD	Upload from File
/IRM/GDOM	Domains	CHANGE	Change
		CREATE	Create
		DELETE	Delete
/IRM/GDS	Dimension Set	CHECK	Check Records
	Maintenance	MAINTAIN	Maintenance
		READ	Read Records
		UPLOAD	Upload from File
/IRM/GDST	Datasets	DISPLAY	Datasets
/IRM/GEH	Enhancements	SAVE	Save
/IRM/GEP	External Person	CHANGE	Change
, ii (iii, OLi	Zaterriai i ereen	CHECK	Check
		CREATE	Create
		SAVE	Save
/IRM/GESH	Freestyle Search	/IRM/EPKU	Customer
,, 02011		/IRM/EPKUD	Customer Domains
		/IRM/EPLI	Vendor
		/IRM/EPLID	Vendor Domains
		/IRM/EPPD	Materials
		/IRM/EPPD	Material Domains
		/IRM/GBUPA	ECC Business Partner
		/IRM/GCR	Claims

	I	/IRM/GKNA1	ECC Customer
		/IRM/GLFA1	ECC Vendor
		/IRM/GRCA	Transaction
		/IRM/IPAGR	Agreements
		/IRM/IPAR	Agreement Request
		/IRM/IPPQ	Price request
		SCIDX	Scheduled Index
/IRM/GEV	Evaluation	CHANGE	Change
/IKIVI/GEV	Evaluation	UPLOAD	Upload
/IRM/GEVNT	Events	CHANGE	Change
/IKIVI/GEVIVI	Events		_
		CHECK	Check
		CREATE	Create
		MASS_PROCESS	Mass Process
		SAVE	Save
		UPLOAD	Upload
/IRM/GFG	Flexible Grouping	CHANGE	Change
		CHECK	Check
		CREATE	Create
		READ	Read
		RELEASE	Post
		SAVE	Save
		UPLOAD	Upload
/IRM/GFGR	Flexible Group Request	CHANGE	Change
		CHECK	Check
		CREATE	Create
		POST	Post
		READ	Read
		RELEASE	Post
		SAVE	Save
		UPLOAD	Upload
/IRM/GFP	Period Profile	CHANGE	Change
		CHECK	Check
		CREATE	Create
/IRM/GFSUB	File Submission	SAVE	File Submission Save
/IRM/GLOBAL	General	AUTODATAMN	Auto Document Maintenance
		CHANGE	Change
		EXCEL_IMPORT	Excel import
		MATRIX	Matrix
		POLICY	Policy
		PRICING	Pricing
		VAR_CONV	Variant Convert
/IRM/GMX	Matrix Maintenance	CHECK	Check Matrix Data
		KF_CHECK	Check Key Figure Selection
		MAINT	Maintain Members
		SAVE	Save Members
/IRM/GMXR	Material Cross-Reference	DOWNLOAD	Download
		READ	Read Records
		UPLOAD	Upload from File
/IRM/GOO	Organizational Objects	CHANGE	Change
		COPY	Сору
			1 1 - 2
		CREATE	Create
		CREATE SAVE	Create Save

		CHECK	Check
		CREATE	Create
		DELETE	Delete
		MONITOR	Price Monitor
/IRM/GPL	Product List	CHANGE	Change
/II (IVI) OI L	Troduct Elot	CHECK	Check
		CREATE	Create
		PRD_UPLOAD	Upload Products/Product Catg. from File
		RELEASE	Release
		SAVE	Save
/IRM/GPP	Price Proposal	CHANGE	Change
		COPY	Сору
		CREATE	Create
		POST	Post
/IRM/GPR	Pricing	CHANGE	Change Condition Records
/II(W/OI IC	1 Holling	CHECK	Check and Complete
		COPY	Copy Condition Records
		CREATE	Create Condition Records
		POLICY	Policies
		POST	Post
		PRICEREPORT_LOAD	Price Report Initial Load
		READ	Read Condition Records
/IRM/GPREXT	Extension Table	CHECK	Data Check
/IRIVI/GPREXI	Extension rable	GENERATE	Generate
/IRM/GPS	Price Simulation	CHANGE	
/IRIVI/GFS	Price Simulation	CHECK	Change Check
		CREATE	Create
		DELETE	Delete
/IRM/GPSCIT	Calculation Item Table	CHECK	Data check
/INIVI/GF3CIT	Calculation item Table	GENERATE	Generate
/IRM/GPT	Price Type	CHANGE	Change
/INIVI/GF I	Frice Type	CHECK	Check
		CREATE	Create
		MAT_UPLOAD	Materials Upload from File
/IDM/CDVD	Partner Cross-Reference	=	·
/IRM/GPXR	Partner Cross-Reference	DOWNLOAD	Download
		READ	Read Records
(1014/0004	- ·	UPLOAD	Upload from File
/IRM/GRCA	Transaction	CHANGE	Change
		CHECK	Check
		CREATE	Create
		DELETE	Delete
		EXECUTE	Auto Corrections
		ITEM_UPL	Upload Items from File
		POST	Post
		STAT_LOAD	Statistics Load
/IRM/GRPMAT	Reported Material	READ	Read Records
	maintenance	UPLOAD	Upload from File
/IRM/GTD	Team Department	CHANGE	Change
/IRM/GTP	Templates	CHECK	Check for Clauses in Templates
		SAVE	Save the Templates
/IRM/GUXR	Unit of Measure Cross-	DOWNLOAD	Download
	Reference	READ	Read Records

		UPLOAD	Upload from File
/IRM/GVC	Voucher	CHANGE	Change
		COPY	Сору
		CREATE	Create
/IRM/GVNL	Vendor List	CHANGE	Change
		CHECK	Check
		CREATE	Create
		RELEASE	Release
		SAVE	Save
		VND_UPLOAD	Upload Customers/Customer Catg. from File
/IRM/GWP	Web Portal	CHANGE	Change
		USR_ASSIGN	User Assignment
		WORKSPACE	Workspace
/IRM/IPBCK	Bucket	CHANGE	Change
		CREATE	Create
		DELETE	Delete
/IRM/IPBR	Business Register	ACCRUE	Accrue
//// DIX		ADJ_SETTLE	Adjust Settlement
		CANCEL	Cancel
		CHANGE	Change
		CREATE	Create
		DELETE	Delete
		PARK	Park
		PARK_REPLACE	Replace Park Documents
		PC_UPDATE	Update Partner Communication
		RECREATE	Recreate
		REPORTING	Reporting
		REPRICE	Reprice
		RESUBMIT	Resubmission
		REVERSE_CANCEL	Reverse Cancel
		REV_ACCRUE	Reverse Accrue
		REV_PARK	Reverse Park
		REV_SETTLE	Reverse Settle
		SETTLE	Settle
		SIMULATE	Simulate
//DN4//DDD 4 OD	<u> </u>	STAT_LOAD	Statistics Initial Load
/IRM/IPBRAGR	Business Register	BUCKET	Bucket
	Agreement	CHANGE	Change
		CLOSEOUT	Close out
		COPY	Copy Agreement
		MASS	Mass Changes
		PROFORMA	Proforma
		REPORTING	Reporting
		SCHEDULE	Schedule
/IRM/IPCIPA	Participant Assignment	COPY	Сору
		MASS_CHANGE	Mass Change
		PARCHECK	Assignment Checks
		UPDATE	Update
/IRM/IPCRAGR	Sales Rebate Agreement	ACNTNG	Accounting
		BUCKET	Bucket
		CHANGE	Change
	1	CLOSEOUT	close out

		COPY	Copy Agreement
		MASS	Mass Changes
		PROFORMA	proforma
		REPORTING	Reporting
		SCHEDULE	schedule
/IRM/IPMR	Maintenance Request	CHANGE	Change
	·	CHECK	Check
		CREATE	Create
		POST	Post
/IRM/IPMXS	Matrix Scenario	CHECK	Data Check
		EXECUTE	Scenario Execute
		IMPORT	Members Import
/IRM/IPPD	Pricing Document	CHANGE	Change
		CHECK	Check
		SAVE	Save
/IRM/IPPDRVM	Review Template	CHECK	Check
		SAVE	Save
/IRM/IPPM	Pricing Sheet	CHANGE	Change
		CHECK	Check
		SAVE	Save
/IRM/IPPO	Pricing Object	CHANGE	Change
		CHECK	Check
		SAVE	Save
/IRM/IPPRAGR	Purchasing Rebate	ACNTNG	Accounting
	Agreement	BUCKET	Bucket
		CHANGE	Change
		CLOSEOUT	close out
		COPY	Copy Agreement
		MASS	Mass Changes
		PROFORMA	proforma
		REPORTING	Reporting
		SCHEDULE	schedule
/IRM/IPPS	Pricing Scenario	CHECK	Check
		SAVE	Save

#### 12.1.3.2 DMr Read Access Logging

Object	Object text	Subobject	Subobject Text
/IRM/EPADR	Address	INDEX_UPD	Address Index Update
		CHANGE	Change
/IRM/EPAS	Attribute Set	CREATE	Create
		TRANSFER	Transfer
		CHANGE	Change
/IRM/EPATG	Attribute Group	CREATE	Create
		TRANSFER	Transfer
		CHANGE	Change
/IRM/EPATR	Attribute	CREATE	Create
		TRANSFER	Transfer
/IDM/EDAVD	Attribute Cross-		Change
/IRM/EPAXR	Reference	UPLOAD	Upload from File
/IRM/EPBP	Partner	CHANGE	Change
/IIXIVI/EFDF	i aitiici	CREATE	Create

		UPLOAD	Upload
	Б.	CHANGE	Change
/IRM/EPBPC	Partner	CHECK	Check
	Configuration	CREATE	Create
		CHANGE	Change
/IRM/EPBPL	Partner Request	CREATE	Create
	,	UPLOAD	Upload
		CHANGE	Change
/IRM/EPBPLC	Partner Request	CHECK	Check
	Configuration	CREATE	Create
		CHANGE	Change
/IRM/EPEQ	Equipment	CREATE	Create
/IINIVI/LI LQ	Equipment	UPLOAD	Upload
		CHANGE	
			Change
/IDM/EDEOL	Environment Lint	CHECK	Check
/IRM/EPEQL	Equipment List	CREATE	Create
		POST	Post
		UPLOAD	Upload
(10.4/50.15	l	CHANGE	Change
/IRM/EPINT	Index Table	CREATE	Create
		GENERATE	Generate
/IRM/EPINTP	Index Table Profile	CHANGE	Change
		CREATE	Create
	Info Records	ATTRCHECK	Attributes Consistency Checks
		ATTRUPDATE	Attributes Update
/IRM/EPIR		CHANGE	Change
		CREATE	Create
		IRUPDATE	Info Record Update
		UPLOAD	Upload Info Record
		ATTRCHECK	Attributes Consistency Checks
		ATTRUPDATE	Attributes Update
		CHANGE	Change
/IRM/EPKU	Customer	COPY	Copy Customer
//LI 110	Cuctomer	CREATE	Create
		CUSTUPDATE	Customer Master Update
		INDEX	Indexing
		RUNPROCESS	Process Profile Run
		CHANGE	Change
/IRM/EPKUD	Customer Domain	CREATE	Create
/IIXW/LF NUD	Oustonier Donnain	INDEX	Index
		CHANGE	
/IRM/EPKUDF	Customer Data Flow	CREATE	Change Create
		CHANGE	Change
/IRM/EPKUF	Customer Facet	CREATE	Create
/IRM/EPKUFP	Customer Facet	CHANGE	Change
,	Profile	CREATE	Create
/IDM/EDIZUEV	Customer Facet	CHANGE	Change
/IRM/EPKUFV	View	CREATE	Create
		CHANGE	Change
/IRM/EPKUL	Customer List	CHECK	Check
/IINIVI/EFAUL	Customer List	CREATE	Create

		POST	Post
		UPLOAD	Upload
		ATTRCHECK	Attributes Consistency Checks
		ATTRUPDATE	Attributes Update
		CHANGE	Change
/IRM/EPLI	Vendor	COPY	Copy Vendor
		CREATE	Create
		INDEX	Indexing
		RUNPROCESS	Process Profile Run
		VENDUPDATE	Vendor Master Update
		CHANGE	Change
/IRM/EPLID	Vendor Domain	CREATE	Create
		INDEX	Index
		CHANGE	Change
/IRM/EPLIDF	Vendor Data Flow	CREATE	Create
		CHANGE	Change
/IRM/EPLIF	Vendor Facet	CREATE	Create
		CHANGE	Change
/IRM/EPLIFP	Vendor Facet Profile	CREATE	Create
		CHANGE	Change
/IRM/EPLIFV	Vendor Facet View	CREATE	Create
		CHANGE	Change
		CHECK	Check
/IRM/EPLIL	Vendor List	CREATE	Create
/INIVI/EFLIL		POST	Post
		UPLOAD	Upload
		CHANGE	Change
		CHECK	Check
/IRM/EPMTL	Material List - New	CREATE	Create
/11X1VI/L1 1VI1L		POST	Post
		UPLOAD	Upload
		CHANGE	Change
/IRM/EPMTR	Material - New	CREATE	Create
/IIXIVI/EI IVIIIX	Waterial 14CW	UPLOAD	Upload
		CHANGE	Change
/IRM/EPMTRC	Material	CHECK	Check
/IIXIVI/LI WITKO	Configuration	CREATE	Create
		ONLATE	Greate
/IRM/EPMTRLC	Equipment/Material	CHANGE	Change
,, 21	List Configuration	CHECK	Check
		CREATE	Create
		ATTRCHECK	Attributes Consistency Checks
		ATTRUPDATE	Attributes Update
/IRM/EPPD		CHANGE	Change
	Material	COPY	Copy Materials
		CREATE	Create
		INDEX	Indexing
		MATUPDATE	Material Master Update
		RUNPROCESS	Process Profile Run
		CHANGE	Change
/IDM/EDDDD	PPDD Material Domain	CREATE	Create
/IRM/EPPDD	Material Domain	OILLATIL	Oroato

/IRM/EPPDDF	Material Data Flow	CHANGE	Change
7	Waterial Bata Flow	CREATE CHANGE	Create
/IRM/EPPDE	/IRM/EPPDF Material Facet		Change
711(11) 21 1 21	material racet	CREATE	Create
/IRM/EPPDFP	Material Facet Profile	CHANGE	Change
	Fiolile	CREATE	Create
/IRM/EPPDFV	Material Facet View	CHANGE	Change
///(IV//E/ / D/ V	Waterial Lacet View	CREATE	Create
		CHANGE	Change
		CHECK	Check
/IRM/EPPDL	Material List	CREATE	Create
		POST	Post
		UPLOAD	Upload
		CHANGE	Change
/IRM/EPRL	Relation	CREATE	Create
		POST	Post
/IRM/EPSA	Structural Analysis	CHECK	Check
/IRM/EPST	Structure	CHANGE	Change
		CREATE	Create
		APRVL	Approvals
		AUTOOUTCM	Auto Outcome Set
//511/616		DTTYP	Date Type
/IRM/GAC	Activities	MASS	Mass Processing
		NFEVT	Notifications
		OUTCOME	Outcome Set
		RMNDR	Remainders
// DAA/OAAA	Address Match	IDX_CUST	Customer Address Match
/IRM/GAM		IDX_VEND	Vendor Address Match
		SRCH	Search
		CHANGE CHECK	Change records Check Records
/IRM/GAS	Aspect Sheets	MAINTAIN	
/IRIVI/GAS		READ	Maintenance Read Records
		UPLOAD	Upload from File
		CHANGE	Change
/IRM/GATG	Attribute Group	CREATE	Create
/IKW/GATG	Attribute Group	TRANSFER	Transfer
		CHANGE	Change
/IRM/GATR	Attribute	CREATE	Create
/IIIIIII O/IIII	Attribute	TRANSFER	Transfer
		AWARD_SAVE	Awards Save
		CHECK	Check
/IRM/GAW	Award	REVERSE	Reverse
		UPDATE	Update
		AWREQ_SAVE	Award Request Save
/IRM/GAWR	Award Request	CREATE	Create
	Awaru Nequest	POST	Post
		DOWNLOAD	Download
/IRM/GAXR	Agreement Cross-	READ	Read Records
	Reference	UPLOAD	Upload from File
//DA1/0011	O. T.	CHANGE	Change
/IRM/GCH	Change Type	CREATE	Create
/IDM/CCI	Clauses	CHANGE	Change
/IRM/GCL	Clauses	CHECK	Check

		CREATE	Create
		CHANGE	Change
		CHECK	Check
/IRM/GCT	Catalog	CREATE	Create
		DELETE	Delete
		CHANGE	Change
		CHECK	Check
		CREATE	Create
/IRM/GCUL	Customer List	CUST_UPLOAD	Upload Customers/Customer Catg. from File
		RELEASE	Release
		SAVE	Save
		CHECK	Check Records
	Dimension	MAINTAIN	Maintenance
/IRM/GDM	Dimension Maintenance		
	Maintenance	READ	Read Records
		UPLOAD	Upload from File
/IRM/GDMXR	Dimension Cross Reference	UPLOAD	Upload from File
		CHANGE	Change
/IRM/GDOM	Domains	CREATE	Create
		DELETE	Delete
		CHECK	Check Records
/IDM/ODO	Dimension Set	MAINTAIN	Maintenance
/IRM/GDS	Maintenance	READ	Read Records
		UPLOAD	Upload from File
/IRM/GDST	Datasets	DISPLAY	Datasets
/IRM/GEH	Enhancements	SAVE	Save
/ITAW/OLIT	Linancomonic	CHANGE	Change
	External Person	CHECK	Check
/IRM/GEP		CREATE	Create
		SAVE	Save
		/IRM/EPKU	
			Customer Domains
		/IRM/EPKUD	Customer Domains
		/IRM/EPLI	Vendor
		/IRM/EPLID	Vendor Domains
		/IRM/EPPD	Materials
		/IRM/EPPDD	Material Domains
		/IRM/GBUPA	ECC Business Partner
/IRM/GESH	Freestyle Search	/IRM/GCR	Claims
		/IRM/GKNA1	ECC Customer
		/IRM/GLFA1	ECC Vendor
		/IRM/GRCA	Transaction
		/IRM/IPAGR	Agreements
		/IRM/IPAR	Agreement Request
		/IRM/IPPQ	Price request
		SCIDX	Scheduled Index
		CHANGE	Change
/IRM/GEV	Evaluation	UPLOAD	Upload
		CHANGE	Change
		CHECK	Check
		CREATE	Create
/IRM/GEVNT	Events		
		MASS_PROCESS	Mass Process
		SAVE	Save
		UPLOAD	Upload
/IRM/GFSUB	File Submission	SAVE	File Submission Save

		AUTODATAMN	Auto Document Maintenance	
		CHANGE	Change	
		EXCEL_IMPORT	Excel import	
/IRM/GLOBAL	General	MATRIX	Matrix	
		POLICY	Policy	
		PRICING	Pricing	
		VAR_CONV	Variant Convert	
		DOWNLOAD	Download	
/IRM/GMXR	Material Cross- Reference	READ	Read Records	
	Reference	UPLOAD	Upload from File	
		CHANGE	Change	
		CHECK	Check	
		CREATE	Create	
/IRM/GPL	Product List	PRD_UPLOAD	Upload Products/Product Catg. from File	
		RELEASE	Release	
		SAVE	Save	
	Partner Cross- Reference	DOWNLOAD	Download	
/IRM/GPXR		READ	Read Records	
		UPLOAD	Upload from File	
/IRM/GTD	Team Department	CHANGE	Change	
/IRM/GTP			Check for Clauses in Templates	
		SAVE	Save the Templates	
	11.11.414	DOWNLOAD	Download	
/IRM/GUXR	Unit of Measure Cross-Reference	READ	Read Records	
	C1055-Reference	UPLOAD	Upload from File	
		CHANGE	Change	
		CHECK	Check	
		CREATE	Create	
/IRM/GVNL	Vendor List	RELEASE	Release	
		SAVE	Save	
		VND_UPLOAD	Upload Customers/Customer Catg. from File	
		CHANGE	Change	
/IRM/EPCHM		CREATE	Create	
	Change Master	TRANSFER	Transfer	
/IDM/CDCM	_	CHANGE	Change	
/IRM/EPSM	Structured Material	CREATE	Create	

#### 12.1.3.3 VTA Read Access Logging (global)

Object	Description	Sub-Object	Sub-Object Description
/VTA/BDAG	Aging	CREATE	Create
	Data Object	DOWNLOAD	Download
/VTA/BDO		RUNPROCESS	Process Profile Run
/VTA/BDO		SSEQ_OBJECT_CREATE	Subsequent Object Create

		VERSION_CHANGE	Change Version
		VERSION_CREATE	Create Version
		VERSION_DELETE	Delete Version
		VERSION_UPLOAD	Upload Version
/VTA/BDOVR	Validation Run	CHANGE	Validation Run
			Change
		CREATE	Validation Run Create
		POST	Post Object
/VTA/BFRQ	Frequency	CHANGE	Change
		CREATE	Create
		DISPLAY	Display
		UPDATE	Update
/VTA/BFS	File Submission	CHANGE	Change
		CREATE	Create
/VTA/BFTP /VTA/BFTQ	File Template	CHANGE	Change
		CREATE	Create
	File Templete Ovelifier	CHANGE	Change
	File Template Qualifier	CREATE	Create
		CHANGE	Change
/VTA/BREL	Relation	CREATE	Create
		DOWNLOAD	Download
	Business Script	UPLOAD	Upload
		ACTV	Activate
/VTA/BSE		CHCK	Check
		CHNG	Change
		SAVE	Save
		SRCH	Search
/VTA/BUD	User Defined Data Area	CHANGE	Change
		CHECK	Check
/VTA/BWS	Workspace	CREATE	Create
		RUN_PROCESS	Validation Run
		CHANGE	Change
		CREATE	Create
/VTA/BXR	Cross Reference	DOWNLOAD	Download
		UPLOAD	Upload
/VTA/GADR	Address	PROCESS	Process
, , , , , , , , , , , , , , , , , , , ,		CHANGE	Change
/VTA/GOO	Organizational Object Data Model	CHECK	Check
		CREATE	Create
		DISPLAY	Display
		PROCESS	Process
/VTA/BST	Statements	GENERATE	Generate

Read access logging is currently available in, but not limited to the following channels:

- Remote Function Calls (sRFC, aRFC, tRFC, qRFC, bgFRC)
- Dynpro (dynpro fields, ALV Grid, ABAP List, F4)
- Web Dynpro
- Web services

Gateway (for oData)

#### **12.1.4** Information Report

Data subjects have the right to get information regarding their personal data undergoing processing. The information retrieval feature supports you to comply with the relevant legal requirements for data protection by allowing you to search for and retrieve all personal data for a specified data subject. The search results are displayed in a comprehensive and structured list containing all personal data of the data subject specified, subdivided according to the purpose for which the data was collected and processed.

#### **12.1.5** Deletion of Personal Data

#### **Simplified Blocking and Deletion**

When considering compliance with data protection regulations, it is also necessary to consider compliance with industry-specific legislation in different countries. A typical potential scenario in certain countries is that personal data shall be deleted after the specified, explicit, and legitimate purpose for the processing of personal data has ended, but only as long as no other retention periods are defined in legislation, for example, retention periods for financial documents. Legal requirements in certain scenarios or countries also often require blocking of data in cases where the specified, explicit, and legitimate purposes for the processing of this data have ended, however, the data still has to be retained in the database due to other legally mandated retention periods. In some scenarios, personal data also includes referenced data. Therefore, the challenge for deletion and blocking is first to handle referenced data and finally other data, such as business partner data.

#### **Deletion of Personal Data**

The processing of personal data is subject to applicable laws related to the deletion of this data when the specified, explicit, and legitimate purpose for processing this personal data has expired. If there is no longer a legitimate purpose that requires the retention and use of personal data, it must be deleted. When deleting data in a data set, all referenced objects related to that data set must be deleted as well. Industry-specific legislation in different countries also needs to be taken into consideration in addition to general data protection laws. After the expiration of the longest retention period, the data must be deleted.

Solution Extensions for SAP S/4HANA by Vistex might process data (personal data) that is subject to the data protection laws applicable in specific countries as described in SAP Note 1825544.

The retention period for data in Solution Extensions for SAP S/4HANA by Vistex is defined by the archiving period for each data object. Solution Extensions for SAP S/4HANA by Vistex are embedded Add-On(s) and follow SAP Information Lifecycle Management (ILM) protocols for archiving unneeded data. The archival process will remove data that has reached the end of the Retention Period, provided that you define the archive limit to be the same as the retention period.

#### **Deletion**

To enable even complex scenarios, SAP simplifies existing deletion functionality to cover data objects that are personal data by default. For this purpose, SAP uses SAP Information Lifecycle Management (ILM) to help you set up a compliant information lifecycle management process in an efficient and flexible manner. The functions that support the simplified blocking and deletion of personal data are not delivered in one large implementation, but in several waves. Scenarios or products that are not specified in SAP Note 1825608 (central Business Partner) and SAP Note 2007926 (ERP Customer and Vendor) are not yet subject to simplified blocking and deletion.

Nevertheless, it is also possible to destroy personal data for these scenarios or products. In these cases, you have to use an existing archival or deletion functionality or implement individual retention management of relevant business data throughout its entire lifecycle. The SAP Information Lifecycle Management (ILM) component supports the entire software lifecycle including the storage, retention, blocking, and deletion of data.

Solutions by Vistex uses SAP ILM to support the deletion of personal data as described in the following sections.

All applications register either an end of purpose check (EOP check) in the Customizing settings for the blocking and deletion of application data (for example, the customer and vendor master or the business partner) or a WUC.

#### End of Purpose Check (EoP check)

An end of purpose check determines whether data is still relevant for business activities based on the retention period defined for the data. The retention period is part of the overall lifecycle of personal data which consists of the following phases:

- Business activity: The relevant data is used in ongoing business, for example contract creation, delivery or payment.
- Residence period: The relevant data remains in the database and can be used in case of subsequent processes related to the original purpose, for example reporting obligations.
- Blocking period: The relevant data needs to be retained for legal reasons. During the blocking period, business
  users of SAP applications are prevented from displaying and using this data; it can only be processed in case of
  mandatory legal provisions.
- Deletion: The data is deleted and no longer exists in the database.
- Change: It is not possible to change a business object that contains blocked data.
- Create: It is not possible to create a business object that contains blocked data.
- Copy/Follow-Up: It is not possible to copy a business object or perform follow-up activities for a business object that contains blocked data.
- Search: It is not possible to search for blocked data or to search for a business object using blocked data in the search criteria. It is possible to display blocked data if a user has special authorization; however, it is still not possible to create, change, copy, or perform follow-up activities on blocked data.

#### More Information

For more information, see the application-specific sections in this security guide as well as at SAP S/4HANA - SAP Help Portal under > Product Assistance > Cross Components > Data Protection

For information about the configuration settings required to enable the end of purpose check, check SAP Security Guide for SAP S/4HANA 2022 or Getting Started With SAP S/4HANA 2022, sections Process Flow and Configuration: Simplified Blocking and Deletion.

#### **Blocking**

Blocking of data can impact system behavior in the following ways:

- Display: The system does not display blocked data.
- Change: It is not possible to change a business object that contains blocked data.
- Create: It is not possible to create a business object that contains blocked data.
- Copy/Follow-Up: It is not possible to copy a business object or perform follow-up activities for a business object that contains blocked data.
- Search: It is not possible to search for blocked data or to search for a business object using blocked data in the search criteria.

It is possible to display blocked data if a user has special authorization; however, it is still not possible to create, change, copy, or perform follow-up activities on blocked data.

#### Where-Used Check (WUC)

A where-used check is a simple check to ensure data integrity in case of potential blocking. The WUC for this product checks whether any dependent data for a customer, vendor, or central business partner (cBP) exists in the respective table. If dependent data exists, that is, if the data is still required for business activities, the system does not block that specific customer, vendor, or cBP.

If you still want to block the data, the dependent data must be deleted by using the existing archival and deletion tools or by using another customer-specific solution.

#### 12.1.6 Change Log

Personal data is subject to frequent changes. Therefore, for review purposes or as a result of legal regulations, it may be necessary to track the changes made to this data. When these changes are logged, you should be able to check which employee made which change, the date and time, the previous value, and the current value, depending on the configuration. It is also possible to analyze errors in this way.

#### **Defining Fields to Be Logged**

Solution Extensions for SAP S/4HANA by Vistex are embedded SAP Add-On(s) (refer to Figure 2). Therefore, the solution extensions follow SAP's protocols. Solution Extensions for SAP S/4HANA by Vistex process personal data of business partners that are involved in change requests and activities. If any changes are made regarding the business partner, the system logs the following information on personal data per change request and activity:

- The user who changed data
- The date and time of the change
- The change type (update, insert, deletion, single field documentation)
- The identifying keys and their values of the data records
- The heading name for the attribute that was changed

You can define the fields to be logged under Display Change Document Objects (transaction SCDO).

You use the authorization object to IAM/CHGLOG to control the change logging for change requests and activities.

#### **Displaying Change Logs**

In a typical worklist found in Solution Extensions for SAP S/4HANA by Vistex you can access a change log for each change request and activity.

i <sub>Note</sub>

Change logs can only be displayed if the user is assigned the authorization role SAP AUTH MOC ADMIN.

Under Evaluate New Audit Trail  $\rightarrow$  Enhancement Mode (transaction s\_AUT10), you can see all changes that have been processed for the change document objects in Solution Extensions for SAP S/4HANA by Vistex: S\_/IAM/ACT (activity) and /IAM/ISSUE (change request).

For more information about change documents, see the documentation for your SAP NetWeaver release at ABAP Platform and SAP NetWeaver - SAP Help Portal. Choose the relevant SAP NetWeaver release and open the following documents:

- Under Application Help, choose SAP NetWeaver Library: Function-Oriented View → Application Server ABAP
   → Other Services → Services for Application Developers → Change Documents.
- Under Security, choose SAP NetWeaver Security Guide → Security Aspects for Lifecycle Management → Auditing and Logging.

Personal data is subject to frequent changes. Therefore, for review purposes or as a result of legal regulations, it may be necessary to track the changes made to this data. When these changes are logged, you should be able to check which employee made which change, the date and time, the previous value, and the current value, depending on the configuration. It is also possible to analyze errors in this way.

Personal data is subject to frequent changes. Therefore, for review purposes or as a result of legal regulations, it may be necessary to track the changes made to this data. When these changes are logged, you should be able to check which employee made which change, the date and time, the previous value, and the current value, depending on the configuration. It is also possible to analyze errors in this way.

# 12.2 Security for Third-Party Applications

Solution Extensions for SAP S/4HANA by Vistex do not use or contain third-party applications.

# 13 Business Continuity and Availability

The term business continuity covers all activities performed by system administrators to ensure that critical business functions are available to system users. Strategies for high availability are a subset of business continuity activities, but business continuity is not limited to high availability. Other activities that relate to business continuity include:

- System backup and archiving
- System updates with minimum downtime

SAP S/4HANA uses the standard ABAP Platform functions for high availability and business continuity. Solution Extensions for SAP S/4HANA by Vistex are embedded SAP Add-On solutions, and therefore, utilize these standard SAP mechanisms. Please refer to chapter 5 of the standard SAP Operations Guide for more information found at SAP Help Portal.

# 14 Operating Solution Extensions for SAP S/4HANA by Vistex

This section contains general information about how to operate Solution Extensions for SAP S/4HANA by Vistex:



This section does not replace the operations handbook in which customers or the operations organization documents specific tasks, involved parties, and interaction procedures.

## 14.1 Other Required Documents for Operations

#### 14.1.1 Monitoring

This section describes monitoring tasks for Solution Extensions for SAP S/4HANA by Vistex.

No specific monitoring sets are available or needed. All standard underlying ABAP monitoring tools are available.

Solution Extensions for SAP S/4HANA by Vistex are embedded Add-On solution, thus utilize standard SAP mechanism. Please refer to SAP Admin Guide at SAP Help Portalhttp://help.sap.com.

There are no application specific administration tools available or needed. All standard underlying SAP tools are available using SAP Solution manager. SAP provides you with an infrastructure to help your technical support consultants and system administrators effectively monitor your system landscape. For more information about

monitoring topics, go to SAP S/4HANA - SAP Help Portal, enter Solution Monitoring into the search bar, press, and open the search result with that title. For more information about monitoring with SAP Solution Manager, go to SAP S/4HANA - SAP Help Portal, enter Connecting a Technical System to SAP Solution Manager into the search bar,

press enter, and open the search result with that title. Please refer to the SAP Admin Guide for more information found at SAP Help Portal.

#### 14.1.2 Alert Monitoring

Solution Extensions for SAP S/4HANA by Vistex are embedded Add-On solutions, thus utilize standard SAP mechanism. Please refer to SAP Admin Guide at SAP Help Portal.

SAP S/4HANA uses the standard ABAP Platform monitoring tools, including the Computing Center Management System (CCMS). The tool allows you to monitor your system landscape centrally. Alerts form a central element of monitoring. They quickly and reliably report errors (such as values exceeding or falling below a particular threshold value or that an IT component has been inactive for a defined period of time). These alerts are displayed in the Alert Monitor of the CCMS. You can also monitor your data archiving activities with the monitoring functions provided by the CCMS. For more information about CCMS, the Alert Monitor, and monitoring of data archiving, go to SAP S/4HANA -

SAP Help Portal, enter Monitoring in the CCMS into the search bar, press Enter, and open the search result with

that title. For more information about how to enable the auto-alert function of CCMS, see SAP Note 617547. For more information about data archiving, see Data Archiving and Data Aging.

Vistex solution is embedded within SAP, thus utilizes the same concept and tools as provided by SAP Operation Guide. Refer to the SAP Admin Guide at SAP Help Portal.

Solution Extensions for SAP S/4HANA by Vistex are embedded Add-On solutions, thus utilize standard SAP mechanism. Please refer to SAP Admin Guide at SAP Help Portal.

#### 14.1.3 Error Handling

The SAP standard logging mechanism is used. Upload programs and batch jobs will store logs in the standard SLG1 transaction. However, the workbenches will not save the logs. They are just available for display only.

#### 14.1.4 Overview of Trace and Log Files

Solution Extensions for SAP S/4HANA by Vistex are embedded Add-On solutions, thus utilize standard SAP mechanism. Please refer to SAP Admin Guide for more information in chapter 10 of the SAP Admin Guide.

Extended Warehouse Management (EWM) uses the application log (part of ABAP Platform) to store application errors, warnings, and success messages issued in critical processes (for example, the delivery Operations Guide for SAP S/4HANA 2022 SAP S/4HANA Business Applications P U B L I C 39 interface or in user interface (UI) transactions. For UI transactions, the user has to save the application log explicitly. For general information on application logs, go

to SAP S/4HANA - SAP Help Portal, enter Application Log (BC-SRV-BAL) into the search bar, press open the search result with that title. You can monitor the application logs with transaction SLG1 or in the warehouse management monitor under Tools Application Log.

#### 14.1.5 Workload Monitors

No specific monitoring sets are available or needed. All standard underlying ABAP monitoring tools are available.

Solution Extensions for SAP S/4HANA by Vistex are embedded Add-On solutions, thus utilize standard SAP mechanism. Please refer to SAP Admin Guide at SAP Help Portal.

There are no application specific administration tools available or needed. All standard underlying SAP tools are available using SAP Solution manager. Product Lifecycle Management uses the standard ABAP Platform workload monitor. For more information, go to SAP S/4HANA - SAP Help Portal, enter Workload Monitor into the search bar, press Enter, and open the search result with that title. Please refer to chapter 10 of the SAP Admin Guide for more information found at SAP Help Portal.

#### 14.1.6 Interface Monitoring

This section describes aspects of interface monitoring relevant for Solution Extensions for SAP S/4HANA by Vistex. This application can use IDocs and standard SAP ALE processing as required. No other asynchronous interfaces are used.

No specific monitoring sets are available or needed. All standard underlying ABAP monitoring tools are available. Interface monitors are essential for analyzing problems with interfaces such as RFC, IDoc, and HTTP. If you create RFC connections for running your PLM system landscape, use standard ABAP Platform tools for monitoring these RFC connections. For more information, go to SAP S/4HANA - SAP Help Portal, enter RFC Administration into the search

bar, press Enter, and open the search result with that title. There are no application specific administration tools available or needed. All standard underlying SAP tools are available using SAP Solution manager. Please refer to the standard SAP Admin Guide for more information found at SAP Help Portal.

#### 14.1.7 Background Job Monitoring

No specific monitoring sets are available or needed. All standard underlying ABAP monitoring tools are available. Solution Extensions for SAP S/4HANA by Vistex are embedded Add-On solutions, thus utilize standard SAP mechanism. Please refer to the SAP Admin Guide found at SAP Help Portal.

There are no application specific administration tools available or needed. All standard underlying SAP tools are available using SAP Solution manager. Please refer to the SAP Solution manager documentation found at SAP Help Portal.

#### 14.1.8 Administration and Management

This section describes administrator tasks for Solution Extensions for SAP S/4HANA by Vistex.

SAP provides you with an infrastructure to help your technical support consultants and system administrators effectively manage all SAP components and complete all tasks related to technical administration and operation.

For more information about operational topics, go to SAP S/4HANA - SAP Help Portal, enter Administrating the ABAP Platform into the search bar, press Enter, and open the search result with that title.

Solution Extensions for SAP S/4HANA by Vistex are embedded Add-On solutions and utilize standard SAP mechanisms. Please refer to the SAP Admin Guide for more information found at SAP Help Portal.

#### 14.1.9 Starting and Stopping

This section describes how to start and stop Solution Extensions for SAP S/4HANA by Vistex. Solution Extensions for SAP S/4HANA by Vistex are embedded Add-On solutions and utilize standard SAP mechanisms. Please refer to chapter 4 to the SAP Admin Guide for more information found at SAP Help Portal.

#### 14.1.10 Technical Configuration

This section describes aspects of technical configuration for Solution Extensions for SAP S/4HANA by Vistex. Please refer to the SAP Admin Guide for more information found at SAP S/4HANA - SAP Help Portal.

#### 14.1.11 Backup and Restore

This section describes procedures for backing up and restoring Solution Extensions for SAP S/4HANA by Vistex.

You may need to back up your system landscape regularly to ensure that you can restore and recover it in case of failure. Solution Extensions for SAP S/4HANA by Vistex are embedded Add-On solutions and utilize standard SAP mechanisms. Please refer to the SAP Admin Guide for more information found at SAP S/4HANA - SAP Help Portal.

#### 14.1.12 Load Balancing and Scalability

This section describes aspects of load balancing and scalability that are relevant for Solution Extensions for SAP S/4HANA by Vistex.

Solution Extensions for SAP S/4HANA by Vistex are embedded SAP Add-On(s), and therefore, utilize these standard SAP mechanisms. Please refer to the standard SAP Operations Guide for more information found at SAP Help Portal.

#### 14.1.13 High Availability

This section describes aspects of high availability that are relevant for Solution Extensions for SAP S/4HANA by Vistex.

Solution Extensions for SAP S/4HANA by Vistex are embedded SAP Add-On(s), and therefore, utilize these standard SAP mechanisms. Please refer to chapters 5 and 10 of the standard SAP Operations Guide for more information found at SAP Help Portal.

#### 14.1.14 Software Maintenance

Solution Extensions for SAP S/4HANA by Vistex are Add-On installation packages and available at the software download web site Software Downloads - SAP ONE Support Launchpad. Please refer to SAP note 2871702 for more information. This note will be periodically updated with future Support Packs when necessary.

#### 14.1.15 Software Change Management

This section provides information about how to deploy software changes for your software components. Software change management standardizes and automates software distribution, maintenance, and testing procedures for complex software landscapes and multiple software development platforms.

# 15 Periodic Tasks

# 15.1 Periodic Tasks for Data Maintenance Pricing and Resources options

There are no periodic tasks for Solution Extensions for SAP S/4HANA by Vistex.

The following transactions are available to be run in the background if desired.

Transaction code	Description	
/IRM/EPKU50	Create a customer from the customer master	
/IRM/EPKU60	Post a customer to the customer master	
/IRM/EPKUIR50	Create customer info records from SAP info records	
/IRM/EPKUIR60	Post customer info records to SAP info records	
/IRM/EPKU80	Customer mass processing	
/IRM/EPLI50	Create a vendor from the vendor master	
/IRM/EPLI60	Post a vendor to the vendor master	
/IRM/EPLIIR50	Create vendor info records from SAP info records	
/IRM/EPLIIR60	Post vendor info records to SAP info records	
/IRM/EPLI80	Vendor mass processing	
/IRM/EPPD50	Create a material from the material master	
/IRM/EPPD60	Post a material to the material master	
/IRM/EPPD80	Material processing	



any kind, and SAP or its affiliate companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the

Please see https://www.sap.com/about/legal/trademark.html for

constituting an additional warranty.

trademarks of their respective companies.

additional trademark information and notices.

