Industrial Data Forwarder for Splunk Plug-In Help

© 2015 Kepware, Inc.

Table of Contents

Table of Contents ... **2**
Industrial Data Forwarder for Splunk Plug-In Help ... 4
Overview ... 4
User Interface ... 5
Quick Start ... **6**
Plug-In Setup ... **10**
Creating a New Splunk Connection ... **11**
IDF for Splunk Connection ... 12
Creating a New Splunk Item ... 13
Tag Browser ... 16
IDF for Splunk Item ... 17
Multiple Splunk Items ... 18
Importing / Exporting CSV Files ... **20**
Warning and Error Messages ... **22**
Connection <connection name> failed to connect to server: <IP/hostname>:<port>. Please verify this connection information is correct and that the host can be reached. ... 23
Dropping data for connection <connection name> (server: <IP/ hostname>:<port>), the maximum queue is <size>. Slow down the data collection rate or verify the server is responsive. ... 23
Error adding item <item> to connection <connection>. ... 23
Error adding item <item>. This item already exists in connection <connection>. ... 24
Error importing CSV item record <record number>. Deadband <value> is invalid; setting to <new value>. ... 24
Error importing CSV item record <record number>. No Deadband value found; setting to <value>. ... 24
Error importing CSV item record <record number>. Deadband <value> is out of range; setting to <value>. ... 24
Error importing CSV header information. Duplicate field name: <field>. ... 25
Error importing CSV data. Invalid CSV header. ... 25
Error importing CSV data. Header fields are out of order. Metadata must be the final field. ... 25
Error importing CSV data. Memory allocation failed. ... 25
Error importing CSV item record <record number>. Invalid Metadata string, setting to default value. ... 26
Error importing CSV header information. Missing field identification record. ... 26
Error importing CSV data. No Splunk item records found in CSV file. ... 26
Error importing CSV item record <record number>. Server Tag is invalid. ... 26
Error importing CSV header information. Unrecognized field name: <field>. ... 27
Error importing CSV item record <record number>. No Update Rate found; setting to <value>. ... 27
Error importing CSV item record <record number>. Update Rate <value> is out of range; setting to <new value>. ... 27
Failed to export connection <connection> to CSV. ... 28
Failed to load XML project. Item <item> already exists in Splunk connection <connection>. ... 28
Internal error occurred while sorting the Splunk item list. ... 28
Unable to send data for item <item> on connection <connection>. The licensed item count of <limit> items has been reached. ... 29
Index ... **30**

Industrial Data Forwarder for Splunk Plug-In Help

Help version 1.013

CONTENTS

Overview
What is the Industrial Data Forwarder for Splunk plug-in?
What can the Industrial Data Forwarder for Splunk plug-in do?

Quick Start
How can I set up data forwarding?

Setup & Configuration
How do I add an Industrial Data Forwarder for Splunk connection?
How do I add an Industrial Data Forwarder for Splunk item?
How do I edit Splunk items?
Can I export Splunk items?

Warning and Error Messages
What messages does the Industrial Data Forwarder for Splunk plug-in produce?

Overview

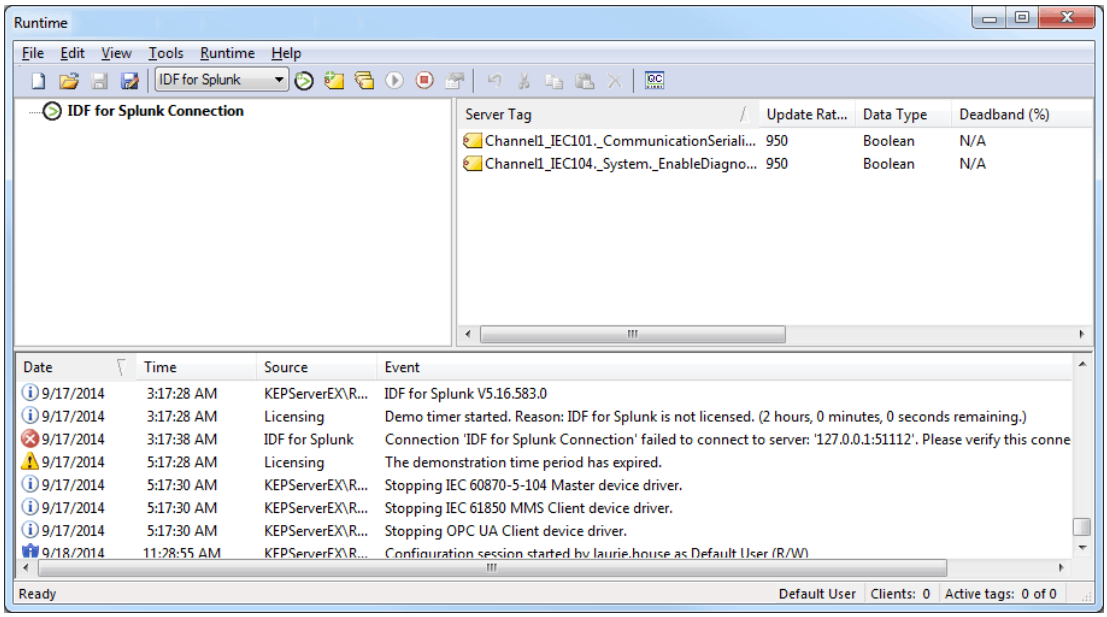
The Industrial Data Forwarder (IDF) for Splunk® plug-in enables users to forward tag data to Splunk servers over TCP/IP through one or more connections. When the value for a configured tag changes, an update is sent to the Splunk server as a string. Each update contains a UTC timestamp for the tag value change, as well as the name, value, quality, and metadata for the tag. An example of an update is shown below:

2014-07-10 14:17:25.049 +0000 Tag="Simulators.Sim1.Ramp1" Value="42" Quality="good"

See Also:
User Interface
Quick Start

User Interface

The IDF for Splunk plug-in interface consists of a toolbar, a Connection View, a Detail View, and an Event Log.



Toolbar

The toolbar provides functions to add connections and items, enable or disable connections, and cut/-copy/paste/undo actions. Access the full set of options by clicking **Edit | IDF for Splunk**.

Connection View

The Connection View, on the left, displays the IDF for Splunk connections. Right-click in this view to add, edit, copy, cut, paste, delete, enable, disable, import, and export Splunk connections.

Detail View

The Detail View, on the right, displays the items in the connection currently selected in the Connection View. Right-click in this view to add, edit, copy, cut, paste, and delete Splunk items within a connection. Users can also cut, copy, and paste items from one connection to another.

Event Log

The Event Log, in the bottom pane, displays three types of messages: General Messages, Warnings, and Errors. The Source column displays "IDF for Splunk" to indicate events from this plug-in.

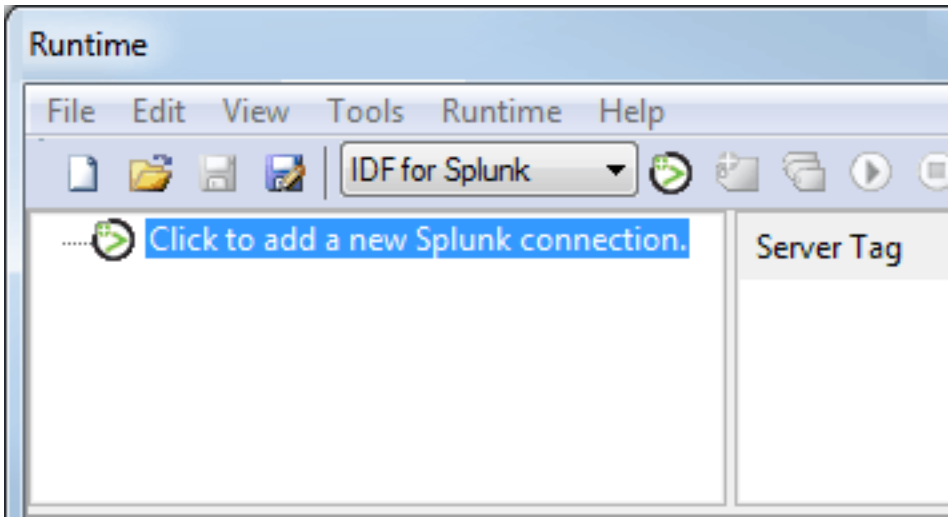
Quick Start

Prerequisites

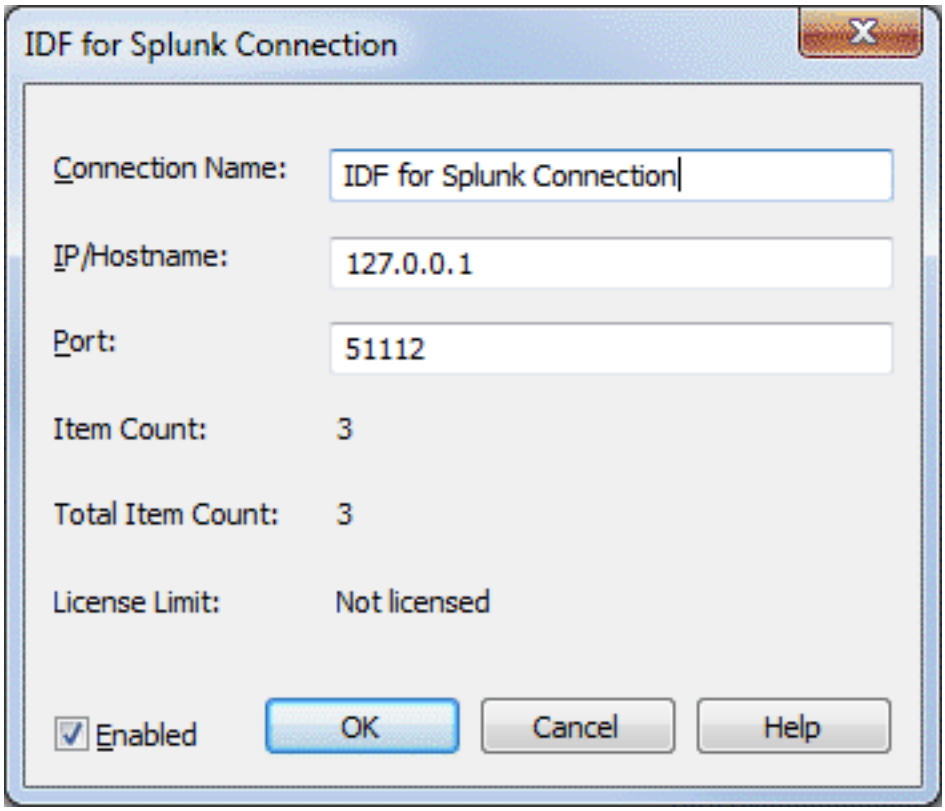
1. To receive data, the Splunk server must be configured to accept TCP input on a specific port. The default port for data from KEPServerEX is 51112. For more information on how to configure a TCP input for a Splunk server, consult the Splunk documentation.
2. The project must already have at least one static tag defined to begin. This tutorial assumes the project has a channel, "Simulator," and a device, "Sim1," with static tags defined. For more information about projects, see the server help.

Adding the Connection

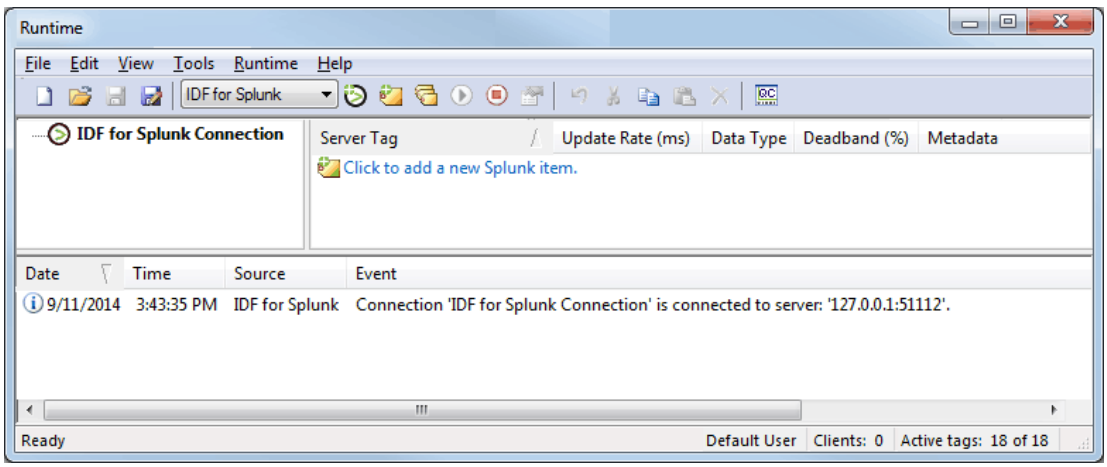
1. In the toolbar, select **IDF for Splunk** from the drop-down menu.
2. In the server configuration window, select **Click to add a new Splunk connection**.



3. In the IDF for Splunk Connection dialog, enter a new connection name. For more information, refer to **IDF for Splunk Connection**.

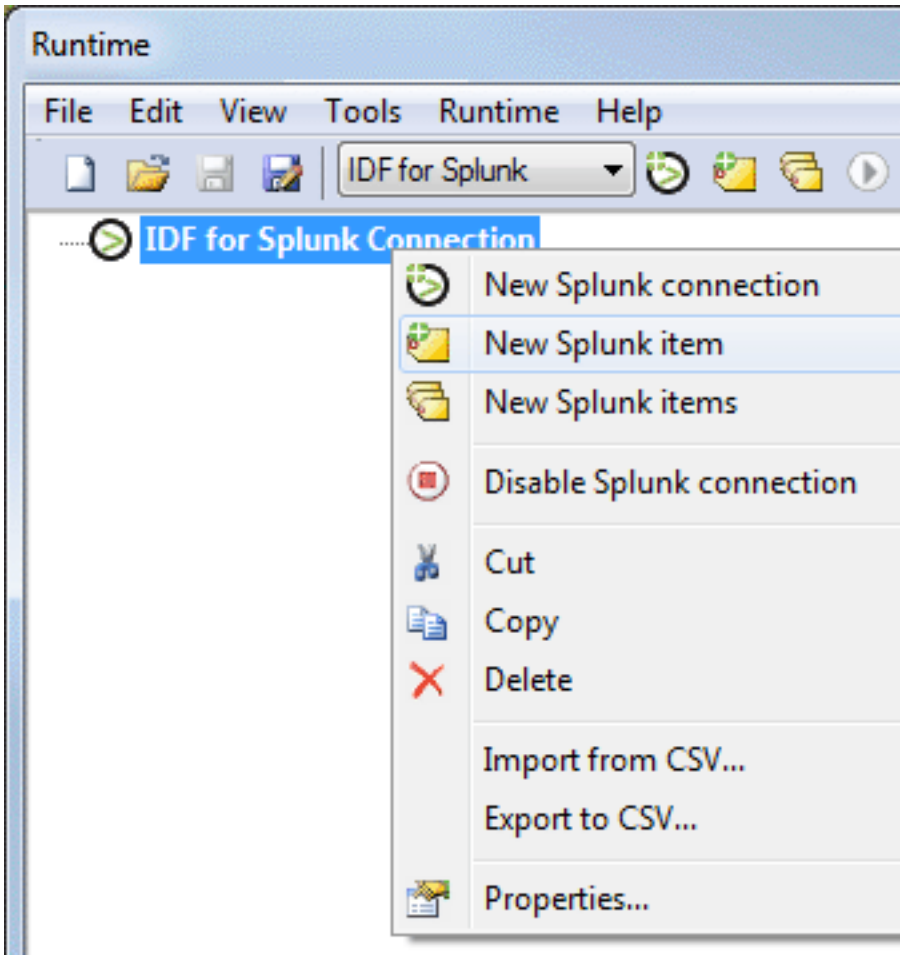


4. Specify the IP address or hostname of the Splunk server. A local host may be specified by entering "localhost" or "127.0.0.1".
5. Enter the port configured for TCP input on the Splunk server.
6. Leave the **Enabled** setting checked (default) to allow the new connection to communicate with the specified Splunk server immediately.
7. Click **OK**.
8. Verify that the Event Log in the bottom pane indicates the connection to the server by displaying the message, "Connection '<connection name>' is connected to server: '<IP/hostname>:<Port>.'" with the correct date and time stamp.

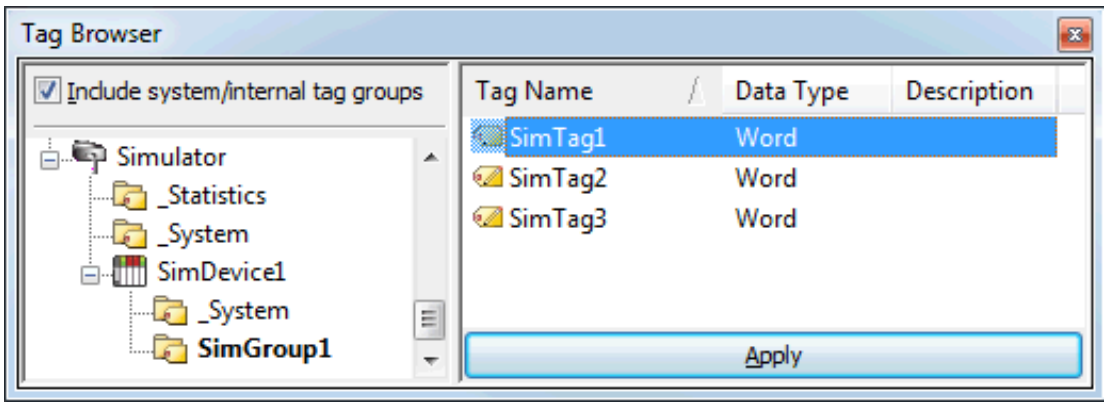


Adding Items

1. Right-click on the new connection and select **New Splunk item**. To add several new Splunk items at once, select **New Splunk items**.

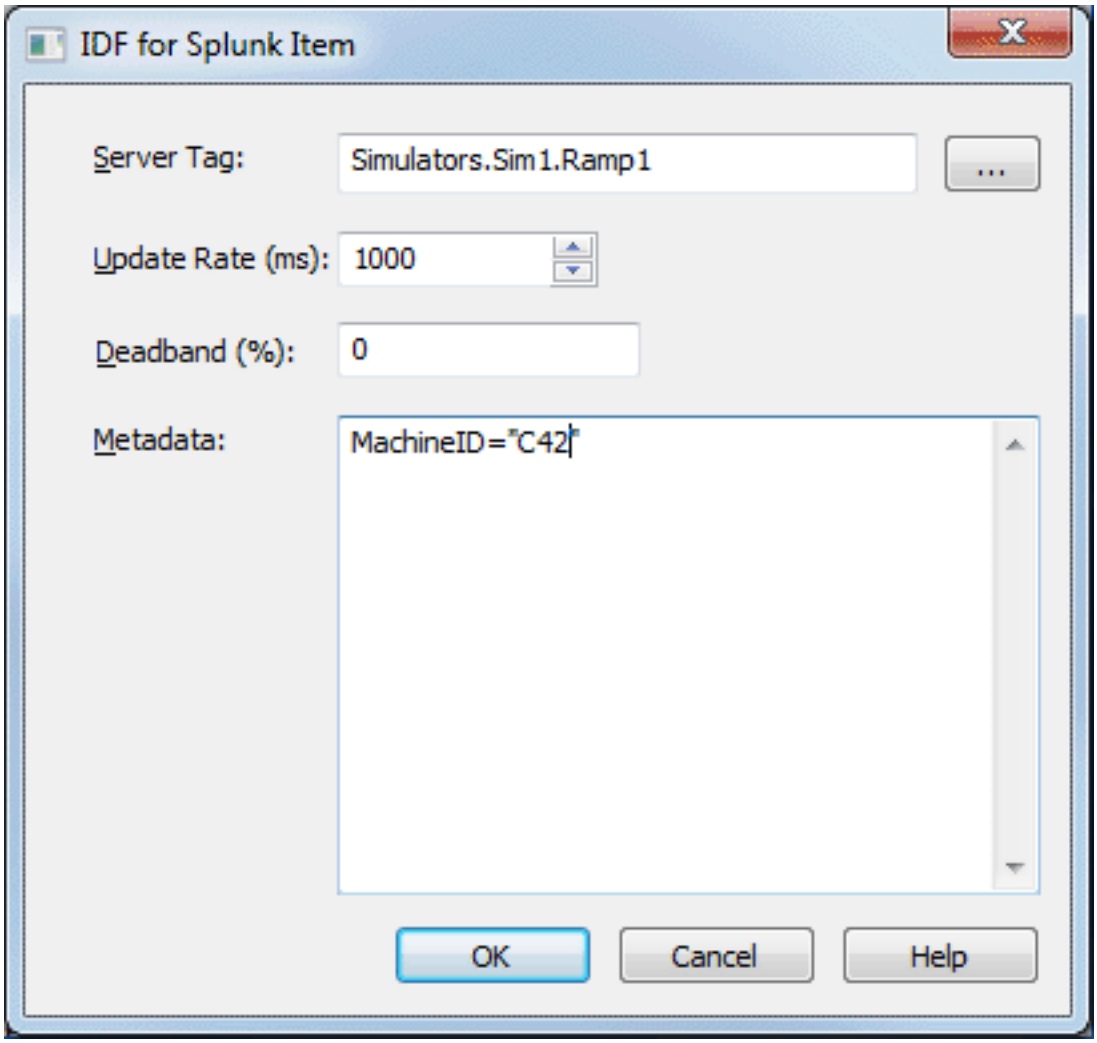


2. In the IDF for Splunk Item dialog, click the Browse (**...**) button to open the Tag Browser.

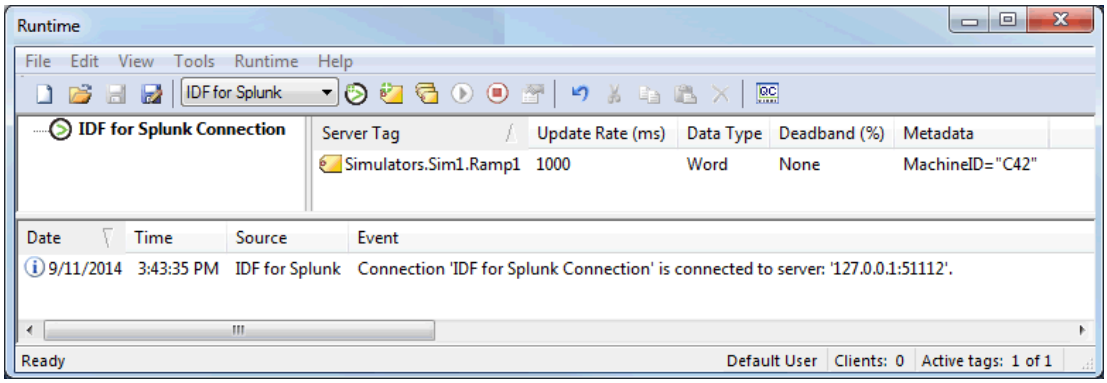


3. Use the Tag Browser to locate and select the tag for the new item. Once finished, click **Apply**.

4. Specify the Update Rate, Deadband, and optional Metadata for the new item(s). Leaving a field unchanged uses the default value shown. For more information, refer to **IDF for Splunk Item**.



5. Once finished, click **OK**.
6. Verify that the new item appears correctly in the Detail View.



See Also:
IDF for Splunk Connection
IDF for Splunk Item

Plug-In Setup

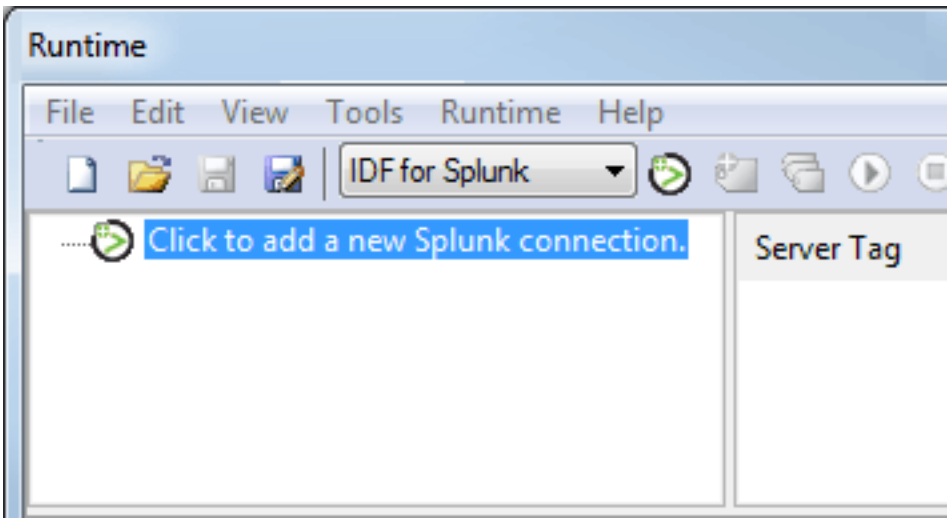
For more information, select a link from the list below.

IDF for Splunk Connection
Creating a New Splunk Connection
IDF for Splunk Item
Creating a New Splunk Item

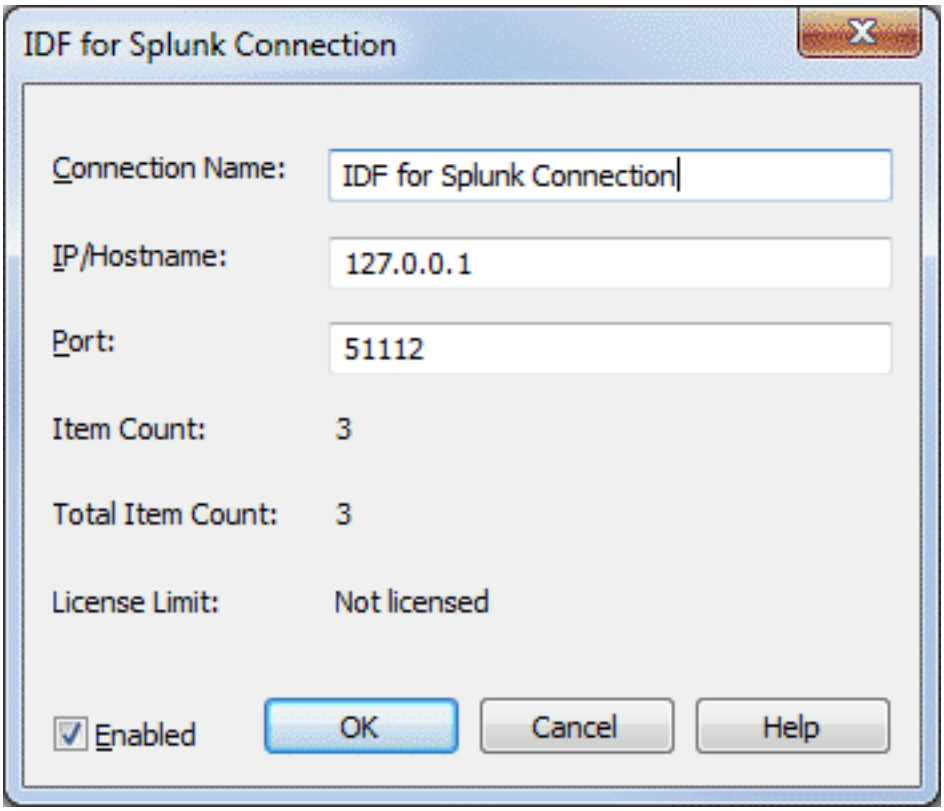
Creating a New Splunk Connection

The IDF for Splunk Plug-In supports up to 1024 Splunk connections. For more information on creating a new Splunk Connection, refer to the instructions below.

1. In the toolbar, select **IDF for Splunk** from the drop-down menu.
2. In the server configuration window, select **Click to add a new Splunk connection**.



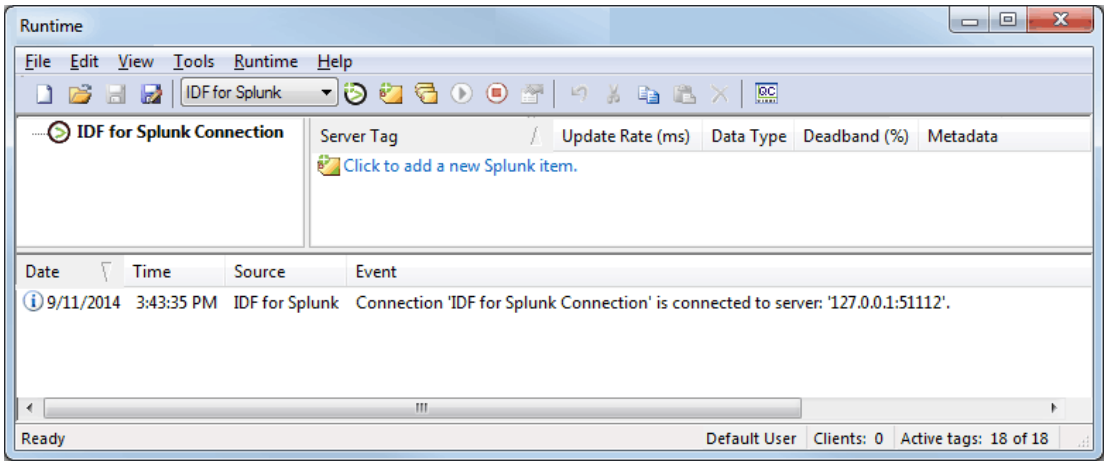
3. In the IDF for Splunk Connection dialog, enter a new connection name. For more information, refer to **IDF for Splunk Connection**.



4. Specify the IP address or hostname of the Splunk server. A local host may be specified by entering "localhost" or "127.0.0.1".

Note: Splunk recognizes "localhost" and "127.0.0.1" as different data sources. Even if a certain hostname resolves to a specific IP and they are logically equivalent, Splunk differentiates between them.

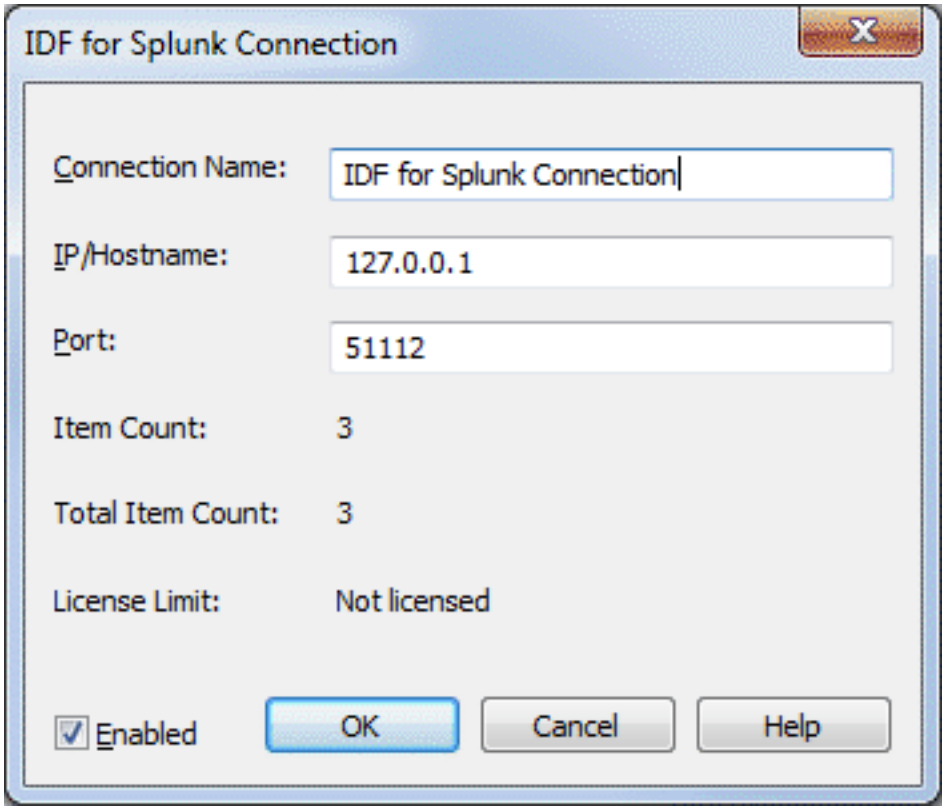
5. Enter the port configured for TCP input on the Splunk server.
6. Leave the **Enabled** setting checked (default) to allow the new connection to communicate with the specified Splunk server immediately.
7. Click **OK**.
8. Verify that the Event Log in the bottom pane indicates the connection to the server by displaying the message, "Connection '<connection name>' is connected to server: '<IP/hostname>:<Port>.'" with the correct date and time stamp.



See Also:
IDF for Splunk Connection
IDF for Splunk Item

IDF for Splunk Connection

An IDF for Splunk Connection contains information about the Splunk server receiving the forwarded data. Up to 1024 connections may be made to the same Splunk server, but each connection name must be unique.



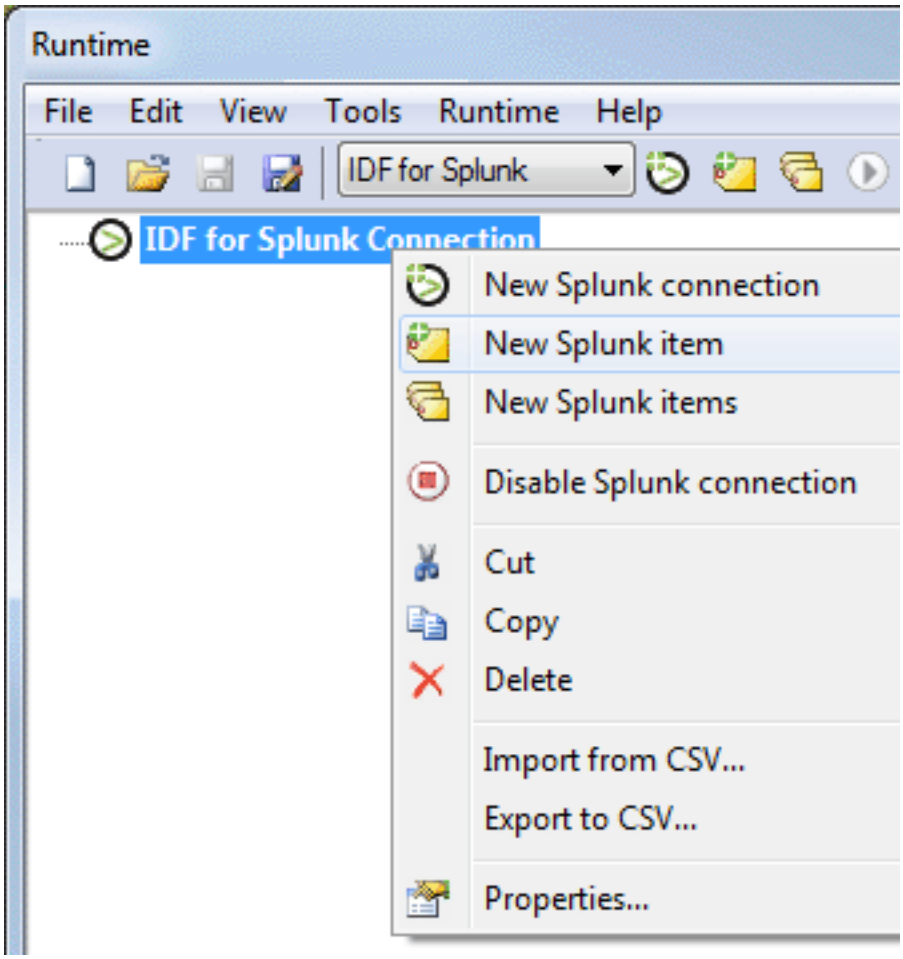
Descriptions of the parameters are as follows:

- **Connection Name:** This parameter specifies the unique identity of the Splunk connection. It may be up to 256 characters in length; but cannot contain periods, double quotation marks, a leading underscore, or leading or trailing spaces. The default setting is IDF for Splunk Connection.
- **IP/Hostname:** This parameter specifies the IP address or DNS hostname of the Splunk server. The default setting is 127.0.0.1.
- **Port:** This parameter specifies the port number used to communicate with the Splunk server. This setting must match the port number for the TCP Input configured in the Splunk server. The valid range is 0 through 65535. The default setting is 51112.
- **Item Count:** This provides the total number of Splunk items currently in this connection.
- **Total Item Count:** This provides the total number of Splunk items in the project. This equals the sum of each connection's Item Count.
- **License Limit:** This provides the maximum number of active Splunk items allowed by the active product license. Please contact Sales or Support for more information about licensing and to manage the license limits.
- **Enabled:** When checked, this option allows forwarding of data for the Splunk items. When unchecked, data is not retained or forwarded to the Splunk server. The default setting is checked.

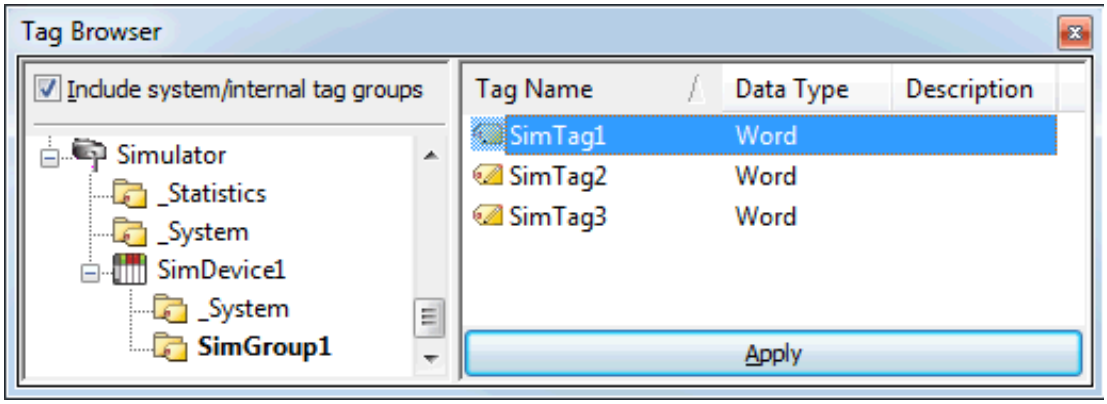
Creating a New Splunk Item

To specify a server tag and the properties used to forward this data to the Splunk server, follow the steps below.

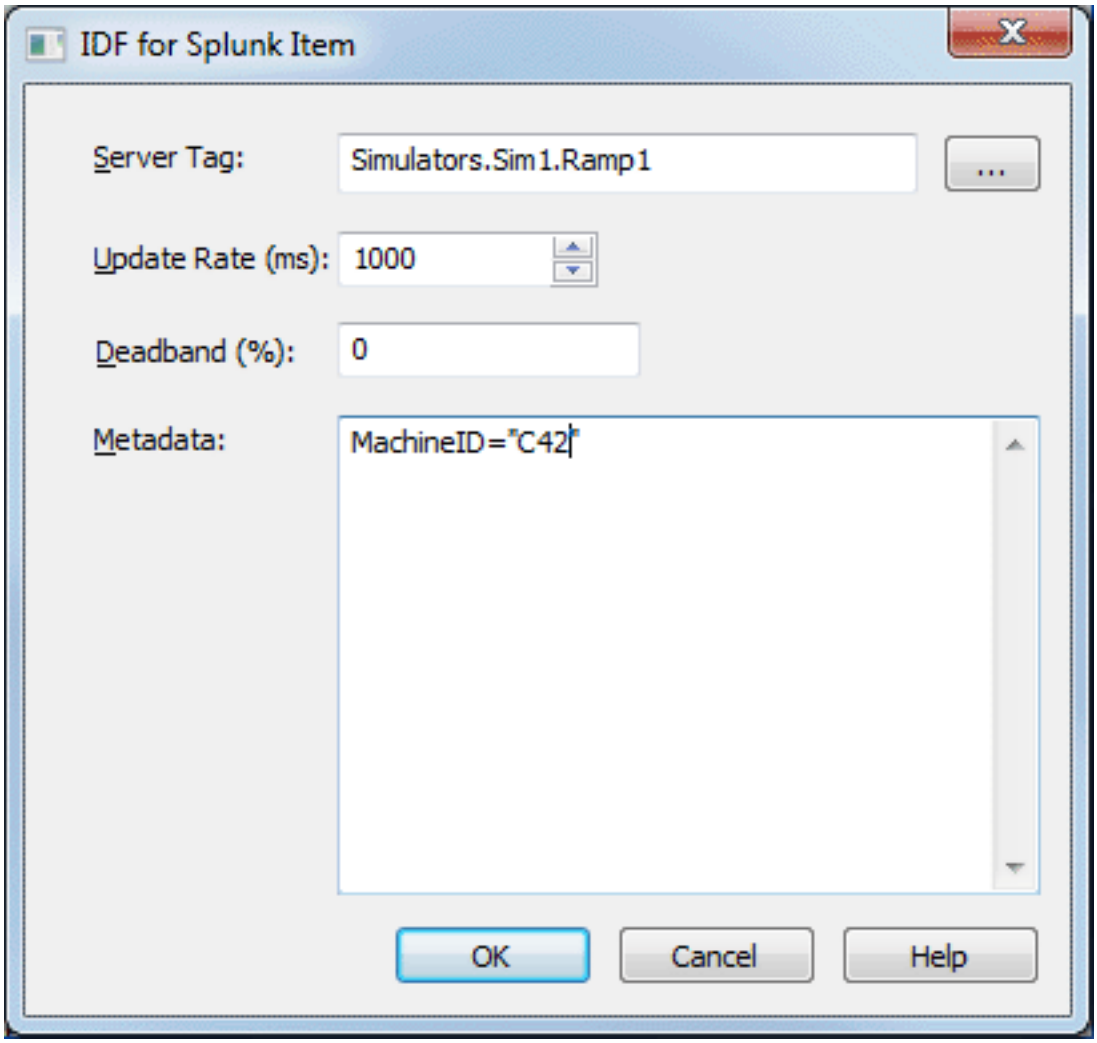
1. Right-click on the new connection and select **New Splunk item**. To add several new Splunk items at once, select **New Splunk items**.



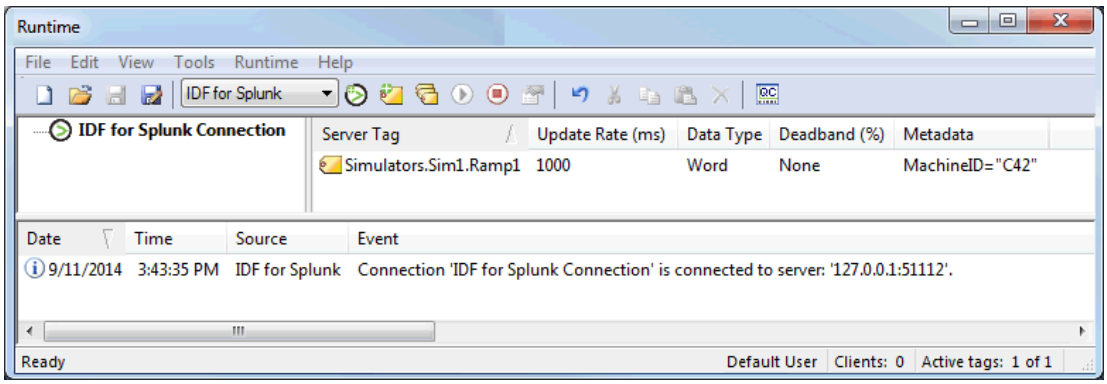
2. In the IDF for Splunk Item dialog, click the Browse (**...**) button to open the Tag Browser.



3. Use the Tag Browser to locate and select the tag for the new item. Once finished, click **Apply**.
4. Specify the Update Rate, Deadband, and optional Metadata for the new item(s).

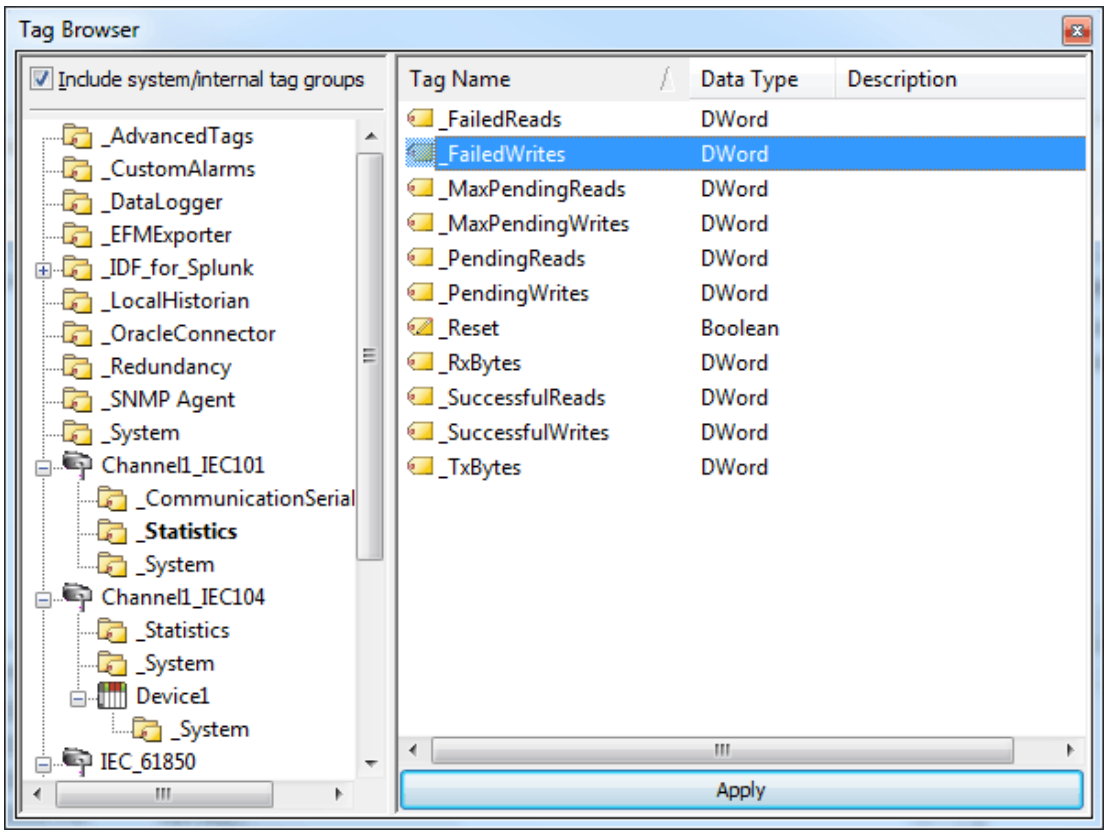


5. Once finished, click **OK**.
6. Verify that the new item appears correctly in the Detail View.



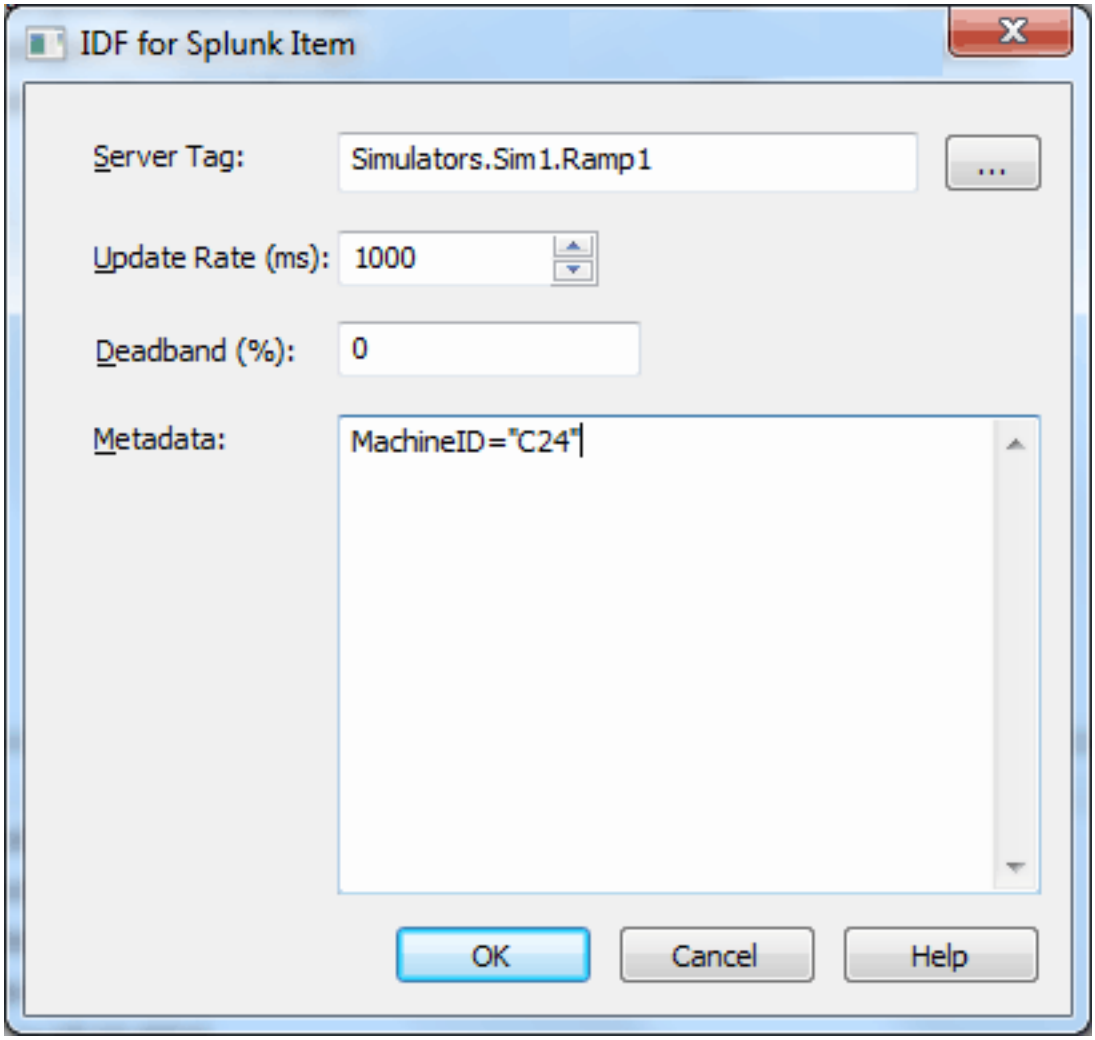
See Also:
IDF for Splunk Connection
Multiple Splunk Items

Tag Browser


Tag Browser
Include system/internal tag groups
_AdvancedTags
_CustomAlarms
_DataLogger
_EFMExporter
_IDF_for_Splunk
_LocalHistorian
_OracleConnector
_Redundancy
_SNMP Agent
_System
Channel1_IEC101
_CommunicationSerial
_Statistics
_System
Channel1_IEC104
_Statistics
_System
Device1
_System
IEC_61850
Tag Name
Data Type
Description
_FailedReads DWord
_FailedWrites DWord
_MaxPendingReads DWord
_MaxPendingWrites DWord
_PendingReads DWord
_PendingWrites DWord
_Reset Boolean
_RxBytes DWord
_SuccessfulReads DWord
_SuccessfulWrites DWord
_TxBytes DWord
Apply

IDF for Splunk Item

The IDF for Splunk Item dialog, shown below, specifies a server tag and the properties used to forward this data to the Splunk server.



Descriptions of the parameters are as follows:

- **Server Tag:** This parameter specifies the fully-qualified name of the referenced server tag for the new IDF for Splunk item. Specify the server tag manually or click the Browse **(...)** button to use the **Tag Browser** to locate and select one. This parameter must contain at least one character that is not either an underscore ('_') or a period ('.'). The maximum length of field is 256 characters. Dynamic addresses may also be used to specify a server tag (see server help for more information).

  Note: Each server tag may only be specified once per connection. The same server tag may be specified in multiple Splunk connections.

- **Update Rate:** This parameter specifies the minimum time interval that must elapse before the server tag may be scanned for changing data. The valid range is 10 to 99999 milliseconds (inclusive). The default setting is 1000 milliseconds.

  Note: Tag data is only forwarded if it has changed during the previous scan period.

- **Deadband:** This parameter specifies the tag value threshold as a percentage and is used to filter when updates are sent to the Splunk server. If the difference between the current value and the previous value of the server tag is greater than the specified percentage of the server tag's scaled range, the current value is forwarded to the Splunk server. If this difference is less than or equal to the specified

percentage, the current value is not forwarded. If the server tag does not have a configured scaled range, the minimum or maximum values for the server tag's data type are used. The valid range is 0 through 100 percent. The default value is 0 (no deadband).

Note: If the server tag is of a data type that does not support deadband, then this value is ignored and "N/A" is displayed in the item list Deadband (%) column. Data types that do not support deadband include the String, Boolean, and Date.

- **Metadata:** This optional parameter specifies additional string data sent to the Splunk server with each update for this item. The metadata may not contain backslash ("\") or line break/newline characters. Otherwise, this accepts any ANSI text string. Below is an example of an update string sent to the Splunk server with metadata:

  2014-07-10 14:17:25.049 +0000 Tag="Simulators.Sim1.Ramp1" Value="71" Quality="good" MachineID="C42"

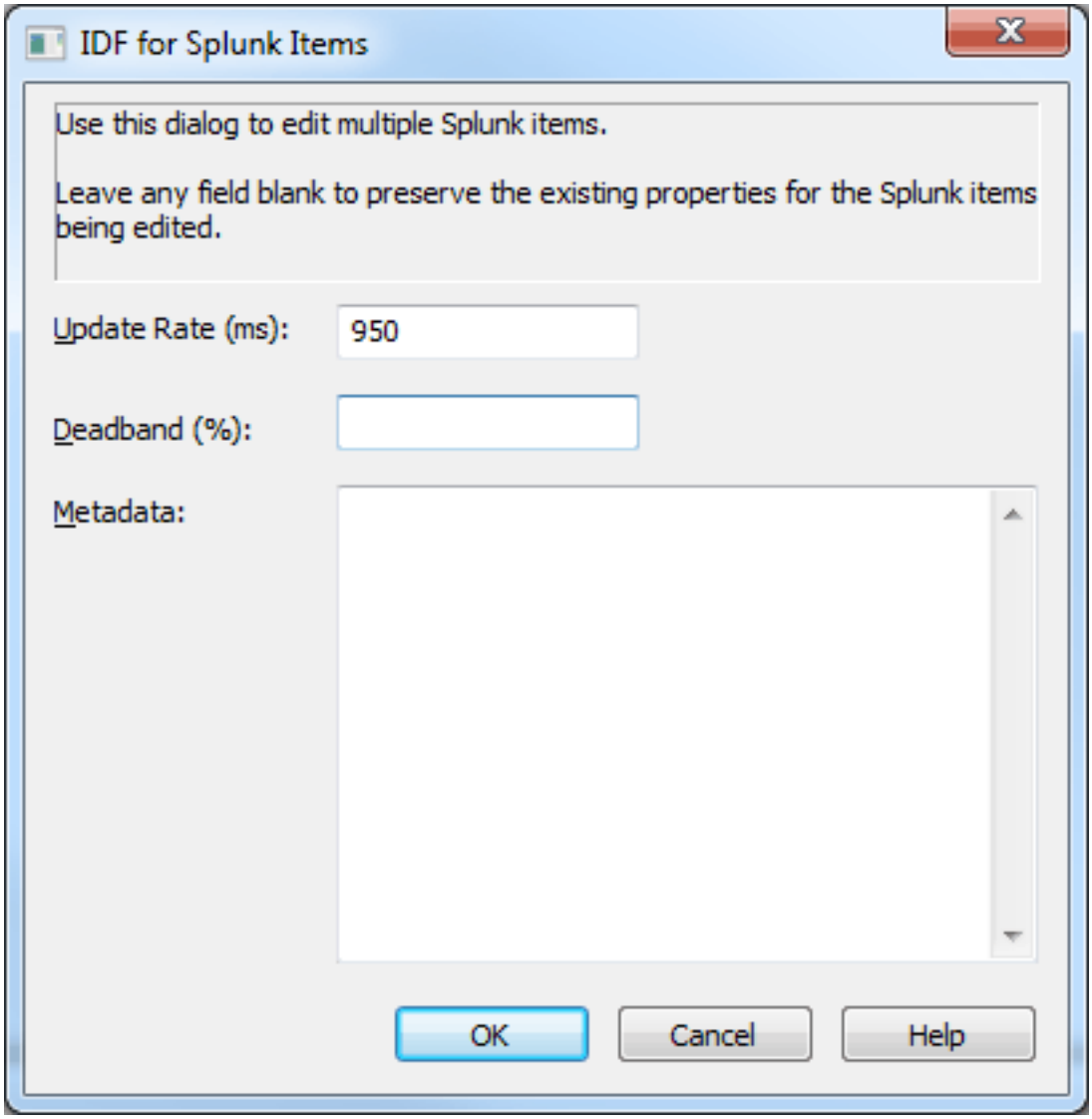
  Note: Using the key-value pair format where key is a field name and value is the value of that field, allows for field extraction by the Splunk server. Key-value pairs should be separated by whitespace.

See Also:
Multiple Splunk Items
Creating a New Splunk Item

Multiple Splunk Items

The IDF for Splunk Items dialog can be used to edit the Update Rate, Deadband, and Metadata properties for multiple items simultaneously.

To open the IDF for Splunk Items dialog; select the items to be edited, then right-click and select **Properties...**. The dialog can also be opened by selecting the items and then clicking the **Properties** button in the toolbar or selecting the **Edit | Properties...** menu option.



Any values entered in this dialog are applied to all of the selected items, overwriting existing values. To preserve existing values for a property, leave that field blank. For more information on these properties and restrictions on their values, see **IDF for Splunk Item**.

See Also:
IDF for Splunk Item

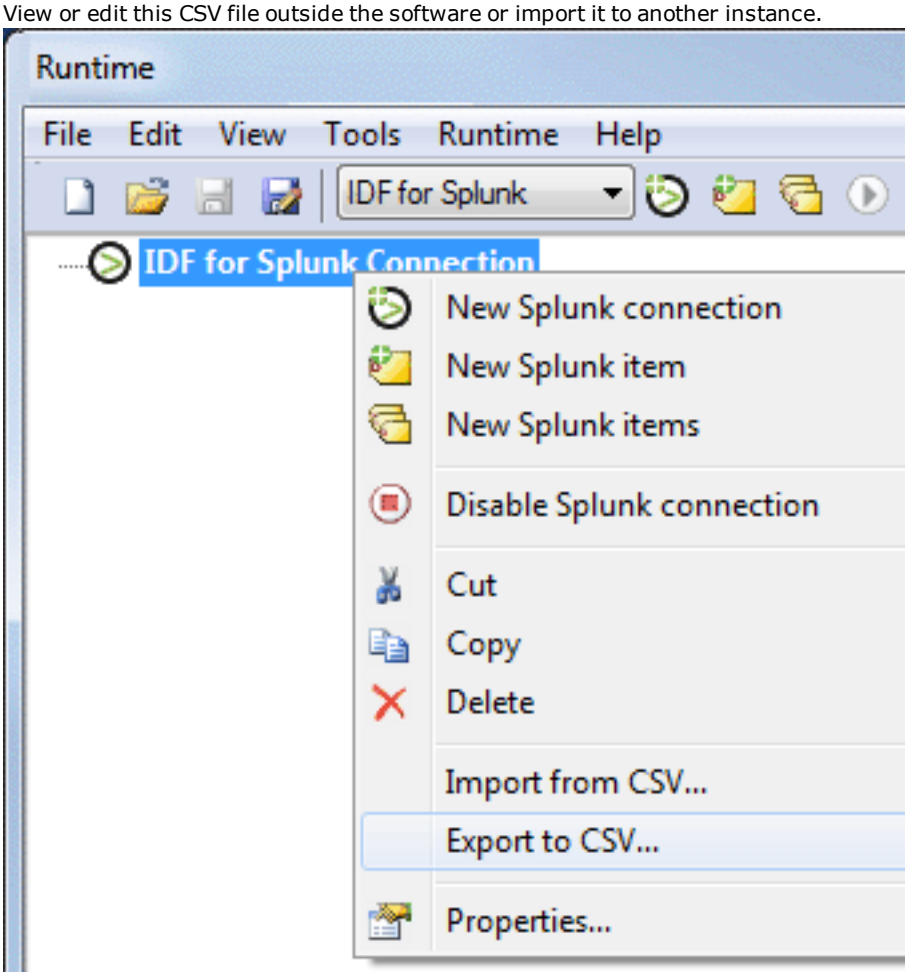
Importing / Exporting CSV Files

The IDF for Splunk plug-in supports importing and exporting a connection's items using a Comma-Separated Value (CSV) file. This allows users to edit the properties of a connection's items using external tools or to move Splunk items between connections and/or server instances. The easiest way to create an import CSV file is to export one to use as a template.

Note: CSV Export does not export the connection's settings.

Creating a Template

1. Select an IDF for Splunk Connection.
2. Right-click on the connection to select it.
3. Choose **Export to CSV**.
4. Name and save the CSV file to the desired location.
5. View or edit this CSV file outside the software or import it to another instance.



CSV File Format

- Lines beginning with a semicolon ";" are considered comments.
- The CSV header must be unchanged from the template (including the commented section).
- Field titles in the header may be in any order, but Metadata must be the final field. Everything from the beginning of a Metadata field until the end of line (EOL) is considered Metadata.
- The "Server Tag" column is the only required field.
- Splunk items are assigned the default property value for any optional field that is blank or missing and a warning appears in the Event Log.

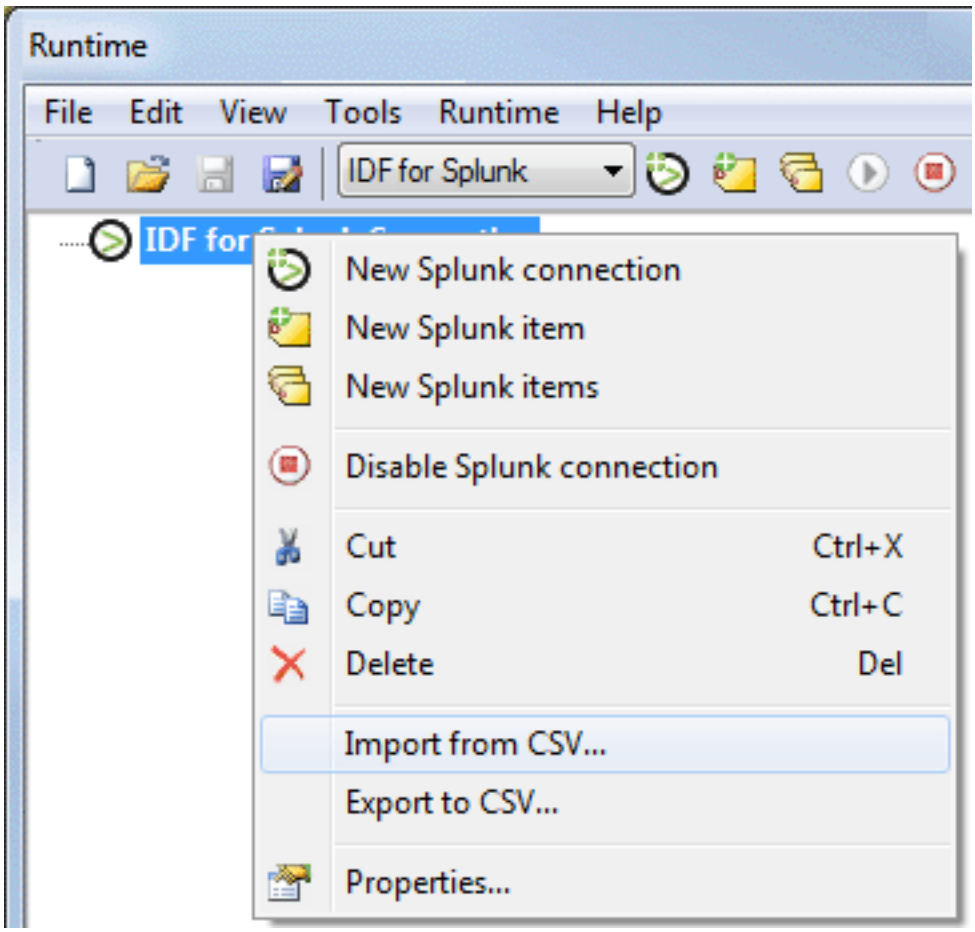
- Each record must be on its own line.

Exporting a Connection Item List

Exporting generates a CSV file that contains a list of Splunk items and their associated parameters (Server Tag, Update Rate, Deadband, Metadata) from the selected connection.

Importing a CSV File into a Connection

A CSV file can be imported into the IDF for Splunk plug-in by right-clicking on the desired connection and selecting **Import from CSV**. This adds the tags specified in the CSV file to the connection. If a tag already exists in the connection, its properties are overwritten with the values from the CSV file.



Using Other Characters as the Delimiter

For information on specifying a character to use as the server-specified delimiter, refer to **Options – General** in the server help file.

When using a CSV file that does not use a comma or semicolon delimiter, perform a search-and-replace on the delimiter in the CSV file and replace the delimiter with a comma or semicolon.

See Also:

IDF for Splunk Connection
Creating a new Splunk Connection
IDF for Splunk Item

Warning and Error Messages

The following messages may be generated. Click on the link for a description of the message.

Warnings

Dropping data for connection <connection> (server: <IP/hostname>:<port>), the maximum queue is <size>. Slow down the data collection rate or verify the server is responsive.
Error importing CSV item record <record number>. Deadband <value> is invalid, setting to <new value>.
Error importing CSV item record <record number>. Deadband <value> is out of range, setting to <value>.
Error importing CSV item record <record number>. No Deadband value found, setting to <value>.
Error importing CSV item record <record number>. No Update Rate found, setting to <value>.
Error importing CSV item record <record number>. Invalid Metadata string, setting to default value.
Error importing CSV item record <record number>. Server Tag is invalid.
Error importing CSV item record <record number>. Update Rate <value> is out of range, setting to <new value>.
Unable to send data for item <item> on connection <connection>. The licensed item count of <limit> items has been reached.

Errors

Connection <connection> failed to connect to server: <IP/hostname>:<port>. Please verify this connection information is correct and that the host can be reached.
Error adding item <item> to connection <connection>.
Error adding item <item>. This item already exists in connection <connection>.
Error importing CSV data. Header fields are out of order. Metadata must be the final field.
Error importing CSV data. Invalid CSV header.
Error importing CSV data. Memory allocation failed.
Error importing CSV data. No Splunk item records found in CSV file.
Error importing CSV header information. Duplicate field name: <field>.
Error importing CSV header information. Missing field identification record.
Error importing CSV header information. Unrecognized field name: <field>.
Failed to export connection <connection> to CSV.
Internal error occurred while sorting the Splunk item list.
Failed to load XML project. Item <item> already exists in Splunk connection <connection>.

Connection <connection name> failed to connect to server: <IP/host-name>:<port>. Please verify this connection information is correct and that the host can be reached.

Error Type:
Serious

Possible Cause:
The IP/hostname and/or port configured in the IDF for Splunk Connection Properties may be incorrect or the Splunk server is not running.

Solution:

1. Verify that the Splunk server is running.
2. Verify that the IP/ hostname and port of the Splunk server match those specified in the Splunk connection properties.

See Also:
IDF for Splunk Connection

Dropping data for connection <connection name> (server: <IP/ host-name>:<port>), the maximum queue is <size>. Slow down the data collection rate or verify the server is responsive.

Error Type:
Serious

Possible Cause:
Server tag values are changing faster than updates can be sent to the Splunk server.

Solution:

1. Verify that the network connection to the Splunk server is not being congested by other sources.
2. Slow down the Update Rate on the IDF for Splunk items.
3. Decrease the number of Splunk items in the connection.

See Also:
IDF for Splunk Item

Error adding item <item> to connection <connection>.

Error Type:
Serious

Possible Cause:
The Server Tag specified by this Splunk item is invalid or is not readable.

Solution:

1. Add the Server Tag specified by this Splunk item to the project as a static tag.
2. Correct spelling or syntax errors in the item's fully qualified path to the Server Tag, where the syntax is Channel.Device.Tag.
3. Edit security policy settings to permit read access to the specified Server Tag.
4. Confirm that the data type of the referenced tag is supported.

Error adding item <item>. This item already exists in connection <connection>.

Error Type:
Serious

Possible Cause:
A duplicate Splunk item cannot be added to the connection. A server tag may only be referenced once per connection.

Solution:

1. Remove the existing item from the connection, then add the new item.
2. Edit the existing item to match the desired settings of the new item.

Error importing CSV item record <record number>. Deadband <value> is invalid; setting to <new value>.

Error Type:
Warning

Possible Cause:
The Deadband value for the CSV record is not a numeric value.

Solution:
Verify that the Deadband value is a number between 0.0 and 100.0 (inclusive).

See Also:
Importing / Exporting CSV Files
IDF for Splunk Item

Error importing CSV item record <record number>. No Deadband value found; setting to <value>.

Error Type:
Warning

Possible Cause:
The CSV record doesn't have a value in the Deadband field.

Solution:

1. Verify that the CSV file has a Deadband field in the file header.
2. Verify that the CSV record has a value in the Deadband field.

See Also:
Importing / Exporting CSV Files
IDF for Splunk Item

Error importing CSV item record <record number>. Deadband <value> is out of range; setting to <value>.

Error Type:
Warning

Possible Cause:
The Deadband value for the CSV record is outside the range of 0.0 – 100.0 (inclusive).

Solution:
Update the Deadband value to be between 0.0 and 100.0 (inclusive).

See Also:

Importing / Exporting CSV Files
IDF for Splunk Item

Error importing CSV header information. Duplicate field name: <field>.

Error Type:
Serious

Possible Cause:
The CSV file header contains multiple instances of a field.

Solution:
Verify that each field is only listed once in the CSV file header.

See Also:
Importing / Exporting CSV Files

Error importing CSV data. Invalid CSV header.

Error Type:
Serious

Possible Cause:
The header portion of the CSV file is missing or incorrect.

Solution:

1. Add or complete the CSV file with a valid header.
2. Verify that the CSV file header is in the correct format. See Importing / Exporting CSV Files for instructions to generate a CSV template for the correct header format.

See Also:
Importing / Exporting CSV Files

Error importing CSV data. Header fields are out of order. Metadata must be the final field.

Error Type:
Serious

Possible Cause:
The Metadata field is not the final field in the CSV file header.

Solution:
Correct the CSV file format so that the Metadata information is the final field.

See Also:
Importing / Exporting CSV Files

Error importing CSV data. Memory allocation failed.

Error Type:
Serious

Possible Cause:
Insufficient system resources.

Solution:
Verify that sufficient RAM and hard disk space are available or make additional resources available.

See Also:
Importing / Exporting CSV Files

Error importing CSV item record <record number>. Invalid Metadata string, setting to default value.

Error Type:
Warning

Possible Cause:
The Metadata value for the CSV record contains backslashes or line break / newline characters.

Solution:
Remove special characters from the Metadata value for the CSV record.

See Also:
Importing / Exporting CSV Files
IDF for Splunk Item

Error importing CSV header information. Missing field identification record.

Error Type:
Serious

Possible Cause:
The CSV file header does not contain any field identifiers.

Solution:

1. Verify that the CSV file header contains at least the Server Tag field identifier.
2. Add or complete the CSV file with a valid header.

See Also:
Importing / Exporting CSV Files

Error importing CSV data. No Splunk item records found in CSV file.

Error Type:
Warning

Possible Cause:
The CSV file does not contain any Splunk item records.

Solution:

1. Add valid Splunk item records to the CSV file.
2. Verify that the CSV file contains valid Splunk item records.
3. Verify that the CSV file header is in the correct format. See CSV Import/Export for instructions to generate a CSV template for the correct header format.

See Also:
IDF for Splunk Item
Importing / Exporting CSV Files

Error importing CSV item record <record number>. Server Tag is invalid.

Error Type:
Serious

Possible Cause:
The Server Tag value in the CSV file is invalid or blank.

Solution:

1. Verify that the Server Tag value is not blank.
2. Verify that the Server Tag value contains at least one character other than underscores and periods.

See Also:
Importing / Exporting CSV Files
IDF for Splunk Item

Error importing CSV header information. Unrecognized field name: <field>.

Error Type:
Serious

Possible Cause:
The CSV file header contains an unexpected field or one of the field names is misspelled.

Solution:

1. Verify that each field name is spelled correctly (Server Tag, Update Rate, Deadband, Metadata).
2. Verify that the CSV file header does not contain any extra fields.
3. Add or complete the CSV file with a valid header.

See Also:
Importing / Exporting CSV Files

Error importing CSV item record <record number>. No Update Rate found; setting to <value>.

Error Type:
Warning

Possible Cause:
The CSV record does not have a value in the Update Rate field.

Solution:

1. Verify that the CSV file has an Update Rate field in the file header.
2. Verify that the CSV record has a value in the Update Rate field.

See Also:
Importing / Exporting CSV Files
IDF for Splunk Item

Error importing CSV item record <record number>. Update Rate <value> is out of range; setting to <new value>.

Error Type:
Warning

Possible Cause:
The Update Rate value for the CSV record is outside the allowable range or is not an integer value.

Solution:
Verify that the Update Rate value for this record is an integer between 10 and 99,999 (inclusive).

See Also:
Importing / Exporting CSV Files
IDF for Splunk Item

Failed to export connection <connection> to CSV.

Error Type:
Serious

Possible Cause:

1. The user may not have permission to write to the selected export location.
2. The system may have insufficient disk space to create the CSV file.

Solution:

1. Verify that the user has permission to write to the selected location.
2. Change the export location to one where the user has write permissions.
3. Verify that sufficient system resources are available to create the file.

See Also:
Importing / Exporting CSV Files

Failed to load XML project. Item <item> already exists in Splunk connection <connection>.

Error Type:
Serious

Possible Cause:
There are duplicate Splunk items defined in the XML project file.

Solution:
Edit the project file to remove duplicate items. See below for an example of a duplicated Splunk item in XML.

```
<idf_splunk:SplunkItems>
	<idf_splunk:SplunkItem>
		<idf_splunk:Name>Simulators_Sim1_Ramp1</idf_splunk:Name>
		<idf_splunk:Tag>Simulators.Sim1.Ramp1</idf_splunk:Tag>
		<idf_splunk:UpdateRateMS>1000</idf_splunk:UpdateRateMS>
		<idf_splunk:Deadband>0.000000</idf_splunk:Deadband>
		<idf_splunk:Metadata>MachineID="C24"</idf_splunk:Metadata>
	</idf_splunk:SplunkItem>
	<idf_splunk:SplunkItem>
		<idf_splunk:Name>Simulators_Sim2_Ramp4</idf_splunk:Name>
		<idf_splunk:Tag>Simulators.Sim2.Ramp4</idf_splunk:Tag>
		<idf_splunk:UpdateRateMS>900</idf_splunk:UpdateRateMS>
		<idf_splunk:Deadband>0.000000</idf_splunk:Deadband>
		<idf_splunk:Metadata>MachineID="C24"</idf_splunk:Metadata>
	</idf_splunk:SplunkItem>
	<idf_splunk:SplunkItem>
		<idf_splunk:Name>Simulators_Sim1_Ramp1</idf_splunk:Name>
		<idf_splunk:Tag>Simulators.Sim1.Ramp1</idf_splunk:Tag>
		<idf_splunk:UpdateRateMS>850</idf_splunk:UpdateRateMS>
		<idf_splunk:Deadband>0.000000</idf_splunk:Deadband>
		<idf_splunk:Metadata>MachineID="C24"</idf_splunk:Metadata>
	</idf_splunk:SplunkItem>
</idf_splunk:SplunkItems>
```

Internal error occurred while sorting the Splunk item list.

Error Type:
Serious

Possible Cause:
Insufficient system resources.

Solution:

1. Verify that sufficient system resources are available.
2. Shut down and restart the server configuration software.

See Also:
Importing / Exporting CSV Files

Unable to send data for item <item> on connection <connection>. The licensed item count of <limit> items has been reached.

Error Type:
Serious

Possible Cause:
More items have been added to the plug-in than are allowed by the installed IDF for Splunk license.

Solution:

1. Remove Splunk items from the connection(s).
2. License the IDF for Splunk plug-in with a higher item limit.

Index

C

Connection failed to connect to server. Please verify this connection information is correct and that the host can be reached. 23
Creating a New Splunk Item 13

D

Dropping data for connection (server), the maximum queue size is reached. Slow down the data collection rate or verify the server is responsive. 23

E

Error adding item to connection. 23
Error adding item. This item already exists in connection. 24
Error importing CSV data. Header fields are out of order. Metadata must be the final field. 25
Error importing CSV data. Invalid CSV header. 25
Error importing CSV data. Memory allocation failed. 25
Error importing CSV data. No Splunk item records found in CSV file. 26
Error importing CSV header information. Duplicate field name. 25
Error importing CSV header information. Missing field identification record. 26
Error importing CSV header information. Unrecognized field name. 27
Error importing CSV item record. Deadband is invalid - setting to new value. 24
Error importing CSV item record. Deadband is out of range - setting to new value. 24
Error importing CSV item record. Invalid Metadata string, setting to default value. 26
Error importing CSV item record. No Deadband value found - setting to new value. 24
Error importing CSV item record. No Update Rate found - setting to value. 27
Error importing CSV item record. Server Tag is invalid. 26
Error importing CSV item record. Update Rate is out of range - setting to new value. 27

F

Failed to export connection to CSV. 28
Failed to load XML project. Item already exists in Splunk connection. 28

H

Help Contents 4

I

IDF for Splunk Connection 12
IDF for Splunk Item 17
Importing / Exporting CSV Files 20
Internal error occurred while sorting the Splunk item list. 28

M

Multiple Splunk Items 18

O

Overview 4

P

Plug-In Setup 10

Q

Quick Start 6

T

Tag Browser 16

U

Unable to send data for item on connection. The licensed item count has been reached. 29
User Interface 5

W

Warning and Error Messages 22