
WebSphere Commerce V7 Feature Pack 1

Management Center updates - Marketing



This presentation provides an overview of the updates to the Management Center Marketing tool in WebSphere® Commerce V7.0 Feature Pack 1.

Goals

- To understand the new features available in the Management Center Marketing tool

The goal of this presentation is to introduce the Marketing features that have been added in feature pack 1. If you are not familiar with Management Center or the Marketing tool you should review that material before viewing this presentation.

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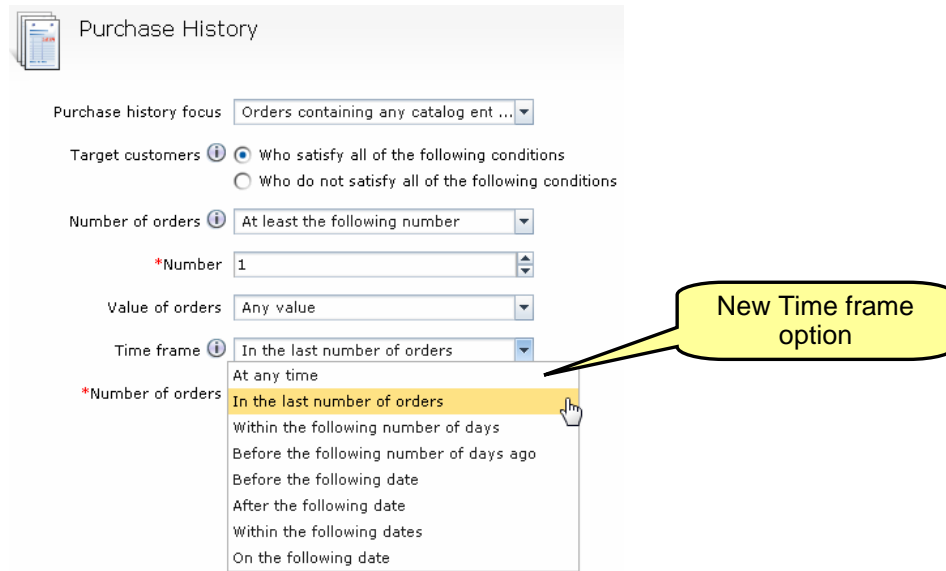
This presentation begins with a look at the activity builder updates in feature pack 1. All new and updated elements are introduced and then the new trigger, Wait for Event, is discussed in more detail. A troubleshooting overview for the new trigger concludes the presentation.

Activity builder update summary

- Targets
 - Purchase History (updated)
 - Promotion Checker
- Actions
 - Display Promotional Price
 - Display Best Sellers
 - Display Top Browsed
- Triggers
 - Wait For Event

In feature pack 1, several new elements are introduced for the web and dialog activity builders. Each of these elements are discussed more in the coming slides. The Purchase History target has been updated since version 7. This target can be used by either Web or dialog activities. The Promotion Checker target and the new actions are all specific to Web activities. The new Wait For Event trigger can be used in building dialog activities.

Purchase History target



Purchase History

Purchase history focus: Orders containing any catalog ent ...

Target customers: Who satisfy all of the following conditions
 Who do not satisfy all of the following conditions

Number of orders: At least the following number

*Number: 1

Value of orders: Any value

Time frame: In the last number of orders

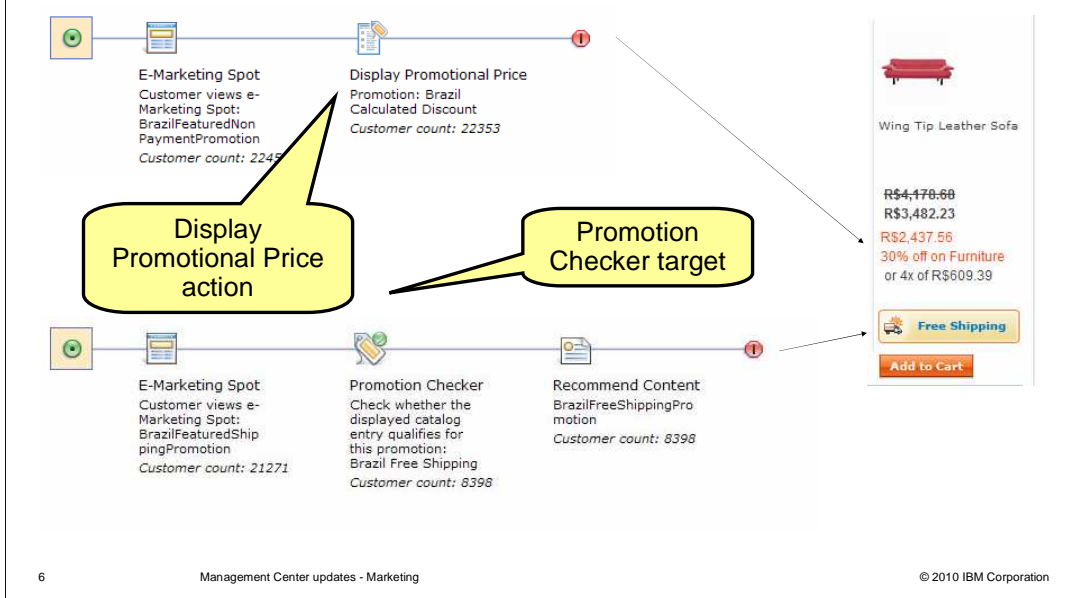
*Number of orders: In the last number of orders

- At any time
- In the last number of orders
- Within the following number of days
- Before the following number of days ago
- Before the following date
- After the following date
- Within the following dates
- On the following date

New Time frame option

The Purchase History target now supports a new time frame option that increases the granularity of customers you are able to target. The new option is 'In the last number of orders'. By comparison, all the other time frame options refer to a point in time. For example, the new time frame option allows you to target specific criteria in a customer's most recent order regardless of how long ago that order was placed.

Promotion focused elements



The Display Promotional Price action and Promotion Checker target provide you with increased ability to make shoppers aware of promotions. For a given catalog entry, the Display Promotional Price action will return the reduced purchase price when the targeted promotion is applied. In the screen capture on the left, you can see the reduced price with the 30% off furniture promotion applied is displayed to the shopper. If a catalog entry does not qualify for the promotion, no results are returned.

The Promotion Checker target allows you to evaluate whether a catalog entry qualifies for the target promotion. If the target is a match, the web activity proceeds with its evaluation. In the example shown on the slide, the free shipping logo is returned as recommended content when a catalog entry qualifies for the free shipping promotion.

Since these elements are evaluated for a catalog entry, the e-Marketing Spot must either be defined on the product display page or it must pass in the catalog entry ID to be evaluated by the Web activity. You can find examples of the Display Promotional Price action and Promotion Checker target in the Brazil starter store. These elements are not unique to the Brazil store though, you can add them to Web activities for any store.

IBM

Ranking lists

- Display Best Sellers
- Display Top Browsed

Display Top Browsed

Tableware

* Categories	* Type	* Name	Description
		Furniture	Furnish your entire home with this elegant collection
		Tableware	Tableware for all occasions

0 of 2 selected

*Display

*Maximum number

*Time frame in days

Best Sellers

Top Browsed

1. Red Leather Roll Arm Cha...
\$649.99
2. White Fabric Roll Arm Ch...
\$449.99
3. Contemporary Upholstered...
\$479.99

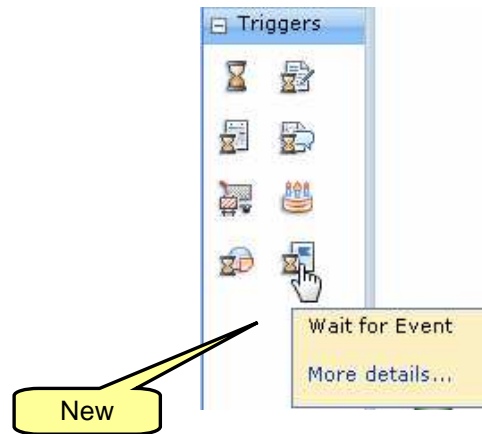
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Two new actions are available in feature pack 1 that allow you to display product rankings to shoppers. Ranked lists can be created for best selling products in a category and most frequently browsed products in a category. The configuration options for the two actions are similar and the Display Top Browsed action properties are shown on this slide as an example. Notice that the display drop down list gives you options for when to display a ranked list. A list can be displayed in any associated e-Marketing Spot or it can be limited to the specific category or subcategories it applies to.

Sample best seller and top browsed ranking lists are included in the fix pack 1 Madison's starter store and the MayUJoy starter store. You can enable the e-Marketing spots by turning the corresponding features on in the Catalog tab of the Change Flow notebook in Accelerator. A sample of the Madisons e-Marketing Spot display is shown on the top right of this slide.

New Dialog activity trigger

- Wait for Event
- Supports user-defined triggers
 - WebSphere Commerce events
 - Custom store events
 - External events
- Requires store developer assistance



For dialog activities, a new type of trigger has been added as shown in the screen capture. The new trigger, called Wait For Event, can be configured to recognize many different kinds of events without requiring a new custom trigger be defined. For example, you can use this trigger to recognize existing WebSphere Commerce events that don't currently have their own trigger, such as add to wish list. You can also use it to recognize and react to custom store events you define or even external events that are received by WebSphere Commerce. Since this trigger is capable of recognizing a wide range of events you might require some assistance from a store developer to confirm the name of the event to wait for.

Sample events

- Existing WebSphere Commerce event
 - A customer removes a catalog entry from their shopping cart
- Custom store event
 - A customer clicks a link to subscribe to email promotions for a specific category
- External event
 - An external credit card fraud detection system detects that fraud has occurred for a certain customer's credit card

This slide highlights some examples of each of the three types of events the trigger can wait for. An existing WebSphere Commerce event might be a command such as `OrderItemDelete` that is called when a customer removes an item from their shopping cart. A custom store event is one you define, such as a link customers can click to subscribe to email promotions for a certain category. An external event is a message received by WebSphere Commerce from an external system such as one for credit card fraud detection.

Triggering an event

- Process MarketingTrigger service call with DM_ReqCmd parameter
- From a store page
 - AjaxMarketingTriggerProcessServiceEvaluate?DM_ReqCmd=SubscribeToCategory&category=Furniture
 - MarketingTriggerProcessServiceEvaluate?DM_ReqCmd=CustomFraudDetectedTriggerEvent&eventType=CreditCard&URL=TopCategoriesDisplay?storeId=10001&catalogId=10001
- From Java™ using the MarketingFacadeClient
 - evaluateMarketingTrigger
 - processMarketingTrigger

Existing WebSphere Commerce events can be detected automatically by the SensorEventListener. To react to these events, you just need to define a dialog activity with a Wait For Event trigger that specifies the event name. For custom store events and external events, you need to add code to tell the marketing runtime to process the event. You communicate with the marketing runtime through the Process MarketingTrigger service call. The name of your event is passed in the DM_ReqCmd parameter. There are multiple ways to invoke the service call. From a store JSP page, you can call either the regular or Ajax version of the MarketingTriggerProcessServiceEvaluate command. The name-value-pairs passed with the command are the event name and any related parameters.

If you need to trigger an event from Java code, you can use either the evaluateMarketingTrigger or ProcessMarketingTrigger methods of the MarketingFacadeClient.

Wait for Event trigger

Wait for Event

*Event name

Number of event parameters

*Parameter name

*Parameter value matching rule

*Parameter values

 1 of 1 selected

*Times

Time frame

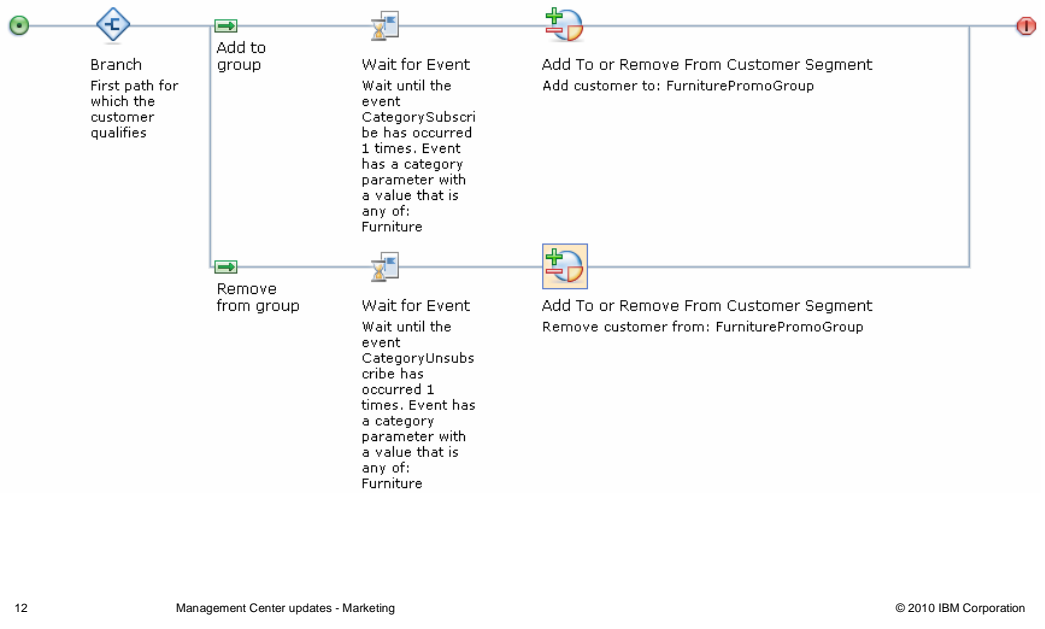
Event name passed as value of DM_ReqCmd

Specify up to two parameters

Once an event is being sent to the marketing runtime, you can use Management Center to create a dialog activity with the Wait For Event trigger. In the event name field, you specify the same event name that is passed in the DM_ReqCmd parameter shown on the previous slide. This is where coordination between store developers and business users might be needed.

In addition to the event name you can specify one or two parameter names and values that also need to match for the trigger to evaluate to true. If you want the trigger to react to a history of events, you can set the number of times the event must be recorded before the trigger advances. There is also a time frame option.

Subscription management example



This screen capture shows an example of the Wait For Event trigger waiting for a custom store event. If the CategorySubscribe event is received, the shopper is added to a customer segment that receives promotional emails. If the CategoryUnsubscribe event is received, the shopper is removed from the customer segment.

Troubleshooting

This section covers some error conditions that can occur using the Wait For Event trigger and how to identify them.

Error condition examples

- SensorEventListener not enabled
- PersonalizationId not enabled
- Event name does not match
- Parameter name or value does not match

- Enable trace string `com.ibm.commerce.marketing.*`

It is easier to make an error configuring the Wait For Event trigger because it offers much more flexibility than other dialog activity triggers. Some common causes of a Wait For Event trigger not recognizing an event as expected are shown on this slide. Both the SensorEventListener and PersonalizationId must be enabled in order to use the Wait For Event trigger. You can verify these values in the instance configuration file. If the configuration is correct then the most likely causes of an event not being recognized are either the event name or parameter information specified in the dialog activity not matching the actual store event. To see what is happening, you need to enable the `com.ibm.commerce.marketing.*` trace and check the output of the SensorEventListener.

Event name doesn't match

```
trigger > SensorEventListener processActivityEvent ENTRY
trigger 1 SensorEventListener processActivityEvent eventOccurrence 0
trigger 1 SensorEventListener processActivityEvent getPathInfo AjaxInterestItemAdd
trigger 1 SensorEventListener processActivityEvent getEncodedQueryString
updateable=0&catalogId=10051&catEntryId=10226&langId=-
1&requesttype=ajax&storeId=10051&URL=SuccessfulAJAXRequest
trigger 1 SensorEventListener processActivityEvent getReferralURL null
trigger 1 SensorEventListener processActivityEvent getSessionId null
trigger 1 SensorEventListener processActivityEvent getStoreId 10051
trigger 1 SensorEventListener processActivityEvent getUserId -1002
trigger > SensorEventListener getBehaviorRules ENTRY
trigger 1 SensorEventListener getBehaviorRules Looking for key = DM_BHVRTRIG_AjaxInterestItemAdd10051
engine > MarketingEngineCache getBehaviorRules(String) ENTRY
engine < MarketingEngineCache getBehaviorRules(String) RETURN null
trigger < SensorEventListener getBehaviorRules RETURN Matches: [], []
trigger > SensorEventListener checkTriggerAgainstBehaviorRules ENTRY
trigger 1 SensorEventListener checkTriggerAgainstBehaviorRules No behavior rules found for this event in the cache
trigger < SensorEventListener checkTriggerAgainstBehaviorRules RETURN
```

This sample trace shows an existing WebSphere Commerce event, AjaxInterestItemAdd, being evaluated by the SensorEventListener. No matches for this event are found. If you are trying to use this event to trigger an activity you need to go back and look at the dialog activity definition. First, make sure there are no spelling errors in the event name. Event names are case sensitive. Next, make sure the activity has been activated and is set to run in the time frame being tested.

Parameter name doesn't match - 1

```

trigger > SensorEventListener processActivityEvent ENTRY
trigger 1 SensorEventListener processActivityEvent eventOccurrence 0
trigger 1 SensorEventListener processActivityEvent getPathInfo AjaxInterestItemAdd
trigger 1 SensorEventListener processActivityEvent getEncodedQueryString
updateable=0&catalogId=10051&catEntryId=10224&langId=-
1&requesttype=ajax&storeId=10051&URL=SuccessfulAJAXRequest
...
trigger > SensorEventListener getBehaviorRules ENTRY
trigger 1 SensorEventListener getBehaviorRules Looking for key = DM_BHVRTRIG_AjaxInterestItemAdd10051
engine > MarketingEngineCache getBehaviorRules(String) ENTRY
engine 1 MarketingEngineCache getBehaviorRules(String) ubr:elementId: 12403 activityId: 12251
listOfCommandsToMatch =[AjaxInterestItemAdd] action =record maxSize=1 maxTotalSize=null comparisonType==
caseSensitiveMatch=true processOnCommandExit=false nvps =(catentryId=[10224]) parentCategories =null
dateOperator1=null dateOperator2=null date1=null date2=null referralOperator=null referralUrl=null referralNvps ={}
callCmdOnMatch=null
engine < MarketingEngineCache getBehaviorRules(String) RETURN [elementId: 12403 activityId: 12251
listOfCommandsToMatch =[AjaxInterestItemAdd] action =record maxSize=1 maxTotalSize=null comparisonType==
caseSensitiveMatch=true processOnCommandExit=false nvps =(catentryId=[10224]) parentCategories =null
dateOperator1=null dateOperator2=null date1=null date2=null referralOperator=null referralUrl=null referralNvps ={}
callCmdOnMatch=null]

```

The next two slides show how to identify a parameter name mismatch in the trace. On this slide, you see the event name, AjaxInterestItemAdd being matched to a behavior rule. Near the top of the slide, you see the name-value-pairs that were passed in from the store. Near the bottom of the slide, you see the name-value-pairs that are specified as part of the behavior rule.

Parameter name doesn't match - 2

```
util    > MarketingUtilClient getTriggerParametersMap(String, boolean) ENTRY
util    1 MarketingUtilClient traceTriggerParameters triggerParameters={java.util.HashMap :
updateable=0
catalogId=10051
catEntryId=10224
requesttype=ajax
langId=-1
storeId=10051
URL=SuccessfulAJAXRequest}
util    < MarketingUtilClient getTriggerParametersMap(String, boolean) RETURN
util    > MarketingUtil getMatches ENTRY elementId: 12403 activityId: 12251 listOfCommandsToMatch
=[AjaxInterestItemAdd] action=record maxSize=1 maxTotalSize=null comparisonType== caseSensitiveMatch=true
processOnCommandExit=false nvps =(catentryId=[10224]) parentCategories =null dateOperator1=null
dateOperator2=null date1=null date2=null referralOperator=null referralUrl=null referralNvps ={} callCmdOnMatch=null
null
util    1 MarketingUtil getMatches parameterToMatch=catentryId urlValue=null
util    1 MarketingUtil getMatches multipleCheckString=null
util    1 MarketingUtil getMatches numberOfParameterMatches=0 ruleParameterHashtable.size()=1
```

This portion of the trace shows the parameter values being evaluated. Notice that capitalization of the parameter name is different between the name received as part of the store request and the name specified in the behavior rule. Parameter matching is case sensitive so this is not a match. To fix this, the parameter name in the dialog activity needs to be updated to exactly match the parameter name used by the store command.

A match

```
util    > MarketingUtilClient getTriggerParametersMap(String, boolean) ENTRY
util    1 MarketingUtilClient traceTriggerParameters triggerParameters={java.util.HashMap :
updateable=0
catalogId=10051
catEntryId=10234
requesttype=ajax
langId=-1
storeId=10051
URL=SuccessfulAJAXRequest}
util    < MarketingUtilClient getTriggerParametersMap(String, boolean) RETURN
util    > MarketingUtil getMatches ENTRY elementId: 12403 activityId: 12251 listOfCommandsToMatch
=[AjaxInterestItemAdd] action=record maxSize=1 maxTotalSize=null comparisonType=any caseSensitiveMatch=true
processOnCommandExit=false nvps =(catEntryId=[]) parentCategories =null dateOperator1=null dateOperator2=null
date1=null date2=null referralOperator=null referralUrl=null referralNvps ={} callCmdOnMatch=null null
util    1 MarketingUtil getMatches parameterToMatch=catEntryId urlValue=10234
util    1 MarketingUtil getMatches multipleCheckString=null
util    1 MarketingUtil getMatches ruleValues=[]
```

For comparison, the next two slides show the trace for a trigger that was successfully matched. Here the parameter names match and the evaluation continues to the parameter values. This Wait For Event trigger is configured to match any catEntryId value.

A match

```

util    > UserBehaviorRule checkMatch ENTRY
util    1 UserBehaviorRule checkMatch ruleValues: [*]
util    1 UserBehaviorRule checkMatch value: 10234
util    1 UserBehaviorRule checkMatch comparison: any
util    1 UserBehaviorRule checkMatch doCaseSensitiveMatch: true
util    1 UserBehaviorRule checkMatch any match with: *
util    < UserBehaviorRule checkMatch RETURN returnValue= *
util    1 MarketingUtil getMatches matched
util    1 MarketingUtil getMatches numberOfParameterMatches=1 ruleParameterHashtable.size()=1
util    1 MarketingUtil getMatches numberOfReferralParameterMatches=0 referralRuleParameterHashtable.size()=0
util    1 MarketingUtil getMatches Is it a match? True
...
util    < MarketingUtil getMatches RETURN {catEntryId=*}
trigger 1 SensorEventListener getBehaviorRules It is a match!
trigger < SensorEventListener getBehaviorRules RETURN Matches: [[elementId: 12403 activityId: 12251
listOfCommandsToMatch =[AjaxInterestItemAdd] action =record maxSize=1 maxTotalSize=null comparisonType=any
caseSensitiveMatch=true processOnCommandExit=false nvps =(catEntryId=[*]) parentCategories =null
dateOperator1=null dateOperator2=null date1=null date2=null referralOperator=null referralUrl=null referralNvps ={}
callCmdOnMatch=null], [{catEntryId=*}]]

```

This portion of the trace shows the SensorEventListener returning a behavior rule match for AjaxInterestItemAdd. The dialog activity is now triggered.

Summary

- Activity builder updates
 - Targets
 - Actions
 - Triggers
- Troubleshooting

This presentation began with a look at the activity builder updates in feature pack 1. All new and updated elements were introduced and then the new trigger, Wait for Event, was discussed in more detail. A troubleshooting overview for the new trigger concluded the presentation.

References

- Activity building blocks
 - <http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.management-center.doc/concepts/csbaactbuildblk.htm>
- Product rankings in the Madisons starter store
 - <http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.madisons-starterstore.doc/refs/rsmfprank.htm>
- Wait For Event trigger
 - <http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.management-center.doc/concepts/csbtwaitforevent.htm>

This slide contains some useful references for further reading.

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