IBM Interact Opportunity Detection and IBM Interact

Version 9 Release 1
November 29, 2013

Integration Guide

Note
Before using this information and the product it supports, read the information in "Notices" on page 9.

This edition applies to version 8, release 5, modification 0 of IBM Opportunity Detection (product number 5725-D16) and to all subsequent releases and modifications Opportunity Detection (product number 5725-D16) and to all subsequent releases and modifications until otherwise indicated in new editions.

Contents

About the integration between IBMInteract and IBMInteract Opportunity Detection

The integration between IBM® Interact and IBM Interact Opportunity Detection provides enhanced pattern recognition capabilities for your Interact implementation.

An integrated environment provides enhanced time windows for the three basic Interact patterns.

After integration has been configured, you configure the enhanced patterns within the Interact design environment, and you do not have to perform any tasks in Interact Opportunity Detection to deploy or use them.

Note: Integration is supported only for Interactive Channels defined within partition1. This is important to remember if you have an environment with multiple partitions.

Synchronization

Enhanced patterns saved from Interact to Interact Opportunity Detection are synchronized as follows.

- When you create, edit, or delete a pattern in Interact, it is created, updated, or deleted in Interact Opportunity Detection.
- If you load a deployment version from deployment history in Interact, patterns are updated appropriately in Interact Opportunity Detection.
- If a deployment fails, Interact automatically rolls back to the last successfully deployed version.

Synchronization is accomplished with no system downtime.

Deleting Interact-created objects from Interact Opportunity Detection

Users with the **Administer real time** permission in Interact Opportunity Detection, which is included by default in the Interact Opportunity Detection Administrator role, can delete most of the objects that the system creates in Interact Opportunity Detection when you deploy an interactive channel that uses enhanced patterns.

You might want to do this as a clean-up step in Interact Opportunity Detection if you delete an interactive channel in Interact, but connectivity issues prevent the cleanup from taking place automatically. In that case, you might have some objects in Interact Opportunity Detection that are no longer of any use, and you can delete them.

You should use this manual deletion feature with caution, as you cannot restore these objects by re-deploying from Interact.

With the appropriate permission, you can delete the following system-created objects.

- Pattern components

- Workspaces, if none of the deployments in the workspace is running
- Deployment configurations, if the deployment configuration is not running
- Named value lists, if the list is not in use

What you can see in Interact Opportunity Detection

For information purposes only, you can see the following items in Interact Opportunity Detection after you have deployed your enhanced patterns.

- Inferred events used in your patterns are listed in read-only format in the Named Value List Manager.
- One read-only workspace is created for each interactive channel that uses the enhanced patterns.

  The workspace contains all of the patterns created for a single interactive channel. Their origin is listed as **Interact** on the Component List tab.

  The workspace name is the name of the interactive channel under which the patterns were created. On the Properties tab, the origin of the workspace is listed as **Interact Created**.
- A single data source is created for Interact messages, and it is associated with a default audience level. The value of the audience level field in that data source specifies the audience level for each Interact message.

How the enhanced event pattern features work

When integration with Interact Opportunity Detection is implemented, you can configure all three standard event patterns with more sophisticated time spans during which the pattern compares incoming events with its criteria. The following additional options are available for each basic event pattern.

- **Rolling time**
- **Time bound**

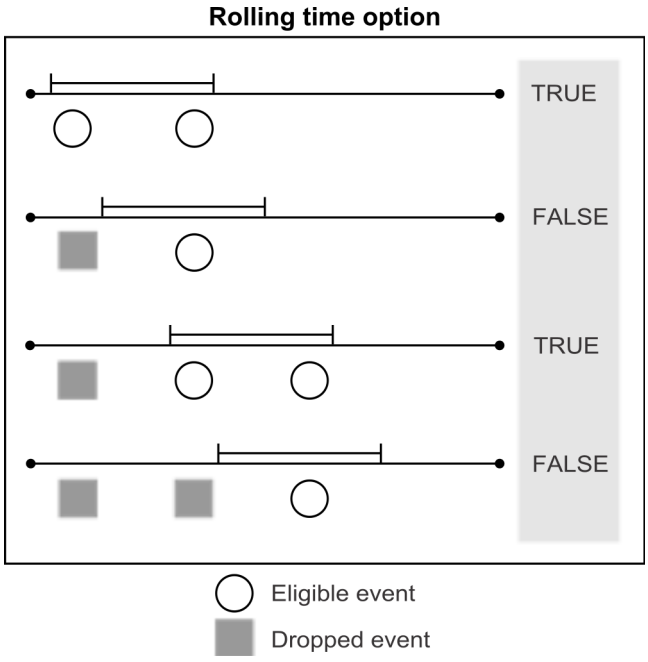
This effectively adds six pattern options to your Interact implementation, by adding two new time span options to each of the three standard patterns.

Rolling time

The time span for the rolling time option is determined by the value you specify in the field labeled **Events must occur within *time span***.

When the pattern using rolling time is deployed, events that match the pattern criteria must occur within the specified time frame. This time frame remains the same as time goes by: if the time span is set to seven days, it remains seven days. Events are retained for evaluation against the pattern criteria until they age out, based on their timestamp.

The following diagram illustrates how the rolling time option works.



Time bound

The time span for the time bound option is determined by the value you specify in the field labeled **Events must occur within *time span***.

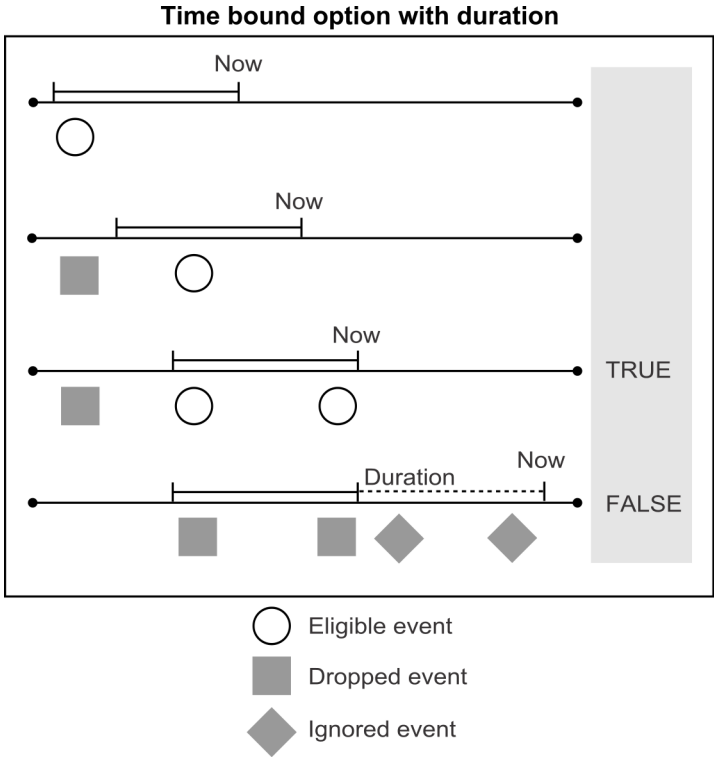
When the pattern using the time bound option is deployed, events that match the pattern criteria must occur within the specified time frame. This time frame remains the same as time goes by: if the time span is set to seven days, it remains seven days. Events age out or are retained to be evaluated as part of the pattern based on their timestamp.

The time bound option also includes an extended time span in which the true state is retained. For a pattern using the time bound option, after all of the criteria are met and the state of the pattern changes from false to true, the extended time span goes into effect.

You set the extended time span using the same **Extend true state for additional: *time span*** field. You can use the extended time span to specify how long the pattern state retains a true state. As soon as the pattern state becomes true, the extended time span starts, new incoming events are ignored, and events already received are dropped.

When the extended time span is over, the pattern state becomes false and the pattern again starts listening for eligible events.

The following diagram illustrates how the time bound option works.



Configuring integration between Interact and Interact Opportunity Detection

The integration between IBM Interact and IBM Interact Opportunity Detection provides enhanced pattern recognition capabilities for your Interact implementation.

Prerequisite

You must have fully functional installations of Interact and Interact Opportunity Detection before you can configure integration. This includes configuring data sources in Interact Opportunity Detection, as described in the IBM Interact Opportunity DetectionAdministrator's Guide.

Note: Integration is supported only for Interactive Channels defined within partition1. This is important to remember if your environment has multiple partitions.

1. In Interact Opportunity Detection, use the Server Group Manager to create or identify the server group you will use to process Interact event patterns.

   Follow these guidelines to configure the server group.

   - For convenience, you can set the name for this server group to exactly match the Interact server group that you will use to process the interactive channels where you use advanced Event Patterns.

     If you use a matching name, you do not have to set the **opDetectionServerGroupName** property mentioned in the next step.
   - On the **Server Group > Database** tab, select a run time database connection.
   - Two data sources, named **Interact Input Data Source** and **Interact Output Data Source** are automatically created when you deploy a Pattern from

Interact to Interact Opportunity Detection for the first time. They are automatically mapped to the **Default TCP Connector**.

For complete details on configuring server groups in Interact Opportunity Detection, see the *IBM Interact Opportunity Detection Administrator's Guide* or online help for the Interact Opportunity Detection Server Group Manager.

2. Set configuration properties on the **Settings > Configuration** page as follows.

Table 1. Configuration properties for integration

Property	Value
Campaign | Partitions | Partition *N* | Interact | serverGroups | opDetectionServerGroupName	Set this property to the name of the Interact Opportunity Detection server group you will use for processing advanced event patterns. If you do not set this property, Interact looks for an Interact Opportunity Detection server with the same name that is specified in the **Campaign | partitions | partition[n] | Interact | serverGroups | [serverGroup] | serverGroupName** property.
Campaign | Partitions | Partition *N* | Interact | eventPatterns | enableAdvancedPatterns	Set this property to **True**.
Interact | services | eventPattern | advancedPatterns | connectionTimeoutInMilliseconds	Set this property to the maximum time it can take to make an HTTP connection from the Interact real time environment to Interact Opportunity Detection.
Interact | services | eventPattern | advancedPatterns | readTimeoutInMilliseconds	Set this property to the maximum time it can take to receive data after an HTTP connection is established between the Interact real time environment and Interact Opportunity Detection.
Interact | services | eventPattern | advancedPatterns | connectionPoolSize	Optionally, change the size of the HTTP connection pool for the communication between the Interact real time environment and Interact Opportunity Detection. The default value is 10.
Interact | services | configurationMonitor | enable	If you want to be able to enable or disable the integration without having to restart real time, set this property to **True**.
Interact | services | configurationMonitor | refreshIntervalInMinutes	If you set **Interact | services | configurationMonitor | enable** to **True**, set this property to the time interval for polling the value of the **Interact | services | eventPattern | advancedPatterns enableAdvancedPatterns** property.

Advanced Pattern Events are now available for use in your Interact installation.

3. Decide whether you want to use the automatic reconnection feature, and set the following properties on the **Settings > Configuration** page accordingly. By default, this feature is turned on.

Table 2. Configuration properties for automatic reconnection

Property	Value
Interact | services | eventPattern | advancedPatterns | autoReconnect | enable	Retain the default value of **True** if you want the system to reconnect automatically if connection problems occur between the Interact real time environment and Interact Opportunity Detection.
Interact | services | eventPattern | advancedPatterns | autoReconnect | durationInMinutes	Set this property to the time interval during which you want the system to evaluate repeated connection problems occurring between the Interact real time environment and Interact Opportunity Detection. The default interval is 10 minutes.
Interact | services | eventPattern | advancedPatterns | autoReconnect | numberOfFailuresBeforeDisconnect	Set this property to the number of connection failures allowed during the specified time period before the system automatically disconnects from Interact Opportunity Detection.

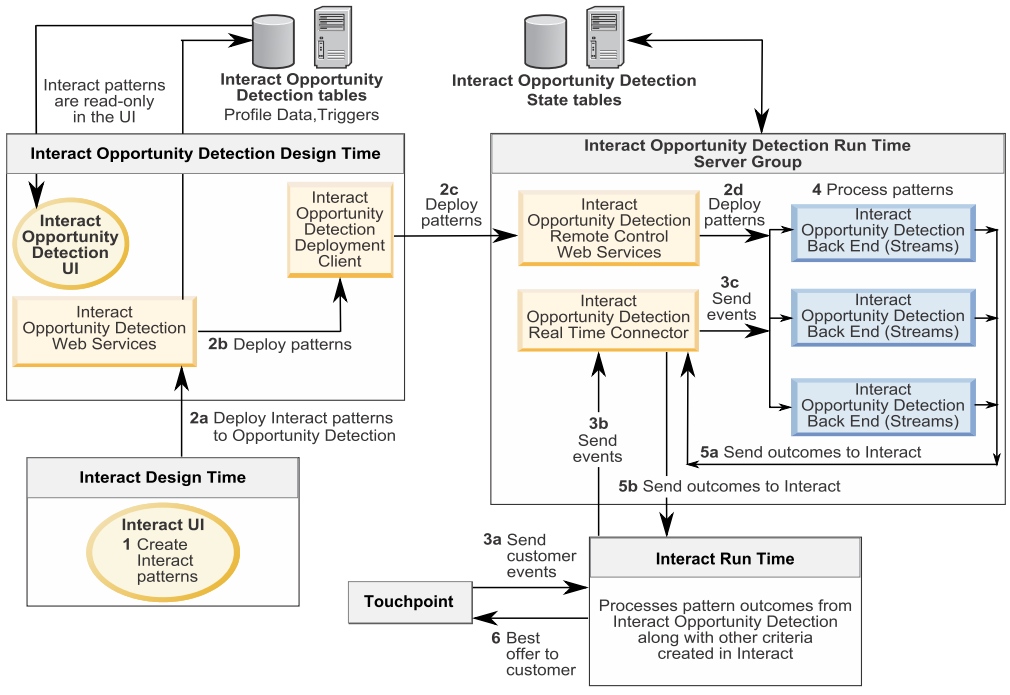
Table 2. Configuration properties for automatic reconnection (continued)

Property	Value
Interact | services | eventPattern | advancedPatterns | autoReconnect | consecutiveFailuresBeforeDisconnect	Retain the default value of **True** if you want the automatic reconnection feature to evaluate only consecutive failures of the connection between the Interact real time environment with Interact Opportunity Detection. If you set this value to **False**, all failures within the specified time interval are evaluated.
Interact | services | eventPattern | advancedPatterns | autoReconnect | sleepBeforeReconnectDurationInMinutes	The system waits the number of minutes specified in this property before reconnecting after the system disconnects due to repeated failures as specified in the other properties in this category. The default value is 5 minutes.
Interact | services | eventPattern | advancedPatterns | autoReconnect | sendNotificationAfterDisconnect	This property determines whether the system sends an email notification when a connection failure occurs. The notification message includes the Interact real time instance name for which failure occurred and the amount of time before reconnection occurs, as specified in **sleepBeforeReconnectDurationInMinutes**. The default value is **True**, which means that notifications are sent.

How data flows between Interact and Interact Opportunity Detection

The following diagram illustrates the data flow when Interact is integrated with Interact Opportunity Detection.

Data flow for Interact patterns with Interact Opportunity Detection



What to do if the Streams instance is restarted

Interact Opportunity Detection uses InfoSphere Streams for its processing. If a Streams instance used for Interact Opportunity Detection is restarted, all Interact Opportunity Detection jobs that are running on the Streams server are stopped.

In this case, to restart the jobs that are stopped, in Interact Opportunity Detection go to the Deployment tab of the Interact workspace and click **Start**.

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