TIBCO iWay® Service Manager

Release Notes

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Chapter 1

About This Product

This document provides release information for iWay version 8 Service Pack 5 (8.0.5). It is intended for all levels of users, including system integrators, application developers, and administrators. For more information on specific features, refer to the online documentation.

In this chapter:

- iWay Service Manager

iWay Service Manager

iWay Service Manager (iSM) is an integration server that ensures rapid access to timely, accurate data across all systems, processes and stakeholders – with unmatched interoperability between disparate systems and data. With iSM, all aspects of your existing infrastructure – every integration, application, and development platform – work in concert with modernized architectures to rapidly develop new business applications, and create powerful, reusable business services from existing applications. This support for modern architectures ensures a highly optimized development environment and rapid creation of internally and externally consumable services.

iSM offers end-to-end integration of the widest variety of sources, including real-time, batch, streaming, big data, structured and unstructured information, cloud-based sources, social network, and machine-generated data.

Chapter 2

New Features

This section provides a summary of key features available in iWay Service Manager (iSM) and iWay Integration Tools (iIT) in version 8.0.5.

In this chapter:

- Golden Key
- Connector for Amazon Relational Database Service
- Connector for AWS Secrets Manager
- Role-Based Access Control for Amazon S3 Bucket
- Connector for Azure Blob Storage
- Connector for Azure Cosmos DB
- Connector for Apache CouchDB
- Connector for Salesforce
- Connector for SharePoint
- Connector for SendGrid
- Support for XSLT 3.0
- Capability to Inspect Internal Queues
- Support for Centralized SNMP in iSM
- Endpoint of PING for an API
- iWay Integration Solution for TRADACOMS
- Select Attachment Using Content-Disposition Name

Golden Key

In TIBCO iWay® Service Manager Release 8.0.5, the new Golden Key license replaces the 90-day trial license key. You no longer need to apply for a permanent key. This license automatically allows administrators to maintain an unlimited number of users, adapters, and CPUs, grants unlimited use of all features to all users, and imposes no consumption limits. Under this license key, administrators can use security settings and individual roles to limit the access of groups and users to individual products and features.

The Golden Key license is assigned to all new product installations automatically. Customers who upgrade to TIBCO iWay® Service Manager Release 8.0.5 from an earlier release will automatically get a Golden Key, as well.

Connector for Amazon Relational Database Service

iIT version 8.0.5 introduces the Connector for Amazon RDS. Amazon Relational Database Service (Amazon RDS) makes it easy to set up, operate, and scale a relational database in the cloud.

The Connector exposes the methods of the com.amazonaws.services.rds.AmazonRDSClient Amazon RDS client.

When configuring a process flow in iIT, you can select the Amazon RDS Connector from the Object Palette under the AWS Connectors group, as shown in the following image.

Connector for AWS Secrets Manager

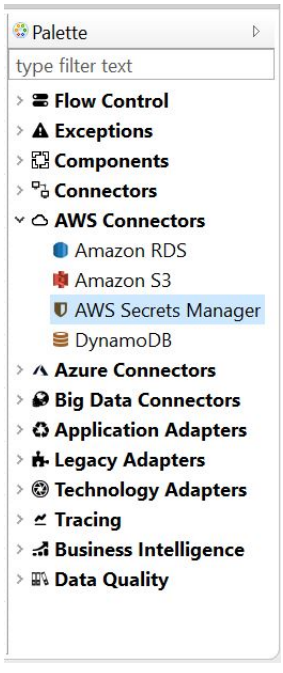
iIT version 8.0.5 introduces the Connector for AWS Secrets Manager. AWS Secrets Manager is a secrets management service that helps you protect access to your applications, services, and IT resources.

This feature has three components:

- **iSM Provider.** Stores connection information to the AWS Secrets Manager.
- **IFL Function.** Enables you to embed a function in a flow or ISM component. The IFL function has a provider name and key parameter and returns a value brought back from the AWS Secrets Manager.

- **Connector for AWS Secrets Manager.** Enables you to add this Connector in a flow to initialize iWay Variables based on keys found within the AWS Secrets Manager. The internal name of the provider is "awsSecretsClient".

When configuring a process flow in iIT, you can select the Connector for AWS Secrets Manager from the Object Palette under the AWS Connectors group, as shown in the following image.



AWS Secrets Manager can be integrated with iSM in a number of ways, including:

- When configuring a JDBC provider from iIT or the iSM console.
- The ability to call the Secrets service, through APIs, to manage database credentials.
- The ability to rotate the password and encrypt the secret data, using the KMS service.

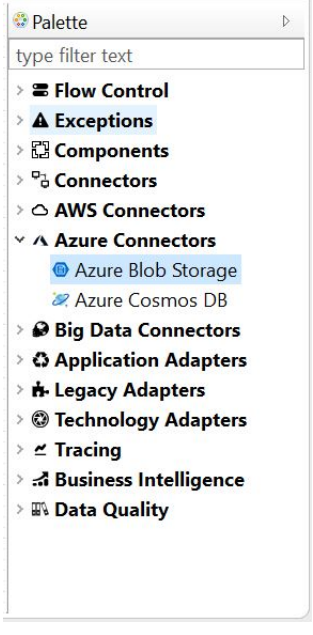
Role-Based Access Control for Amazon S3 Bucket

Support was added to enable access to Amazon S3 buckets, using role-based access control. This provides the ability to assume an IAM role that is attached to an EC2 instance and use the granted permissions of that role to access an S3 bucket.

Connector for Azure Blob Storage

iIT version 8.0.5 introduces the Connector for Azure Blob Storage. Azure Blob Storage is a service for storing large amounts of unstructured object data, such as text or binary data. The Connector exposes the methods of the Azure Storage client libraries in the Azure Storage Blob Java SDK version 12.0.0.

When configuring a process flow in iIT, you can select the Connector for Azure Blob Storage from the Object Palette under the Azure Connectors group, as shown in the following image.



Connector for Azure Cosmos DB

iIT version 8.0.5 introduces the Connector for Azure Cosmos DB. Azure Cosmos DB is a Microsoft proprietary globally-distributed, multi-model database service. The Connector exposes the methods of enabled connections to the Microsoft Azure Cosmos DB Sync Java SDK.

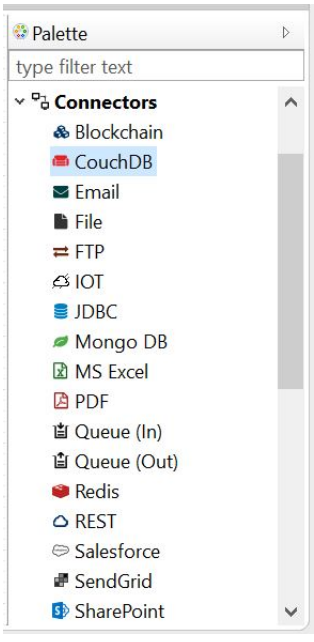
When configuring a process flow in iIT, you can select the Connector for Azure Cosmos DB from the Object Palette under the Azure Connectors group, as shown in the following image.

Connector for Apache CouchDB

iIT version 8.0.5 introduces the Connector for Apache CouchDB. Apache CouchDB is an open-source document-oriented NoSQL database, which uses multiple formats and protocols to store, transfer, and process its data. It uses JSON to store data.

The Connector for Apache CouchDB implements an HTTP-based CouchDB REST API to communicate with CouchDB database instances.

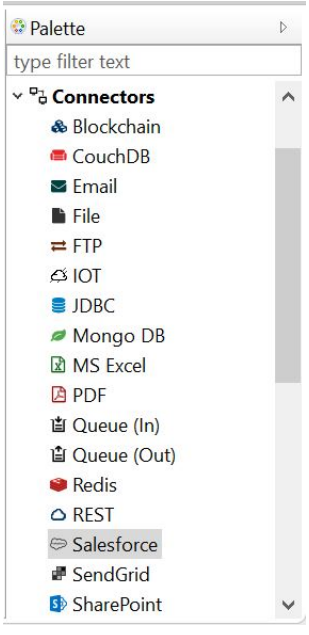
When configuring a process flow in iIT, you can select the Connector for Apache CouchDB from the Object Palette under the Connectors group, as shown in the following image.



Connector for Salesforce

iIT version 8.0.5 introduces the Connector for Salesforce. Salesforce is an integrated CRM platform that gives all your departments, including marketing, sales, commerce, and service, a single, shared view of every customer. The Connector for Salesforce enables you to connect to Salesforce and work with Salesforce REST APIs to perform management-related tasks.

When configuring a process flow in iIT, you can select the Connector for Salesforce from the Object Palette under the Connectors group, as shown in the following image.

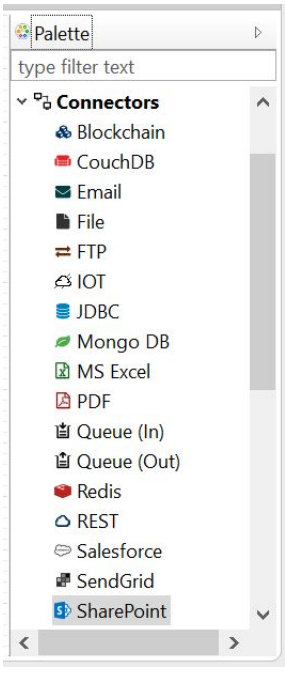


Connector for SharePoint

iIT version 8.0.5 introduces the Connector for SharePoint. SharePoint is a web-based collaborative platform that integrates with Microsoft Office. The Connector enables integration with SharePoint through its REST API.

The Connector for SharePoint is certified with SharePoint Server 2019.

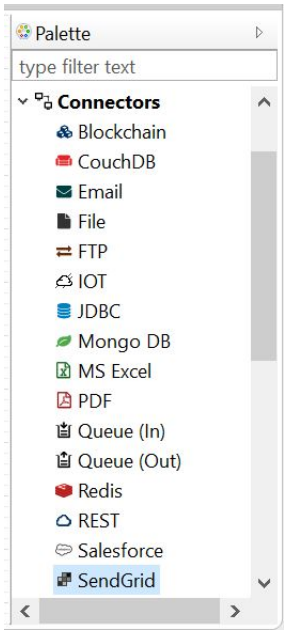
When configuring a process flow in iIT, you can select the Connector for SharePoint from the Object Palette under the Connectors group, as shown in the following image.



Connector for SendGrid

iIT version 8.0.5 introduces the Connector for SendGrid. SendGrid delivers transactional and marketing emails through a cloud-based email delivery platform. The Connector enables integration with SendGrid through its REST API.

When configuring a process flow in iIT, you can select the Connector for SendGrid from the Object Palette under the Connectors group, as shown in the following image.



Support for XSLT 3.0

Release 8.0.5 adds support for XSLT 3.0, using the Saxon-HE processor.

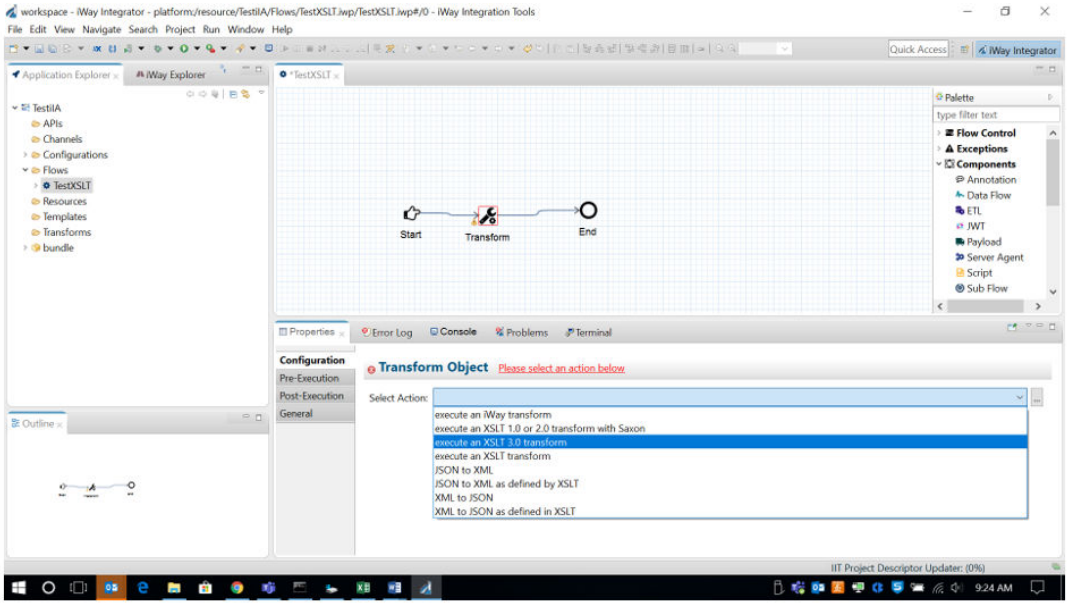
The new features for XSLT 3.0 include the following:

- Ability to call a specific template by name, using a new property called Initial Named Template.
- Ability to set stylesheet, template, and tunnel parameters directly on a template, using a new property called Template Parameter.
- Support for JSON output, allowing you to parse the result as JSON, in addition to the existing options to parse as XML or leave the result as unparsed or flat.
- Addition of an execution mode, using a new property called Initial Mode.

To support XSLT 3.0, the following two new actions, shown in the following image, were added to the iIT Transform component.

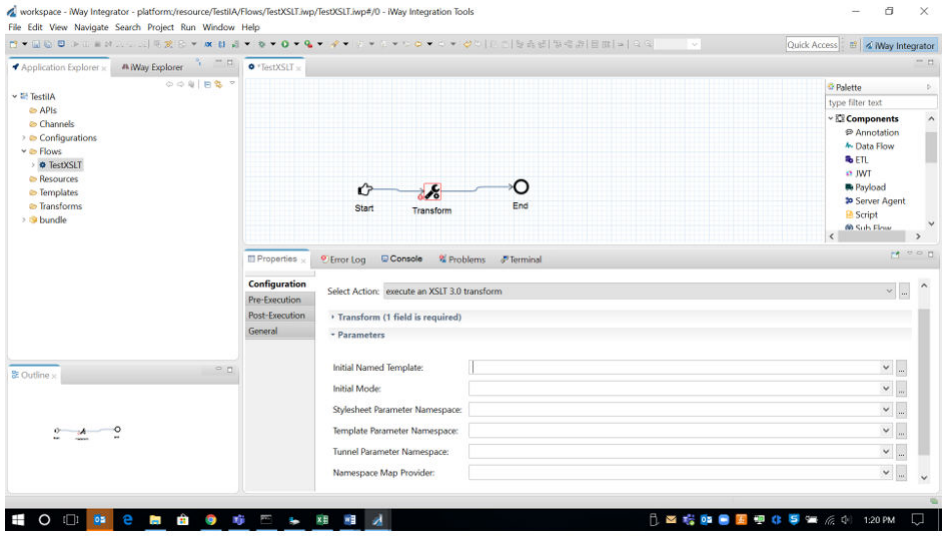
- Execute an XSLT 1.0 or 2.0 transform with Saxon

❑ Execute an XSLT 3.0 transform



Note: Both actions call a new agent, XDSaxonXsltAgent. When using the *Execute an XSLT 3.0 transform* action, the parameters specific to XSLT 3.0 are available.

The following image shows the parameters that are available when you select the *Execute an XSLT 3.0 transform* action.



The following list describes the parameters of the Saxon XSLT service.

Transform. File name or name of the XSLT Transform to execute. If a file path is used, it attempts to load the specified file. Otherwise, it looks up the supplied transform name in the configuration dictionary.

Initial Named Template. Name of the initial template to call. When present, the value has one of three formats: an NCName in the global namespace, a QName like ns:ncname, where the namespace URI is the URI associated with the prefix ns in the Namespace Map Provider, or a URIQualifiedName, like Q{uri}ncname. The default is no initial template, which causes Saxon to apply all templates.

Initial Mode. Initial mode to select applicable templates when applying all templates. When present, the value has one of three formats: an NCName in the global namespace, a QName like ns:ncname, where the namespace URI is the URI associated with the prefix ns in the Namespace Map Provider, or a URIQualifiedName like Q{uri}ncname. The default is the unnamed mode.

Stylesheet Parameter Namespace. Special register namespace from which stylesheet parameters will be taken. The default is to execute the transform without stylesheet parameters defined.

Note: The Parameter Namespace property has been renamed to Stylesheet Parameter Namespace. For upward compatibility, the internal name of the property remains the same.

Template Parameter Namespace. Special register namespace from which initial template parameters for an XSLT 3.0 transform are taken. The default is to execute the XSLT 3.0 transform without template parameters defined.

Tunnel Parameter Namespace. Special register namespace from which initial tunnel parameters for an XSLT 3.0 transform are taken. The default is to execute the XSLT 3.0 transform without initial tunnel parameters defined.

Namespace Map Provider. Name of an XML Namespace Map Provider for the mapping between namespace prefix and namespace URI in XSLT parameter names. If left blank, XSLT parameters must be in the global namespace.

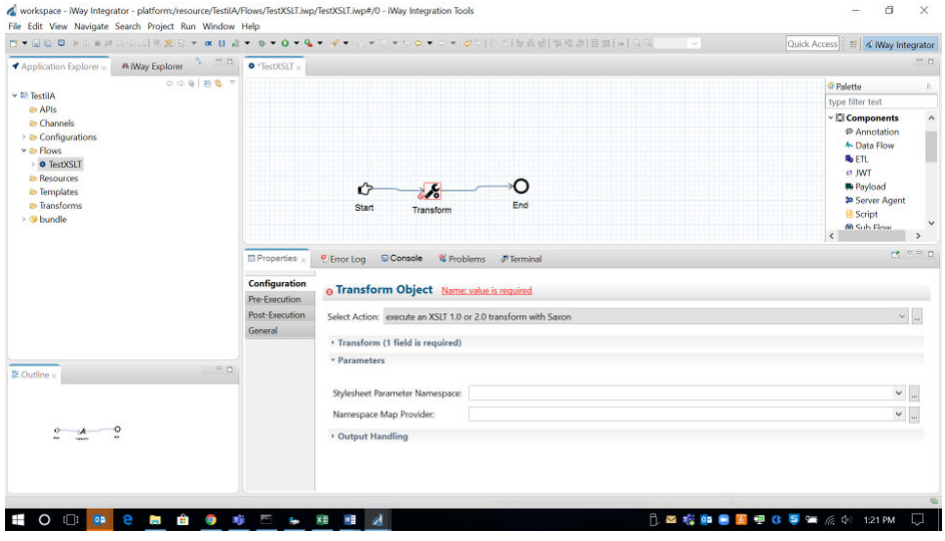
Output Format. Determines how the output of the transform is stored in the Output Document. The output can be stored as parsed XML, parsed JSON, or a flat string.

The following list describes the edges that are returned by the Saxon XSLT service.

- **Success.** Operation was successful.
- **fail_parse.** iFL expression, a flat input document, or an XSLT transform caused a parse error.
- **fail_format.** Input document was not parsed or flat XML. JSON input is not supported.
- **fail_notfound.** XSLT transform was not found.
- **fail_operation.** Execution of the XML transform could not be completed successfully.

XSLT 3.0 defines a backwards compatibility mode for running XSLT 1.0 and 2.0 stylesheets.

When you select *Execute an XSLT 1.0 or 2.0 transform with Saxon*, only those parameters related to those versions display, as shown in the following image.



For XSLT 1.0 and 2.0 transforms, Saxon detects the version and automatically enters compatibility mode. These older versions always apply all templates. Use the Stylesheet Parameter Namespace to pass parameter values to the transform.

For XSLT 3.0 transforms, the service calls a specific template directly when the Initial Named Template is defined, otherwise it applies all templates. If the Initial Mode is defined, only templates with a matching mode are considered when applying all templates. Use the Stylesheet Parameter Namespace to assign values to parameters declared directly on the stylesheet. Use the Template Parameter Namespace to assign values to parameters declared on an initial template. Use the Tunnel Parameter Namespace to assign values to tunnel parameters that can be accessed by any invoked template. The Template Parameter Namespace and the Tunnel Parameter Namespace are applicable, regardless of whether the service calls a specific template or applies all templates.

A parameter namespace is a special register namespace from which parameters will be taken. The Stylesheet, Template, and Tunnel parameter namespaces all function the same way. For example, if the Stylesheet Parameter Namespace is parmns, the register parmns.reg1, with value val1, will create the stylesheet parameter reg1 in the global namespace with value val1, whereas the register parmns.prefix2.reg2, with value val2, will create the stylesheet parameter reg2 in the namespace ns2 with value val2, where ns2 is the namespace URI associated with prefix prefix2 in the Namespace Map Provider.

The output can be stored as parsed XML, parsed JSON, or a flat string. When returning a flat string, the bytes are converted to string using the encoding declared in the transform (see the encoding attribute of the xsl:output element).

Example 1

The following example shows how to call an initial named template and pass XSLT parameters with XSLT 3.0. To simplify, all XSLT parameter names are in the global namespace.

The parameters and parameter values are as follows:

- Transform: showparms3.xsl
- Initial Named Template: template1
- Stylesheet Parameter Namespace: stylesheetns
- Template Parameter Namespace: templatens
- Tunnel Parameter Namespace: tunnelns
- Output Format: xml

Assume the showparms3.xsl file is in the current working directory and contains the following transform:

```
<xsl:stylesheet version="3.0"
     xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:param name="stylesheetparam">ssdef</xsl:param>

  <xsl:template name="template1">
    <xsl:param name="templateparam">temdef</xsl:param>
    <root>
      <elem><xsl:value-of select="$stylesheetparam"/></elem>
      <elem><xsl:value-of select="$templateparam"/></elem>
      <xsl:call-template name="template2"/>
    </root>
  </xsl:template>

  <xsl:template name="template2">
    <xsl:param name="tunnelparam" tunnel="yes"/>
    <elem><xsl:value-of select="$tunnelparam"/></elem>
  </xsl:template>

</xsl:stylesheet>
```

Assume these special register definitions and values:

- stylesheetns.stylesheetparam: ssvalue
- templatens.templateparam: temvalue

- tunnelns.tunnelparam: tunvalue

This transform ignores its input document.

The output document will be the parsed XML document:

```
<root>
  <elem>ssvalue</elem>
  <elem>temvalue</elem>
  <elem>tunvalue</elem>
</root>
```

Notice how the tunnel parameter, tunnelparam, was not passed to template2 explicitly and acted like a global parameter.

Example 2

The following example shows how to use the initial mode to select applicable templates when applying all templates of an XSLT 3.0 transform.

The parameters and parameter values are as follows:

- Transform: showmode3.xsl
- Initial Mode: Q{http://ns1.com}mode1
- Output Format: xml

Assume the showmode3.xsl file is in the current working directory and contains the following transform:

```
<xsl:stylesheet version="3.0"
    xmlns:xsl=http://www.w3.org/1999/XSL/Transform
    xmlns:ns1="http://ns1.com">

  <xsl:template mode="ns1:mode1" match="/">
    <elem>one</elem>
  </xsl:template>

  <xsl:template mode="ns1:mode2" match="/">
    <elem>two</elem>
  </xsl:template>

</xsl:stylesheet>
```

All templates match the input document, but only the first template is applied because it is the only one with a matching mode.

The output document will be the parsed XML document:

```
<elem xmlns:ns1="http://ns1.com">one</elem>
```

Example 3

The following example shows how to emit JSON output with an XSLT 3.0 transform.

The parameters and parameter values are as follows:

- Transform: showjson3.xsl
- Output Format: json

Assume the showjson3.xsl file is in the current working directory and contains the following transform:

```
<xsl:stylesheet version="3.0"
    xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:output method="json"/>

  <xsl:template match="/">
    <xsl:map>
      <xsl:map-entry key="'key1'" select="'abc'"/>
      <xsl:map-entry key="'key2'" select="123"/>
    </xsl:map>
  </xsl:template>

</xsl:stylesheet>
```

This transform ignores its input document.

The JSON output method maps an xsl:map to a JSON object and an XPath 3.1 array to a JSON array. Atomic values have their natural mapping.

The output document will be the parsed JSON document:

```
{
  "key1":"abc",
  "key2":123
}
```

If the output format is set to flat, the output document is the JSON value flattened to a string.

Capability to Inspect Internal Queues

As of iWay Version 8.0.5, you can inspect internal queues. This feature is implemented using a web service call to see how many entries are on the queue.

Note: Your application should have both a configured SOAP Channel and Services Provider.

In the following example, the Endpoint URL is:

`http://host:port/XDSOAPISMServer`

where *port* is the port that is configured on the SOAP Channel.

Required Headers

The required headers are as follows:

- Content-Type: text/xml
- SOAPAction: "iwserver.GetQueueStatusRequest@admin@@"

Sample Request Body

Assume the following sample request body:

```
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
<soapenv:Body>
<ser:GetQueueStatusReq xmlns:ser="http://configsm.ibi.com/xml/server"
xmlns:reg="http://configsm.ibi.com/xml/registry">
<reg:Authentication>
<reg:User>iway</reg:User>
<reg:Password>ENCR(322132453104312831223225299315 3)</reg:Password>
</reg:Authentication>
</ser:GetQueueStatusReq>
</soapenv:Body>
</soapenv:Envelope>
```

Sample Response

In the sample response, there are no messages on the queue (size=”0”) and there is one message processed (added=”1” and removed=”1”).

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/
envelope/">
<SOAP-ENV:Body>
<ser:GetQueueStatusRes xmlns:ser="http://configsm.ibi.com/xml/server">
<ser:Channel name="internal" type="internal">
<ser:Queue name="myiq" persistent="true" inhibited="false" size="0"
added="1" removed="1" persisted="1"/>
</ser:Channel>
</ser:GetQueueStatusRes>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

Support for Centralized SNMP in iSM

The Simple Network Management Protocol (SNMP) is a protocol used to monitor devices. iSM implements an SNMP agent that can send notifications and respond to commands sent by an SNMP manager application. In iSM versions prior to Release 8.0.5, the SNMP agent inside iSM acted independently, requiring the SNMP manager application to treat every iSM server as a separate device. This could make the configuration of the SNMP manager application complex.

With the new centralized SNMP feature in iSM Release 8.0.5, the iSM instance appears as a single device to the SNMP manager application, simplifying access to all the servers within that installation. It is also still possible to manage multiple iSM instances installed on a single machine by managing each instance independently as a separate device.

Architecture

The central SNMP agent runs in the master configuration. This is the same configuration running the console.

The SNMP manager application connects to the central SNMP agent, exclusively. A command intended for iSM is sent to the central SNMP agent, which executes it and returns the response. The execution can be local to the master configuration or involve internal calls to other iSM servers through their console port.

Notifications from the master configuration are sent to notification targets configured in the central SNMP agent. Notifications from non-master configurations are sent to the master configuration, which forwards them to the notification targets. This way, all centralized notifications appear to originate from the central SNMP agent.

Configurations can be started in any order. Any configuration including the master configuration can be stopped and restarted at any time. The master configuration must be running when the SNMP manager application sends requests to the central SNMP agent. The master configuration must also be running when non-master configurations send notifications, otherwise those notifications will be lost.

The integrity of a SET request that spans multiple iSM servers is not guaranteed. This is because the SNMP protocol does not have a PREPARE message for a two-phase commit SET request.

SNMP Provider

Centralized SNMP is enabled by creating an SNMP provider in the master configuration and setting its Centralized property to true. This new Boolean property appears within a new group called Centralized Monitoring. For backwards compatibility, the default is false.

A single SNMP provider in the master configuration is enough to manage all iSM servers within the iSM instance. It can also emit notifications coming from the master configuration.

Optionally, notifications from other servers can be centralized by creating an SNMP provider in the deployment template of the iWay application and setting the Centralized property to true. Typically, the SNMP providers outside the master configuration will not declare any SNMP ports. This is possible since the SNMP manager application does not connect directly and the internal communication with the central SNMP agent uses a different protocol.

SNMP Security

The SNMP provider implements standard SNMP security. The security, when centralized SNMP is enabled, is the same as when it is disabled, except it needs only be configured on the central SNMP agent running in the master configuration.

SNMPv1 has no security and SNMPv2c has very weak security based on community names. For SNMPv3, communication can be protected with a username and passphrase. The SNMP provider has properties to create the initial user. It also exposes the USM MIB which lets clients add, change, and delete users. The USM MIB is persistent. Users are restored when the SNMP provider restarts.

iSM Release 8.0.5 added support for SHA2.

New MIB

The centralized monitoring feature requires a new MIB called IWAY-CENTRAL-ISM-MIB.

The new managed objects are:

- Central configuration table
- Central listener table
- Central special register table
- Two notifications

The MIB also contains two compliance groups, one group for all managed objects and another for all notifications.

The central SNMP agent will continue to expose the original IWAY-ISM-MIB. These original objects are specific to the master configuration. There is no conflict between the two MIBs.

Central Configuration Table

The central configuration table is a new, read-only table, that lists all the configurations.

- Table index is the configuration name.
- First column is a description.
- Second column is a TruthValue, indicating whether that row corresponds to the master configuration.
- Third column is the console port.
- Fourth column is the configuration status: running or down.

When the configuration table shows that a configuration is down, its listeners will be missing from the central listener table.

Central Listener Table

The central listener table in IWAY-CENTRAL-ISM-MIB aggregates the listener tables from all iSM servers in the iSM instance. This table has the same columns as the original listener table from IWAY-ISM-MIB, except each row is indexed by the configuration name and listener name.

Configuration_Status, the last column in the listener table, is read-write to allow listeners to be started or stopped.

Central Special Register Table

The central special register table in IWAY-CENTRAL-ISM-MIB aggregates the special register tables from all iSM servers in the iSM instance. This read-only table has the same columns as the original special register table from IWAY-ISM-MIB, except each row is indexed by the configuration name, scope, and register name. The structure appears identical but the object OIDs will all be different, as required by SNMP.

The scope is a listener name or the empty string for the global registers.

The table provides a mechanism to expose a value of interest without changing the MIB, just by assigning a special register at channel or system scope.

Notifications

The IWAY-CENTRAL-ISM-MIB declares two new notifications. They have the same content as the old notifications from IWAY-ISM-MIB, plus the originating configuration.

The SNMP provider exposes the standard SNMP-NOTIFICATION-MIB, as specified in RFC 3413. When the SNMP provider starts, it creates an initial notification target and stores it in this MIB. You can also register the notifications you want to receive by sending requests to this MIB. The MIB is persistent, so notification targets will be restored when the SNMP provider is restarted.

When centralized monitoring is enabled, the non-master SNMP providers send their notifications to the central SNMP agent, which forwards them to the notification targets. If the master configuration is not running, the notifications emitted will be lost.

Confirmed notifications are managed by the central SNMP agent.

Endpoint of PING for an API

A /ping resource has been added to the ALB Health Checker, as an optional parameter or as a default resource, to check the health status of an API. All iWay Cloud customers that deploy APIs connecting to the outside world can use the /ping resource to check the health status of the API.

The implementation of the flow should be START->PAYLOAD->END, where the PAYLOAD has a JSON object {"status": "Ok"}, as shown in the following syntax:

```
/ping:
   get:
       response:
          200:
            body:
                application/json:
                    example:
                        {
                            "status": "Ok"
                         }
```

Note:

- If an API definition file is used to initialize the API component, and the definition file contains a /ping endpoint, that definition will be used to create and configure the /ping endpoint.
- If the API is created without a definition file, or a definition file that does not have a /ping endpoint, a /ping endpoint will be created with the default setting.
- You cannot rename an existing endpoint to /ping.

iWay Integration Solution for TRADACOMS

Release 8.0.5 adds support for the iWay Integration Solution for TRADACOMS, which transforms TRADACOMS documents into standard XML format, or transforms XML representations into TRADACOMS format. For more information, see the *iWay Integration Solution for TRADACOMS User's Guide*.

Select Attachment Using Content-Disposition Name

Release 8.0.5 adds the ability to select an attachment in the XDAttachmentToDocAgent and XDAttachmentToFileAgent agents, using the name parameter of the Content-Disposition header.

This name corresponds to the name of the input field in the HTML form.

To support this, the Content-Disposition Name and Content-Disposition Namespace properties were added to XDAttachmentToDocAgent and the Content-Disposition Name property was added to XDAttachmentToFileAgent.

Content-Disposition Name. Is the name parameter appearing in the Content-Disposition of the attachment to be retrieved.

Content-Disposition Namespace Is a special register namespace where parameters of the Content-Disposition header of the selected attachment are stored. This is useful to extract the name and the file name.

The following iFL function was added to support this feature.

`_attbyname(): Locate an Attachment by Name`

The _attbyname() function accesses the Content-Disposition header of each attachment, and returns the index (base 0) of the first attachment with the requested name. A value of -1 is returned if the attachment is not found.

This function uses the following format:

`_attbyname(`*`name`*`)`

Where *name* is a string with the name of the attachment for testing.

Chapter 3

Deprecated Components

This section provides a summary of deprecated components in iWay 8.

- MQSI components have been removed from the product and are no longer supported. If you have a requirement for continuing support for this and related components, please contact iWay Customer Support.
- SOAP over JMS/MQ has been removed from the product and is no longer supported. For alternative approaches, you may use a direct connection to the JMS/MQ components for data processing.
- WAR-based deployment has been deprecated. The ability to create WAR packages has been removed from the iSM Administration Console. You can build iSM WAR packages using the iWay Software Development Kit (SDK). If you require WAR-based deployment support, please provide your use case to iWay Customer Support.
- The Log Event Adapter for Microsoft SQL Server has been deprecated.
- The Emitter object has been deprecated in iWay Integration Tools (iIT). Emitters can be used as part of the channel itself. If you have a use case for accessing Emitters in process flows, open a case with iWay Customer Support and provide full details.
- The following product components have been deprecated and removed from distribution. There are alternatives approaches for achieving the required functionality or the components are deemed no longer viable.
  - Corba
  - Fix
  - Clarify
  - Tuxedo
  - BEA JDBC
  - BEA PS
  - IBO
  - Validation (an older implementation of the QA Service)

- CS3
- Lawson Preparser
- Manugistics Preparser
- CDF/CSV (an updated version is available for flat file processing)

In this chapter:

- Deprecated topic for iWay Application Adapters

Deprecated topic for iWay Application Adapters

This section describes known issues and considerations in iWay version 8.0.5.

Connector for SharePoint Multi-Factor Authentication

As is typical with server-to-server applications, the Connector for SharePoint does not support Multi-Factor Authentication. The Security Defaults feature of Azure Active Directory enforces Multi-Factor Authentication and is therefore incompatible with the connector. Azure Active Directory Conditional Access security without Multi-Factor Authentication must be used, instead.

The following procedure describes how to disable Security Defaults in the Azure Active Directory portal:

1. Sign in to the Azure Portal from *https://aad.portal.azure.com/*.
2. From the left pane, select *Azure Active Directory* and then select *Properties*.
3. From the right pane, select *Manage Security defaults*.
4. Change the Enable Security defaults setting to *No*.
5. Click *Save*.

Upgrading iWay Integration Tools

Important: The Eclipse auto upgrade function does not work when upgrading iWay Integration Tools (iIT) from Version 8.0.4 to Version 8.0.5. In order to upgrade iIT from Version 8.0.4 to Version 8.0.5, you must install Version 8.0.5 and import your Version 8.0.4 configuration.

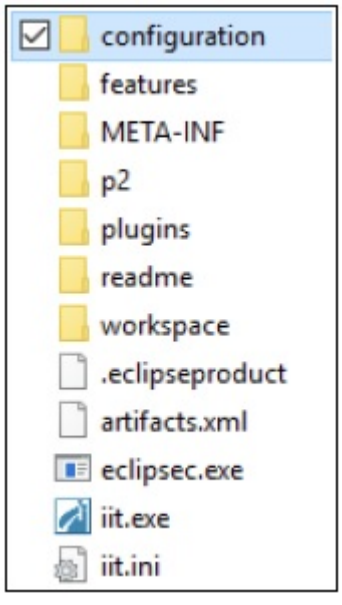
Git Support in iWay Integration Tools

iWay Integration Tools (iIT) enables you to install and integrate the Git open source distributed version control system. Due to a bug in the Git plugin for Eclipse, after installing iIT, you must perform the following steps to enable integration with Git:

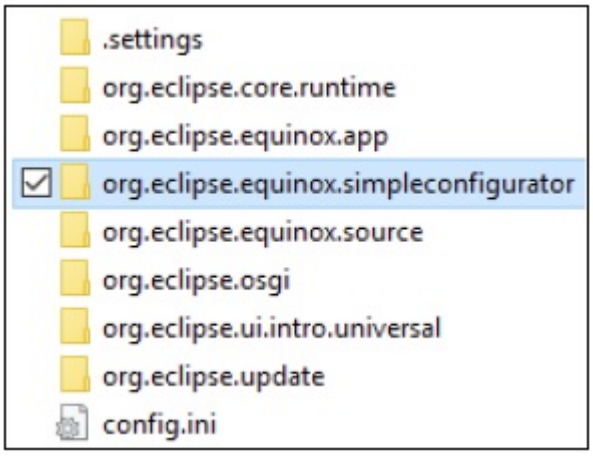
1. Close iWay Integration Tools (iIT).
2. Navigate to the location on your file system where iIT is installed. For example:

   ```
   C:\iIT_805
   ```

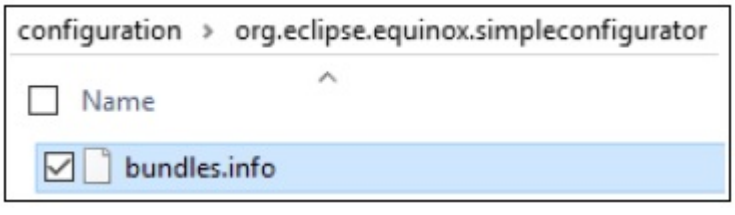
3. Open the *configuration* subfolder, as shown in the following image.



4. Open the *org.eclipse.equinox.simpleconfigurator* subfolder, as shown in the following image.



The *org.eclipse.equinox.simpleconfigurator* subfolder contains the *bundles.info* file, as shown in the following image.

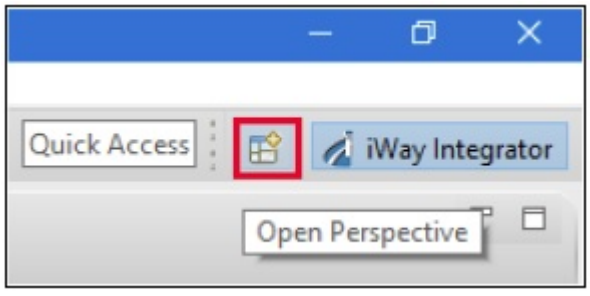


5. Edit the *bundles.info* file using a text editor (for example, Notepad).
6. Search for the following line in the *bundles.info* file:

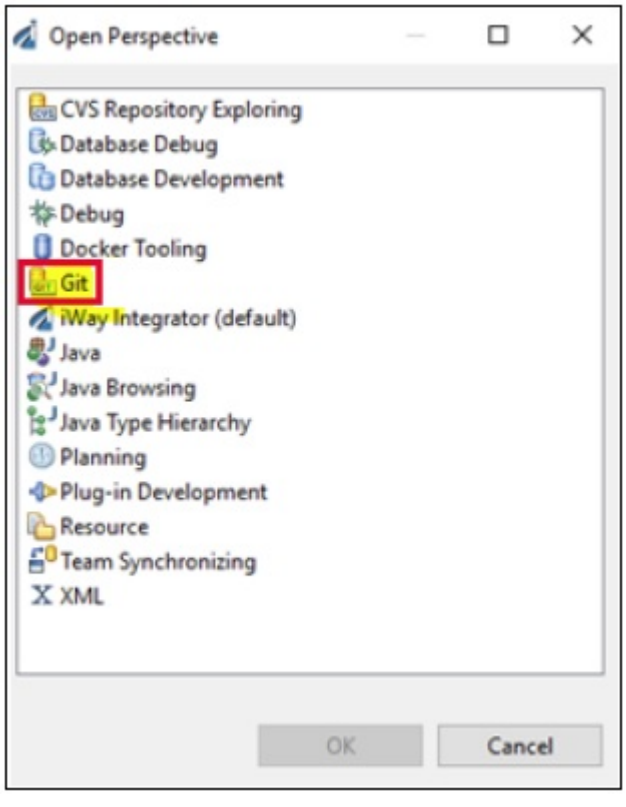
```
org.slf4j.api,1.7.2.v20121108-1250,plugins/
org.slf4j.api_1.7.2.v20121108-1250.jar,4,false
```

7. Delete this line.
8. Save the *bundles.info* file.
9. Open iIT.

10.Click the *Open Perspective* icon on the toolbar, as shown in the following image.

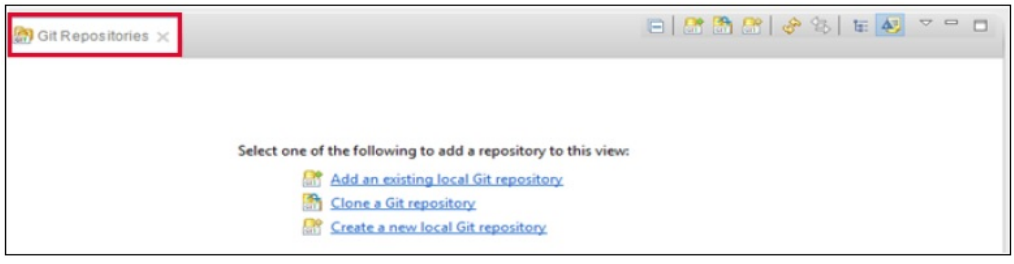


The Open Perspective dialog box opens, as shown in the following image.



11.Select *Git* from the list of available perspectives, and then click *OK*.

You are returned to iIT, where the Git perspective is now implemented, from which you can select and work with your Git repositories, as shown in the following image.



iWay Application Adapters

This section describes known issues and considerations for iWay Application Adapters in iWay.

Deprecated

- The Microsoft Dynamics CRM 2011 (MS CRM 2011) adapter is deprecated and will be removed in the next release of iWay 8, as the underlying application has been removed from extended support by Microsoft. Event functionality has also been deprecated as this ability has been removed by Microsoft. If you have a requirement for continuing support for this adapter and related components, please contact *Information Builders Customer Support*.
- Microsoft Exchange supports Exchange Web Services at the Exchange 2010 level. This adapter is deprecated and will be removed in the next release of iWay 8, as the underlying application has been removed from extended support by Microsoft. The Exchange Web Services API .jar file is no longer available from Microsoft, but can be found on GitHub. If you have a requirement for continuing support for this adapter at the Exchange 2010 support level and related components, please contact *Information Builders Customer Support*.

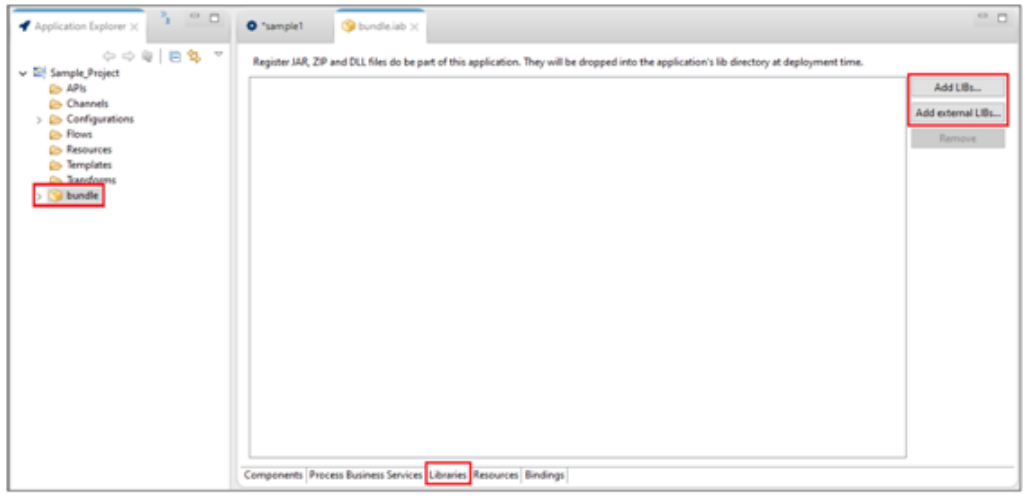
Updated Adapter Configuration Process

iWay 8 now uses the concept of Application Projects as separate containers for adapter instances. Adapters are no longer installed as system-wide instances, rather Application Projects and their dependencies are designed in isolation and packaged together and deployed to the runtime. This provides improved isolation of applications and efficient use and allocation of system resources.

Applications can be tested and run from the design-time area without deployment during development, so iterative development can take place.

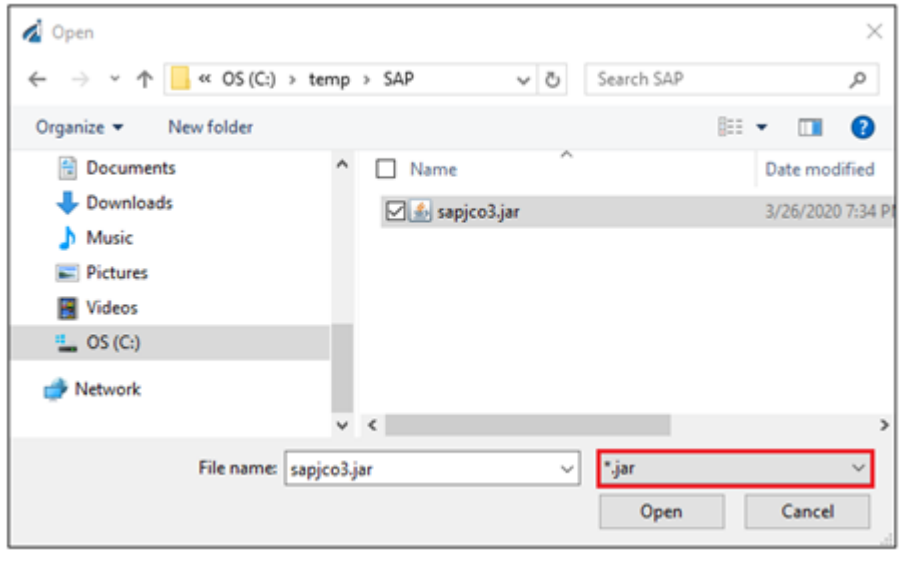
To configure an adapter in iWay Integration Tools (iIT):

1. Create a new Application Project for an adapter to be used.
2. Double-click the *bundle* object in the Application Project hierarchy (Application Explorer tab), and then click the *Libraries* tab in the right pane, as shown in the following image.



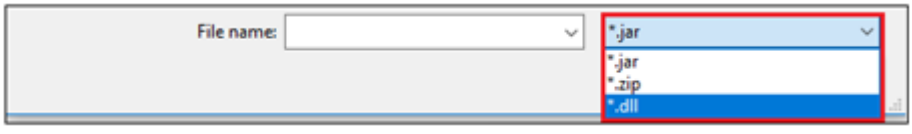
3. Click **Add external LIBs** to locate and select the third-party resource (.jar, .dll, .zip) that may be needed from your file system.

   The Open dialog is displayed, as shown in the following image.

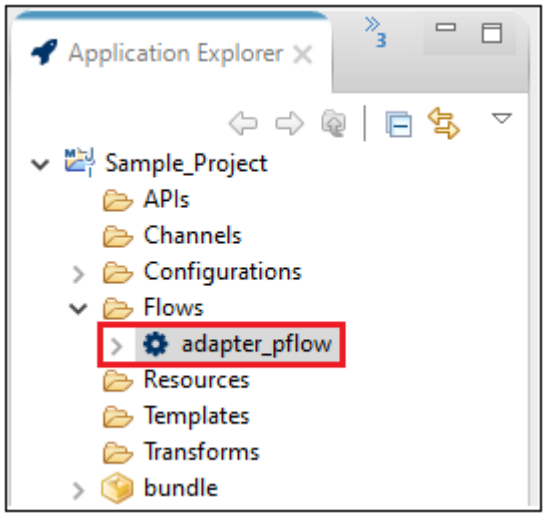


For example, for SAP ERP on Windows, you must add the *sapjco3.jar* and *sapjco3.dll* files to the Libraries tab, which will add these files to the Application Project's \lib folder during deployment.

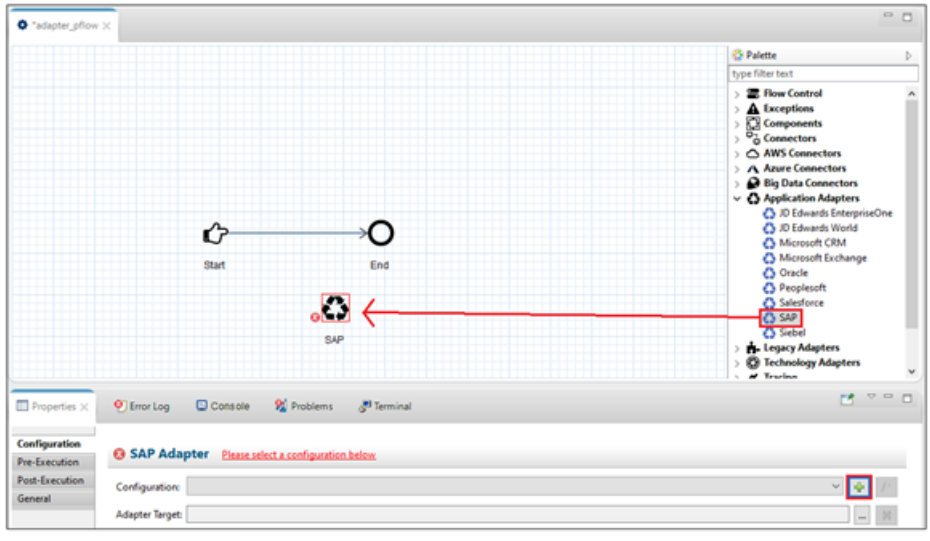
Note: The file type drop-down list in the Open dialog defaults to *.jar*. When adding dependencies that incorporate dynamic-link libraries (such as Windows .dll files), expand the file type drop-down list and select *.dll* or *.zip*, according to the appropriate type you require, as shown in the following image.



4. Create a new process flow in your Application Project (Flows subfolder), as shown in the following image.



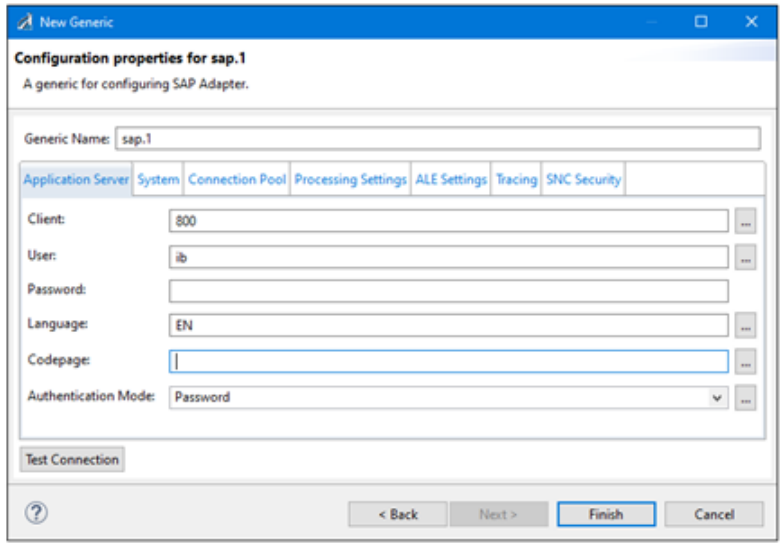
5. In the process flow, drag an Application Adapter (or Technology Adapter) onto the process flow canvas, as shown in the following image.



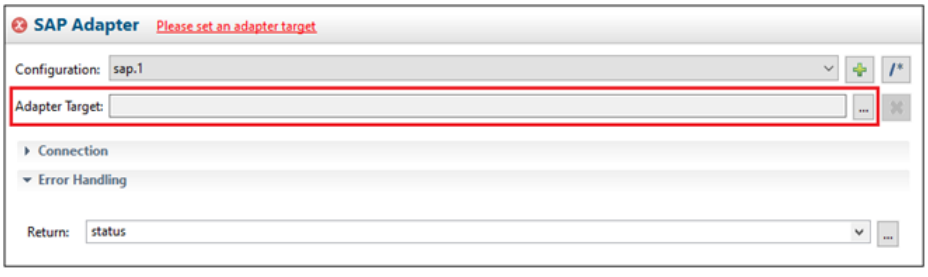
When the adapter object is added to the process flow canvas, the adapter configuration properties open with the name of the adapter as the header (for example, SAP Adapter).

6. Click the *green plus sign* icon (*Create a configuration*) to the right of the Configuration field.

The New Generic dialog opens, as shown in the following image.



7. Enter the required connection information and login credentials for the system you are connecting to (for example, SAP ERP).
8. Click *Test Connection* to validate, and then click *Finish*.
9. Set an adapter target to use and explore based on the system you have connected (for example, SAP ERP). Click the *ellipsis* button (...) to the right of the Adapter Target field, as shown in the following image.

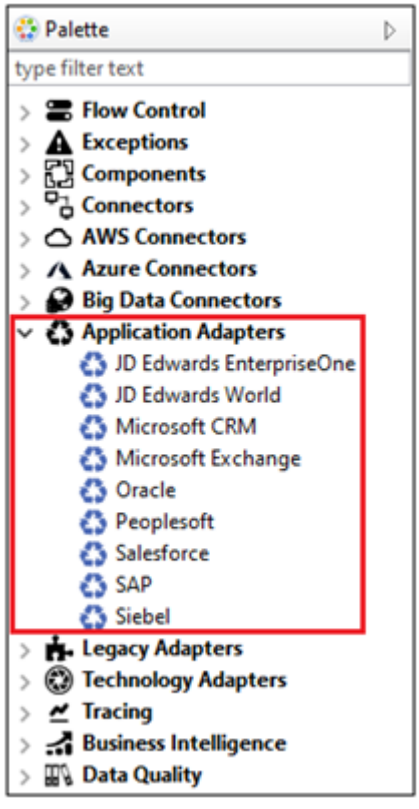


10. Select an available remote object (function or module) to be invoked on the target host.
11. Once your adapter target configuration is completed, return to the process flow.

    For more information about testing, running, and deploying process flows and applications, see the *iWay Integration Tools* documentation.

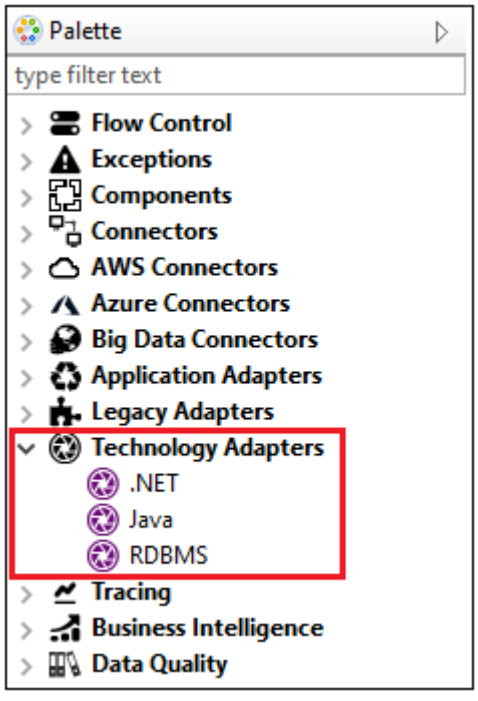
Available Application Adapters

The following *Application Adapters* are available from the Palette in iWay Integration Tools (iIT), which you can add to process flows in your Application Project.



Available Technology Adapters

The following *Technology Adapters* are available from the Palette in iWay Integration Tools (iIT), which you can add to process flows in your Application Project.



Event Handling

Adapter-specific Ports and Channels are deprecated in iWay 8 and have been removed from the product. For the following adapters, events are captured by using event listeners in the adapter configuration. They are added using Channels in the Application Project that trigger a process flow. Create a Channel and select one of the following adapters as a listener:

- ConnectDirect
- SAP (SAP ERP)
- LDAP
- MSMQ

For the following adapters, use an RDBMS, HTTP, or SOAP Listener in the channel to capture application events:

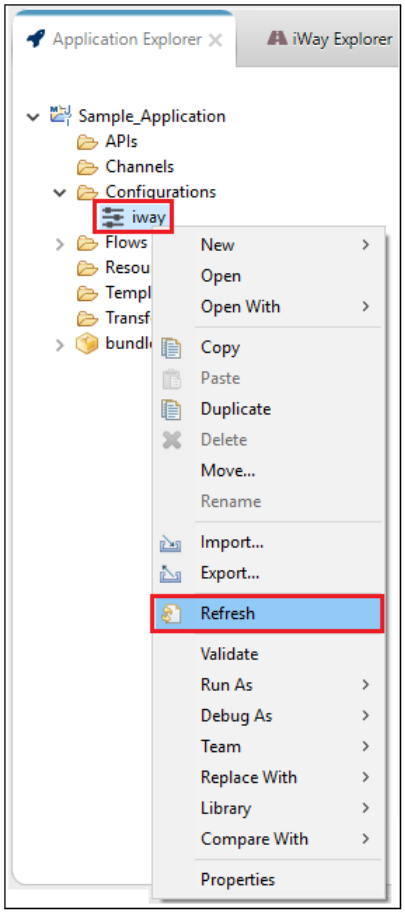
- JD Edwards EnterpriseOne
- JD Edwards World
- Siebel
- SalesForce
- PeopleSoft
- Oracle (Oracle Applications)
- RDBMS

Process Flow Test-Run (z/OS)

On z/OS platforms, a *test run* for a process flow from iWay Integration Tools (iIT) can be performed only against the local configuration or a remote configuration. The *test run* against a test server is not supported at this time.

Updating the iWay Configuration File Metadata

Metadata for the iWay configuration file, which contains definitions for generics/configurations, can be updated to the latest iWay version using the *Refresh* option. Doing so will bring in the options for newer components that are available in the latest iWay version. To update your metadata using iWay Integration Tools (iIT), expand the *Configurations* subfolder in your application project, right-click the iWay configuration file (*iway* node), and select *Refresh* from the context menu, as shown in the following image.



If you create a new configuration from within a process flow, then this step is not required. In this case, metadata for the iWay configuration file will be refreshed automatically for any components that are used.

WebFOCUS Support

Due to WebFOCUS security model changes, including internal API changes, you must disable the new WebFOCUS security model to enable existing iWay applications to run against WebFOCUS. This will be addressed in a future iWay release, where the new WebFOCUS security model will be supported.

- **iWay WF Object.**
  - Fully supports WebFOCUS version 80xx with no additional configuration required.
  - If you are using this object with WebFOCUS version 82xx, Application Folders are supported, but not Virtual folders.
- **ReportCaster Object.**
  - Fully supports WebFOCUS version 80xx with no additional configuration required.
  - If you are using this object with WebFOCUS version 82xx, you must uncheck the *Cross Site Request Forgery Protection* setting in the WebFOCUS Administration Console.
- **ETL Object.** Supports WebFOCUS version 80xx and version 82xx.

Chapter 4

Migration and Compatibility

iWay version 8 allows you to migrate iWay Integration Applications (iIAs) that were developed in iWay 7.x environments to an iWay 8 environment. When discussing migration, it is important to distinguish between *runtime* and *design time*, as described further in this section.

In this chapter:

- Runtime
- Design Time

Runtime

If you are not planning to make any modifications to an existing iIA, then you can simply export this iIA from your iWay 7.x runtime environment using the iSM Administration Console. You can then import the iIA into your iWay 8 runtime environment using the iSM Administration Console. This enables you to import the iIA and the corresponding deployment template. You can then deploy the iIA. The iIA will continue to run the same in your iWay 8 environment as it did in your iWay 7.x environment.

Design Time

If you need to update an existing iIA for maintenance or review, you can do so using iWay Integration Tools (iIT). Export the corresponding Integration Project from iWay 7.x to the file system or source management repository. You can then import or check-out the Integration Project into the iIT workspace of your iWay 8 environment. When the Integration Project is imported, the components will be automatically converted into iWay 8 format. Since objects have changed between iWay 7.x and iWay 8, the best attempt has been made to convert the objects accordingly. However, you may notice that some of the iWay 7.x objects show up as Service nodes in the iWay 8 process flows. However, aside from the visuals, the migrated Integration Project is fully functional. You can then build and deploy your iIA as required.

It is recommended that you review any iIAs developed using iWay 7.x to determine if the design is utilizing all of the latest features available in later releases. It is very common to discover that some parts of the iIA (even though it will continue to function as is), might benefit from a simplification as part of the update, instead of a direct migration.

Chapter 5

Upgrade Notes

This section describes changes in behaviour in this release.

In this chapter:

- Software Branding
- Technical Content Branding
- Cloud

Software Branding

As of the following releases, ibi software and technical content are now branded under TIBCO® Software Inc.

- **WebFOCUS:** 8207.27.0
- **FOCUS:** 8207.27.0
- **iWay Service Manager:** 8.0.5
- **Omni-Gen:** 3.16.0

This change only impacts the names to which these products are referred. For example, WebFOCUS is now known as TIBCO WebFOCUS®, while iWay DataMigrator is now known as TIBCO® Data Migrator. You will begin to see this change throughout the software and corresponding technical content assets, including PDF covers and KnowledgeBase collections, where both new and former product names will be used interchangeably. For a full list of software branding, see below.

Former Product Name	New Product Name
WebFOCUS	TIBCO WebFOCUS®
WebFOCUS Client	TIBCO WebFOCUS® Client
WebFOCUS Server	TIBCO WebFOCUS® Reporting Server
iWay Data Migrator Server	TIBCO WebFOCUS® Reporting Server

iWay DataMigrator	TIBCO® Data Migrator
WebFOCUS App Studio	TIBCO WebFOCUS® App Studio
WebFOCUS Mobile App	TIBCO WebFOCUS® Mobile App
WebFOCUS Infographics	TIBCO WebFOCUS® Infographics
WebFOCUS Narrative Charts	TIBCO WebFOCUS® Narrative Charts
iWay Service Manager	TIBCO iWay® Service Manager
Omni-Gen	TIBCO Omni-Gen®
Omni Master Data Management	TIBCO Omni-Gen® MDM
Omni for Customer	TIBCO Omni-Gen® MDM
Omni-HealthData	TIBCO Omni-HealthData®
Omni-Insurance	TIBCO Omni-Insurance™
Data Quality Edition	TIBCO Omni-Gen® DQ Edition
iWay Data Quality Server	TIBCO Omni-Gen® DQ Server
FOCUS	TIBCO FOCUS®

Technical Content Branding

As of Version 8.05, iWay Service Manager software and technical content are now branded under TIBCO® Software Inc. This change only impacts the names to which these products are referred. Specifically, iWay Service Manager is now known as TIBCO iWay® Service Manager. You will begin to see this change throughout the software and corresponding technical content assets, including PDF covers and KnowledgeBase collections, where both new and former product names will be used interchangeably. For a full list of software branding, see *Software Branding* on page 49.

The following tables provide a quick overview of the PDF titles that have changed to support this release. Note that the way you access these technical content offerings and information remains the same. As we continue the branding effort, you may notice additional changes within our technical content, which we will continue to communicate to you.

TIBCO Service Manager®

Former Title	New Title
iWay 8.0.5 Release Notes	*Release Notes*
iWay Installation and Configuration Guide	*Installation and Configuration Guide*
iWay Service Manager User's Guide	*User's Guide*
iWay Service Manager Command Reference Guide	*Command Reference Guide*
iWay Service Manager Component Reference Guide	*Component Reference Guide*
iWay Functional Language Reference Guide	*Functional Language Reference Guide*
iWay Service Manager Programmer's Guide	*Programmer's Guide*
iWay Service Manager Security Guide	*Security Guide*
iWay Service Manager Extensions User's Guide	*Extensions User's Guide*
iWay Service Manager Protocol Guide	*Protocol Guide*
Flow Debugger User's Guide	*Flow Debugger User's Guide*
iWay Service Manager and Blockchain Solutions Development Guide	*Service Manager and Blockchain Solutions Development Guide*
iWay FTP Solutions Development Guide	*FTP Solutions Development Guide*
iWay HTTP Solutions Development Guide	*HTTP Solutions Development Guide*
iWay Cross-Channel Services Guide	*Cross-Channel Services Guide*
iWay Pretty Good Privacy (PGP) Extension User's Guide	*Pretty Good Privacy (PGP) Extension User's Guide*
iWay XML Archive User's Guide	*XML Archive User's Guide*
Configuration and Usage Best Practices for iWay Service Manager	*Configuration and Usage Best Practices for Service Manager*

Troubleshooting and Debugging Best Practices for iWay Service Manager	*Troubleshooting and Debugging Best Practices for Service Manager*

Cloud

The following is an upgrade consideration for Cloud instances:

- Upon your first login to the Cloud environment or after upgrading to the latest version, you will be prompted to read and accept the End User License Agreement, before you can proceed with the product.

Chapter 6

Resolved Issues

This section provides a reference to the resolved customer cases in iWay version 8.0.5, iWay version 8.0.4, iWay version 8.0.3, iWay version 8.0.2, iWay Integration Tools (iIT) 8.0.1 Update 1, iWay version 8.0.1, and iWay version 8.0.

In this chapter:

- iWay Version 8.0.5
- iWay Version 8.0.4
- iWay Version 8.0.3
- iWay Version 8.0.2
- iWay Integration Tools 8.0.1 Update 1 (8.0.1.R20180719-1955)
- iWay Version 8.0.1
- iWay Version 8.0

iWay Version 8.0.5

This section provides a reference to the resolved customer cases in iWay version 8.0.5.

IRN Number	Summary
210125110	The XDNHttpEmitAgent fails to parse a text/xml response.
210120062	Timeout when FTP client listener connects to FTPS server with SSL.
210118031*	Flow Editor only draws onComplete lines.
210115019	_xquery missing from iFL expression tester and does not appear to work in flows.
210112054	MQTT Listener Topic Multi-Level Wildcard not working.

IRN Number	Summary
210111040	Group actions in Variable palette object only work on HDR registers.
210106124	A missing ISM route reveals decrypted passwords.
201221043	Transform @SIMPLEREPLACE default value does not work.
201209029	Configuring and replacing arrows in iIT.
201207090	Copy and pasting objects in a pflow.
201207088	Moving multiple objects in a pflow.
201207078	Usability issue in Names of step.
201207034	Allow a user to double click on an iIT annotation box to edit it.
201207023	Pflow outline flashing when navigating.
201202022	Applications are not stopping when clicking the stop button or redeploying.
201112045	iIT incorrectly states Fail object not followed by End node.
201019015	_fetch function Transform lookup error.
200929048	API flows do not compile after creation.
200924041	iIT hangs when attempting to filter results within transform.
200910113	REST connection Generic does not get updated.
200904005	JSON to XML transform throwing an error.
200730108	XDTransformAgent parses XSLT output even if output format set to flat.

IRN Number	Summary
200406082	Preparser "Reads Excel workbook sheet to XML" issue while parsing Excel file.
200331078	Exception in XDSFTPDirListAgentXDSFTPDirListAgent.
200318079	Update iSM Salesforce Adapter to use SOAP API version 48.0 or 47.0 to match WF.
200107071	Copying agents in flows using Ctrl + C and pasting using Ctrl + P no longer works in iiT.
200107069	Text box floats to top left corner of flow canvas.
200120059	Test Transforms gives a license error.

Note: OnCompletion is the implied event type when there are no events selected as a Default Event Type from *Windows, Preferences, iWay Integration Tools, Flow*.

iWay Version 8.0.4

This section provides a reference to the resolved customer cases in iWay version 8.0.4.

IRN Number	Summary
200212086	File size does not match error when using SFTP listener against GXS server.
191219052	XDSFTPEmitAgent causes NPE, also fails when Emit Zero Bytes is false.
191202110	Samba Dir Listing Agent exposes password in clear text in XML response.
191030097	Exception in sftp when listing a very large directory.
190927099	XSLT Transform Output encoding is broken when Flat is used.

IRN Number	Summary
190821082	RabbitMQ Listener works properly in 802...not in 803.
190812040	XDSFTPDirectFileTransfer agent hangs, the channel timeout expires, the flow is canceled, but the thread remains blocked.
190629001	Getting Kafka warning messages in iIT every time a Pflow is compiled and run.
190612137	Error opening existing 7.x.x application - Class "IWAY" is not found or is abstract.
190514020	HTTP listener allows GET http method through when listener is configured for Error.
190507134	SFTP object in process failed.
190325089	Performance issue with iWay running XSLT transforms using the Saxon engine.
190124049	iWay ETL Agent for Data Migrator exposes the password in clear text in the logs.
181210013	SFTP Block gives out error.
171130070	SOAP Channel - Secure SOAP port does not display licenses at SOAP page root.

iWay Version 8.0.3

This section provides a reference to the resolved customer cases in iWay version 8.0.3.

IRN Number	Summary
190220106*	OEI custom version of the 310 EDI does not calculate SE01 count.
190129100	X12 IEA control number is left justified.

IRN Number	Summary
181204027	CSV parser does not correctly escape column separators within the quoted column value.
181120043	SWIFT MT541/543 inbound types are failing in PROD.
181016113	Controls Listeners Service (com.ibi.agents.XDControlAgent) does not find listeners using a wildcard suffix as indicated by the *Listener(s)* parameter.
181002093	The _if() function (Obtain Value Conditionally) returns unexpected false results when the condition evaluates as true.
180924016	Unable to import a JSON schema in iWay 8.
180919119	Listener based on an SQL query is limited to a single line in the Query field.
180827100	iWay SDK: BUILDAPP should create required ITA files from iwtemplate files.
180823038	Users with an Active Directory (AD) account can access the base configuration in read-only mode without monitoring rights.
180716012	New feature request to allow support for data providers in database listeners.
180606084*	Add name for managed server to the SNMP output.
180525082	Envoy must be SSL-enabled.
180520004	Transformer Group Aggregation Error.

IRN Number	Summary
180427038	SFTP: Intermittent error with two different SFTP servers. JSch: Invalid encoding for signature.
180321055	BUG: Transform sorting removes segment level.
171102038	NFR: Default value for the Replace function in Transformer.

Note: Cases denoted by an asterisk (*) indicate that the case was resolved outside of programming by changes to the existing configuration or providing additional instructions.

iWay Version 8.0.2

This section provides a reference to the resolved customer cases in iWay version 8.0.2.

IRN Number	Summary
23363529	iWay BAM console does not show transactions (with SQL Server).
180823031	HIPAA 999 acknowledgement file fails on error in NM1 segments.
180801063	SWIFT 2018: MT564 E2 22F bad rule.
180713031	Unable to open process flows in iIT version 8 (when migrated from iWay version 6.1).
180619004	File Agent fails to report an error (it does on the log) when failing to rename the *iwaytemp* file.
180614031	Does iWay version 7.0.6 support Excel 2013 (.xlsx) files?
180613020	iWay 8 API endpoint containing a Join object generates an error.

IRN Number	Summary
180607050	The XDNHttpEmitAgent fails to parse a text/XML response that is valid XML. Other tools work fine.
180530056	Process flows from a 7.0.7 project imported into 8.0.1 fail to compile.
180530056	iIT 8.0.1 - Exception - Cannot locate compiled version of process flow.
180514024	Deployment errors continue to occur (blocked or exception exploding).
180511066	SFTP Direct File Transfer - Timeout?
180511018	RDBMS adapter does not support data source.
180510052	NFR MQ Emit object password validation.
180510034	The MQ Emit agent in iIT is prompting for a password even though authentication is set to *false*.
180509074	Failover iSM server instance continues to process redundantly after re-syncing with the primary iSM server instance.
180507081	iIT 8.0 property description formatting is displayed incorrectly
180411032	PGP Decrypt Preparser is sending error documents through the process flow.
180410069	RVI Gateway listener special register button does not return register names.
180405031	nAS2 Listener | Async MDN Dispatch | Support for Basic Authentication.

IRN Number	Summary
180405030	nAS2 Emit Agent | Support for AES-256 Encryption Algorithm.
180327040	MQ fails to connect to MQ using SSL.
180313052	XML to JSON conversion needs to add an array.
180309008	How do you convert time on the server by time zone?
180308030	MQ Emitter in Iterator holding connection to queues until process is complete.
180302065	Since switching from TDS LDAP to AD, Magnify iWay process flows are generating HTTP errors.
180215073	Base - SOAP channel - must use the *blue* console, can't restart secure SOAP channel.
180205051	SSH Provider in Deployment Template Builder has old options for SSH Factories.
180117068	The iwsystray.exe file needs to be signed, which currently prompts for User Account Control in Windows.
171208047	How do you disable the external entity expansion feature in the server's XML parser?
171108066	XDSFTPEmitAgent: Need MFT feature as in XDNFTPEmitAgent.
171020012	Transformation Execution | Output Differences | iIT Test vs. Runtime.

iWay Integration Tools 8.0.1 Update 1 (8.0.1.R20180719-1955)

This section provides a reference to the resolved customer cases in iWay Integration Tools (iIT) 8.0.1 Update 1 (8.0.1.R20180719-1955).

IRN Number	Summary
IIT-565 / IDEV-38	Add the ability to drag and drop an adapter from the Integration Explorer tab to the Process Flow Designer.
IIT-556 / 180604074	Upgrading IIT from version 7 to version 8.0.1.
IIT-550 / 180530056	Process flows from a 7.0.7 project imported into 8.0.1 fail to compile.
IIT-539	The required MQ password field setting is not honored.
IIT-532	Wrong encoding in process flow.
IDEV-37	Annotations in process flows created in version 7.0.6 are not being migrated to version 8.0.1.

iWay Version 8.0.1

This section provides a reference to the resolved customer cases in iWay version 8.0.1.

IRN Number	Summary
180327040	MQ Listener using SSL fails to connect to MQ after Application deployment from iIT.
180308030	JMS Emitter in Iterator holds connection to queues until a process is complete
180302042	NPE when trying to SSL, enable the iSM application.

IRN Number	Summary
180226066	Data field beginning with an unmatched apostrophe corrupts data.
180223037	_length function generates an exception on missing SREG.
180221062	First element derived from inbound CSV is being corrupted.
180221026	What is the highest version of MQ supported by iSM 6.1.5?
180216022	iFL call generates an exception during startup.
180215026	Changing Content-type header does not update on second request.
180215016	iSM 8: Using _sreg parameters as query-parameters for the REST service.
180207073	iIT 8: Cannot copy pre-execution / post-execution items between objects.
180201043	com.ibi.nftp.client.XDFTPSClient cannot be cast to com.ibi.nftp.client.XDFTPClient.
180125046	BAM Driver generates the following error: "Error in transaction, while inserting into sreg and channel info table".
171218066	LDAP NFR/Change to Support SOX External Audit Compliance.
171214056	Security Provider defined for JKS KeyStore does not work when connecting to MQ using JMS.
171208052	XDXQueryAgent does not output TREE trace in the iSM log.

IRN Number	Summary
171205055	SAP listener fails on receipt of document from SAP: com.sap.conn.jco.AbapException.
171130071	iIA with two SOAP listeners: One seems to be the "primary". The second listener does not work if the first listener is stopped.
171127064	LDAP Directory Provider does not support StartTLS.
171115094	Secure SOAP channel does not create WSDL?
171114032	Passing parameters from a channel to shutdown a process flow.
171110048	Command console display issues in the iSM Administration Console.
171110045	Creating a Secure Shell Provider requires an Authentication Realm to be created in the base configuration.
171108068	XDSFTPDirectFileTransfer missing Put File Protection: Please add.
171108034	NFR - Force a template to use the master user ID / password if not supplied in the template.
171107077	iSM 7.0.7 FTP cache does not connect to FileZilla server 0.9.60.2 when minimum TLS version is set to 2.
171102032	JMS Emitter dropping the message in base64 format.
171005039	How do I save an FTP transaction log within a process flow?

IRN Number	Summary
170802087	LDAP - Is there any way to add a user to an existing Active Directory group using the LDAP adapter?
170621090	BAM resubmit functionality: Queue not defined.
170519046	NFR: LDAP password management (second part of COTY case).
170419047	MQ Emitter for Clustered Queues.
161111050	BAM Correlation History query taking a lot of database resources.
120153539	BAM errors when numerous User Defined columns exist.

iWay Version 8.0

This section provides a reference to the resolved customer cases in iWay version 8.0. Some of the cases listed in the following table have also been patched to the iWay version 7.x level and have been provided as updates in iWay version 7.0.7 and higher. These resolved issues are also included in any upcoming service pack releases.

IRN Number	Summary
171116029	Encountering Invalid Iteration Semantics Error Termination of Process Flow.
171114041	BAM 7.0.6 anomaly: La conversion d'un type de données varchar en type de données datetime.
171110017	Unable to execute the same web service twice.
171026024	HTTP Emit Agent does not emit document when content is stream.

IRN Number	Summary
171017050	HIPAA - errors seen processing 837P EDI files with new Ebix file provided in case (170927058).
171017020	Need assistance determining connection setup for a BI execution object.
171010067	FTP Agent checking more than necessary directories for an absolute file path.
171006037	HIPAA - errors seen processing 837I EDI files with old and new ebix file provided in case (170927058).
170920080	Add another super user / group equivalent to ism.admin.
170920062	Secure iWay Administration Console.
170920037	Adapter - got exception: java.sql.SQLRecoverableException: Closed Connection[StoredProcedure.
170915021	Transform failing to work when using the word Provisionsempfänger in a constant value.
170915006	Channel Redeployment issue.
170908058	XDFTPClientSterlingUnix - getFTPFile - double path on GET (see 170228094) ComData - Sterling Unix.
170907055	iSM 7.0.7-P2064.1537 - Error on "put protection" file rename after upload of initial file.
170907053	Since upgrading to iWay version 7.0.7, the logs are filling up with "ActiveSession" logs at the rate of one log-per-hour.

IRN Number	Summary
170905002	BAM - Parse And Validate Error.
170829084	Hexadecimal to Text & Vice-versa.
170825068	Transforming from XML to HTML tables only first table gets column HDR definition.
170822051	iSM 7.0.5 - FTP agent (not sure which one) - logging "INFO" when I think it should be "DEBUG".
170815027	iWay Service Manager Production License Key Request.
170809072	XDSQLInsert agent will not accept _flatof() as a value for a User Properties value.
170803013	SFTP emitter - only moves 2 GB for a 4 GB file.
170725031	ISM for MS Dynamics - Azure Bus.
170720085	The JCRAFT API In ISM 800 Needs To Be Updated From Version 0151 TO 0154.
170713046	Our ISM/iWay environment suffers from JVM problems.
170629085	iSM 7.0.7 - TLS FTP connection - No trusted certificate found.
170628033	POC support for Kafka.
170628003	SWIFT 2017 - MT535 _90a tag has incorrect ordering of tags in schema.
170612101	iSM 7.0.7 FTP Server listing filenames with directory structure as name.
170602012	FTP Dir List Agent with Creation Date and Time.

IRN Number	Summary
170519046	NFR for role of ism.admin LDAP group in console.
170516027	User can not log into FTP.
170515062	File Listener Improper File Reprocessing (8,000+ IDOC upload to SAP).
170511059	XDFailAgent - pflow 7.0.5+, Properties has Bypass Catch Processing, XML missing nocatch PROPERTYITEM.
170508097	NRF - Want NHTTP listener option to generate an event for POST request.
170419047	MQ Emitter for Clustered Queues.
170412077	iSM 7.0.7 (and before?) File Emit does not evaluate _sreg() value when setting "Append" property.
170412046	iWay Cloud Roadmap for BNS.
170412038	Nine digit issue in HWM listener.
170412006	URL encoding error in listener (or my understanding of how it works).
170411007	nHTTPEmitAgent | POST | MultiPart Data | Content-Type.
170331078	XML to JSON inconsistency handling digits as string.
170329021	iSM Decision Switch Routing Not Working.
170327016	How to pass a value from a BI Object to a WebFOCUS variable.

IRN Number	Summary
170324062	Need to confirm SFTP agents will work with SHA-2 (Prudential is discontinuing SHA-1 support).
170322037	IPv6 addresses don't work with BAM.
170321043	iWay is putting a double path when doing an SFTP Dir List when home folder is not root - FirstData.
170314012	Oracle Apps Procedures schemas are generated with invalid namespace.
170228094	XDNFTPDirectFileTransfer - Not working with ComData (problem when home DIR is not ROOT?).
170227070	Add read to EOL to NTCP listener.
170206001	IRL:Testing IRN.
170203089	XDSFTPEmitAgent not falling back to SCP like XDSFTPDirectFileTransfer does? (file is as directory?).
170202086	XDNFTPDirListAgent (ftp.theworknumber.com): Unable to setup file list; '/' is either missing...
170127045	Another FTP connection that will not work.
170127001	Support STR-Transform for XML Digital Signature.
170124088	Feature request - SFTP - Add Validate Host Keys \ Host Key Repository in service properties.
170110025	Pipe with header channel is not stripping out the header record before processing.

IRN Number	Summary
170103055	XDNFTPEmitAgent - Unexpected exception not triggering catch?
161220053	iWaySDK 7.0.6 won't build due to error not encountered during build in iIT or 7.0.4.
161219101	Enhancement Request: Schedule Provider Next \ Last Run showing per selected calendar time?
161209020	Microsoft Excel tool adapters.
161206067	Need a way to get Hex Values to be selectable when creating X12 data.
161206022	Cannot read and then delete a file in the same process flow using the Samba agent.
161107007	Temp space filling up by iWay Clob queries.
161104067	FTP Operator Delete: General failure: 451 Requested action aborted: session in inconsistent state.
161021032	Envoy startup issues - random?
160919086	RN#160919086 A Oracle SQL query that works in Oracle cannot be run by iSM SQL Object.
160810059	IRN#160810059 iwayworkdir in console resolving to "base" path instead of iIA path.
160804006	IRN#160804006 Salesforce Adapter's persistence not working as expected.
160723001	IRN#160723001 _iwexists - (anoy exist rtelated IFL) does not return true if sreg has blank value.

IRN Number	Summary
160720094	IRN#160720094 Error: Error doing runtime transform [xslt]: Document construction [string] failed.
160524013	IRN#160524013 xQuery in _IF | iFL Compilation Error.
160518037	IRN#160518037 TPN web page is not showing anything after signing on.
123623515	IRN#23623515 Force array on JSON objects.

Chapter 7

Known Issues

This section describes known issues and considerations in iWay version 8.0.5.

In this chapter:

- File Size Limitation With Windows and InstallShield
- Connector for SharePoint Multi-Factor Authentication
- Upgrading iWay Integration Tools
- Git Support in iWay Integration Tools
- iWay Application Adapters
- Business Activity Monitor
- Process Flow Test-Run (z/OS)
- Updating the iWay Configuration File Metadata
- WebFOCUS Support

File Size Limitation With Windows and InstallShield

Due to a file size limitation with Windows and InstallShield, the Windows installer pauses while loading the End User License Agreement (EULA) for Version 8.0.5.

The recommendation, for Version 8.0.5, is to install TIBCO iWay Service Manager on Windows using the Java installer. The command is:

```
java -jar TIB_sm-iIT_8.0.5_iway80.jar
```

For more information on installing TIBCO iWay Service Manager, see the *TIBCO iWay® Service Manager Installation and Configuration Guide*.

Connector for SharePoint Multi-Factor Authentication

As is typical with server-to-server applications, the Connector for SharePoint does not support Multi-Factor Authentication. The Security Defaults feature of Azure Active Directory enforces Multi-Factor Authentication and is therefore incompatible with the connector. Azure Active Directory Conditional Access security without Multi-Factor Authentication must be used, instead.

The following procedure describes how to disable Security Defaults in the Azure Active Directory portal:

1. Sign in to the Azure Portal from *https://aad.portal.azure.com/*.
2. From the left pane, select *Azure Active Directory* and then select *Properties*.
3. From the right pane, select *Manage Security defaults*.
4. Change the Enable Security defaults setting to *No*.
5. Click *Save*.

Upgrading iWay Integration Tools

Important: The Eclipse auto upgrade function does not work when upgrading iWay Integration Tools (iIT) from Version 8.0.4 to Version 8.0.5. In order to upgrade iIT from Version 8.0.4 to Version 8.0.5, you must install Version 8.0.5 and import your Version 8.0.4 configuration.

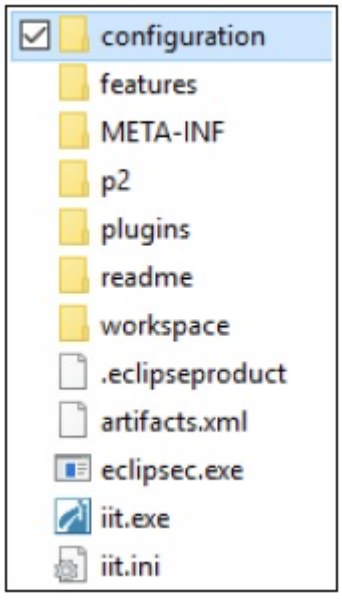
Git Support in iWay Integration Tools

iWay Integration Tools (iIT) enables you to install and integrate the Git open source distributed version control system. Due to a bug in the Git plugin for Eclipse, after installing iIT, you must perform the following steps to enable integration with Git:

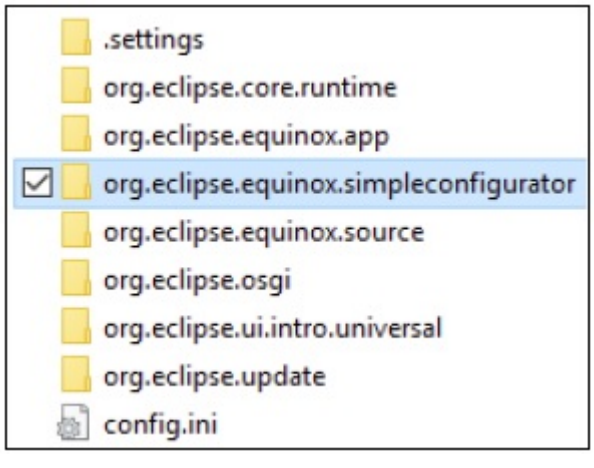
1. Close iWay Integration Tools (iIT).
2. Navigate to the location on your file system where iIT is installed. For example:

   ```
   C:\iIT_805
   ```

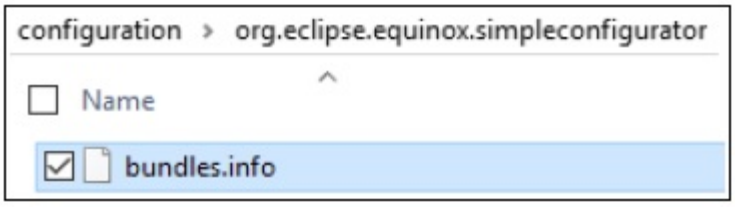
3. Open the *configuration* subfolder, as shown in the following image.



4. Open the *org.eclipse.equinox.simpleconfigurator* subfolder, as shown in the following image.



The *org.eclipse.equinox.simpleconfigurator* subfolder contains the *bundles.info* file, as shown in the following image.

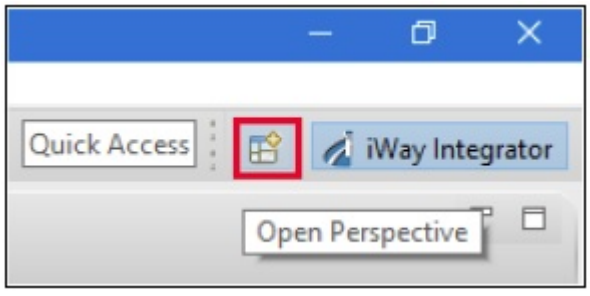


5. Edit the *bundles.info* file using a text editor (for example, Notepad).
6. Search for the following line in the *bundles.info* file:

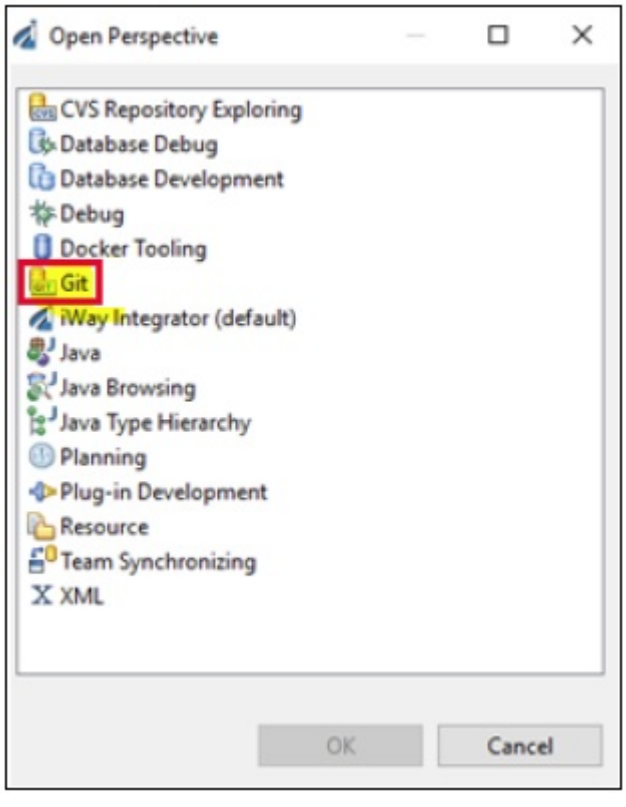
   ```
   org.slf4j.api,1.7.2.v20121108-1250,plugins/
   org.slf4j.api_1.7.2.v20121108-1250.jar,4,false
   ```

7. Delete this line.
8. Save the *bundles.info* file.
9. Open iIT.

10.Click the *Open Perspective* icon on the toolbar, as shown in the following image.

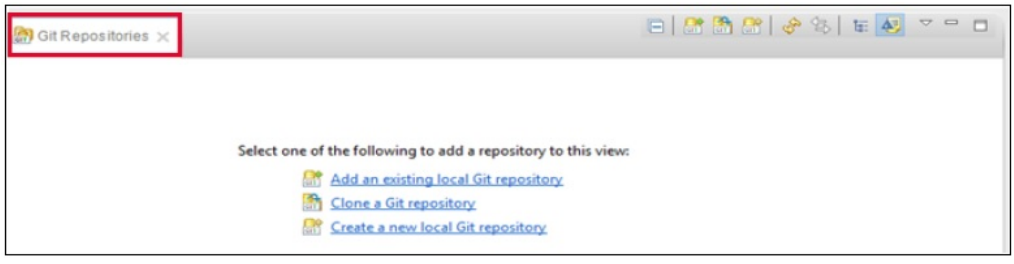


The Open Perspective dialog box opens, as shown in the following image.



11.Select *Git* from the list of available perspectives, and then click *OK*.

You are returned to iIT, where the Git perspective is now implemented, from which you can select and work with your Git repositories, as shown in the following image.



iWay Application Adapters

This section describes known issues and considerations for iWay Application Adapters in iWay.

Deprecated

- The Microsoft Dynamics CRM 2011 (MS CRM 2011) adapter is deprecated and will be removed in the next release of iWay 8, as the underlying application has been removed from extended support by Microsoft. Event functionality has also been deprecated as this ability has been removed by Microsoft. If you have a requirement for continuing support for this adapter and related components, please contact *Information Builders Customer Support*.
- Microsoft Exchange supports Exchange Web Services at the Exchange 2010 level. This adapter is deprecated and will be removed in the next release of iWay 8, as the underlying application has been removed from extended support by Microsoft. The Exchange Web Services API .jar file is no longer available from Microsoft, but can be found on GitHub. If you have a requirement for continuing support for this adapter at the Exchange 2010 support level and related components, please contact *Information Builders Customer Support*.

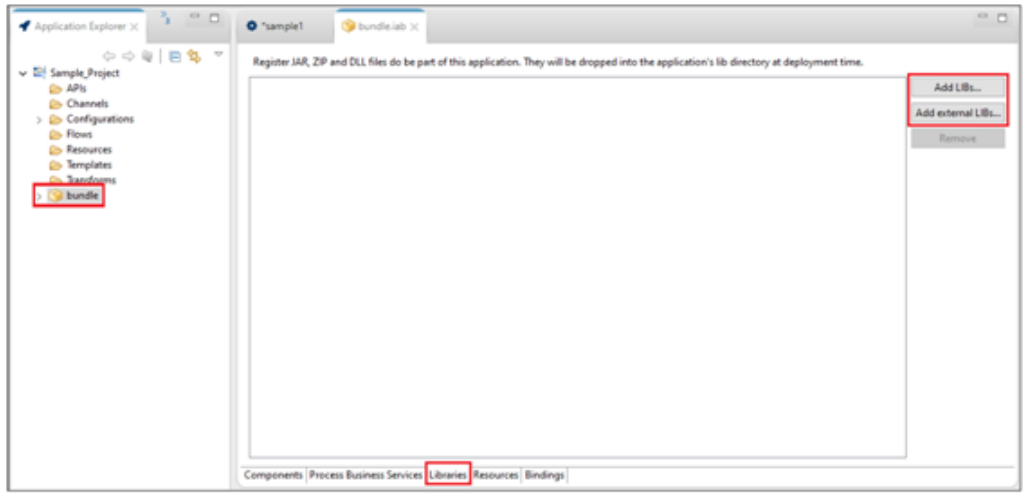
Updated Adapter Configuration Process

iWay 8 now uses the concept of Application Projects as separate containers for adapter instances. Adapters are no longer installed as system-wide instances, rather Application Projects and their dependencies are designed in isolation and packaged together and deployed to the runtime. This provides improved isolation of applications and efficient use and allocation of system resources.

Applications can be tested and run from the design-time area without deployment during development, so iterative development can take place.

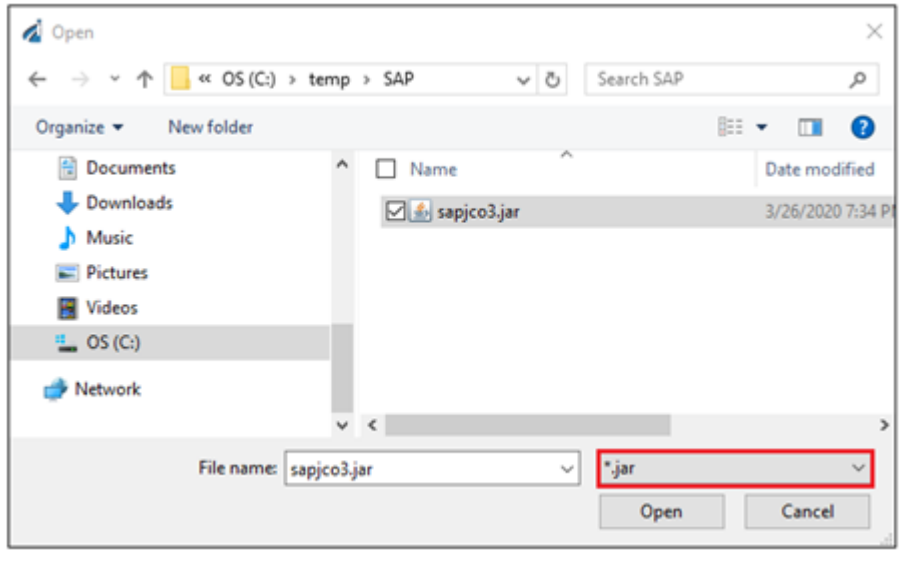
To configure an adapter in iWay Integration Tools (iIT):

1. Create a new Application Project for an adapter to be used.
2. Double-click the *bundle* object in the Application Project hierarchy (Application Explorer tab), and then click the *Libraries* tab in the right pane, as shown in the following image.



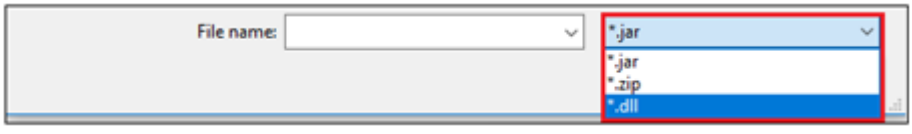
3. Click **Add external LIBs** to locate and select the third-party resource (.jar, .dll, .zip) that may be needed from your file system.

   The Open dialog is displayed, as shown in the following image.

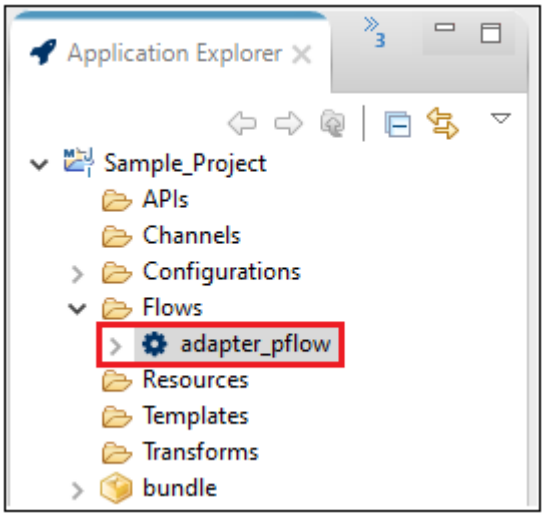


For example, for SAP ERP on Windows, you must add the *sapjco3.jar* and *sapjco3.dll* files to the Libraries tab, which will add these files to the Application Project's \lib folder during deployment.

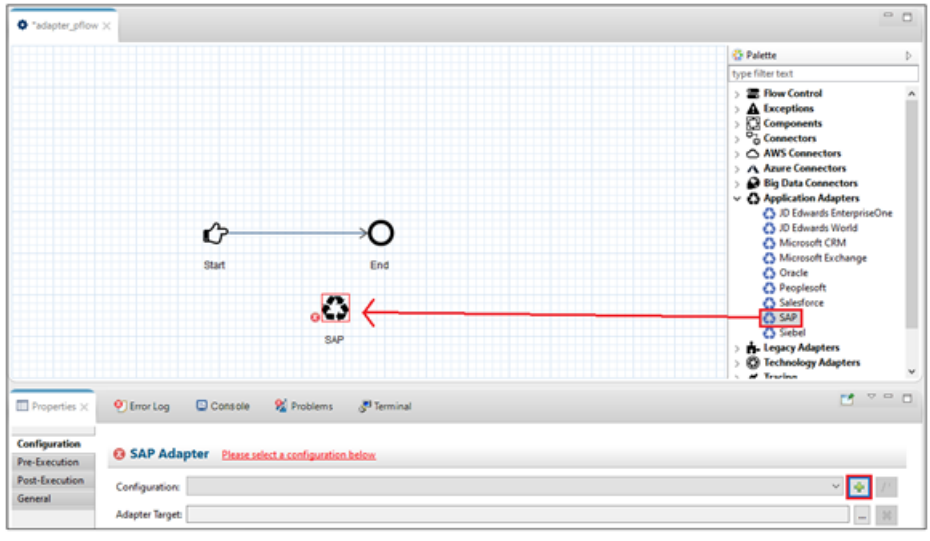
Note: The file type drop-down list in the Open dialog defaults to *.jar*. When adding dependencies that incorporate dynamic-link libraries (such as Windows .dll files), expand the file type drop-down list and select *.dll* or *.zip*, according to the appropriate type you require, as shown in the following image.



4. Create a new process flow in your Application Project (Flows subfolder), as shown in the following image.



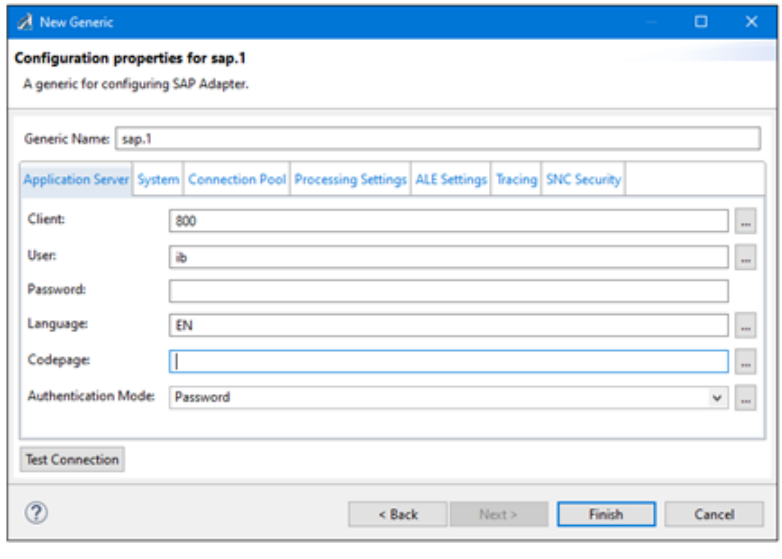
5. In the process flow, drag an Application Adapter (or Technology Adapter) onto the process flow canvas, as shown in the following image.



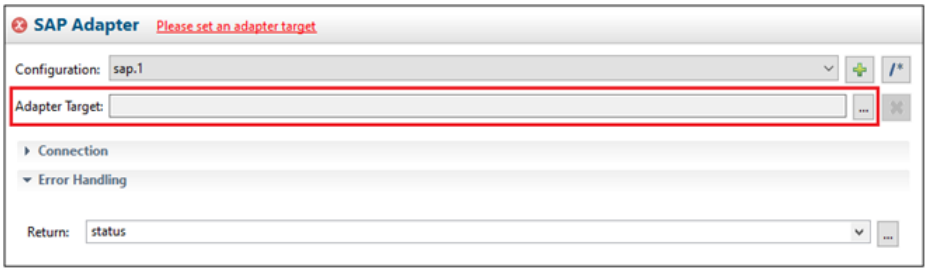
When the adapter object is added to the process flow canvas, the adapter configuration properties open with the name of the adapter as the header (for example, SAP Adapter).

6. Click the *green plus sign* icon (*Create a configuration*) to the right of the Configuration field.

The New Generic dialog opens, as shown in the following image.



7. Enter the required connection information and login credentials for the system you are connecting to (for example, SAP ERP).
8. Click *Test Connection* to validate, and then click *Finish*.
9. Set an adapter target to use and explore based on the system you have connected (for example, SAP ERP). Click the *ellipsis* button (...) to the right of the Adapter Target field, as shown in the following image.

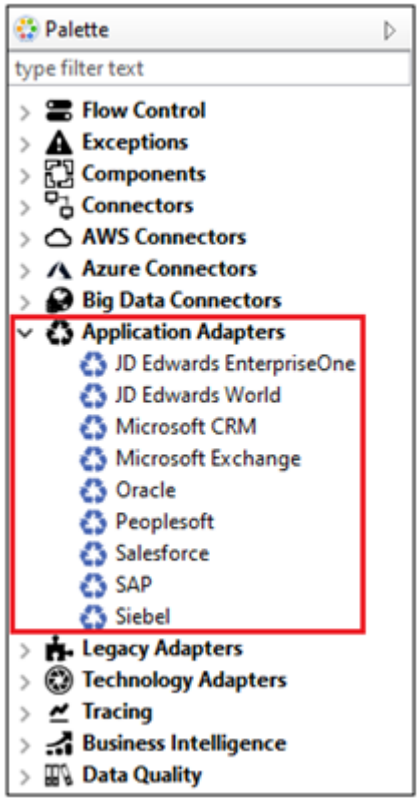


10. Select an available remote object (function or module) to be invoked on the target host.
11. Once your adapter target configuration is completed, return to the process flow.

    For more information about testing, running, and deploying process flows and applications, see the *iWay Integration Tools* documentation.

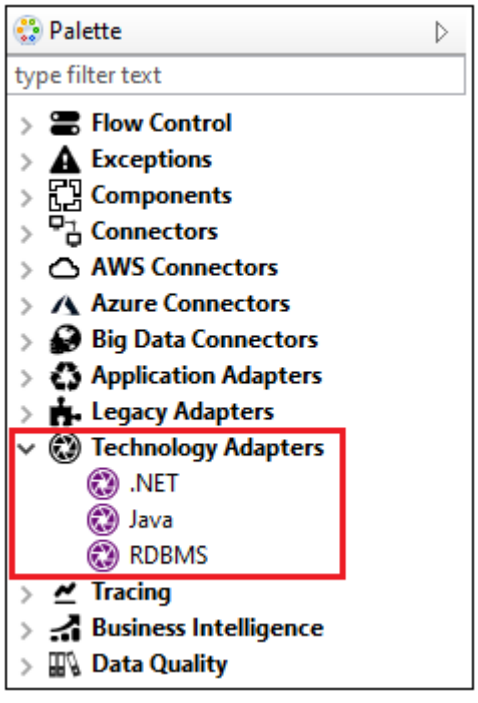
Available Application Adapters

The following *Application Adapters* are available from the Palette in iWay Integration Tools (iIT), which you can add to process flows in your Application Project.



Available Technology Adapters

The following *Technology Adapters* are available from the Palette in iWay Integration Tools (iIT), which you can add to process flows in your Application Project.



Event Handling

Adapter-specific Ports and Channels are deprecated in iWay 8 and have been removed from the product. For the following adapters, events are captured by using event listeners in the adapter configuration. They are added using Channels in the Application Project that trigger a process flow. Create a Channel and select one of the following adapters as a listener:

- ConnectDirect
- SAP (SAP ERP)
- LDAP
- MSMQ

For the following adapters, use an RDBMS, HTTP, or SOAP Listener in the channel to capture application events:

- JD Edwards EnterpriseOne
- JD Edwards World
- Siebel
- SalesForce
- PeopleSoft
- Oracle (Oracle Applications)
- RDBMS

Business Activity Monitor

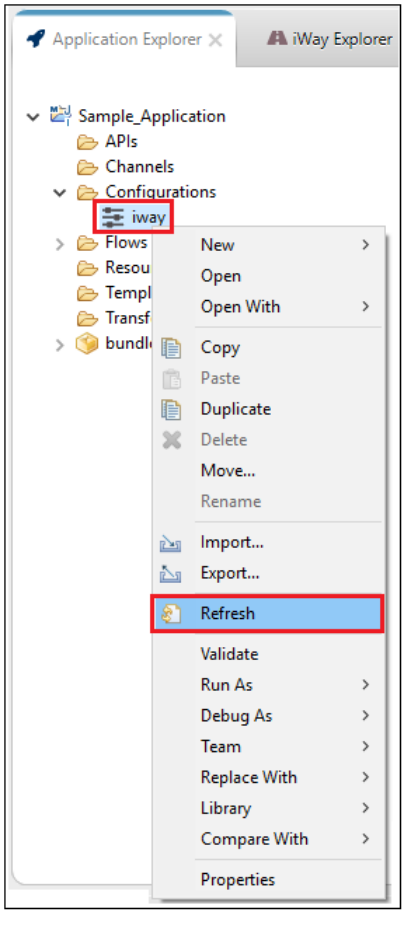
Business Activity Monitor (BAM) is not supported in iWay Service Manager Version 8.0.5. BAM will be supported in a future release of the product. For more information or if you have any questions, contact Customer Support.

Process Flow Test-Run (z/OS)

On z/OS platforms, a *test run* for a process flow from iWay Integration Tools (iIT) can be performed only against the local configuration or a remote configuration. The *test run* against a test server is not supported at this time.

Updating the iWay Configuration File Metadata

Metadata for the iWay configuration file, which contains definitions for generics/configurations, can be updated to the latest iWay version using the *Refresh* option. Doing so will bring in the options for newer components that are available in the latest iWay version. To update your metadata using iWay Integration Tools (iIT), expand the *Configurations* subfolder in your application project, right-click the iWay configuration file (*iway* node), and select *Refresh* from the context menu, as shown in the following image.



If you create a new configuration from within a process flow, then this step is not required. In this case, metadata for the iWay configuration file will be refreshed automatically for any components that are used.

WebFOCUS Support

Due to WebFOCUS security model changes, including internal API changes, you must disable the new WebFOCUS security model to enable existing iWay applications to run against WebFOCUS. This will be addressed in a future iWay release, where the new WebFOCUS security model will be supported.

- **iWay WF Object.**
  - Fully supports WebFOCUS version 80xx with no additional configuration required.
  - If you are using this object with WebFOCUS version 82xx, Application Folders are supported, but not Virtual folders.
- **ReportCaster Object.**
  - Fully supports WebFOCUS version 80xx with no additional configuration required.
  - If you are using this object with WebFOCUS version 82xx, you must uncheck the *Cross Site Request Forgery Protection* setting in the WebFOCUS Administration Console.
- **ETL Object.** Supports WebFOCUS version 80xx and version 82xx.

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