



Accelerate Price Flexibility Package

Version 1.1.3

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Accelerate Price Flexibility Package 1.1.3

The Price Flexibility Package ensures ongoing price maintenance and updates:


- Price recalculation is triggered if there are changes (e.g. new cost, new information on a competitor price) or new products added.
- A ToDo item can be created automatically and products are added to an LPG.
- After the calculation, the price can be approved.
- Finally, the product is updated in an existing Price List (or added if it is a new product).

In this section:

- [Price Flexibility Overview 1.1.3](#)
- [How Price Flexibility Package Works 1.1.3](#)
- [Price Flexibility Configuration 1.1.3](#)
- [Release Notes PFP 1.1.3](#)

Price Flexibility Overview 1.1.3

This package is designed to notify a user group to follow the status when a product is added or updated. It means that changed products are added to a Live Price Grid where the change is waiting to be approved or denied. Once the decision is made by a member of the assigned user group, approved products are moved to a configured Price List and denied products are removed from the Live Price Grid.

 Price Flexibility package monitors all products available in the system; currently it is not possible to filter them in any way.

Products are added to the Lifecycle Monitor when:

1. They are new in the Product Master.
2. Once a value of a configured observable field has been updated.

Observed fields can come from Product Master or any Product Extension. Currently, this only works when the SKU is in one-to-one relation in the Product Extension.

How Price Flexibility Package Works 1.1.3

The Price Flexibility Package cycle consists of the following steps:

- [Detect Change](#)
- [Add Product](#)
- [Set Schedule](#)
- [Define LPGs](#)

- [Move Product to LPG/PL](#)
- [Assign ToDo Item](#)

Detect Change

When a change is detected, it is registered in LifecycleMonitor PX and one of the following happens:

- A new product was added to the system.
 - A flag "New Product" is set in the LifecycleMonitor PX in the Lifecycle Status column.
 - A flag "Needs Recalculation" is set in the LifecycleMonitor PX in the Calculation Status column.
- An observable attribute of an existing product was changed.
 - A flag "Needs Recalculation" is set in the LifecycleMonitor PX in the Calculation Status column.
 - A new value is set to the appropriate column of the LifecycleMonitor PX. These columns are defined by the EnrichMonitorPP CF and their indexes are stored in the [ObservableAttributes PF](#).
 - A change is detected if there is a pair of old and new values for any observed attribute.
 - If an observable attribute of some product does not have a value, a placeholder <<null>> value is used to differentiate between an empty value and a missing value.

Add Product

Every changed product is added as a new element to LPGs defined in the [PriceGridMapping PP](#). Price grids do not accept duplicate elements, so if a product is already there, nothing will happen, but the price will be changed accordingly on next recalculation.

Set Schedule

Products are added to the configured LPGs automatically after the scanning interval passes. By default it is every 24 hours. It can be changed by modifying the schedule in the [DetectChangesSchedule PP](#).

Define LPGs

The number of LPGs may vary. They are configurable in the [PriceGridMapping PP](#) in the LPG Id column.

This is what the sample configuration could look like:

Price Parameter Values : Price Grid Mapping [2]	
LPG Id	Price List Id
<input type="checkbox"/> 135	1489
<input checked="" type="checkbox"/> 136	1332

It is possible to leave the Price List Id column entry empty. It will stop the process for a given LPG Id, so products will not be moved to a PL when approved and they will not be deleted from Price Grid when denied.

Example:

Every LPG can have its own calculation logic to receive their own result prices.

LCMTest [10]																							
Product	Warnings	Product	UOM	Product	Comment	Last Update Date	Previo...	Previous Price Date	Δ Ad...	Δ% Act...	Active	Active Price Date	Δ	Δ%	Result	Manual	Approv...	Workf...	Workf...	Approval Date	Denial Date	Denial Re...	
MD-0013		Meatball	EA	EUR		25/07/2019 10:45									2.47		Not approv...						
MD-0014		Meatball	EA	EUR		25/07/2019 10:45									3.74		Not approv...						

Move Product to LPG/PL

After a new product was approved in a LPG (when the user clicks the approve icon or if it is auto-approved by the assigned workflow), this price record is moved to the Price List which is configured in the [PriceGrid Mapping PP](#) in the Price List Id column. If any extended attribute (attribute1, attribute2, etc.) in the source LPG has a custom name and there is an attribute with the same custom name defined in the target Price List, the value will be copied from the source attribute to the correct attribute of the target.

Because of some API restrictions, we cannot copy all information that is available in the "Details" popup of PL/LPG. To avoid mismatch in the data, the target PL should not be used for price calculation - only for price storage, as the source LPG is already used for price calculations.

When the product information is moved to the target PL, the information about the old observed product attribute values is cleared from the LifecycleMonitor PX.

If the new product was denied by the user, it is removed from the LPG automatically and the information about the old observed product attribute values is cleared from the Lifecycle Monitor PX.

These operations are handled by the ProcessApprovalProductInMonitor CF. By default - every 1 hour.

Price List Items for Price List : Price List For Testing [5]										
Product Id	Product Name	UOM	Product Currency	Comment	Last Update Date	Result Price	Manual Override	Global Price	Adjustment	Local Price
MB-0001	Meatball BS	EA	EUR		26/03/2019 05:14	3.52		6.158	2.634	3.523
TestMW	Tomato hat	EA	EUR		26/03/2019 05:45	1.88		4.366	2.49	1.877
TestS003	Potato				26/03/2019 09:00	4.45		5.699	1.248	4.451
TestMB	Potato				26/03/2019 11:11	3.90		6.423	2.522	3.901
NC-P-0005	Tray with Divider				26/03/2019 16:21	4.58		6.465	1.88	4.585

Assign ToDo Item

"My ToDo List" will appear on the Classic UI homepage. The status now is OPEN. The user can approve or deny this task but it will be auto-approved once all elements are approved or denied in the LPG. It will be reopened when new items are added to the LPG, so no duplicate Todos will be created.

My ToDo List					
Created By	Description	Item	Status	Com...	
admin	4th PG LCMTest2	126	CANCELLED		
mariusz	Sample TODO: PG-TestPG	135	OPEN		

Price Flexibility Configuration 1.1.3

This section is intended for Configuration Engineers to guide them through package deployment and features setup and to provide technical documentation.

- [Price Flexibility Deployment 1.1.3](#)
- [Price Flexibility Configuration Price Parameters 1.1.3](#)
- [Price Flexibility Advanced Technical Information 1.1.3](#)

Price Flexibility Deployment 1.1.3

The easiest way to deploy Price Setting Package to a partition is via PlatformManager.

Access PlatformManager at <https://platform.pricefx.com/> and log in with your account or using 0365.

Then follow the steps described in the [PlatformManager documentation](#).

Price Flexibility Configuration Price Parameters 1.1.3


The configuration options described here may be required to set up individual Price Flexibility features.

- [ObservableAttributes PP 1.1.3](#)
- [PriceGridMapping PP 1.1.3](#)
- [TODOConfiguration PP 1.1.3](#)
- [DetectChangesSchedule PP 1.1.3](#)

ObservableAttributes PP 1.1.3


Column Name	Description	Attribute	Source Type	Source Name	Source Attribute	Valid From Field	Valid Until Field
Allowed Values		Filled by the system	<ul style="list-style-type: none"> • Product • Product Extension 				

D	Unique business name of the observed attribute.	Do not touch if not instructed.	Source type for data	Name of the source. Leave empty for the source type "Product".	Attribute name in the source table, e.g. "Product Cost"	Attribute name in the source table used for the time constraint (optional), e.g. "ValidFrom". Values in this column must be date time and they indicate from which date the entry is valid.	Attribute name in the source table used for the time constraint (optional), e.g. "ValidTo". Values in this column must be date time and they indicate until which date the entry is valid. If no "Valid Until Field" is provided, a valid entry is the one with the latest past date in the "Valid From Field" column.
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 There is a hard limit of 24 observed attributes. Additional attributes will not be observed. The trade-off is that adding a new attribute in place of the deleted one will be more time consuming. There is a lazy deletion done by EnrichMonitorPP CF and values of no longer observed columns are cleared when a new space is needed.


PriceGridMapping PP 1.1.3

Column name	LPG Id	Price List Id
Allowed Values		
Description	LPG into which products with detected changes will be added.	Optional field. Defines a Price List where approved products will be moved. If not defined, items will stay in the LPG regardless of their approval status.

 This price parameter can have multiple rows. It means that detected changes can add products to multiple LPGs and they will be moved to corresponding PLs. Because rows are handled by a single LifecycleMonitor PX, all changes will be visible on all LPGs.

TODOConfiguration PP 1.1.3

Column name	PGI ID	User group name	TODO description
Allowed Values			
Description	LPG for which a TODO will be created.	User or group that a given TODO will be assigned to.	Description of the TODO visible for the user.

 LPG Id and Group are both keys which means that any combination of these two can be created for a new TODO.

DetectChangesSchedule PP 1.1.3

Name (hardcoded)	Value (user defined / technical).
Detect Changes Every [min]	Defines how often the detect changes job should run.

Last Execution Timestamp	Technical field. Timestamp of the last execution. Do not change if not instructed.
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⚠ The CF ProcessApprovalProductInMonitor is the “heartbeat” of the scheduling. It runs every 60 minutes by default. If you need a more frequent trigger, you can reduce it to 5 minutes in the CF scheduling configuration. It is not recommended to reduce it below 5 minutes due to technical restrictions. With the Detect Changes Every Parameter you can “skip” execution of this task and reduce it to e.g. once every 24 hours.

Price Flexibility Advanced Technical Information 1.1.3

This information is meant for Configuration Engineers if they need to modify the package.

Some of these steps are being replaced by [deployment through PlatformManager](#). Until this transition is completed, you can refer to this section for information on steps which are not yet covered in PlatformManager.

- [Price Flexibility Repositories 1.1.3](#)
- [Price Flexibility Initial Setup 1.1.3](#)

Price Flexibility Repositories 1.1.3

First, you need to deploy the below listed repositories.

pricefx-logic			
Calculation	Groovy libraries	SharedLib	Pricefx library with util functions.

product-lifecycle-template			
Calculation	Calculation Logics	AddProductsToMonitor_CFS	Populates Lifecycle Monitor with a list of products. Adds every new product to the LifecycleMonitor PX.
		DetectChangesInMonitor_CFS	Detects changes in observed attributes and looks for new products. Then it marks them in Lifecycle Monitor for further processing and adds them to the configured LPG. It also manages the TODO creation.
		EnrichPPInMonitor_CF	Sets up the Lifecycle Monitor skeleton for processing data of observable attributes. Edits the ObservableAttributes PP reserving a column in the LifecycleMonitor PX where the given attribute is stored.

		ManageApprovalsAndRunCFSsInMonitor_CF	<p>Scans every LPG defined in the PriceGridMapping PP 1.1.3 and manages approved/denied items. It moves approved products to the configured target price lists and removes denied products.</p> <p>Additionally, it also closes TODOs for empty LPGs and schedules:</p> <ul style="list-style-type: none"> • Detecting changes • Scans for new products • LPG recalculations - only for products with the "Needs Recalculation" flag which is set when a new product is added or some change is detected. <p>It will not start if the DetectChangesInMonitor CFS or any LPG recalculation is currently in progress.</p>
		MonitorConfigurationManager	Configuration management utility for the package.
	Groovy libraries	LifeCycleLib	Library of common operations used in the package.
	Calculation Flows	ProcessApprovalProductInMonitor	Schedules running the ManageApprovalsAndRunCFSsInMonitor_CF. By default every 1 hour.
		EnrichMonitorPP	Schedules running the EnrichPPInMonitor_CF. By default every 24 hours.
	Calculated Field Sets	AddProductsToMonitor	Processes the AddProductsToMonitor_CFS logic.
		DetectChangesInMonitor	Processes the DetectChangesInMonitor logic.
Price Parameters (with corresponding preferences and data)	PriceGridMapping		
	ObservableAttributes		
	TODO Configuration		
	DetectChangesSchedule		

Product Extensions (with corresponding preferences)	LifecycleMonitor		
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Price Flexibility Initial Setup 1.1.3

For the package to work properly, the following steps have to be done after [deployment](#):

1. Create a configuration entry in:
 - [ObservableAttributes PP 1.1.3](#)
 - [PriceGridMapping PP 1.1.3](#)
 - [TODOConfiguration PP 1.1.3](#)
2. Make sure that after changing the ObservableAttributes PP the EnrichMonitorPP CF is run.
 - Verify that all products were added to the LifecycleMonitor PX.

From now on, changes on observable attributes will be monitored and processed using this package.

Release Notes PFP 1.1.3

Bugs

- [PFPCS-3708](#) [PL] [Price Flexibility] Warning is shown for the element ChangesFromMonitor