

DataSpider Servista

StraForm-X Connector User Guide

Document Release Date: July 5 2022 (The 1st Edition)



© SAISON INFORMATION SYSTEMS CO.,LTD. 2022

Table of Contents

1. Before Use	1
1.1. Precautions	3
1.1.1. Copyright Notice	3
1.1.2. Trademarks	4
1.2. About the mark of this document	4
1.3. About the Icons Used in This Guide	5
1.4. Notation specific to this document	5
2. Software Requirements	6
3. StraForm-X Connector Installation	7
3.1. StraForm-X connector Operation Environment	7
3.2. Storing StraForm-X connector Module	7
3.3. StraForm-X Connector File Storing	8
4. Configuring after Installation	9
5. Editing the configuration file	10
5.1. Parameters that can be configured	10
5.2. [option] element	12
6. Configuring the Script	13
6.1. Configuring the read script	14
6.2. Configuring the write script	16
6.3. Configuring delete script	17
7. Transition to Error Screen	19
8. StraForm-X Connector log Settings	20
9. StraForm-X Connector Uninstallation	21
10. Specification Limitations	22
11. Main Exception of StraForm-X Connector	23

1. Before Use

This manual is the user guide for StraForm-X connector which is the module to link the DataSpider Servista and SVF StraForm of WingArc 1st Inc.

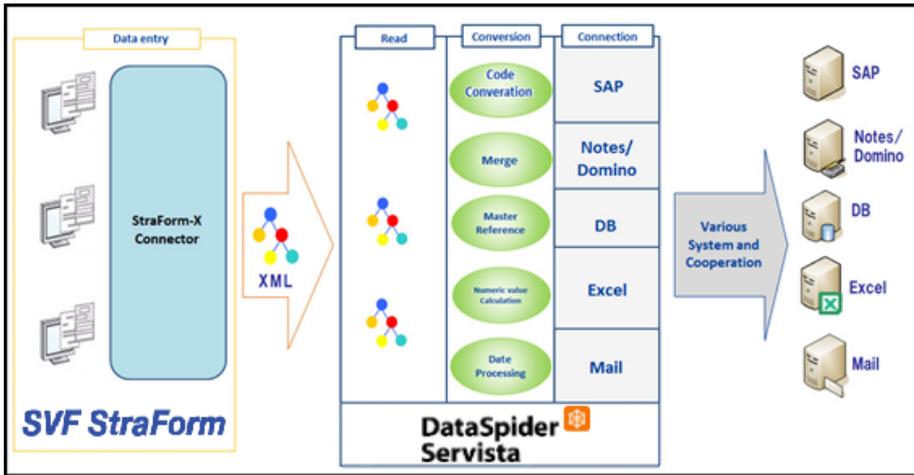
The StraForm-X connector is the connected interface to enable an interconnected link for multiple business system applications from the web browser by linking DataSpider Servista and SVF StraForm.

SVF StraForm is a design tool that develops the web browser input user interface as non-programming to improve the efficiency of document control in the business site. This product can design the input screen in the structure where the form and data are completely separated, and the data entered in the Web input form has the mechanism where it can store everything as a flat XML file in the SVF StraForm server.

In this mechanism, by installing the connection module "StraForm-X connector", DataSpider Servista will be able to seamlessly accept the form input data. As for the received data, data is linked to the system by using the function that is mounted by DataSpider Servista, by performing the data processing/conversion and by connecting to the adaptor that enables the connection of various applications and database.

By the providing this connection link module, along with achieving the seamless link, SVF StraForm and DataSpider Servista supports the non-programming system development leading to an environment that can operate the data output of various applications easily from the web browser. The merits of both the product link is as given below.

- Valuable data such as SAP, Lotus Notes, System i, Excel data, and mail data, that would be the asset of the enterprise has been accumulated in various systems. By creating Web input screen in SVF StraForm easily and by linking with the DataSpider Servista, without revising the existing system, it is possible to construct a non-programming environment that can input data using web browser and development man-hours can be reduced drastically without any cost increase.
- By linking both the products, it is possible to migrate to the environment that can be connected with various systems as long as there is a web browser, from the past system environment where special input screen are necessary for individual business system.
- It leads to the improvement of the input efficiency and effective use of data in an existing system and the business efficiency can be achieved by constructing a smooth data input environment in the Web environment.



[Process image]

1.1. Precautions

1.1.1. Copyright Notice

- The copyright of this software is owned by Saison Information Systems Co., Ltd. or its licensors.
- Unauthorized copy, reprinting of this software and this manual is prohibited.
- While preparing this manual every effort has been taken to ensure its correctness but in case of any mistakes, mismatch, and suggestions please contact us.
- Please use this software by user's responsibility. As a result, with regard to any trouble and the lawsuit, etc. occurs by any chance, damage or loss caused directly or indirectly, our company doesn't at all assume any responsibilities. This is for your information beforehand.
- The contents described in this manual and software specifications are subject to change for betterment, without prior notification.
- The software licensing agreement is necessary for the use of this software, which includes trade secrets and proprietary information critical to Saison Information Systems Co., Ltd. or its licensors, and it is protected by the Copyright Law of the Japanese national administration. The unauthorized use of Saison Information Systems Co., Ltd. or the licensor's software and this manual is subject to compensation and criminal proceedings.

1.1.2. Trademarks

- DataSpider, the DataSpider logo, DataSpider Servista and the names of their associated products or services are trademarks or registered trademarks of Saison Information Systems Co., Ltd.
- The names of other companies, products and services are trademarks or registered trademarks of their respective companies.
- The duplication or diversion of information, such as trademarks, shown on the pages of this document is strictly prohibited.

1.2. About the mark of this document

The rules of the notations in this document are as follows.

- Menu name, tab name, property item name, value, and button name displayed on screen are enclosed with [] and in bold letters. Moreover, the one without title of screens and other function names are enclosed with "" and distinguished from the former.
- "\$DATASPIDER_HOME" shows the directory where DataSpider Servista is installed.
In default, it is "C:¥Program Files¥DataSpiderServista" for Windows version and "<HOME>/DataSpiderServista" for UNIX/Linux version.
- x86 version means 32bit OS.
x64 version means 64bit OS of 64bit CPU (Intel 64/AMD64).
- Name enclosed with < > is variable value.
Example: \$DATASPIDER_HOME/server/logs/<Date directory>
- URLs of the Web sites shown in this document are as of December 2021, and are subject to change without notice due to reasons of the Web site.
- "Studio" means "DataSpider Studio", and "Studio for Web" means "DataSpider Studio for Web".
- The descriptions of the Windows and UNIX/Linux versions of DataSpiderServer have been standardized. Please replace descriptions of operating system dependent items (such as path delimiter characters) as necessary.
- The numbers beginning with "DSS-" are unique IDs for controlling each corresponding problem.

1.3. About the Icons Used in This Guide

This Guide uses the following icons in its explanation.

Icon	Description
	Indicates that there are hints about operations or configurations.
	Indicates that there are warnings about operations or configurations.
	Indicates that there are detailed descriptions in other resources.

1.4. Notation specific to this document

The "<Installation directory of StraForm Server Base>" described in this document is represents the directory in which you installed StraForm Server Base.

By default, it is "C:¥SVFStraForm¥SVFStraForm¥apache-tomcat".

2. Software Requirements

The software necessary for operating StraForm-X connector is given below.

- StraForm Server Base (Windows version)
 - Operation confirmed version
 - 1.7

3. StraForm-X Connector Installation

This section gives StraForm-X Connector Installation.

3.1. StraForm-X connector Operation Environment

- Operating OS
 - Comply with the operation environment of StraForm Server Base that is operated in Windows environment.
- Recommended Memory space
 - Comply with the operation environment of StraForm Server Base.
- Minimum Free Disk space
 - Comply with the operation environment of StraForm Server Base.

3.2. Storing StraForm-X connector Module

Store the StraForm-X connector module in StraForm Server Base.

- StraForm-X Connector Module
 - dssrconnection.jar
 - straformconnector.jar
- Storing destination
 - <Installation directory of StraForm Server Base>%webapps%straform%WEB-INF%lib

3.3. StraForm-X Connector File Storing

Store the StraForm-X connector setting file in StraForm Server Base.

- StraForm-X connector setting file
 - `straformconnector.xml`
- Storing Destination
 - `<Installation directory of StraForm Server Base>\webapps\straform\WEB-INF\classes`

4. Configuring after Installation

After installing the StraForm-X Connector, add the child element to [DTXSERVER_CONFIG] element that exists in the below path.

- Configuration File
 - <Installation directory of StraForm Server Base>%webapps%straform%WEB-INF%conf%config.xml
- Child element to be added
 - <DATAFILE_CLASS>com.appresso.straform.DataSpiderScriptExecutor</DATAFILE_CLASS>

5. Editing the configuration file

Describe the configuration file used by StraForm-X Connector in the "straformconnector.xml" file in the below directory

- Storing location
 - <Installation directory of StraForm Server Base>%webapps%straform%WEB-INF%classes

 To edit the configuration file, StraForm Server Base should be re-started to reflect that change.

(Not necessary to re-start DataSpiderServer)

5.1. Parameters that can be configured

Element	Attribute	Mandatory/Optional	Description
straformconnector		Mandatory	It is a root element.
connection		Mandatory	Describes the connection information. Describes 1 straformconnector.
host		Mandatory	Specifies the host name/IP of the DataSpiderServer. When the value is not entered, [127.0.0.1] is set by default.
port		Mandatory	Specifies the port number of DataSpiderServer. When the value is not entered, [7700] is set by default.
description		Optional	Specifies the session information while executing in this StraForm-X connector. The information specified here will be the contents displayed in the [Description] column of the [Session] tab of [Task Manager] in the control panel of DataSpider Studio.
user		Mandatory	Specifies the executed user name. When the value is not entered [root] is set by default.
password		Mandatory	Specifies the executed password.
repository		Mandatory	Specifies the targeted form repository. Multiple descriptions can be done in straformconnector.
	id	Optional	Specifies the repository ID. Refer to [Repository Setting] of StraForm Server control screen for repository ID.  When [*] (Asterisk) is specified, or value is not entered, the entire repository IDs will be targeted.
form		Mandatory	Specifies the form. Multiple descriptions are possible in repository.
	id	Optional	Specifies the form ID. Refer to [Repository Setting] of StraForm Server control screen for form ID.  When [*] (Asterisk) is specified, or value is not entered, the entire form IDs will be targeted.

Element	Attribute	Mandatory/Optional	Description
param		Mandatory	Performs the setting of start script. 1 script is started for 1 param. Multiple descriptions are possible in form element.
	action	Optional	Specifies the below value to configure on which of these actions such as read, write and delete, the script should be started. When value is not entered, "read" is set by default. - read : Starts the script during read. - write : Starts the script during write. - del : Starts the script during delete.
	project	Mandatory	Specifies the project name. Set as <Author>@<Project Name>.
	script	Optional	Specifies the script name.  When the value is not entered, the value specified in the action attribute will be the script name. For example, when the action="read", the script name will be "read".
input		Optional	Set any argument that is passed to the script. Multiple inputs can be set to param element.
	key	Mandatory	It is a name of the argument passed to the script. It should be same as the argument name set in the script.
option		Optional	It is an option that is passed to the script. Multiple inputs can be set to param element.  For details, refer to "[option] element".
	key	Mandatory	It is a key to the option.
printstdout		Optional	Set whether to output the log to a standard output of StraForm Server. If the value is not entered, "false" is set by default. - true : Outputs the log. - false : Does not output the log.  For details, refer to "StraForm-X Connector log Settings".

 The content of straformconnector.xml is read from the beginning. Therefore, when a value and an attribute to be set appear more than once, those are replaced when it appears in the latter portions.

5.2. [option] element

Key	Value	Description
ENABLE_XML_LOG		Set ON/OFF of the XML log.
	true	Outputs the XML log.
	false	Does not output the XML log (Default value).
LOG_LEVEL		Set the log level.
	NOTICE	It is a log level to output only the major logs.
	INFO	It is a log level recommended for operation (default).
	FINFO	It is a log level recommended for development.
	FINEST	It is a log level to output the detailed log.
	DEBUG	It is a log level to output the logs which are highly- detailed.

6. Configuring the Script

Configuring the DataSpider Servista script which is used by StraForm-X Connector.

 In DataSpider, the project should be registered to the server. For details, refer to DataSpider Servista Help.

 To edit the script which is already registered to the server, the project should be registered again in order to reflect the changes. (StraForm server base need not be restarted).

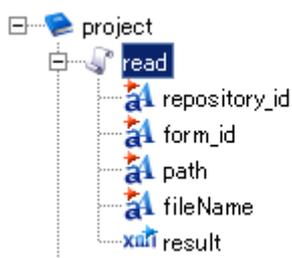
6.1. Configuring the read script

When updating the existing data of SVF StraForm, if existing data is acquired, then read script is called. For reading the script, set [read] for the attribute value [action] of [param] element in the "straformconnector.xml" file.

Four arguments are passed during read script execution. Moreover, the XML type data which denotes the form content is returned as a return value of the script. In order to define this argument and the return value, following four script input variables and one-script output variable are defined in the script.

Script variable name	Type (Input/Output)	Description
form_id	(Character string type/ Input)	Stores the Form ID.
repository_id	(Character string type/ Input)	Stores the repository ID.
path	(Character string type/ Input)	Stores the path.
fileName	(Character string type/ Input)	XML that denotes the content of the entered form is stored by the written file name.
result	(XML type/Output)	Stores the XML that denotes the form contents.

The image of the script variables which are defined above is as follows.



To substitute the result data (XML data) of script in the defined XML type file's script output variable [result], connect the data flow from the component to output the result data, to the End component as shown below.



 When reading the script, if there is no form data related to script input variable (repository_id, form_id, path, fileName), substitute the XML data that denotes form XML data schema, to XML type file's script output variable [result]. The XML data that denotes XML data schema can be easily generated on DataSpider by reading the DTD file generated when the form is saved. This DTD file can be read by the mapping process which is found in the designer's tool palette [Basic] - [Conversion].

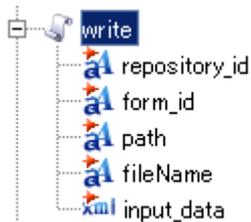
6.2. Configuring the write script

When saving and updating the data created in SVF StraForm, write script is called. For writing the script, set [write] for the attribute value [action] of [param] element in the "straformconnector.xml" file.

Five arguments are passed during write script execution. In order to accept this argument, following five scripts input variables are defined in the script.

Script variable name	Type (input/output)	Description
form_id	(Character string type/ Input)	Stores the form ID.
repository_id	(Character string type/ Input)	Stores the repository ID.
path	(Character string type/ Input)	Stores the path.
fileName	(Character string type/ Input)	XML that denotes the contents of the entered form is stored by the written file name.
input_data	(XML type/ Input)	Stores the XML that denotes the entered form contents.

The image of the script variables which are defined above is as follows.



To accept the form data which is passed to the XML type file's script input variable, as script, set the XML type script variable (it is given as input-data in the above image) to the component of input source at the accepting side. If script variable is set as input source, the data flow is connected between [Start] and [Component].



6.3. Configuring delete script

When deleting the data of SVF StraForm, delete script is called. For writing the script, set [write] for the attribute value [action] of [param] element in the "straformconnector.xml" file. For deleting the script, set [del] for the attribute value [action] of [param] element in the "straformconnector.xml" file.

 For delete execution of SVF StraForm, authority should be assigned. For details, refer to SVF StraForm.

Four arguments are passed during delete script execution. Moreover, Boolean data is returned as a value to denote whether the deletion is successful. In order to define this argument and the return value, following four script input variables and one-script output variable are defined in the script.

Script variable name	Type (input/output)	Description
form_id	(String type/ Input)	Stores the form ID.
repository_id	(String type/ Input)	Stores the repository ID.
path	(String type/ Input)	Stores the path.
fileName	(String type/ Input)	XML that denotes the contents of the entered form is stored by the written file name.
removeSuccess	(Boolean/ Output)	Stores the value (true or false) that denotes whether deletion process is successful.

The image of the script variables which are defined above is as follows.



 StraForm-X connector considers deletion script processing as failed in any one of the below condition.

- When the script set in the script attribute of param element does not exist
- When removeSuccess script output variable of Boolean has not been defined
- When removeSuccess script output variable of Boolean has been set to "false"

- When the deletion script processing is failed

7. Transition to Error Screen

When error occurs in StraForm-X connector and if you want to transit to any page, then change the contents of "saveerror.html" which is found in the below path.

- Storing location
 - <Installation directory of StraForm server base>%webapps%straform

 Above setting will be enabled during write. When error occurs in the set script during read or when there is an error code in the script's return value then, blank form will be displayed.

8. StraForm-X Connector log Settings

Successful execution of the script executed from StraForm-X connector can be confirmed from the standard output log file which is found in the below SVF StraForm path apart from My Logs of DataSpider Studio.

 Logs are output in the below file which is found in the <Installation directory of StraForm server base>%logs folder.

- svfstraform-stdout.<yyyy-MM-dd>.log

Value of [printstdout] element of the "straformconnector.xml" file should be set to [true] to output the log of StraForm-X connector in the log file.(When the value is not entered in the element, element contents, "false" is set by default)

The arguments passed to the script, exit status of the script return value are output as log in the log file.

For example, if the execution of read script is completed, then the following will be output in the log file.

```
** InputStatus straformConde=[0]
```

In the above example, the exit status of the return value is [0]. [0] means exit is successful.

 Refer to "Exit Status" of DataSpider Servista for the exit status.

9. StraForm-X Connector Uninstallation

Delete the module installed with StraForm-X Connector and "Configuring after installation" using the following procedure.

1. Deleting the jar file

Delete the jar file, `straformconnector.jar` file and `dssrconnection.jar` file in the below path.

- `<Installation Directory of StraForm Server Base>%webapps%straform%WEB-INF%lib`

2. Deleting the configuration file

Delete the configuration file "`straformconnector.xml`" in the below path.

- `<Installation Directory of StraForm Server Base>%webapps%straform%WEB-INF%classes`

3. Deleting DATAFILE_CLASS element

Delete the Child element `<DATAFILE_CLASS>` in `<DTXSERVER_CONFIG>` element of the `config.xml` in the below path.

- `<Installation Directory of StraForm Server Base>%webapps%straform%WEB-INF%conf`

Element to be deleted

```
<DATAFILE_CLASS>com.appresso.straform.DataSpiderScriptExecutor</DATAFILE_CLASS>
```

10. Specification Limitations

- DataSpider Servista project that uses StraForm-X Connector should be registered in the server. Refer to DataSpider Studio Online help for the details regarding the registration to the server.
- SVF StraForm data does not exist in the output file path
"<Installation Directory of StraForm Server Base>\webapps\straform\WEB-INF\data".

11. Main Exception of StraForm-X Connector

Exception	Cause
ProjectNotFoundException message = [[project]]	Specified DataSpider Servista project may not be registered in the server.
ScriptNotFoundException message = [[script]]	Execution targeted script does not exist in the specified DataSpider Servista project.
ConnectException: Connection refused: connect	Specified DataSpiderServer may not be started.
ParameterNotFoundException	Mandatory element and attribute defined in straformconnector.xml file are not set or the settings are different from straformconnector.xml settings.

DataSpider Servista
StraForm-X Connector User Guide

The 1st edition: July 5 2022

SAISON INFORMATION SYSTEMS CO., LTD.