IBM Software Group

WebSphere Business Events

Designing interaction sets

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After the touchpoints, events, actions, and intermediate objects for your application have been defined, it is now time to create the interaction sets. These define how events are evaluated and what actions are taken when an event is evaluated and processed. This presentation describes how to create the interaction sets required as part of your event processing solution.

The aim of this presentation is to show you how interaction sets are built within the WebSphere® Business Events product. You will learn the steps required to create interaction sets using the WebSphere Business Events: Design tool.

Before getting into the details, lets review the tools that are needed to create an event processing solution using WebSphere Business Events. WebSphere Business Events provides two primary tools for users.

The **Design Data tool** is used by the IT developer to describe events that are received and actions to be executed, along with the associated touchpoint and intermediate object definitions.

The **Design** tool is used by the business user to describe and capture interaction sets which define the actions to be processed when events arrive. The interaction sets specify which of the actions should be taken and when.

It is assumed that you have completed the data definition phase of your solution using the Design Data tool and now what is required is to define processing rules, or interaction sets, to act against those events.

Start the WebSphere Business Events: Design tool. You can click the link to the tool from the desktop or by navigating through the WebSphere Business Events programs menu.
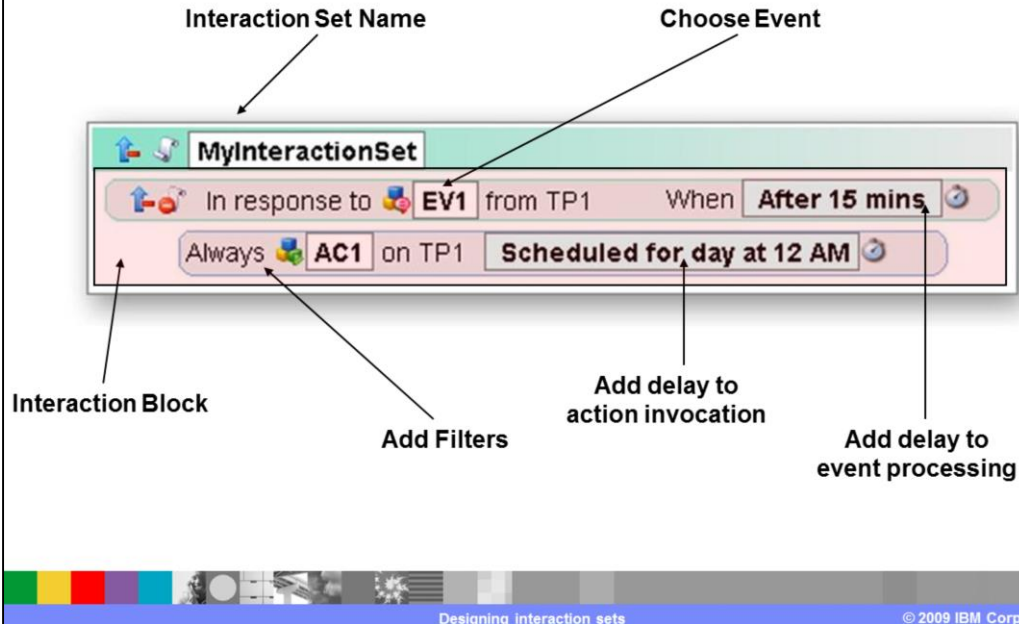
You will notice that the Design UI has two sections: an asset tree on the left, and a workspace on the right. The left pane shows the folders for interaction sets, filters, events, actions and intermediate objects.

The details appear on the right pane and this provides the user interface for defining an interaction set.

An interaction set has one or more interaction blocks that describes the actions to be taken and when. For each action, one or more optional filters can be added that identifies selection criteria to further qualify under what circumstances an action should occur. For each interaction block and for each action in an interaction block, an optional time delay can be specified that will delay evaluation of the interaction block or execution of the resulting action.

It is important to note that the evaluation of all the interaction blocks within a particular interaction set is tied to the arrival of one particular event. Therefore, each interaction block within the interaction set shown will start 'In response to event EV1 from touchpoint TP1'. This information is included at the interaction block level, rather than just defined for the interaction set as a whole because, whilst the event is the same every time, each interaction block can specify a different time delay for the processing of that event.

Creating a simple interaction set
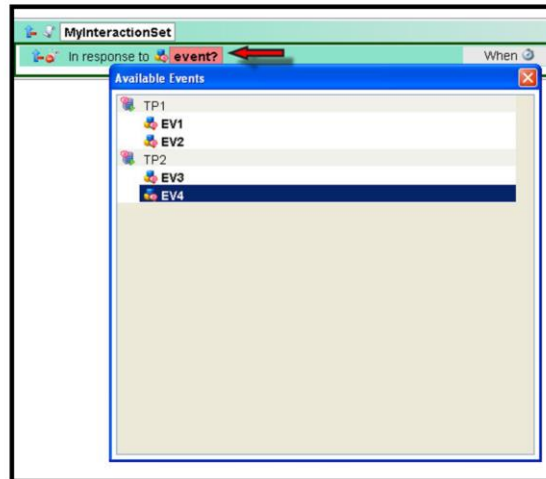
1. Click to create interaction set

2. Enter the name for the interaction set
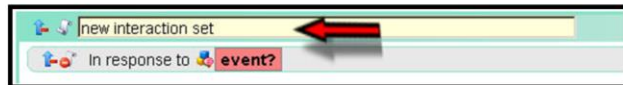
To create an interaction set, click the Interaction Set button on the toolbar to display the template. Alternatively you can click the Create menu and select Interaction Set

You can see that by default the Interaction Set is named as "new interaction set". You can click that text area and enter a meaningful name of your choice for the interaction set.
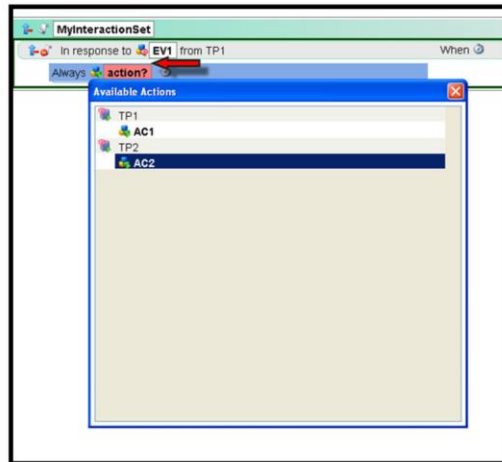
An interaction set consists of one or more interaction blocks that together describe the actions to be taken as a result of an event occurring. To create an interaction block you first need to specify the event. Click "event?" on the template to display a list of the available events. Choose the event for the interaction set.

Note that you can select only one event for an interaction set.

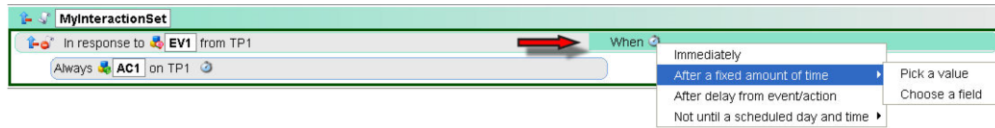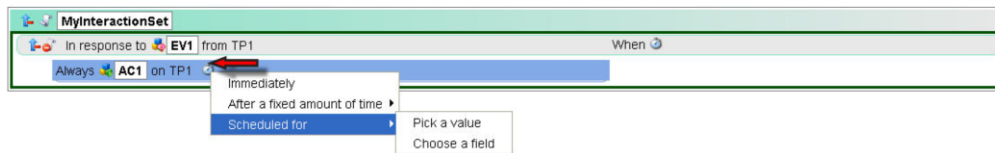After selecting the event, you need to specify the action for the interaction block. You can do it by selecting "action?" on the template to display actions that are available. Select the required action from the list.

Creating a simple interaction set

5. Delaying evaluation of the interaction set

6. Specifying to delay an action

By default, an interaction block is evaluated immediately upon receipt of the specified event in the WebSphere Business Events runtime. You can specify that the interaction block is not to be evaluated until a certain amount of time has elapsed since the arrival of the specified event. Add this time delay by clicking on the clock icon to the right of the "When" label.

You have the choice of specifying a fixed amount of time in terms of months, weeks, days and so on by choosing the "After a fixed amount of time" option in the scheduling drop-down.

Alternatively, by choosing "Not until a scheduled day and time," you can specify a date and time at which interaction block evaluation should occur.

Alternatively, if you want the delay to be based on when another event or action occurs, then choosing "After delay from event/action" allows you to specify the event or action the evaluation should be based on, and the delay. This setting can be used only if the interaction set is part of a context (that is, uses Complex Event Processing).

To remove the time delay and evaluate the interaction set immediately, choose "Immediately" from the scheduling drop down.

In a similar manner, delays can also be applied to the execution of an action. An action can be suspended so that it is not started until a duration has elapsed or a specific time has been reached. You can add a time delay by clicking on the clock icon to the right of the action.

Enabling and disabling interaction sets
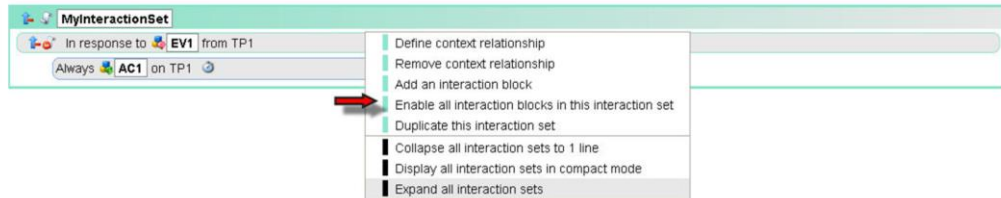
There can be instances where you need to remove an interaction set from the runtime system while still keeping the definition in the repository. This can be achieved by disabling the interaction set.

To *disable* a currently enabled interaction set, select the interaction set then click the Enable/Disable Interaction Set command. The interaction set is disabled, and the disabled interaction set icon is displayed to the left of the interaction set name.

Similarly, to *enable* a currently disabled interaction set, select the interaction set then click the Enable/Disable Interaction Set command. The interaction set is enabled, and the enabled interaction set icon is displayed to the left of the interaction set name.

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Summary

- This presentation has covered the steps involved in creating a simple interaction set

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This presentation has described the steps involved in creating a simple interaction set.

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