IBM InfoSphere DataStage and QualityStage
Version 9 Release 1

IBM InfoSphere Information Server
Streams Connector Message Reference
Note

Before using this information and the product that it supports, read the information in “Notices and trademarks” on page 19.
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## InfoSphere Streams connector messages

This message reference includes the messages that are returned by the InfoSphere Streams connector.

You must be familiar with the functions of the operating system where the InfoSphere Streams connector is installed. You can use the information in this message reference to identify an error or warning and resolve the problem by using the appropriate recovery action. You can also use this information to understand where the messages are generated and logged.

The connector generates messages that relate to errors that occur during installation, file writing and reading, and general product usage.

Each message has a message identifier that consists of a prefix (IIS) and a message number. Messages are listed in numeric sequence based upon the message number. There are three message types: Error, Warning, and Informational. Message identifiers ending with an E are error messages. Those ending with a W indicate warning. Messages ending in an I indicates informational messages.

The symbol {0} appears throughout the messages, and indicates a variable that is returned by the code. This variable represents either a value or a property that is specific to the generated message.

You can view complete error details in the log file in the IBM® InfoSphere™ DataStage® and QualityStage™ Director client.

<table>
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<th>Message ID</th>
<th>Description</th>
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<tr>
<td>IIS-CONN-STREAMS-00001E</td>
<td>Property Property name has no defined value</td>
</tr>
<tr>
<td><strong>Explanation:</strong></td>
<td>A value must be specified for the Property name property.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Specify a value for the property.</td>
</tr>
<tr>
<td>IIS-CONN-STREAMS-00002E</td>
<td>Memory allocation failed</td>
</tr>
<tr>
<td><strong>Explanation:</strong></td>
<td>The operating system could not allocate memory that the InfoSphere Streams connector requested.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Free some system resources or increase the memory that is available, and then run the job again.</td>
</tr>
<tr>
<td>IIS-CONN-STREAMS-00007E</td>
<td>Method method name was called with a NULL value for argument parameter name</td>
</tr>
<tr>
<td><strong>Explanation:</strong></td>
<td>A null value was provided for parameter parameter name for method method name.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Gather the job logs and job design, and contact IBM Software Support. You can export the job design as a .dsx or .isx file.</td>
</tr>
</tbody>
</table>

For information about the specific logs and information that you must collect before you contact IBM Software Support, see the troubleshooting topics in the InfoSphere Information Server Information Center.

For information about how to export your job design as a .dsx file so that you can share it with others, see the topics about designing InfoSphere DataStage and QualityStage jobs in the InfoSphere Information Server Information Center. For information about how to export your job design as a .isx file so that you can share it with others, see the topics about deploying jobs and accessing version control in the InfoSphere Information Server Information Center.

For information about the specific logs and information that you must collect before you contact IBM Software Support, see the troubleshooting topics in the InfoSphere Information Server Information Center.

**IIS-CONN-STREAMS-00008E** During a \socket operation name\ socket operation, error code socket operation error code was returned: socket operation error message

**Explanation:** The InfoSphere Streams connector could not execute the specified TCP socket operation.

**User response:** Review the specified error message to determine why the TCP socket operation failed.
IIS-CONN-STREAMS-00011E Failed to connect to
Host name port Port number, verify the status of the InfoSphere Streams application on the InfoSphere Streams server side.

Explanation: The InfoSphere Streams connector could not connect to the specified InfoSphere Streams application endpoint.

User response: Log in to the specified InfoSphere Streams server host and verify the health status of the InfoSphere Streams application.

IIS-CONN-STREAMS-00012E The data was exhausted prematurely on the input stream.

Explanation: The data that was received from InfoSphere Streams is incomplete. Because the data cannot be processed, the job must be stopped.

User response: Log in to the InfoSphere Streams server and verify the health status of InfoSphere Streams.

IIS-CONN-STREAMS-00013E Failed to read data from the input stream.

Explanation: The data that was received from InfoSphere Streams is invalid or incomplete. The data cannot be processed and the job must be stopped.

User response: Log in to the InfoSphere Streams server and verify the health status of the InfoSphere Streams application.

IIS-CONN-STREAMS-00014E An unexpected error occurred

Explanation: An unexpected internal error occurred.

User response: Gather the job logs and job design, and contact IBM Software Support. You can export the job design as a .dsx or .isx file.

For information about the specific logs and information that you must collect before you contact IBM Software Support, see the troubleshooting topics in the InfoSphere Information Server Information Center.

For information about how to export your job design as a .dsx file so that you can share it with others, see the topics about designing InfoSphere DataStage and QualityStage jobs in the InfoSphere Information Server Information Center. For information about how to export your job design as a .isx file so that you can share it with others, see the topics about deploying jobs and accessing version control in the InfoSphere Information Server Information Center.

IIS-CONN-STREAMS-00015I Waiting for up to Number of seconds seconds for InfoSphere Streams server to start...

Explanation: The InfoSphere Streams connector could not connect to InfoSphere Streams because the application endpoint was not available. After Number of seconds seconds, the InfoSphere Streams connector will try to connect again.

User response: Check InfoSphere Streams for errors. Log in to the InfoSphere Streams server and verify the health status of the InfoSphere Streams application.

IIS-CONN-STREAMS-00016I Connected to InfoSphere Streams host Host name on port Port number

Explanation: The job started, and the InfoSphere Streams connector established a TCP connection to the InfoSphere Streams application endpoint.

User response: No action is required.

IIS-CONN-STREAMS-00017I Failed to lookup the name from the name server: The lookup error

Explanation: The InfoSphere Streams connector could not connect to InfoSphere Streams because the connector could not query the InfoSphere Streams name server. When the connector tried to look up the name server, the following error occurred: The lookup error.

User response: Log in to the InfoSphere Streams server and verify the health status of the InfoSphere Streams application and the InfoSphere Streams name server.

IIS-CONN-STREAMS-00018E End point name The end point name was not found.

Explanation: The InfoSphere Streams connector could not connect to InfoSphere Streams because the lookup to the InfoSphere Streams name server did not return the TCP address for the specified endpoint.

User response: Log in to the InfoSphere Streams server and verify the health status of the InfoSphere Streams application.

IIS-CONN-STREAMS-00019E The response from the name service was not recognized.

Explanation: The InfoSphere Streams connector could not connect to InfoSphere Streams. The lookup to the InfoSphere Streams name server did not return a TCP address for the endpoint that the connector could recognize.

User response: Log in to the InfoSphere Streams server and verify the health status of the InfoSphere Streams application.
Streams application and the InfoSphere Streams name server.

IIS-CONN-STREAMS-00023E  No data was received from the streams application in the last Data receive timeout period seconds. The job will be aborted. Please check the Streams application for errors.

Application name: The Streams application name. Application scope: The Streams application scope. Endpoint: The Streams application endpoint name. Host name: Host name. Port number: Port number

Explanation: The expected data was not received from InfoSphere Streams in the specified timeout period. Any data that was received cannot be processed and the job must be stopped.

User response: Log in to the InfoSphere Streams server and verify the health status of the InfoSphere Streams application.

IIS-CONN-STREAMS-00025E  The collection XML could not be parsed: XML parser error

Explanation: The InfoSphere Streams connector could not parse the collection XML data because of the specified error.

User response: Look for additional error information in the XML parser error message. Ensure that the collection XML data conforms to the schema that is provided in the InfoSphere Streams connector documentation. For more information, see the topics about data type conversions for InfoSphere Streams in the InfoSphere Information Server Information Center.

IIS-CONN-STREAMS-00026E  Failed to convert string data

Explanation: The InfoSphere Streams connector could not convert the string data to or from the InfoSphere Streams native data type format.

User response: Check the string data for errors. For more information, see the topics about data type conversions for InfoSphere Streams in the InfoSphere Information Server Information Center.

IIS-CONN-STREAMS-00027E  Failed to convert hexadecimal string

Explanation: The InfoSphere Streams connector could not convert the collection XML hexadecimal data element to the InfoSphere Streams binary data type format.

User response: Ensure that the collection XML data conforms to the schema that is provided in the InfoSphere Streams connector documentation. For more information, see the topics about data type conversions for InfoSphere Streams in the InfoSphere Information Server Information Center.

IIS-CONN-STREAMS-00028E  Failed to convert timestamp data "Timestamp data". The format must be "YYYY-MM-DD HH:MI:SS[.FFFFFFFFF]"

Explanation: The InfoSphere Streams connector could not convert the collection XML timestamp data element to the InfoSphere Streams timestamp data type format. The format must be YYYY-MM-DD HH:MI:SS[.FFFFFFFFF].

User response: Check the collection XML data for errors, and correct the data to comply with the timestamp format specification.

IIS-CONN-STREAMS-00029E  Failed to convert timestamp data "Timestamp data". The year must be greater or equal to 1970

Explanation: The InfoSphere Streams connector could not convert the collection XML timestamp data element to the InfoSphere Streams timestamp data type format. The year must be greater than or equal to 1970.

User response: Check the collection XML data for errors, and correct the timestamp year data to comply with the timestamp format specification.

IIS-CONN-STREAMS-00030E  Failed to convert complex data "Complex data". The data should be 2 decimal numbers separated by a comma

Explanation: The InfoSphere Streams connector could not convert the collection XML complex data element to the InfoSphere Streams complex data type format. The data must be two decimal numbers separated by a comma.

User response: Check the collection XML data for errors, and correct the complex data to comply with the complex data format specification.

IIS-CONN-STREAMS-00031E  Failed to convert decimal data "Decimal data"

Explanation: The InfoSphere Streams connector could not convert the collection XML decimal data element to the InfoSphere Streams decimal data type format.

User response: Check the collection XML decimal data for errors, and correct the decimal data to comply with the decimal data format specification.
IIS-CONN-STREAMS-00032E  The collection is a list and so the root element must be a List

Explanation: Collection XML data is invalid. Because the collection is a list, the root element must also be a list.

User response: Ensure that the collection XML data conforms to the schema that is provided in the InfoSphere Streams connector documentation. For more information, see the topics about data type conversions for InfoSphere Streams in the InfoSphere Information Server Information Center.

IIS-CONN-STREAMS-00033E  The collection is a set and so the root element must be a Set

Explanation: Collection XML data is invalid. Because the collection is a set, the root element must be a set.

User response: Ensure that the collection XML data conforms to the schema that is provided in the InfoSphere Streams connector documentation. For more information, see the topics about data type conversions for InfoSphere Streams in the InfoSphere Information Server Information Center.

IIS-CONN-STREAMS-00034E  The collection is a map and so the root element must be a Map

Explanation: Collection XML data is invalid. Because the collection is a map, the root element must be a map.

User response: Ensure that the collection XML data conforms to the schema that is provided in the InfoSphere Streams connector documentation. For more information, see the topics about data type conversions for InfoSphere Streams in the InfoSphere Information Server Information Center.

IIS-CONN-STREAMS-00035E  Failed to create parser

Explanation: The InfoSphere Streams connector could not create the XML parser.

User response: Check the operating system for available resources, and look for additional log messages with more explanation of the actual cause of the failure.

IIS-CONN-STREAMS-00036E  The collection XML is incorrectly formed. Element "XML element name" was not expected.

Explanation: Collection XML data is invalid. The specified XML element was not expected.

User response: Ensure that the collection XML data conforms to the schema that is provided in the InfoSphere Streams connector documentation. For more information, see the topics about data type conversions for InfoSphere Streams in the InfoSphere Information Server Information Center.

IIS-CONN-STREAMS-00037E  The collection XML has a maximum bound of Collection bound elements, but Number of collection elements elements were found in the collection XML

Explanation: Collection XML data is invalid. A collection can have a maximum of Collection bound elements, but Number of collection elements elements were found in the collection XML.

User response: Check the collection XML data for errors. The collection data does not match the design schema specified by the Streams application SPL. Correct the collection data to match the Streams application SPL schema.

IIS-CONN-STREAMS-00038E  The input string for the Streams type decimal128 is too long. The maximum string length for decimal128 type is Decimal number length. Column name Column name, record number Record number, decimal value Invalid decimal data value, decimal string actual length Actual decimal number length.

Explanation: Data with the decimal128 data type is invalid. The maximum string length for the decimal128 type is Decimal number length. Column Column name in record Record number has the invalid decimal value Invalid decimal data value. The actual length is Actual decimal number length.

User response: Correct the decimal data to match the decimal128 data type specification.
IIS-CONN-STREAMS-00040E  The input string for the Streams type decimal64 is too long. The maximum string length for decimal64 type is Decimal number length. Column name Column name in record Record number, decimal value Invalid decimal data value, decimal string actual length Actual decimal number length.

Explanation: Data with the decimal64 data type is invalid. The maximum string length for the decimal64 type is Decimal number length. Column Column name in record Record number has the invalid decimal value Invalid decimal data value. The actual length is Actual decimal number length.

User response: Correct the decimal data to match the decimal64 data type specification.

IIS-CONN-STREAMS-00041E  The input string for the Streams type decimal32 is too long. The maximum string length for decimal32 type is Decimal number length. Column name Column name in record Record number, decimal value Invalid decimal data value, decimal string actual length Actual decimal number length.

Explanation: Data with the decimal32 data type is invalid. The maximum string length for the decimal32 type is Decimal number length. Column Column name in record Record number has the invalid decimal value Invalid decimal data value. The actual length is Actual decimal number length.

User response: Correct the decimal data to match the decimal32 data type specification.

IIS-CONN-STREAMS-00042E  The decimal string has an invalid format. Column name Column name, record number Record number, decimal value Invalid decimal data value.

Explanation: Data with the decimal data type is invalid. Column Column name in record Record number has the invalid decimal value invalid decimal data value.

User response: Correct the decimal data to match the decimal data type specification.

IIS-CONN-STREAMS-00043E  The adjusted exponent of the number is positive and is greater than Emax for the format. Column name Column name, record number Record number, decimal value invalid decimal data value.

Explanation: Data with the decimal data type is invalid because the adjusted exponent of the number is greater than the Emax. Column Column name in record

Record number has the invalid decimal value invalid decimal data value.

User response: Correct the decimal data to match the decimal data type specification.

IIS-CONN-STREAMS-00044E  The adjusted exponent of the number is negative and is less than Emin for the format. Column name Column name, record number Record number, decimal value invalid decimal data value.

Explanation: Data with the decimal data type is invalid because the adjusted exponent of the number is less than the Emin. Column Column name in record Record number has the invalid decimal value invalid decimal data value.

User response: Correct the decimal data to match the decimal data type specification.

IIS-CONN-STREAMS-00045E  Failed to convert the decimal packed number to a decimal number due to a syntax error or an out of range error. Column name Column name, record number Record number, packed decimal value invalid decimal data value.

Explanation: The InfoSphere Streams connector encountered invalid decimal packed data. Column Column name in record Record number has the invalid decimal value invalid decimal data value.

User response: Correct the decimal data to match the decimal data type specification.

IIS-CONN-STREAMS-00046E  Failed to process Streams tuple metadata: XML parser error.

Explanation: The InfoSphere Streams connector could not parse the InfoSphere Streams application endpoint XML metadata. The XML parser returned the following error: XML parser error.

User response: Check the InfoSphere Streams server side for InfoSphere Streams errors, and then restart InfoSphere Streams. Look for additional error information in the XML parser error message. If you cannot resolve the problem, gather the job logs and job design, and contact IBM Software Support. You can export the job design as a .dsx or .isx file.

For information about the specific logs and information that you must collect before you contact IBM Software Support, see the troubleshooting topics in the InfoSphere Information Server Information Center.

For information about how to export your job design as a .dsx file so that you can share it with others, see the topics about designing InfoSphere DataStage and QualityStage jobs in the InfoSphere Information Server.
IIS-CONN-STREAMS-00047E  Failed to parse the Streams metadata, invalid magic number.

Explanation:  The InfoSphere Streams connector could not parse the InfoSphere Streams application endpoint XML metadata. The InfoSphere Streams metadata is not recognized.

User response:  Check the InfoSphere Streams server side for InfoSphere Streams errors, and then restart InfoSphere Streams. Look for additional error information in the XML parser error message. If you cannot resolve the problem, gather the job logs and job design, and contact IBM Software Support. You can export the job design as a .dsx file so that you can share it with others, see the topics about designing InfoSphere DataStage and QualityStage jobs in the InfoSphere Information Server Information Center.

For information about how to export your job design as a .dsx file so that you can share it with others, see the topics about deploying jobs and accessing version control in the InfoSphere Information Server Information Center.

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IIS-CONN-STREAMS-00048E  Failed to process Streams tuple metadata: Unrecognized type Tuple attribute type for attribute Tuple attribute name

Explanation:  The InfoSphere Streams connector could not parse the InfoSphere Streams application endpoint metadata. The InfoSphere Streams tuple attribute Tuple attribute name of type Tuple attribute type is not a supported InfoSphere Streams attribute type.

User response:  In the InfoSphere Streams SPL application endpoint schema, change the attribute type for the specified attribute to a type that is supported by the InfoSphere Streams connector. For more information, see the topics about data type conversions for InfoSphere Streams in the InfoSphere Information Server Information Center.

IIS-CONN-STREAMS-00049E  For attribute Tuple attribute name, Streams type Tuple attribute type cannot be mapped to DataStage type Column type.

Explanation:  The InfoSphere Streams connector link schema did not match the InfoSphere Streams endpoint schema. The InfoSphere Streams tuple attribute Tuple attribute name of type Tuple attribute type cannot be mapped to InfoSphere DataStage type Column type.

User response:  Modify the InfoSphere Streams SPL application endpoint schema or the InfoSphere Streams connector link schema:

• In the InfoSphere Streams schema, change the attribute type for the specified attribute to a type that can be mapped to a supported InfoSphere DataStage type.

• In the InfoSphere Streams connector link schema, change the column type for the specified attribute to a type that can be mapped to a supported InfoSphere Streams type. For more information, see the topics about data type conversions for InfoSphere Streams in the InfoSphere Information Server Information Center.

IIS-CONN-STREAMS-00050I  The Streams connector columns interface is matched by the Streams Endpoint metadata interface.

Explanation:  The InfoSphere Streams connector link schema matches the InfoSphere Streams application endpoint schema.

User response:  No action is required.

IIS-CONN-STREAMS-00051E  Failed to process Streams tuple: Unsupported type Tuple attribute type for attribute Tuple attribute name.

Explanation:  The InfoSphere Streams connector link schema does not match the InfoSphere Streams application endpoint schema. The InfoSphere Streams tuple attribute Tuple attribute name is of unsupported type Tuple attribute type.

User response:  In the InfoSphere Streams SPL application endpoint schema, change the data type of the specified attribute to a supported InfoSphere Streams type. For more information, see the topics about data type conversions for InfoSphere Streams in the InfoSphere Information Server Information Center.

IIS-CONN-STREAMS-00052E  Invalid marker: Marker value.

Explanation:  The InfoSphere Streams connector received an invalid tuple punctuation. The marker value Marker value is not recognized by the InfoSphere Streams connector.

User response:  Verify the status of the InfoSphere Streams application on the InfoSphere Streams server side. Check the InfoSphere Streams application SPL code for the generated markers. Supported marker values are 1-window punctuation and 2-end of file punctuation. For more information about punctuation,
Unsupported Streams complex Tuple attribute type type for attribute Tuple attribute name. Only collections of primitive types are supported.

Explanation: The InfoSphere Streams collection of Tuple attribute type type for attribute Tuple attribute name is not supported. The InfoSphere Streams connector supports only collections (lists, sets, and maps) of primitive InfoSphere Streams types.

User response: In the InfoSphere Streams SPL application endpoint schema, change the type of the specified attribute to a supported InfoSphere Streams type. For more information, see the topics about data type conversions for InfoSphere Streams in the InfoSphere Information Server Information Center.

Connection to the Streams application dropped, reconnecting...

Explanation: An error occurred while executing a TCP socket operation. The connection to InfoSphere Streams failed. The InfoSphere Streams connector is trying to reconnect to InfoSphere Streams.

User response: For more information about the TCP socket operation error, see the surrounding messages in the job log. When the InfoSphere Streams connector tries to reconnect to InfoSphere Streams, the connector will use the reconnect period and reconnect interval that is specified in the connector connection properties. For more information about the properties, see the client help documentation for InfoSphere Streams in the InfoSphere Information Server Information Center.

Socket error, failed to send data to the Streams application.

Explanation: An error occurred while executing a TCP socket operation.

User response: For more information about the TCP socket operation error, see the surrounding messages in the job log. Verify the status of the InfoSphere Streams application on the InfoSphere Streams server side.

Socket error, failed to receive data from the Streams application.

Explanation: An error occurred while executing a TCP socket operation.

User response: For more information about the TCP socket operation error, see the surrounding messages in the job log. Verify the status of the InfoSphere Streams application on the InfoSphere Streams server side.
Appendix A. Product accessibility

You can get information about the accessibility status of IBM® products.

The IBM InfoSphere® Information Server product modules and user interfaces are not fully accessible. The installation program installs the following product modules and components:

- IBM InfoSphere Blueprint Director
- IBM InfoSphere Discovery
- IBM InfoSphere Metadata Workbench
- IBM InfoSphere Business Glossary
- IBM InfoSphere Business Glossary Anywhere
- IBM InfoSphere Information Analyzer
- IBM InfoSphere QualityStage®
- IBM InfoSphere Information Services Director
- IBM InfoSphere DataStage®
- IBM InfoSphere DataStage and QualityStage Designer
- IBM InfoSphere Data Click
- IBM InfoSphere FastTrack
- IBM InfoSphere Data Replication

For information about the accessibility status of IBM products, see the IBM product accessibility information at [http://www.ibm.com/able/product_accessibility/index.html](http://www.ibm.com/able/product_accessibility/index.html).

Accessible documentation

Accessible documentation for InfoSphere Information Server products is provided in an information center. The information center presents the documentation in XHTML 1.0 format, which is viewable in most web browsers. Because the information center uses XHTML, you can set display preferences in your browser. This also allows you to use screen readers and other assistive technologies to access the documentation.

The documentation that is in the information center is also provided in PDF files, which are not fully accessible.

IBM and accessibility

See the [IBM Human Ability and Accessibility Center](http://www.ibm.com/able) for more information about the commitment that IBM has to accessibility.
Appendix B. Reading command-line syntax

This documentation uses special characters to define the command-line syntax.

The following special characters define the command-line syntax:

[] Identifies an optional argument. Arguments that are not enclosed in brackets are required.
...
Indicates that you can specify multiple values for the previous argument.
|
Indicates mutually exclusive information. You can use the argument to the left of the separator or the argument to the right of the separator. You cannot use both arguments in a single use of the command.
{}
Delimits a set of mutually exclusive arguments when one of the arguments is required. If the arguments are optional, they are enclosed in brackets ([ ]).

Note:
• The maximum number of characters in an argument is 256.
• Enclose argument values that have embedded spaces with either single or double quotation marks.

For example:

*ws*etsrc[-S server] [-l label] [-n name] source

The source argument is the only required argument for the wsetsrc command. The brackets around the other arguments indicate that these arguments are optional.

*wl*isac [-l | -f format] [key... ] profile

In this example, the -l and -f format arguments are mutually exclusive and optional. The profile argument is required. The key argument is optional. The ellipsis (...) that follows the key argument indicates that you can specify multiple key names.

*wr*b -import {rule_pack | rule_set}...

In this example, the rule_pack and rule_set arguments are mutually exclusive, but one of the arguments must be specified. Also, the ellipsis marks (...) indicate that you can specify multiple rule packs or rule sets.
Appendix C. How to read syntax diagrams

The following rules apply to the syntax diagrams that are used in this information:

* Read the syntax diagrams from left to right, from top to bottom, following the path of the line. The following conventions are used:
  - The >>--- symbol indicates the beginning of a syntax diagram.
  - The ---> symbol indicates that the syntax diagram is continued on the next line.
  - The >--- symbol indicates that a syntax diagram is continued from the previous line.
  - The -->> symbol indicates the end of a syntax diagram.
* Required items appear on the horizontal line (the main path).

```
>>>required_item
```

* Optional items appear below the main path.

```
>>>required_item
   "optional_item"
```

If an optional item appears above the main path, that item has no effect on the execution of the syntax element and is used only for readability.

```
>>>required_item
   "optional_item"
```

* If you can choose from two or more items, they appear vertically, in a stack. If you must choose one of the items, one item of the stack appears on the main path.

```
>>>required_item
   "required_choice1"
   "required_choice2"
```

If choosing one of the items is optional, the entire stack appears below the main path.

```
>>>required_item
   "optional_choice1"
   "optional_choice2"
```

If one of the items is the default, it appears above the main path, and the remaining choices are shown below.

```
>>>required_item
   "default_choice"
   "optional_choice1"
   "optional_choice2"
```

* An arrow returning to the left, above the main line, indicates an item that can be repeated.
If the repeat arrow contains a comma, you must separate repeated items with a comma.

A repeat arrow above a stack indicates that you can repeat the items in the stack.

- Sometimes a diagram must be split into fragments. The syntax fragment is shown separately from the main syntax diagram, but the contents of the fragment should be read as if they are on the main path of the diagram.

**Fragment-name:**

- Keywords, and their minimum abbreviations if applicable, appear in uppercase. They must be spelled exactly as shown.
- Variables appear in all lowercase italic letters (for example, `column-name`). They represent user-supplied names or values.
- Separate keywords and parameters by at least one space if no intervening punctuation is shown in the diagram.
- Enter punctuation marks, parentheses, arithmetic operators, and other symbols, exactly as shown in the diagram.
- Footnotes are shown by a number in parentheses, for example (1).
Appendix D. Contacting IBM

You can contact IBM for customer support, software services, product information, and general information. You also can provide feedback to IBM about products and documentation.

The following table lists resources for customer support, software services, training, and product and solutions information.

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<th>Resource</th>
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<tr>
<td>IBM Support Portal</td>
<td>You can customize support information by choosing the products and the topics that interest you at <a href="http://www.ibm.com/support/entry/portal/Software/Information_Management/InfoSphere_Information_Server">www.ibm.com/support/entry/portal/Software/Information_Management/InfoSphere_Information_Server</a></td>
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<td>You can find information about software, IT, and business consulting services, on the solutions site at <a href="http://www.ibm.com/businesssolutions/">www.ibm.com/businesssolutions/</a></td>
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<tr>
<td>My IBM</td>
<td>You can manage links to IBM Web sites and information that meet your specific technical support needs by creating an account on the My IBM site at <a href="http://www.ibm.com/account/">www.ibm.com/account/</a></td>
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<tr>
<td>Training and certification</td>
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</table>
Appendix E. Accessing and providing feedback on the product documentation

Documentation is provided in a variety of locations and formats, including in help that is opened directly from the product client interfaces, in a suite-wide information center, and in PDF file books.

The information center is installed as a common service with InfoSphere Information Server information center. The information center contains help for most of the product interfaces, as well as complete documentation for all the product modules in the suite. You can open the information center from the installed product or from a web browser.

Accessing the information center

You can use the following methods to open the installed information center.

- Click the Help link in the upper right of the client interface.

  Note: From IBM InfoSphere FastTrack and IBM InfoSphere Information Server Manager, the main Help menu item opens a local help system. Choose Help > Open Info Center to open the full InfoSphere Information Server information center.

- Press the F1 key. The F1 key typically opens the topic that describes the current context of the client interface.

  Note: The F1 key does not work in web clients.

- Use a web browser to access the installed information center even when you are not logged in to the product. Enter the following address in a web browser:
  
  http://host_name:port_number/infocenter/topic/com.ibm.swg.im.iis.productization.iisinfsv.home.doc/topics/ic_homepage_IS.html

  where host_name is the name of the services tier computer where the information center is installed, and port_number is the port number for InfoSphere Information Server. The default port number is 9080. For example, on a Microsoft® Windows® Server computer named server1, that uses the default port, the web address is in the following format:
  

A subset of the information center is also available on the IBM website and periodically refreshed at http://pic.dhe.ibm.com/infocenter/iisinfsv/v9r1/index.jsp. This information center is the most up-to-date version and might include corrections, provided as comments.

Obtaining PDF and hardcopy documentation

- The PDF file books are available online and can be accessed from this support document: https://www.ibm.com/support/docview.wss?uid=swg27008803&vw=1
You can also order IBM publications in hardcopy format online or through your local IBM representative. To order publications online, go to the IBM Publications Center at [http://www.ibm.com/e-business/linkweb/publications/servlet/pbi.wss](http://www.ibm.com/e-business/linkweb/publications/servlet/pbi.wss).

Providing comments on the documentation

Your feedback helps IBM to provide quality information. You can use any of the following methods to provide comments:

- To provide a comment about the information center that is hosted on the IBM website, sign in and add a comment. Comments submitted this way are viewable by the public. See for more information.

- To send a comment about the information to IBM that is not viewable by anyone else, click the Feedback link on the top right side of any topic in the information center. You can do this from an information center that is installed with InfoSphere Information Server or from the information center that is available on the IBM website.

- Send your comments by using the online readers’ comment form at [www.ibm.com/software/awdtools/rcf/](http://www.ibm.com/software/awdtools/rcf/)

- Send your comments by e-mail to comments@us.ibm.com. Include the name of the product, the version number of the product, and the name and part number of the information (if applicable). If you are commenting on specific text, include the location of the text (for example, a title, a table number, or a page number).
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**Table 2. Use of cookies by InfoSphere Information Server products and components**

<table>
<thead>
<tr>
<th>Product module</th>
<th>Component or feature</th>
<th>Type of cookie that is used</th>
<th>Collect this data</th>
<th>Purpose of data</th>
<th>Disabling the cookies</th>
</tr>
</thead>
</table>
| Any (part of InfoSphere Information Server installation) | InfoSphere Information Server web console | • Session  
• Persistent | User name | • Session management  
• Authentication | Cannot be disabled |
| Any (part of InfoSphere Information Server installation) | InfoSphere Metadata Asset Manager | • Session  
• Persistent | No personally identifiable information | • Session management  
• Authentication  
• Enhanced user usability  
• Single sign-on configuration | Cannot be disabled |
| InfoSphere DataStage | Big Data File stage | • Session  
• Persistent | • User name  
• Digital signature  
• Session ID | • Session management  
• Authentication  
• Single sign-on configuration | Cannot be disabled |
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