

Version 9 Release 1.2  
September 23, 2015

*IBM Interact Advanced Patterns and  
IBM Interact Integration Guide*

**IBM**

**Note**

Before using this information and the product it supports, read the information in "Notices" on page 13.

This edition applies to version 9, release 1, modification 2 of IBM Opportunity Detect (product number 5725-D16) and to all subsequent releases and modifications until otherwise indicated in new editions.

© **Copyright IBM Corporation 1996, 2015.**

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

---

# Contents

<b>About the integration between IBMInteract and IBM Interact Advanced Patterns. . . . .</b>	<b>1</b>
How the advanced event pattern features work. . . . .	2
Configuring integration between Interact and Interact Advanced Patterns . . . . .	5
How data flows between Interact and Interact Advanced Patterns . . . . .	9

What to do if the Streams instance is restarted . . . . .	9
---	---

<b>Additional Contact Information . . . . .</b>	<b>11</b>
---	-----------

<b>Notices . . . . .</b>	<b>13</b>
Trademarks . . . . .	15
Privacy Policy and Terms of Use Considerations ..	15



---

## About the integration between IBM Interact and IBM Interact Advanced Patterns

The integration between IBM® Interact and IBM Interact Advanced Patterns provides advanced 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 advanced patterns within the Interact design environment, and you do not have to perform any tasks in Interact Advanced Patterns 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

Advanced patterns saved from Interact to Interact Advanced Patterns are synchronized as follows.

- When you create, edit, or delete an advanced pattern in Interact, it is created, updated, or deleted in Interact Advanced Patterns.
- If you load a deployment version from deployment history in Interact, patterns are updated appropriately in Interact Advanced Patterns.
- 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 Advanced Patterns

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

You might want to do this as a clean-up step in Interact Advanced Patterns 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 Advanced Patterns 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 Advanced Patterns

For information purposes only, you can see the following items in Interact Advanced Patterns after you have deployed your advanced 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 advanced 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. The origin of the workspace is listed on the window that

opens when you click Edit Workspace  in the Workspace List.

- 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 advanced event pattern features work

When integration with Interact Advanced Patterns 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**

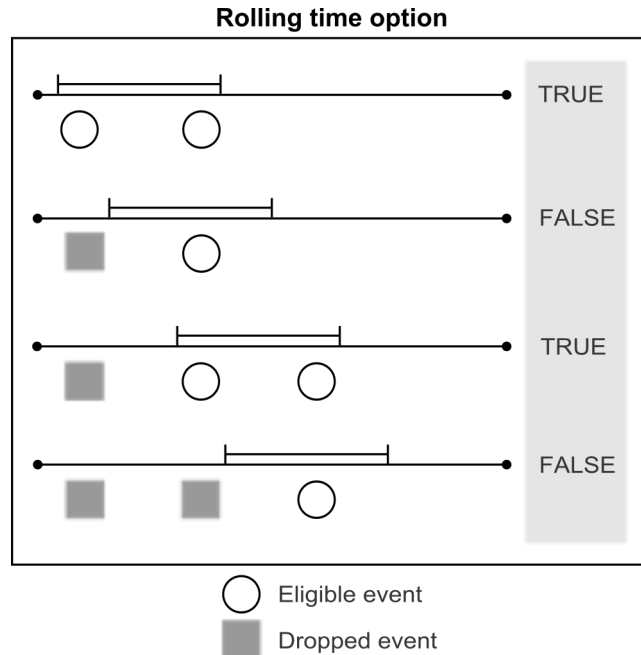
This effectively adds six pattern options to your Interact implementation, by adding two new time span options to each of the three standard patterns.

### 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.



For example, suppose you want to make an offer to customers who view the Product X web page 2 times within the span of 3 days. You would configure your interactive channel as follows.

- Set up an event in your interactive channel to capture the IDs of customers who view the Product X page.
- Add a rolling time Counter event pattern that uses the event.  
On the Pattern tab, select the event and set the **Event must occur within** field to 3 days.  
On the Action tab, enable the Trigger Re-segmentation action.
- Configure an interactive flowchart that uses the event to capture the segment of customers whose behavior fits the pattern.
- Define your interaction strategy to make the appropriate offer.
- Deploy your interactive channel.

## 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.

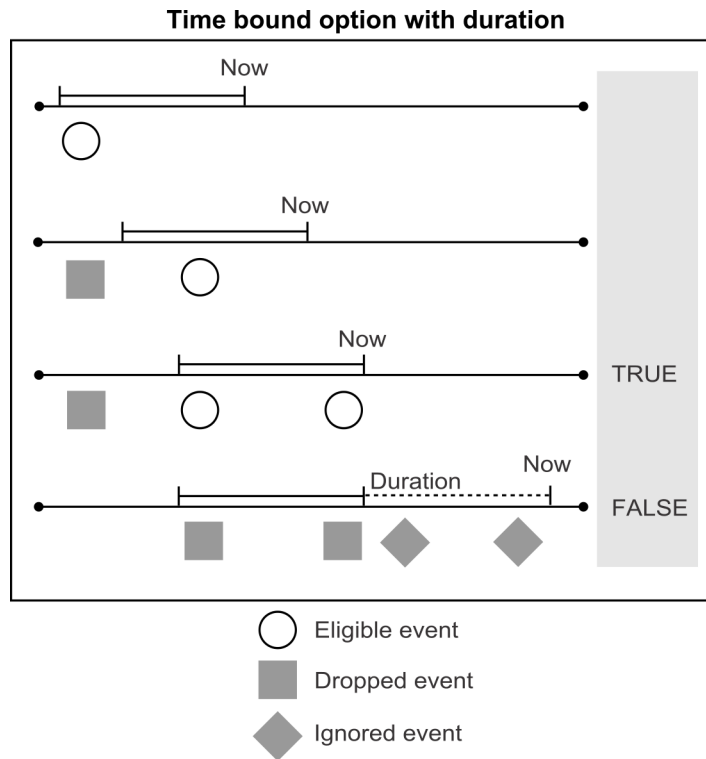
The time bound option also includes an extended time span in which the true state is retained. For a pattern using the time bound option, after all of the criteria are met and the state of the pattern changes from false to true, the extended time span goes into effect.

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.



For example, suppose you want to make an offer to customers who view the Product X web page 2 times within the span of 3 days, and you want to withhold further contact with this customer for an additional 7 days, to avoid contact fatigue. You would configure your interactive channel as follows.

- Set up an event in your interactive channel to capture the IDs of customers who view the Product X page.
- Add a time bound Counter event pattern that uses the event.  
 On the Pattern tab, select the event, set the **Event must occur within** field to 3 days, and set the **Extend true state for additional** field to 7 days.  
 On the Action tab, enable the Trigger Re-segmentation action.
- Configure an interactive flowchart that uses the event to capture the segment of customers whose behavior fits the pattern.
- Define your interaction strategy to make the appropriate offer.
- Deploy your interactive channel.



---

## Configuring integration between Interact and Interact Advanced Patterns

The integration between IBM Interact and IBM Interact Advanced Patterns provides enhanced pattern recognition capabilities for your Interact implementation.

### Before you begin

You must have fully functional installations of Interact and Interact Advanced Patterns before you can configure integration.

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

### Procedure

1. In Interact Advanced Patterns, go to the **Settings > Detect Settings > Server Groups** page.

This is where you create the server group that the system uses to process advanced event patterns.

The Server Group page has four tabs in the left panel. The last tab, Server Groups, opens four additional tabs in the right panel.

2. On the Servers tab, click **Synchronize with changed Streams configuration** to ensure you have an updated list of Streams servers.
3. On the Database Connections tab, create connections to the databases that hold your run time and state history tables.

These tables can be in the same database; in that case, you create only one connection. If your run time and state history tables are in separate databases, you create two connections.

To create a connection, click **Add** and complete the fields as follows.

Table 1. Server Groups page: Database Connections tab

Field	Description
Name	Enter a descriptive name for this database.
Database Type	Select a database type from the drop-down list of supported databases.
Database Name	Enter the name of the database as shown in your database management client. This must exactly match the name as shown in the client. Case-sensitive.
Server Name	Enter the fully qualified name or IP address of the machine that hosts the database server. For example, machine.mycompany.com.
Port	Enter the port on which the database listens. The default port for DB2 is 50000.
User Id	Enter the user name of the database account you want Interact Advanced Patterns to use to access this database.
Password, Confirm Password	Enter the password for the account you entered in the <b>User ID</b> field. <b>Tip:</b> If a database connection error occurs, verify that the password entered in these fields is correct.

- On the Data Source Connectors tab, create a connector to your state history tables.

**Note:** The Default TCP Connector that you see on this tab is created automatically. The system uses this connector for communication between Interact and Interact Advanced Patterns.

To create a connector for your state history table, click **Add**, select **Table Connector** in the drop down list, and complete the fields as follows.

Table 2. Server Groups page: Data Source Connectors tab

Field	Description
<b>Table Connector</b>	
Name	Enter a descriptive name for this table connector. It is a good practice to align this name with the name of the data file or database you will associate with the connector.
Type	Select <b>State</b> .
Table Name	Enter the name of the table as shown in your database management client. This must exactly match the name as shown in the client. Case-sensitive.
Description	Enter a description of the table.
Sharable	Select this check box.

- On the Server Groups tab, add a server group that the system will use to process your real time data.

To create a server group, click **Add** and complete the fields as follows.

Table 3. Server Groups page: Server Groups tab

Field	Description
<b>Properties tab</b>	
Name	Enter a descriptive name for the server group.
Stream Instance	Select a stream instance ID. See your administrator if you are not sure which one to select.
Usage	Enter <b>Production</b> .
For Production	Select this check box.
<b>Servers tab</b>	
Fully Qualified Name	Double-click in the <b># of Engines</b> column to set the number of Interact Advanced Patterns engines to run on this machine.
<b>Database tab</b>	
Select Runtime database connection	Select the run time database that you want this server group to be able to access.
Select database connections for table connector mapping	Select the database connection you created in step 3.
<b>Data Source Mapping tab</b>	
List of datasources	Click the name of the state table data source you created in step 3 to open a pop-up window where you can map the data source to a connector. <b>Note:</b> Do not map Outcome and Transaction data sources, as this is done automatically through the integration.
<b>Data Source Mapping tab: Table data source connector mapping</b>	

Table 3. Server Groups page: Server Groups tab (continued)

Field	Description
Data Source name	This is a read-only field that contains the name of the data source you clicked to open this window.
Connector	Select the data source connector you configured in step 4.
Database connection	Select the database connection you configured in step 3.

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

Table 4. Configuration properties for integration

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

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

7. 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 5. Configuration properties for automatic reconnection

Property	Value
<b>Interact   services   eventPattern   advancedPatterns   autoReconnect   enable</b>	Retain the default value of <b>True</b> if you want the system to reconnect automatically if connection problems occur between the Interact real time environment and Interact Advanced Patterns.
<b>Interact   services   eventPattern   advancedPatterns   autoReconnect   durationInMinutes</b>	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 Advanced Patterns. The default interval is 10 minutes.

Table 5. Configuration properties for automatic reconnection (continued)

Property	Value
<b>Interact   services   eventPattern   advancedPatterns   autoReconnect   numberOfFailuresBeforeDisconnect</b>	Set this property to the number of connection failures allowed during the specified time period before the system automatically disconnects from Interact Advanced Patterns.
<b>Interact   services   eventPattern   advancedPatterns   autoReconnect   consecutiveFailuresBeforeDisconnect</b>	Retain the default value of <b>True</b> if you want the automatic reconnection feature to evaluate only consecutive failures of the connection between the Interact real time environment with Interact Advanced Patterns. If you set this value to <b>False</b> , all failures within the specified time interval are evaluated.
<b>Interact   services   eventPattern   advancedPatterns   autoReconnect   sleepBeforeReconnectDurationInMinutes</b>	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.
<b>Interact   services   eventPattern   advancedPatterns   autoReconnect   sendNotificationAfterDisconnect</b>	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 <b>sleepBeforeReconnectDurationInMinutes</b> . The default value is <b>True</b> , which means that notifications are sent.

## Results

The integration is complete, and you can now use the advanced patterns. Here is an overview of your next steps.

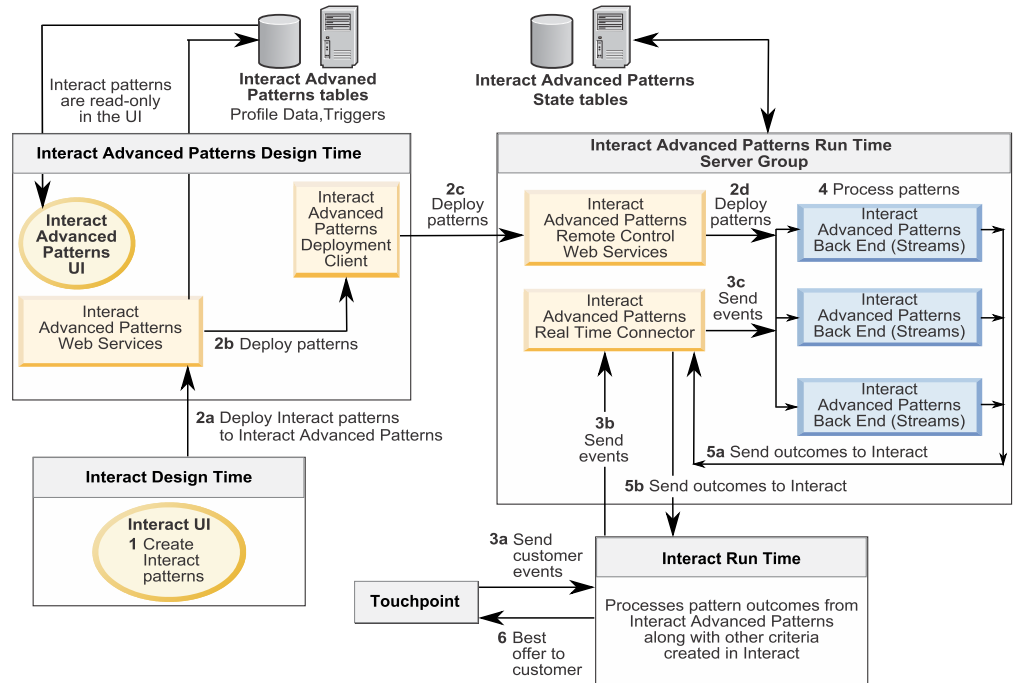
- In an Interact interactive channel, define events and add Event Patterns that use these events.
- Create a Campaign flowchart with a segment to capture customer IDs associated with the events, and mark for deployment.
- In the Interact interactive channel, define an interaction strategy and mark for deployment.
- Deploy your interactive channel.

There is a video that provides information about post-integration procedures. To view it, see the Video tab in the list of Interact documentation on the IBM Support Portal, or click the **Help > Product Documentation** link in the Interact user interface.

## How data flows between Interact and Interact Advanced Patterns

The following diagram illustrates the data flow when Interact is integrated with Interact Advanced Patterns.

Data flow for Interact patterns with Interact Advanced Patterns



## What to do if the Streams instance is restarted

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

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



## Additional Contact Information

If you need additional assistance, contact IBM using one of the following methods:

- Customer support: [cm\\_support@us.ibm.com](mailto:cm_support@us.ibm.com)
- Product feedback: [cm\\_feedback@us.ibm.com](mailto:cm_feedback@us.ibm.com)

**Note:** Product feedback is recommendations for product improvement; do not use the feedback address to obtain additional assistance.

USA	
<p>IBM 1001 E Hillsdale Boulevard Foster City, CA 94402 Toll Free: 1.866.493.2673 email: <a href="mailto:cm_support@us.ibm.com">cm_support@us.ibm.com</a></p>	<p>IBM Client Support <a href="mailto:cm_support@us.ibm.com">cm_support@us.ibm.com</a> Support Center <a href="https://support.ibmcloud.com">https://support.ibmcloud.com</a></p>
<p>IBM Austin 11501 Burnet Road Building 905, Floor 2 Austin, TX 78758-3400 Toll Free: 1.866.493.2673</p>	<p>IBM Dallas 750 W John Carpenter Freeway Irving, TX 75039 Toll Free: 1.866.493.2673</p>
Europe	
<p>IBM United Kingdom Limited 3 Furzeground Way Stockley Park Uxbridge Middlesex UB11 1EZ U.K. Tel: 020 8867 8003 email: <a href="mailto:cm_support@us.ibm.com">cm_support@us.ibm.com</a></p>	<p>IBM GmbH Beim Strohause 17 D-20097 Hamburg Germany Tel: 0800-180-2597 email: <a href="mailto:cm_support@us.ibm.com">cm_support@us.ibm.com</a></p>
<p>IBM France 17 Avenue de l'Europe 92275 Bois Colombes Cedex France Tel: 0800 91 4912 email: <a href="mailto:cm_support@us.ibm.com">cm_support@us.ibm.com</a></p>	
Asia Pacific	
<p>IBM Hong Kong Limited Silvercord Tower 2 Room 907 30, Canton Road Tsim Sha Tsui Kowloon Hong Kong SAR, China Tel: +852 8201 0823 Fax: +852 8201 0832 email: <a href="mailto:cm_support@us.ibm.com">cm_support@us.ibm.com</a></p>	<p>IBM Australia and New Zealand 60 Southgate Ave Southgate VIC 3006 AUSTRALIA (Aus) 1800 69 CORE (NZ) 0800 69 CORE email: <a href="mailto:cm_support@us.ibm.com">cm_support@us.ibm.com</a></p>

## **IBM welcomes your comments**

You may send your comments to the following address.

IBM Bay Area Lab  
1001 E Hillsdale Boulevard  
Foster City, California 94404  
USA

You can send us comments electronically by using one of the following methods:

**Toll free**

1+866-493-2673

**Support Center:**

<https://support.ibmcloud.com>

**Internet email:**

[cm\\_support@us.ibm.com](mailto:cm_support@us.ibm.com)

**World Wide Web:**

[www.ibm.com/marketing-solutions/](http://www.ibm.com/marketing-solutions/)

If you would like a reply, be sure to include your name, address, telephone number, or FAX number. Make sure to include the following information in your comment or note:

- Title of this document
- Page number or topic related to your comment

When you send information to IBM, you grant IBM a nonexclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.



---

## Notices

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing  
IBM Corporation  
North Castle Drive  
Armonk, NY 10504-1785  
U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing  
Legal and Intellectual Property Law  
IBM Japan, Ltd.  
19-21, Nihonbashi-Hakozakicho, Chuo-ku  
Tokyo 103-8510, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation  
B1WA LKG1  
550 King Street  
Littleton, MA 01460-1250  
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

All IBM prices shown are IBM's suggested retail prices, are current and are subject to change without notice. Dealer prices may vary.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

#### COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating

platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

---

## Trademarks

IBM, the IBM logo, and [ibm.com](http://www.ibm.com) are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at [www.ibm.com/legal/copytrade.shtml](http://www.ibm.com/legal/copytrade.shtml).

---

## Privacy Policy and Terms of Use Considerations

IBM Software products, including software as a service solutions, ("Software Offerings") may use cookies or other technologies to collect product usage information, to help improve the end user experience, to tailor interactions with the end user or for other purposes. A cookie is a piece of data that a web site can send to your browser, which may then be stored on your computer as a tag that identifies your computer. In many cases, no personal information is collected by these cookies. If a Software Offering you are using enables you to collect personal information through cookies and similar technologies, we inform you about the specifics below.

Depending upon the configurations deployed, this Software Offering may use session and persistent cookies that collect each user's user name, and other personal information for purposes of session management, enhanced user usability, or other usage tracking or functional purposes. These cookies can be disabled, but disabling them will also eliminate the functionality they enable.

Various jurisdictions regulate the collection of personal information through cookies and similar technologies. If the configurations deployed for this Software Offering provide you as customer the ability to collect personal information from end users via cookies and other technologies, you should seek your own legal advice about any laws applicable to such data collection, including any requirements for providing notice and consent where appropriate.

IBM requires that Clients (1) provide a clear and conspicuous link to Customer's website terms of use (e.g. privacy policy) which includes a link to IBM's and Client's data collection and use practices, (2) notify that cookies and clear gifs/web beacons are being placed on the visitor's computer by IBM on the Client's behalf along with an explanation of the purpose of such technology, and (3) to the extent required by law, obtain consent from website visitors prior to the placement of cookies and clear gifs/web beacons placed by Client or IBM on Client's behalf on website visitor's devices

For more information about the use of various technologies, including cookies, for these purposes, See IBM's Online Privacy Statement at: <http://www.ibm.com/privacy/details/us/en> section entitled "Cookies, Web Beacons and Other Technologies."







Printed in USA