

WebSphere Commerce V7 Feature Pack 2

Pricing tool



This presentation provides an overview of the Pricing tool of the WebSphere® Commerce V7.0 feature pack 2.

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 - Price list
 - Price constant
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 - Price rule
- Problem determination

This presentation introduces how to use the pricing tool to create various price rule's objects, which include price list, price constant, price equation and price rule. Some topics on problem determination is covered.

Section

Pricing tool - Price list

This section introduces the price list.

Price list

- Create a price list in Pricing tool
 - Add catalog entries using the **Find and Add** button or the Utilities view
 - Enter the prices for each supported currencies

*myPriceList Save and Close Close

Manage Price List References

*Name

Description

* Type	* Code	* Name	* Minimum Quantity	* USD	BRL	CAD	CNY	EGP	EUR	JPY
<input checked="" type="checkbox"/>	FUOF-01	Mahogany Desk Chair	1	249.99						
<input checked="" type="checkbox"/>	FUOF-0101	Mahogany Desk Chair	1	249.99						
<input checked="" type="checkbox"/>	FUOF-0101	Mahogany Desk Chair	4	229.99						
<input checked="" type="checkbox"/>	FUOF-02	Multi-Function Ergonomic Chair	1	359.99						
<input checked="" type="checkbox"/>	FUOF-0201	Multi-Function Ergonomic Chair	1	359.99						
<input checked="" type="checkbox"/>	FUOF-03	Leather High-Back Office Chair	1	479.99						
<input checked="" type="checkbox"/>	FUOF-0301	Leather High-Back Office Chair	1	479.99						

Catalog entry pricing in Catalog tool

Pricing

List price 0 of 1 selected

Offer price (Madisons) 1 of 2 selected

Minimum Quantity	* USD	BRL	CAD	CNY	EGP	EUR
1	249.99					
4	210.99					

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Same as pricing in Catalog tool, a catalog entry can have multiple price entries with different **Minimum Quantity**

In the Pricing tool, you can create a price list using the price list editor. In the price list editor area, you can use Find and Add to search the catalog entries and add them into the price list, or you can use the Utilities view to drag the catalog entries into the price list. You then enter the price for the catalog entry. Similar to pricing in the Catalog tool, a catalog entry in a price list can have multiple price entries with different Minimum Quantity.

Price list reference

- References for price rules and price equations
 - Price list cannot be deleted if it is used by a price rule or a price equation

The screenshot shows the 'References' tab of the 'Manage Price List' interface. At the top, there is a title bar with the text '*myPriceList' and two buttons: 'Save and Close' and 'Close'. Below the title bar, there are two tabs: 'Manage Price List' and 'References', with 'References' being the active tab. The main content area is divided into two sections: 'Price rules' and 'Price equations'. The 'Price rules' section contains a table with the following data:

* Type	Name	Description
	my price rule	my price rule description

Below the table, it indicates '0 of 1 selected'. The 'Price equations' section is currently empty.

At the bottom of the interface, there is a footer with the page number '5', the text 'Pricing tool', and the copyright notice '© 2011 IBM Corporation'.

In the References tab, you can find out which price rules and price equations are using this price list. You cannot delete the price list if it is referred by a price rule or a price equation.

Price list import and export

- Price List Uploads
 - Load prices from .csv or .zip file to an existing price list
 - More efficient way to load large amount of prices than UI
 - Default upload file size is 10 MB
 - wc-server.xml

```
<Command maxuploadsize="10485760"
name="com.ibm.commerce.price.commands.CreatePriceListImportCmd"
supportedFileExtension="csv,zip" uploadReturnURL_enabled="true"
viruscheck="no"/>
```

```
•\LOBTools\WebContent\config\commerce\
price\objectDefinitions\PriceListImportPrim
aryObjectDefinition.def
```

- Price list export
 - Export a price list into a .csv file
 - Use **Price List uploads** to update an existing price list

The screenshot displays the 'Price List Upload' interface. Under 'General Properties', the 'File name' is 'PriceListInput.csv', 'Size' is '60 KB', and 'Character set' is 'UTF-8'. The 'Target price list' table has the following data:

Name	Description
myPriceList	my price list description

Below this, the 'Price Lists - List' table shows:

Type	Name	Description
🏠	Madisons	This is the default Offer Price list for this store. This price list contains all catalog entries in the master catalog. The offer price is the actual price that must be paid, before taxes, discounts, and shipping.
🏠	MadisonsList	This is the default List Price list for this store. This price list contains all catalog entries in the master catalog. The list price is intended for promotional purposes only.
🏠	myPriceList	my price list description

A context menu is open over 'myPriceList' with options: Open, Copy, Copy to Clipboard, Delete, Open in Compare View, Edit Column, Select all, Deselect All, and **Export**.

Price List Uploads feature allows you to load prices to a price list from a CSV file or a compressed archive file. By using the Price List Uploads feature you can update a price list with large amount catalog entry prices more efficiently than price list editor. By default, the maximum upload file size is 10MB. You can find and change this default value from the files shown here.

You can export a price list into a CSV file. By combining the export and import feature, you can easily update an existing price list. You first export the price list to a CSV file, update the prices in the file using an external tool, then import the file back to the price list.

Pricing tool - Price constant

This section introduces the price constant.

Types of price constant

- **Numeric constant** - any decimal number

Manage Price Constant

*Name fixed-constant-1

Description a decimal number

Type Number

*Number 33.99

- **Percentage constant**- any decimal number, but presents in percentage form

Manage Price Constant

*Name Percentage-sonstant-1

Description Percentage - any decimal number

Type Percent

*Percent(%) 33.99

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- **Currency constant**- represented in different currencies

Manage Price Constant

*Name Currency-constant-1

Description constant for different currencies

Type Currency

Currency	* USD	BRL	CAD
	33.99	59.99	35.27
1 of 1 selected			

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Numeric, percentage and currency constants can be created in the Pricing tool. The currency constant allows you to create a constant for multiple currencies that your store supports.

Price constant reference

- References for price rules and price equations
 - Price constant cannot be deleted if it is used by a price rule or a price equation

discount_constant Save and Close Close

General Properties **References**

Price rules

Price rules ⓘ

* Type	Name	Description
	holiday_sale_price_rule	

0 of 1 selected

Price equations

Price equations ⓘ

* Type	Name	Description
	discount_equation	

0 of 1 selected

A price constant properties view has a Reference tab. In this tab, you can find out which price rules and price equations are using this price constant. You cannot delete the price constant if it is referred by a price rule or a price equation.

Pricing tool - Price equation

This section introduces the price equation builder.

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Price equation editor

*VIPDiscount_equation Save and Close Close

General Properties

*Name: VIPDiscount_equation

Description:

Equation preview Read only view

Output Price = Input price * (1 - Price constant (VIPDiscountConstant))

Equation builder

Type	Value
Input price	
Math Symbol	*
Parenthesis	(
Number	1
Math Symbol	-
Price constant	VIPDiscountConstant
Parenthesis)
1 of 7 selected	

- Input price
- Number
- Math Symbol
- (
-)
- Price List
- Price Constant

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- To create the price equation, select items from Equation builder
- Equation preview displays a graphical representation of price equation
- Example: *A percentage discount price equation*

To create a price equation, select the items from the Equation builder. The item is added into the Equation preview area based on the sequence of items in the Equation builder table. The Equation preview is read only, where you can check the result graphically. The sample price equation shown here is used to calculate percentage discount.

Price equation reference

- References for price rules
 - Price equation cannot be deleted if it is used by a price rule

discount_equation Save and Close Close

General Properties **References**

▼ Price rules

Price rules ⓘ

* Type	Name	Description
	holiday_sale_price_rule	
	nested_discount_price_rule	
0 of 2 selected		

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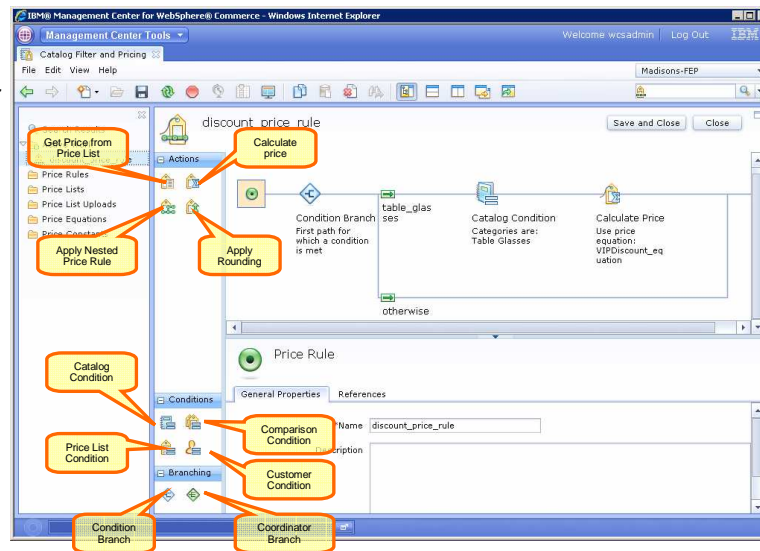
The price equation References tab contains the references for price rules. Same as other price rule elements, you cannot delete the price equation if it is referred by a price rule.

Pricing tool - Price rule

This section introduces the price rule builder.

Price rule editor

- Similar to Marketing activity, price rule editor builds the price rule graphically
- An empty path is provided when you select **Creating new price rule**
- Build the price rule path using the elements in the palette



Similar to the Marketing activity builder, you can use the price rule editor to build the price rule graphically. When you select the Creating a new price rule, an empty path is added in the price rule editor. You can then drag the price rule elements from the palette into the path to build your price rule. Various elements are provided to help you build the price rule.

Get Price from Price List action

- Price rule retrieves the prices from **Get Price from Price List** action
 - Prices are used as input prices for elements after it
 - Prices output directly to storefront if no elements after it
- Get Price from Price List action can have only one price list
- Example: *a simple rule with only one Get Price from Price List action*
 - *Get the rule from the price list, output directly to storefront*

The screenshot shows the configuration for a price rule named "my price rule". The rule contains one action: "Get Price from Price List" with the price list "myPriceList". Below the action, a table displays the details of the selected price list.

* Price list	* Type	Name	Description
0 of 1 selected		myPriceList	my price list description

The Get Price from Price List action is used by price rules to get prices from a price list. Only one price list can be added in the Get Price from Price List action. In a price rule, prices from the price list can be used as input prices for another price rule element. If there are no other elements after the Get Price from Price List action, the price rule gets the prices from price list and outputs the prices directly to storefront as catalog entry prices.

The example shown here is a simple price rule with only one price rule element in the price rule. Since there is no other element in the path, the price rule gets the catalog entry's prices from the price list and displays them directly on the storefront.

Calculate Price action

- Use the Calculate Price action to do the price calculation
 - Mark up price
 - Mark down price
 - Use price equation
- Example: *use a price equation to calculate prices*

The screenshot displays the configuration for a price rule named '*my price rule'. The rule flow includes two actions: 'Get Price from Price List' (Price list is: myPriceList) and 'Calculate Price' (Use price equation: VIPDiscount_eq uation). The 'Calculate Price' action is expanded to show options: 'Mark up price', 'Mark down price', and 'Use an existing price equation' (selected). Below the options is a table for 'Price equation' with columns for Type, Name, and Description. The table shows one entry: 'VIPDiscount_equation'.

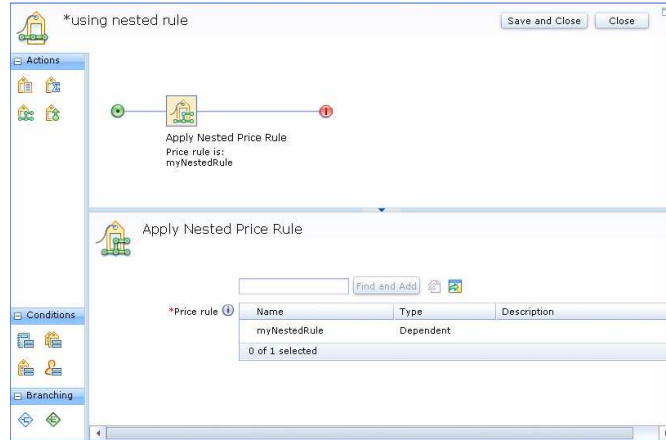
* Type	Name	Description
	VIPDiscount_equation	

The Calculate Price action is used to calculate the price. You can use it to mark the price up or down, or use it to call an existing price equation to do complex price calculation.

The sample price rule shown here uses prices in myPriceList as input prices of Calculate Price action, from there the VIPDiscount_equation is used to set storefront catalog entry prices.

Apply Nested Price Rule action

- Nest another rule in a rule
- If a portion of a price rule can be used by other rules, create a rule for this portion
- Benefits
 - Time efficiency in price rule creation and maintenance



Apply Nested Price Rule action is used to nest another price rule within the current price rule. If there is a portion of a price rule that you plan to use over and over in other price rules, then consider creating a separate price rule that contains only the reusable portion. Then you can nest this rule in other rules.

By using the nested rule you can save time to create new rules and maintain your existing price rules.

Apply Rounding action

- Round final price in price rule according to rounding pattern you provide
- **Apply Rounding** element should be last element in rule
- Rounding is always ignored in nested rule
- Consider using different rounding pattern for different currencies. Same rounding pattern can get different results on different currencies
- example:
 - *rounding pattern *.99*
 - *USD 5.88 > 5.99*
 - *JPY 5.88 > “no price available”*

The screenshot shows the configuration for the 'Apply Rounding' action within a price rule named '*my price rule'. The rule path includes: Get Price from Price List (Price list is: myPriceList), Calculate Price (Use price equation: VIPDiscount_eq uation), and two Apply Rounding actions. The selected 'Apply Rounding' action is configured as follows:

- Applicable currencies:** A list of currencies including USD, BRL, CAD, CNY, EGP, EUR, JPY, KRW, PLN, RON, RUB, and TY. The 'JPY' checkbox is checked, indicating it is selected.
- Rounding patterns:** A list of patterns including '* Pattern', '+50', and '*00'. The '*00' pattern is selected.

Examples:

- To round up prices to end with .99, your **Rounding patterns** entry must be: *.99
- To round up prices to end with either .49 or .99, your **Rounding patterns** entries must be: *.49 and *.99 (on two separate rows)
- To round up only the last decimal place to 9, your **Rounding patterns** entry must be: *.9
- To round up prices to the nearest hundred, your **Rounding patterns** entry must be: *00

Use an asterisk (*) to represent:

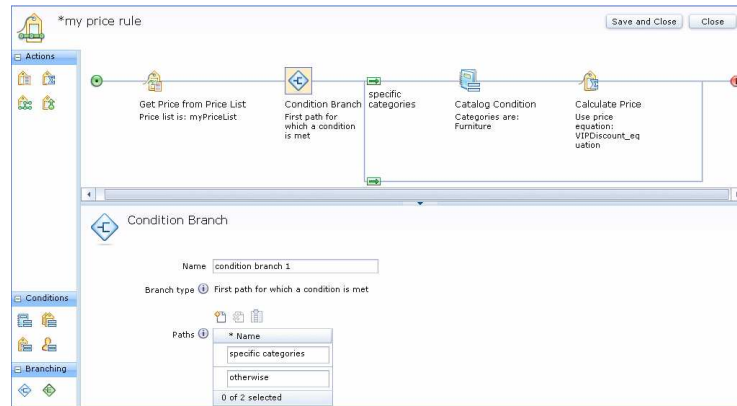
- The first number alone to the left that you do not want to apply to round

Apply Rounding action is used to round up the final prices in a price rule. In order to get the correct rounding result, it is recommended to add the Apply Rounding element as the last element in the price rule path. You should not use the Apply Rounding element in the nested rule because it is always ignored in the nested rule.

The rounding result is not only determined by the rounding pattern, but also the applicable currency. For example the rounding pattern *.99 is good for US dollar, however the price rule returns “no price available” to catalog entries if you use the same rounding pattern for Japan currency.

Branching element for conditions

- Branch element splits a single path into multiple paths
- Branch element combines with Condition elements to build condition path
- If a path condition is met, go through this path. Otherwise check another path. The logic is similar to
 - *if ... else if ... else*
- If none of the conditions are met, “no price available” is returned
- Having a "Otherwise" path (no condition path) at bottom to avoid “no price available” problem



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If you have multiple logical conditions in your price rule, you need to use the Branching element to split a single path into multiple paths. By using the condition element, you can set a condition for each path. The price rule engine evaluates the conditions from the top path to the bottom path. If a path condition is met, the evaluation goes through that path. Otherwise the price rule skips to the next path until a path condition is met.

If all paths have conditions and none of the conditions are met, the price rule engine returns “no price available” to the storefront. In order to prevent this situation from happening, it is recommended to have an "Otherwise" path as the bottom path, which does not contain any condition.

Catalog condition

- Set prices differently for specific catalog scope
 - Specific catalog entries
 - Specific categories
 - An existing catalog filter
- Example: *set Furniture category price in the first path. All other catalog entries use the price in the myPriceList price list*

The screenshot displays the configuration for a catalog condition within a pricing rule. The rule flow is as follows:

- Get Price from Price List (Price list is: myPriceList)
- Condition Branch (First path for which a condition is met)
- specific price list
- Catalog Condition (Categories are: Furniture)
- Calculate Price (Mark down 20%)

The 'Catalog Condition' configuration details are:

- Condition scope: Specific categories
- Target catalog entries: That are in the following categories
- Categories table:

* Type	* Name	Description
	Furniture	Furnish your entire home with this elegant collection

A dropdown menu is open, showing the following options:

- Specific catalog entries
- Specific categories** (selected)
- An existing catalog filter

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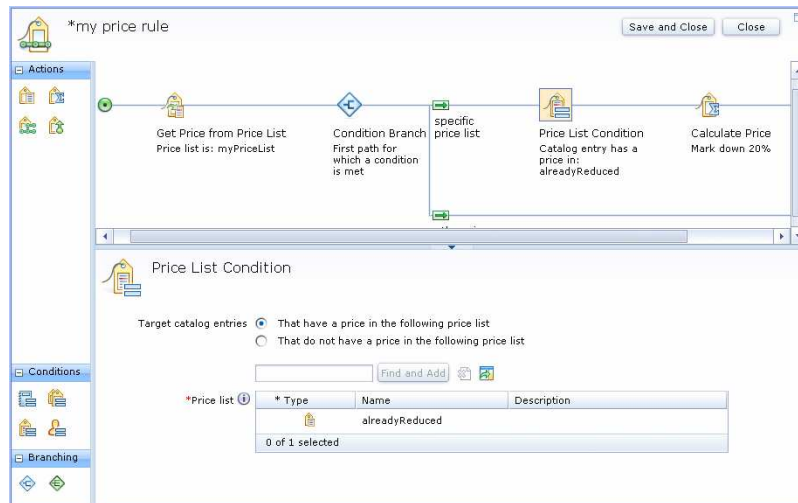
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Using catalog conditions in a path, you can set prices differently for a specific catalog scope. The catalog scope can be a set of catalog entries, a set of categories or catalog entries defined by an existing catalog filter.

The example price rule in the screen capture has two paths. The first path contains a catalog condition, the catalog scope is all catalog entries in Furniture category. During runtime, if a catalog entry is within the Furniture category, the price rule engine goes through the first path to set its price. The price rule engine goes through the second path to set all other catalog entry prices which are not in the Furniture category. Since no element is in the second path, price rule engine returns the prices in myPriceList directly to the storefront.

Price list condition

- Use Price List condition to set catalog entry scope to a specified price list
- Only one price list can be added in price list condition
- Example: *take 20% off already reduced prices*



Price List conditions are used to determine whether a catalog entry is in a specific price list.

The Price List condition in the example has an alreadyReduced price list, which contains already reduced catalog entries. The price rule engine gives an extra 20% discount to all the catalog entries in the alreadyReduced price list.

Customer condition

- Set prices differently based on the customer **member groups** or **organizations**
- More than one member group IDs or organization IDs can be specified in a single Customer Condition element
- Use the Organization Administration Console to create member groups and organizations
- Member group type must be **Customer Price Group**
- Get the member group ID or organization ID from IT. No tools display this ID

Details

Member group type

Customer Price Group

Name (required)

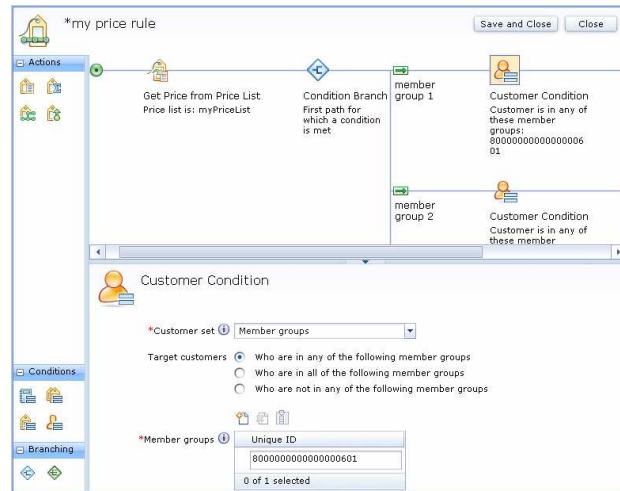
my customer price group

Description

Owner (required)

my organization

Find



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Use Customer condition in a price rule to set prices differently based on the member groups to which customers belong. You can specify more than one member group IDs or organization IDs in a single Customer Condition element. If you use member groups to the Customer condition, you must make sure the member group belongs to Customer Price Group.

Neither WebSphere Commerce Organization Administrator Console nor Management Center shows the member group ID or Organization ID. If you use a Customer Condition, you need to get member group ID or Organization ID from IT by querying the Commerce database.

Comparison condition

- Use Comparison condition to set prices differently based on the outcome of a comparison

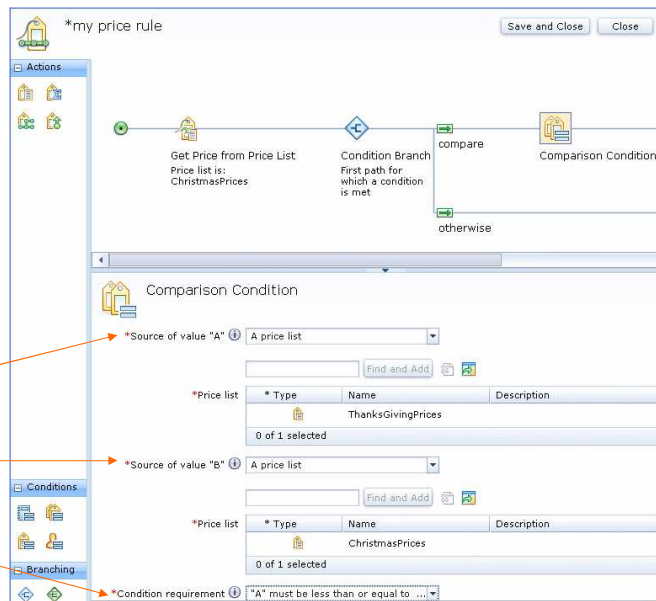
- Example:

If Thanksgiving price is less than or equal to Christmas price, then adjust Christmas price

A price list
 A price constant
 A price equation
 The price passed in by the previous action in the price rule

A price list
 A price constant
 A price equation
 A number

"A" must equal "B"
 "A" must not equal "B"
 "A" must be less than "B"
"A" must be less than or equal to "B"
 "A" must be greater than "B"
 "A" must be greater than or equal to "B"
 Pricing tool



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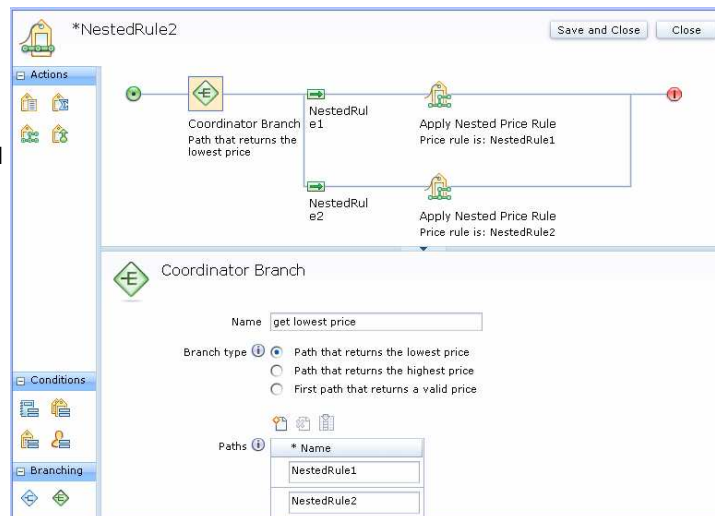
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In the price rule, you can use the Comparison condition to set prices differently based on outcome of two values comparison.

In the example, the price rule sets prices for Christmas by comparing the catalog entry's Thanksgiving price and Christmas price. If the Thanksgiving price is lower or equal to the Christmas price, then adjust the Christmas price.

Coordinator branch

- Evaluate each path which has a **nested rule** and returns the value according to the specified branch type
- Branch type
 - Lowest price
 - Highest price
 - The first valid price the coordinator branch can get
- Only nested rules on the paths inside the coordinator branch are allowed



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You can use a Coordinator Branch to run each path which has a nested price rule, and to output a price according to the branch type you specified. The branch type can be the “Path that returns the lowest price”, “Path that returns the highest price” or “First path that returns a valid price”. If the last branch type is used, the coordinator runs each path in order, then returns the first valid price it gets.

Coordinator branches only allow nested rules. There can be nothing on the path in front of the coordinator branch. There can only be nested rules on the paths inside the coordinator branch. There can be nothing after the coordinator branch is done, except for a rounding element if required. No other types of actions is allowed.

Price rule reference

- References for price rules and contracts



The price rule References tab contains the references for price rules and contracts. Similar to other price rule elements, you cannot delete the price rule if it is used by other price rules or contracts.

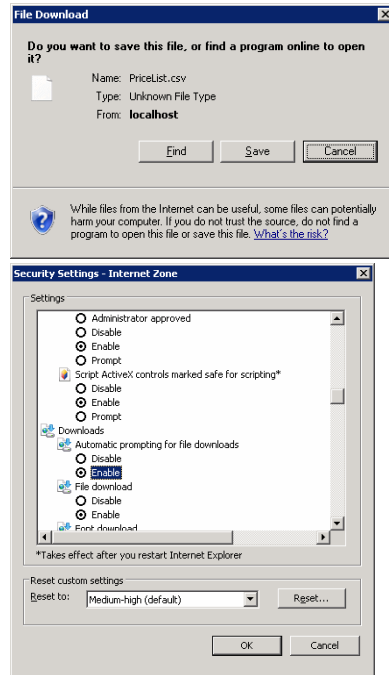
Problem determination tips

This section introduces some problem determination tips.

Problem determination (1 of 3)

- Price list export
 - Problem File Download window is not opened
 - Cause: browser's security setting to enable the file download

- Example: Internet Explorer security setting:



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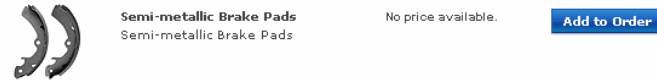
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When you export a price list, normally a File download window pops up and asks you to save the PriceList.csv file. If you do not see this window, you first need to make sure your browser does not block the pop-up, and make sure your browser's file download setting is enabled.

Problem determination (2 of 3)

- Error message: Not price available



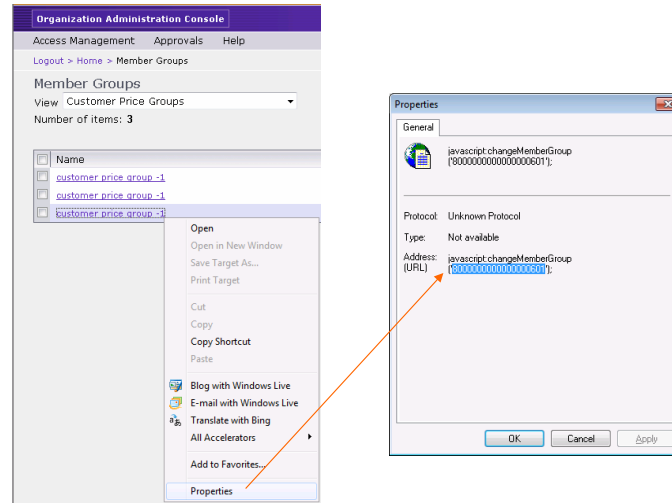
- Cause: Price rule runtime engine cannot return a price for the catalog entry
 - Not catalog entry and price found in the price lists
 - The catalog entry cannot be set by any price rule path
 - Incorrect price equation expression
 - Apply Rounding element is not appropriate for the price currency

If a price rule engine cannot return a price for a catalog entry on the storefront, “No price available” is displayed. You need to check several things to correct this error.

First you need to make sure the price lists used by the price rule contains this catalog entry’s price. You need to make sure your price equation expression is correct. You need to check your price rule conditions and make sure this catalog entry’s price can be set from at least one of the condition paths. You also need to make sure you use the correct round pattern for the Apply Rounding element.

Problem determination (3 of 3)

- Finding the member group ID for the Customer Condition



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The member group ID or organization ID is needed when you use the Customer Condition in your price rule, however this ID is not displayed in any WebSphere Commerce business tools. The workaround is to right click the member group name and select Properties from the pop-up menu in the Organization Administration Console. You can copy the member group ID from the Properties window.

Summary

- Pricing tool elements and their usages
- Problem determination

This presentation introduces elements in the pricing tool and how to use them. Some problem determination topics are covered.

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