IBM InfoSphere DataStage and QualityStage
Version 11 Release 3

IBM InfoSphere Information Server Streams Connector Message Reference

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Contents

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.

IIS-CONN-STREAMS-00001E   Property *Property name* **has no defined value**

Explanation: A value must be specified for the *Property name* property.

User response: Specify a value for the property.

IIS-CONN-STREAMS-00002E   Memory allocation failed

Explanation: The operating system could not allocate memory that the InfoSphere Streams connector requested.

User response: Free some system resources or increase the memory that is available, and then run the job again.

IIS-CONN-STREAMS-00007E   Method *method name* **was called with a NULL value for argument** *parameter name*

Explanation: A null value was provided for parameter *parameter name* for method *method name*.

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-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-00010E   Failed to open a socket.

Explanation: An error occurred while executing a 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-00017I 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-00018I 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-00019E 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-00020E 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-00021E 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 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. 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*.

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 *Hexadecimal string*

Explanation: The InfoSphere Streams connector could not convert the collection XML hexadecimal data element *Hexadecimal string* 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 *Timestamp data* to the InfoSphere Streams timestamp data type format. Timestamp data must be in the format 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 *Timestamp data* 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 *Complex data* 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 *Decimal data* to the InfoSphere Streams decimal data type format.

User response: Check the collection XML decimal data for errors, and correct the deciaml 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 is formed incorrectly. The root element *XML element name* is invalid. The root must be one of List, Set or Map

Explanation: Collection XML data is invalid. The specified XML root element was not expected. The root must be one of the following values: List, Set or 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-00038E   The collection 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-00039E   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*, **record number** *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*, **record number** *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 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-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` 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-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, see the IBM Streams Processing Language SPL Specification.

IIS-CONN-STREAMS-00053E   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.

IIS-CONN-STREAMS-00054I   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.

IIS-CONN-STREAMS-00055E   Socket error, failed to send data to the Streams application.

Explanation: An error occured 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.

IIS-CONN-STREAMS-00056E   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.

IIS-CONN-STREAMS-00057E   Failed to reconnect, schema handshake failure.

Explanation: The connection to InfoSphere Streams failed, and the InfoSphere Streams connector could not reconnect.

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.

IIS-CONN-STREAMS-00058I   Reconnected to the Streams application, resuming operation.

Explanation: The InfoSphere Streams connector connected to InfoSphere Streams successfully.

User response: No action is required.

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.

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.

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 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:

wsetsrc*[-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.

wlsac *[-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.

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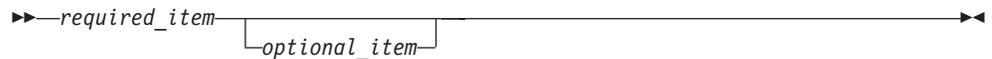
  If an optional item appears above the main path, that item has no effect on the execution of the syntax element and is used only for readability.

```
              ┌─optional_item─┐
►►──required_item──┴───────────┴──────────────────────────────►◄
```
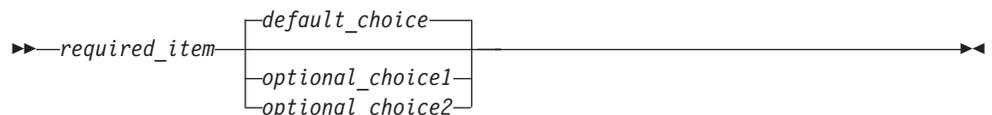
- If you can choose from two or more items, they appear vertically, in a stack.

  If you must choose one of the items, one item of the stack appears on the main path.

```
►►──required_item──┬─required_choice1─┬──────────────────────►◄
                   └─required_choice2─┘
```
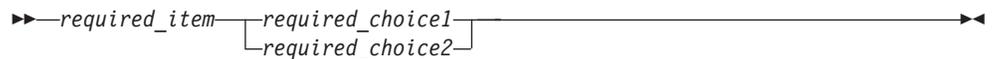
  If choosing one of the items is optional, the entire stack appears below the main path.

```
►►──required_item──┬──────────────────┬──────────────────────►◄
                   ├─optional_choice1─┤
                   └─optional_choice2─┘
```
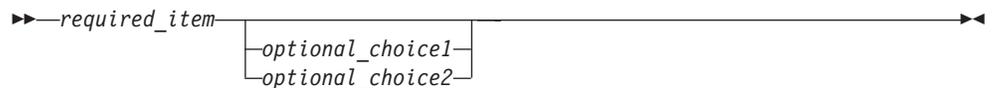
  If one of the items is the default, it appears above the main path, and the remaining choices are shown below.

```
                   ┌─default_choice───┐
►►──required_item──┼──────────────────┼──────────────────────►◄
                   ├─optional_choice1─┤
                   └─optional_choice2─┘
```

- An arrow returning to the left, above the main line, indicates an item that can be repeated.

13

```
         ┌──────────────┐
►►──required_item──▼─repeatable_item──┴───────────────────────►◄
```

If the repeat arrow contains a comma, you must separate repeated items with a comma.

```
         ┌─,────────────┐
►►──required_item──▼─repeatable_item──┴──────────────────────────────►◄
```
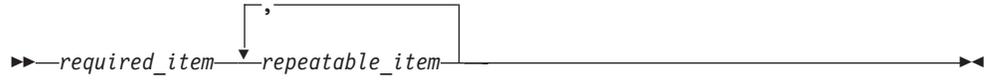
A repeat arrow above a stack indicates that you can repeat the items in the stack.

- 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.

```
►►──required_item──┤ fragment-name ├─────────────────────────►◄
```

Fragment-name:

```
├──required_item────────────────┤
      └─optional_item─┘
```

- 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.

Table 1. IBM resources

Resource	Description and location
IBM Support Portal	You can customize support information by choosing the products and the topics that interest you at www.ibm.com/support/ entry/portal/Software/ Information_Management/ InfoSphere_Information_Server
Software services	You can find information about software, IT, and business consulting services, on the solutions site at www.ibm.com/ businesssolutions/
My IBM	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 www.ibm.com/account/
Training and certification	You can learn about technical training and education services designed for individuals, companies, and public organizations to acquire, maintain, and optimize their IT skills at http://www.ibm.com/training
IBM representatives	You can contact an IBM representative to learn about solutions at www.ibm.com/connect/ibm/us/en/

Appendix E. Accessing the product documentation

Documentation is provided in a variety of formats: in the online IBM Knowledge Center, in an optional locally installed information center, and as PDF books. You can access the online or locally installed help directly from the product client interfaces.

IBM Knowledge Center is the best place to find the most up-to-date information for InfoSphere Information Server. IBM Knowledge 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 IBM Knowledge Center from the installed product or from a web browser.

Accessing IBM Knowledge Center

There are various ways to access the online documentation:
- Click the **Help** link in the upper right of the client interface.
- 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.
- Type the address in a web browser, for example, when you are not logged in to the product.

  Enter the following address to access all versions of InfoSphere Information Server documentation:

  `http://www.ibm.com/support/knowledgecenter/SSZJPZ/`

  If you want to access a particular topic, specify the version number with the product identifier, the documentation plug-in name, and the topic path in the URL. For example, the URL for the 11.3 version of this topic is as follows. (The ⇒ symbol indicates a line continuation):

  `http://www.ibm.com/support/knowledgecenter/SSZJPZ_11.3.0/⇒`
  `com.ibm.swg.im.iis.common.doc/common/accessingiidoc.html`

  Tip:

  The knowledge center has a short URL as well:

  `http://ibm.biz/knowctr`

  To specify a short URL to a specific product page, version, or topic, use a hash character (#) between the short URL and the product identifier. For example, the short URL to all the InfoSphere Information Server documentation is the following URL:

  `http://ibm.biz/knowctr#SSZJPZ/`

  And, the short URL to the topic above to create a slightly shorter URL is the following URL (The ⇒ symbol indicates a line continuation):

  `http://ibm.biz/knowctr#SSZJPZ_11.3.0/com.ibm.swg.im.iis.common.doc/⇒`
  `common/accessingiidoc.html`

Changing help links to refer to locally installed documentation

IBM Knowledge Center contains the most up-to-date version of the documentation. However, you can install a local version of the documentation as an information center and configure your help links to point to it. A local information center is useful if your enterprise does not provide access to the internet.

Use the installation instructions that come with the information center installation package to install it on the computer of your choice. After you install and start the information center, you can use the **iisAdmin** command on the services tier computer to change the documentation location that the product F1 and help links refer to. (The ⇒ symbol indicates a line continuation):

Windows
```
IS_install_path\ASBServer\bin\iisAdmin.bat -set -key ⇒
com.ibm.iis.infocenter.url -value http://<host>:<port>/help/topic/
```

AIX® Linux
```
IS_install_path/ASBServer/bin/iisAdmin.sh -set -key ⇒
com.ibm.iis.infocenter.url -value http://<host>:<port>/help/topic/
```

Where <host> is the name of the computer where the information center is installed and <port> is the port number for the information center. The default port number is 8888. For example, on a computer named server1.example.com that uses the default port, the URL value would be http://server1.example.com:8888/help/topic/.

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&wv=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.

Appendix F. Providing feedback on the product documentation

You can provide helpful feedback regarding IBM 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 a topic in IBM Knowledge Center that is hosted on the IBM website, sign in and add a comment by clicking **Add Comment** button at the bottom of the topic. Comments submitted this way are viewable by the public.
- To send a comment about the topic in IBM Knowledge Center to IBM that is not viewable by anyone else, sign in and click the **Feedback** link at the bottom of IBM Knowledge Center.
- Send your comments by using the online readers' comment form at 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

Product module	Component or feature	Type of cookie that is used	Collect this data	Purpose of data	Disabling the cookies
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

Table 2. Use of cookies by InfoSphere Information Server products and components (continued)

Product module	Component or feature	Type of cookie that is used	Collect this data	Purpose of data	Disabling the cookies
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InfoSphere DataStage	XML stage	Session	Internal identifiers	• Session management • Authentication	Cannot be disabled
InfoSphere DataStage	IBM InfoSphere DataStage and QualityStage® Operations Console	Session	No personally identifiable information	• Session management • Authentication	Cannot be disabled
InfoSphere Data Click	InfoSphere Information Server web console	• Session • Persistent	User name	• Session management • Authentication	Cannot be disabled
InfoSphere Data Quality Console		Session	No personally identifiable information	• Session management • Authentication • Single sign-on configuration	Cannot be disabled
InfoSphere QualityStage Standardization Rules Designer	InfoSphere Information Server web console	• Session • Persistent	User name	• Session management • Authentication	Cannot be disabled
InfoSphere Information Governance Catalog		• Session • Persistent	• User name • Internal identifiers • State of the tree	• Session management • Authentication • Single sign-on configuration	Cannot be disabled
InfoSphere Information Analyzer	Data Rules stage in the InfoSphere DataStage and QualityStage Designer client	Session	Session ID	Session management	Cannot be disabled

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