

Application Help

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SAP Extended Price Management by Vistex

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1 Introduction

Visibility into the complex pricing situations that exist for customers, manufacturers, and suppliers can be challenging. Inaccuracy and inconsistency of pricing data may result in the potential loss of revenue and margins. Transaction pricing is undeniably one of the most critical levers you can use to gain competitive advantages in today's marketplace. A company must be able to pro-actively focus on the maintenance of pricing and agreements. To keep up with corporate compliance, it is vital to enforce pricing policies. Pricing management also enables an organization to close more deals and gain visibility into profit performance.

Studies have shown that organizations that implement a pricing solution by replacing cumbersome processes with a system that brings transaction pricing, agreements, and analytics into a uniform, integrated view will significantly increase their business performance and improve revenues and margins.

1.1.1 Purpose

Pricing addresses the ease and visibility needed for efficient management and consistent execution of pricing transactions and agreements. The manageability of the pricing dynamics in SAP Extended Price Management by Vistex is largely due to a function that enables the creation of pricing maintenance profiles that bring together related pricing elements for quicker and deeper insights into your pricing data. You will see improved processes and workflow, a comprehensive, convenient view for pricing execution and maintenance, and the necessary analytic tools to generate more profitable deals while maintaining compliance of your organization's pricing policies.

1.2 Benefits of SAP Extended Price Management

The following pricing business issues are addressed in SAP Extended Price Management by Vistex:

- Price changes require manual effort and usually trail actual events resulting in price discrepancies.
- Customers cannot enforce price policies to prevent erosion of margin.
- Lack of extensive analytical tools to maintain pricing and monitor price performance.
- Absence of workflow integration for price changes.

In addition, the following are the benefits of maintaining pricing data using Price Management:

- Ongoing price maintenance in an efficient manner.
- Bring calculation records to life with a dynamic user interface.
- Intelligent maintenance of related calculation elements such as purchase price from suppliers and sales price and discounts for customers.
- Apply pricing policies and guidelines.
- Analyze pricing data with unprecedented flexibility.
- Mass execution of price changes without labor-intensive activities.
- Dramatically improves price maintenance productivity.

2 Application Services

2.1 Data Objects

Data cleansing is performed using Data Objects. Master Data is received in Data Objects. The purpose of data objects is to have an intermediate step between receiving a submission of raw data from external sources and loading that data into the appropriate application data tables. Rather than sending the raw data directly into the system database, the data will first be processed based on a predefined data model. Clean data then can be sent to the application in a format that the application can understand and use.

For detailed information on Data Objects, see the Data Objects topic.

2.2 Status Flow

Status Flow is a flexible approval process tool that can be managed by business users. Status Flow provides the ability to:

- Create an approval process for creating or changing agreements or transactions
- Approve or reject documentation
- Change the approval flow from one predefined path to another

2.2.1 Processing Steps

1. The process begins when a document requires approval.
For example, when an agreement is created it must be approved by a list of users in a predefined sequence.
2. The default trigger starts the standard flow. The connection between an application object and the status flow is the status profile that consists of a list of triggers, each of which starts a status flow.
For example, the default trigger starts the standard flow, but a second trigger in the status profile can be set up to stop the current flow and start a rush/shortened flow. A different trigger can be started manually (when a person is on vacation, for example) or started automatically based on configured system logic (for example, when the agreement amount is greater than a preset limit).
3. The first step in the status flow sends a communication (such as an email) to the first person who must approve the document. This communication may be a notification or may include buttons to set the approval. The text, buttons, and links are set up in a template assigned to the activity in the status flow step. When needed, communications can be sent to multiple recipients, all of whom must approve the document before it is sent to the next status flow step.
4. If the document or transaction is approved, the process continues to the next step of the status flow. Other outcomes assigned in the flow step will indicate what action will be performed. For example, if the document or transaction is rejected, a communication might be sent to the sales representative asking that person to provide additional information. Or, the activity might be redirected to another processor.

5. If set up to do so, the system will generate an activity document for each step in the process to track communication.
6. The process continues until the flow is complete. The final step in the status flow might be to send a communication to the user who first created the agreement.

2.3 Work Manager

Work Manager is the tool used to schedule jobs and sequence processing, typically for processing and posting transactions. All jobs and their status are viewed in one central screen with drill through capabilities to see details, follow on documents, and error messages.

For information on using Work Manager, see the related topic in the Customer Administrator Guide.

3 Price Management

3.1 Calculation Sheet

A calculation sheet is a combination of a calculation element (such as price, discount, or surcharge) and a calculation table (the fields that form the key for a pricing record). Calculation sheets serve as a flexible, user-friendly way to create pricing records (pricing values).

Calculation sheets must be defined during configuration project set-up before calculation records can be created and stored on each calculation sheet within Price Management.

3.1.1 Calculation Elements

Calculation elements are used to determine which values are stored in a calculation sheet. Specifically, calculation elements identify the eligibility and calculation conditions to be stored in the corresponding calculation table. The combination of the calculation element and calculation table defines the contents of the calculation sheet.

Calculation elements must be defined during configuration.

3.1.2 Calculation Tables

Calculation tables specify all of the fields maintained for a calculation sheet. Only the fields relevant for the calculation sheet in question are included, and the calculation table indicates at what level those fields are maintained. For example, tables can be at a product, product group, or product hierarchy so that unique price records can be stored at each level.

Calculation tables must be defined during configuration.

3.1.3 Calculation Path

A calculation path is a series of steps utilized to read calculation tables in a hierarchy. Each step in the calculation path includes mapping between the source document field and the corresponding calculation table field to optimize pricing for hierarchical data. For example, a distributor may have pricing maintained at both the attribute and hierarchy levels for customers, materials, and products. To avoid defining calculation tables for all possible combinations of these fields, the calculation path uses a hierarchy access function to define one access to a calculation table containing all of the necessary fields for the variable key field.

Calculation paths must be defined during configuration.

3.1.4 Calculation Procedure

A calculation procedure is a series of steps executed in sequence to perform pricing calculations. In a calculation procedure, calculation elements are maintained with a calculation path to determine the appropriate values for sales, royalties or other calculations.

Calculation procedures must be defined during configuration.

3.1.5 Price Policies

Price policies calculate thresholds for pricing exceptions and generate warnings when a price requirement on a calculation sheet has been violated. Price policies can be set to auto execute when calculation records are created, or policies can be called on demand.

Use the Price Policies to create and maintain reusable price policies that are assigned to calculation element/table combinations (calculation sheets). Multiple policies can be assigned to a calculation sheet. The sequence for execution can be defined, as well as what should happen to subsequent policies if a prior one is met. A where-used list shows all of the calculation sheets where the policy is being used.

When you define a price policy you assign a validity period. As needed, price policies can be uniquely assigned per organizational level. Each price policy is assigned to a group of price sheets that must follow particular rules. You can dynamically add fields to calculation records for the purpose of policy evaluation. The dynamic fields are assigned to the policy not to the price sheet.

Based on configuration, price policies can be sent through an approval process prior to activation. Approvals can be tied to workflow.

3.2 Pricing Formulas

3.2.1 Global Master Formulas

Master formulas are global (reusable) formulas that can be assigned to one or multiple calculation sheets, in addition to the formulas created specifically for each individual calculation sheet (local sheet formulas). For example, the formula to calculate profit margin might be entered as a master formula and used on all calculation sheets for customer prices.

Formulas are created during solution implementation and maintained in further implementation projects.

After the formula has been created, it can be assigned to specific calculation sheets. You can assign formulas individually or configure a sequence of master (and sheet) formulas in a formula profile and assign the formula profile to the calculation sheet in a procedure.

3.2.2 Local Sheet and Field Formulas

3.3 Price Maintenance

Individual price or calculation records on a calculation sheet can be created, maintained, and displayed using the following methods:

- Calculation sheet maintenance
- Calculation area
- Price document
- Price review
- Price proposal

3.3.1 Calculation Area

Calculation areas provide a way to maintain relevant pricing data that is not maintained in an agreement. Calculation areas include calculation elements and the assigned calculation table for this information. The calculation table provides the relevant fields, while the calculation element is used to determine pricing or eligibility information.

After a calculation area is defined, it can be used to maintain standard calculation records. Calculation areas can be assigned to individual users, and access to the calculation areas can be controlled using authorization groups.

3.3.2 Pricing Grid

The pricing grid can be displayed as a unique tab in the Price Review app or grouped with the other calculation sheets.

The fields displayed in the pricing grid cannot be selected or changed, as the columns shown in the summary are determined by the fields common to all of the calculation sheets in the price proposal document. The records shown in the summary cannot be maintained and are only displayed.

3.3.3 Pricing Information Upload

Pricing information can be uploaded in the following ways:

- **Pricing Template**
- **Data objects**

The purpose of data objects is to have an intermediate step between receiving a submission of raw data and loading that data into the appropriate application data tables. Rather than sending the raw data directly into

the system database, the data will first be cleansed based on a predefined data model. Clean data then can be sent to Claims application in a format that the application can understand and use.

- **Delivered APIs**

Upload Price Record

Price records can be imported from a file, such as an Excel spreadsheet, rather than manually entering the data. Files can be uploaded from a file template, data objects, or from the APIs delivered with Price Management.

NOTE: The file template is not meant to store the scales in file data. If uploading calculation records with scales, all non-scale fields must come before the scale fields in the spreadsheet. The scale fields must be last in the spreadsheet in the sequence:

- Scale quantity 1
- Scale rate 1
- Scale quantity 2
- Scale rate 2

3.3.4 Price Maintenance Methods

Create, Change or Display Calculation Records

When you create, change, or display calculation records, you specify the calculation element and calculation table. This unique combination also is referred to as a calculation sheet.

NOTE: To be available for use, a calculation sheet must already have been configured.

Calculation records can be created using one of the following methods:

- Manually add lines to the active calculation sheet
- Mass import calculation records online from a spreadsheet into the active calculation sheet
- Copy existing lines

3.3.5 Price Proposal

A price proposal is initiated to request approval for the creation or maintenance of condition records. Price records can be saved directly or staged for a formal approval process using status flow. This staged document is called a price proposal, and price proposals can be created with reference to pricing records in calculation sheets, price review, calculation areas, or they can be created without reference.

After they are created, price proposals can be maintained and displayed in the Price Proposal Workbench. Multiple price proposal types can be created for the various levels of approval required.

3.3.5.1 Upload Price Proposal

Use Upload Price Proposal to import a price proposal in one of the following ways

- **Pricing Template**
- **Data objects**
- **Delivered APIs**

You must specify a file template for the upload. File templates can be created to control the fields and format of files during upload. To create a file template, use the Submission Workbench to create a template.

3.3.5.2 Download Price Proposal

Use Download Price Proposal to download selected price proposals to a specific file on a desktop or file server. For large downloads, this transaction can be run as a background job.

File templates are used to control the fields and format of files during download. To create a template, use the Submission Workbench.

3.3.5.3 File Template for Price Proposal

Use File Template for Price Proposal Workbench to create and maintain templates that control the fields and format of price proposal files during upload.

3.4 Price Review

Price review allows the mass change of rules across pricing and other applications (such as SAP Channel Management by Vistex and SAP Supplier Management by Vistex). Users can pull the data from different sources, perform the required actions, and post the data to the respective applications using this functionality.

The Price Review Workbench will have data generated based on the configuration set up in the review template and will post based on the mapping profile which is defined as part of the project.

3.4.1 Mass Price Change

Mass price change enables the adjustment of prices for a large group of products based on set of specific criteria. When creating the mass price change, it is automatically assigned to the default price review type set up during configuration.

In the Source tab, users select the criteria determining which prices will be changed. These criteria can include sales organization, distribution channel, customer, agreement type, agreement, valid-on date, as well as others depending on the configuration.

In the Steps tab, the price changes are defined for the selected records. Depending on the criteria, prices can be adjusted by material or by customer. It is also possible to mark certain steps as exclusive to stop further price changes. For example, if the user is increasing the price for a set of products and wants to further increase the price for certain customers, the price change by material and by customer are set up as separate steps. By placing the

price change by customer step first and marking it as exclusive, when the mass price change finds those customers in the selected criteria it will not process any of the later steps for price change by material.

When the mass price change is complete a new price review is generated. The price review can be posted to price sheets, agreements, or deals, and price proposals and requests can also be created from the review. Posting from the price review can also be blocked for certain objects.

Snapshots

Each time a new price review is generated, a snapshot is saved for review purposes. When viewing a price review generated from a mass price change, users can click the snapshots button in the toolbar to view previous versions of the price review featuring different step values. The compare feature also enables users to compare values across multiple price reviews. Comparisons can be set up using multiple characteristics or metrics for the pricing grids.

3.4.2 Product Replacement

Product replacement offers a means of terminating a product that is currently on the market and replacing it with a new product.

In the Source tab, users select the criteria determining which products will be replaced. These criteria can include sales organization, distribution channel, customer, agreement type, agreement, valid-on date, as well as others depending on the configuration. In the Steps tab, users define the product to be replaced (source material) and the replacement product (target material).

When the product replacement is executed, any agreements containing the products defined by the source criteria are updated with the new products. Any updated agreements can then be posted.

3.4.3 Simple Price Quote

Simple price quotes are used to simulate new pricing records. After entering lines into the simulation grid, the pricing procedure is performed to generate the new records. The simulation can be configured so that items or relevant fields are entered to create the records. The pricing simulation can pull records from all available calculation sheets or only from specific calculation sheets, depending on the configuration. When the price simulation is saved, a new price review is created. The updated prices can then be posted.

3.4.3.1 Upload Price Review

Use Upload Price Proposal to import a price proposal using one of the following:

- **Pricing Template**
- **Data objects**
- **Delivered APIs**

You must specify a file template for the upload. File templates can be created to control the fields and format of files during upload. To create a file template, use the Submission Workbench to create a template.

3.4.3.2 Download Price Review

Use Download Price Review to download selected price reviews to a specific file on a desktop or file server. For large downloads, this transaction can be run as a background job.

File templates are used to control the fields and format of files during download. To create a template, use the Submission Workbench.

3.4.3.3 File Template for Price Review

Use the Submission Workbench to create and maintain templates that control the fields and format of price review files during upload.

Note: Price reviews use the global file template.

4 Data Objects

4.1 Data Objects Overview

The purpose of data objects is to have an intermediate step between receiving a submission of raw data from external sources and loading that data into the appropriate application data tables. Rather than sending the raw data directly into the system database, the data will first be processed based on a predefined data model. Clean data then can be sent to the application in a format that the application can understand and use.

Data objects functionality has been integrated into the following applications, allowing you to create documents within these Extended Price Management applications:

- Customer
- Product
- Supplier (formerly Vendor)
- Prices/Cost

4.1.1 Use Cases

Data objects can be used in many business processes, but in pricing it is used to receive data from other systems.

4.1.2 Data Cleansing Capabilities

Raw data submitted from an external source may require one or more of the following types of data cleansing before it can be loaded into application data tables:

- **Formatting**, such as changing numeric values formatted with a negative sign after the value (1-) to values formatted with the negative sign before the value (-1)
- **Transformation**, data scrubbing such as removing a prefix that is not relevant
- **Derivation**, data cleansing capability to derive data values, such as performing a partner lookup
- **Enrichment**, for example splitting an address into multiple fields
- **Validation**, to cross reference a customer for example

4.1.3 Data Objects Architecture

The organization of a data model includes the following:

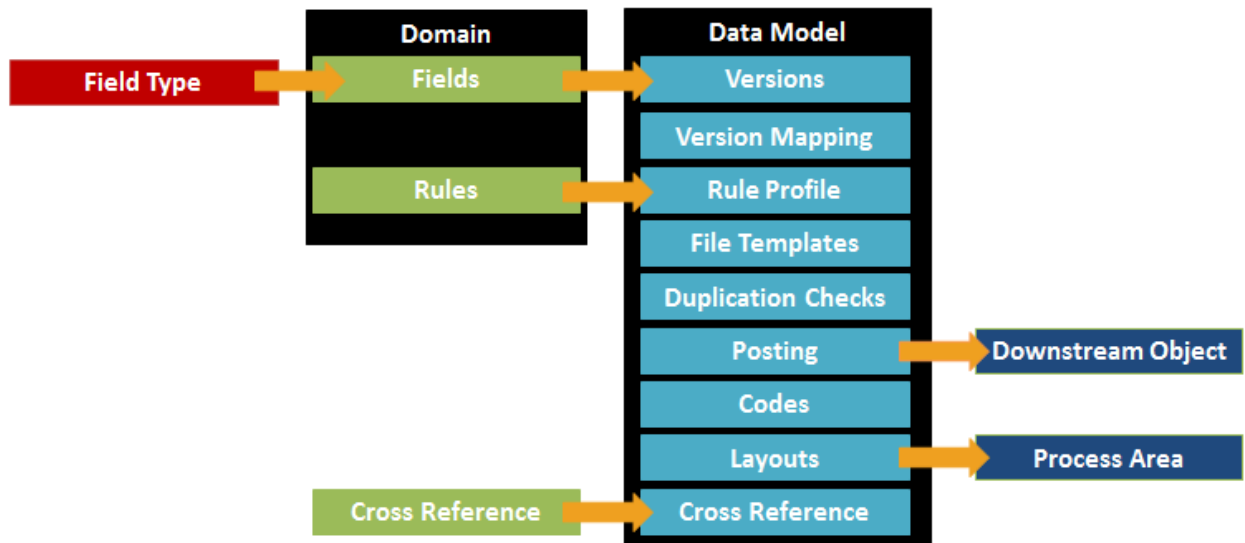
- **Fields**
Fields can be domain/application-specific or global (available for use in all domains). Fields are grouped into sections.

- **Versions**

A version consists of multiple sections, such as header, items, partners, and materials, which can be nested.

Raw data imported into the system is stored as the initial version. Subsequent versions of the data are created as the data is cleansed/processed. The cleansed version contains the data that will be loaded into the application files.

Predefined mapping controls the flow of data from (source) version to (target) version, section to section, and field to field when a new version is created. Logic defined in data object rules can be applied as the data is mapped.



4.1.4 Processing Steps

1. Data file is received from the external source, such as a customer, channel partner, or distributor.
2. Upload the raw data as is, using a file template to map the data to a predefined data model designed to capture all the necessary information for your system. Alternately, an IDOC can be used to import the file.
3. Analyze the data, by running a predefined run profile, to identify trends and decide what cleansing is required.
4. Create a cleansed version of the data. The system will process (cleanse and reformat) the source data, based on predefined groups of rules (rule profiles).
If needed, you may compare the initial version to the clean version to review the differences.
5. Load/post the clean data into the appropriate application files. Partial postings can be performed from the Object application, if configured for the data model.

4.2 Upload/Download Data Objects

4.2.1 Upload Objects

Use Upload Objects to upload the initial version of a partner data file from either a desktop or file server.

To perform an upload, you need to specify the following information:

- **Data object types**
The version number will default based on the data model.
- **File source** (desktop or file server)
- **File name**
- **Data model file template name or submitter**
- **Submission date**

If specifying a submitter, you may use the data model configuration to define upload parameters for that submitter, including the default file template, based on the submission date. File templates are created to control the fields and format of files during upload.

4.2.2 Download Objects

Use Download Objects to download selected data objects to a specific file on a desktop or file server. For large downloads, this transaction can be run as a background job using Work Manager.

You must specify a file template for the download. File templates are used to control the fields and format of files during download.

5 Glossary

Term	Definition
Data Model	Data is processed based on a redefined data model that is designed to capture all the necessary information for the system.
Data Object	An intermediate step between receiving a submission of raw data from external sources and loading that data into the appropriate application data tables.
Field (Data Objects)	Part of the organization of a data model, fields can be domain/application-specific or global (available for use in all domains).
File Template	Re-usable template that controls the fields and format of files during upload and/or download.
Measure	A value, most commonly numerical, that is used to represent a measurement, distance, or quantity. It is used to calculate metrics within an agreement. The output can be results (such as total cost of the agreement) or can be which status profile step should be set.
Price Policy	Function that calculates thresholds for pricing exceptions and generates warnings or errors when a price requirement on a calculation sheet has been violated. It can also set price levels that can be used to control approval levels through measures.
Price Type	Price Types are used to upload the price calculation records. They are used primarily to load large amounts of external prices that are loaded periodically, such as commodity prices or supplier purchase price lists. Price types have the same features as regular calculation records, except that they have a fixed structure and fixed maintenance levels.
Section	Each section of the data model is a collection of fields.