StreamServe™ Persuasion™

StreamServe Persuasion SP5 StreamIN

User Guide

Rev A

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StreamServe Web Site
http://www.streamserve.com

Contents

About StreamIN

The StreamServer can receive and process field-based (FieldIN) and record-based (RecordIN) input data as shown in the examples below.

Example 1 *RecordIN input*

```
INVOICE;1234;JOHN SMITH
ARTICLE;010;Ball;30.00
ARTICLE;020;Rope;125.00
AMOUNT;SEK;155.00
```

Example 2 *FieldIN input*

```
BEGIN                    Invoice
HEADER_Invoice_no        1234
HEADER_Your_ref          JOHN SMITH
ARTICLE_Pos_no           010
ARTICLE_Item             Ball
ARTICLE_Price            30.00
ARTICLE_Pos_no           020
ARTICLE_Item             Rope
ARTICLE_Text             80 Inches
ARTICLE_Price            125.00
AMOUNT_To_pay            155.00
AMOUNT_Currency          SEK
FREETEXT_Free_text        Merry Christmas!
```

Description files

You must create a description file where you describe all fields that the input data can contain, and which Event(s) the input data is aimed for. See *Description files* on page 9.

Samples

You can load one or more StreamIN samples to the StreamIN tool, and use these samples when you create a StreamIN configuration. See *StreamIN samples* on page 47.

StreamIN configuration

The description file does not describe how to structure the fields. In the StreamIN tool, you specify how to organize the input data as fields and blocks of fields. See *Creating a StreamIN configuration* on page 51.

About StreamIN

Description files

StreamIN input is either field-based (FieldIN) or record-based (RecordIN). In either case, you must create a description file where you describe all fields that the input data can contain, and which StreamIN Event configuration the input data is aimed for. One description file can contain several descriptions, separated by description IDs. You create a description file using a text editor, and import it to a resource set connected to the StreamIN configuration.

Adding the description file to the StreamIN configurations

In the Design Center, you must add the description file to the appropriate StreamIN configurations.

1. In the Message window, right-click the StreamIN Event and select **Settings**. The Event Settings dialog box opens.
2. On the Agent Settings tab, select the appropriate **Input Type** (FieldIN or RecordIN) and edit the settings.

Settings	
Description resource	The description file.
Description ID	The `FIELDIN` or `STREAMIN` keyword in the description file (case sensitive).

RecordIN reference

RecordIN data consists of records with one or more fields. A record can be of fixed or variable length. The fields can be character separated, or located in fixed positions.

Example 3 *RecordIN input*

```
INVOICE;1234;JOHN SMITH
ARTICLE;010;Ball;30.00
ARTICLE;020;Rope;125.00
AMOUNT;SEK;155.00
```

Example 4 *RecordIN description file*

```
STREAMIN "STR123"
BEGIN
    TYPEPREFIX;
    RECORD "INVOICE" 1 CHRSEP ";"
        MATCH "INVOICE"
        NEWEVENT "Invoice"
        FIELDS
            "Record_id";
            "Invoice_no";
            "Your_ref";
        END
    END
    RECORD "ARTICLE" 1 CHRSEP ";"
        MATCH "ARTICLE"
        INEVENT "Invoice"
        FIELDS
            "Record_id";
            "Pos_no";
            "Item";
            "Price";
        END
    END
    RECORD "AMOUNT" 1 CHRSEP ";"
        MATCH "AMOUNT"
        INEVENT "Invoice"
        FIELDS
            "Record_id";
            "Currency";
            "To_pay";
        END
    END
END
```

RecordIN syntax

```
STREAMIN <str>
BEGIN
   [TYPEPREFIX;]
   [RECLEN <num>;]

   RECORD <str> 1 [[IGNORE;]|[FIXPOS|CHRSEP <str>]]

     [FIELDQUOTE <str>]
     [ESCQUOTE <str>]
     [NEWEVENT <str>;]
     [INEVENT <str1> <str2> <str3> ... <strN>;]
     [EVENT <str>;]
     [JOBBEGIN;]
     [JOBEND;]
     [MATCH [<str1> <str2> ... <strN>|EMPTY|SCRIPT <{...}>];]
     [FIELDS
        <str1> [<num11> <num12>]
               [KEEPSP|KEEPLEADINGSP|KEEPTRAILINGSP|SCRIPT <{...}>]
               [VARNAME <str>];
        ...
        <strN> [<numN1> <numN2>]
               [KEEPSP|KEEPLEADINGSP|KEEPTRAILINGSP|SCRIPT <{...}>]
               [VARNAME <str>];
       END]
   END
END
```

- All keywords and arguments are separated with white spaces (space or tab).
- Keywords within "`[ ]`" are optional.
- Pipe "`|`" indicates "OR".

All string and character arguments must be enclosed by quotation marks, for example "`String 1`" or "`A`". You can also enter characters as ASCII within angle brackets. For example, enter "`<33>`" instead of an exclamation mark ("`!`").

Overall keywords

Keyword overview	
Keyword	**Purpose**
STREAMIN	The start of the RecordIN description. This is the Description ID you must specify when you configure the Event settings in the Design Center.
TYPEPREFIX	This keyword must be included if several records have the same field names.

Keyword overview	
Keyword	**Purpose**
RECLEN	This keyword must be included if the records are of fixed length. It specifies the length in characters.

STREAMIN

Syntax `STREAMIN <str>`

Description The start of the RecordIN description. This is the Description ID you must specify when you configure the Event settings in the Design Center.

Example `STREAMIN "Invoice"`

TYPEPREFIX

Syntax `TYPEPREFIX`

Description This keyword must be included if several records have the same field names.

Example `TYPEPREFIX`

RECLEN

Syntax `RECLEN <num>`

Description This keyword must be included if the records are of fixed length. It specifies the length in characters.

Example `RECLEN 15`

Record keywords

Keyword overview	
Keyword	**Purpose**
RECORD	The record ID.
IGNORE	Ignore the fields in the record.
FIXPOS	Use this keyword if the record fields are in fixed positions.
CHRSEP	The field separator for character separated record fields.
FIELDQUOTE	Quotation marks in the input data indicate that two or more fields belong together. The `FIELDQUOTE` keyword must be the same character as the quotation mark used in the input data.
ESCQUOTE	To be able to use the quotation mark as a character in a field, it must be escaped by an escape character. The `ESCQUOTE` keyword must be the same character as the escape character used in the input data.
NEWEVENT	Associates the record with a StreamIN configuration. This type of record will trigger a new Message.
INEVENT	Associates the record with one or more StreamIN configurations. This type of record does not trigger any new Message. The record must be associated with one or more StreamIN configurations that are already active, otherwise the data will be lost.
EVENT	Associates the record with a StreamIN configuration. If the corresponding StreamIN configuration is not active, a new Message will be triggered by the record. If it is active, the record data will be added to the current Message.
JOBBEGIN	Sets a `JobBegin` command.
JOBEND	Sets a `JobEnd` command.
MATCH	Match criteria for a record. Start position of the match is position 1 by default. You can omit the `MATCH` keyword if the match criterion and record ID are the same.
EMPTY	Match empty records, i.e. a single carriage return/line feed or a single line feed.

RECORD

Syntax `RECORD <str>`

Description The record ID.

Example `RECORD "INVOICE"`

IGNORE

Syntax `IGNORE`

Description Ignore the fields in the record.

Comment If you use the `IGNORE` keyword, you cannot use the `MATCH` keyword.

Example `RECORD "INV_TEST" 1 IGNORE;`

FIXPOS

Syntax `FIXPOS`

Description Use this keyword if the record fields are in fixed positions.

Example `RECORD "INV_ARTICLE" 1 FIXPOS`

CHRSEP

Syntax `CHRSEP <chr>`

Description The field separator for character separated record fields.

Example `RECORD "INV_ARTICLE" 1 CHRSEP ";"`

FIELDQUOTE

Syntax `FIELDQUOTE <chr>`

Description Quotation marks in the input data indicate that two or more fields belong together. The `FIELDQUOTE` keyword must be the same character as the quotation mark used in the input data.

Comment You cannot write `FIELDQUOTE """`. If you want to use " as field quote, you must use the hexadecimal ASCII representation `<22>` (`FIELDQUOTE "<22>"`).

Example	
Input	**Description file**
`INVOICE 1234 "William Smith"`	`RECORD "INV_ABC" 1 ChrSep " "` `  **FIELDQUOTE** "<22>"`

ESCQUOTE

Syntax `ESCQUOTE <chr>`

Description To be able to use the quotation mark as a character in a field, it must be escaped by an escape character. The `ESCQUOTE` keyword must be the same character as the escape character used in the input data.

Example	
Input	**Description file**

`INVOICE 1234 "William "\Bill"\ Smith"`	`RECORD "INV_ABC" 1 ChrSep " "`
	`  FIELDQUOTE "<22>"`
	`  **ESCQUOTE** "\"`

NEWEVENT

Syntax `NEWEVENT <str>;`

Description Associates the record with a StreamIN configuration. This type of record will trigger a new Message.

The case sensitive string argument must be the same as the name given to the StreamIN Event configuration in the Design Center.

Example

```
RECORD "INV_ABC" 1 ChrSep " "
      NEWEVENT "invoice_1";
```

INEVENT

Syntax `INEVENT <str1>...<strN>`

Description Associates the record with one or more StreamIN configurations. This type of record does not trigger any new Message. The record must be associated with one or more StreamIN configurations that are already active, otherwise the data will be lost.

The case sensitive string arguments must be the same as the names given to the StreamIN Event configurations in the Design Center.

Example

```
RECORD "INV_ABC" 1 ChrSep " "
      INEVENT "invoice_1" "invoice_3" "invoice_5";
```

EVENT

Syntax `EVENT <str>`

Description Associates the record with a StreamIN configuration. If the corresponding StreamIN configuration is not active, a new Message will be triggered by the record. If it is active, the record data will be added to the current Message.

The case sensitive string argument must be the same as the name given to the Event in the Design Center.

Example

```
RECORD "INV_ABC" 1 ChrSep " "
      EVENT "invoice_1";
```

JOBBEGIN

Syntax `JOBBEGIN`

Description Sets a `JobBegin` command.

Example

```
RECORD "INV_ABC" 1 ChrSep " "
      EVENT "invoice_1";
      JOBBEGIN;
```

JOBEND

Syntax `JOBEND`

Description Sets a `JobEnd` command.

Example

```
RECORD "INV_DEF" 1 ChrSep " "
      EVENT "invoice_1";
      JOBEND;
```

MATCH

Syntax `MATCH <str1>... <strN>|EMPTY|SCRIPT <{...}>;`

Description Match criteria for a record. Start position of the match is position 1 by default. You can omit the `MATCH` keyword if the match criterion and record ID are the same.

Comment Not applicable to `IGNORE` records.

You can use `?` as wildcard.

Example `MATCH "CLASSIC" "ROCK";`

The match criterion is `CLASSIC` or `ROCK` in this example.

EMPTY

Syntax `EMPTY`

Description Match empty records, i.e. a single carriage return/line feed or a single line feed.

Example `MATCH EMPTY;`

Field keywords

Keyword overview	
Keyword	**Purpose**
FIELDS	A field definition. Includes the field names and, in case of fixed position records, the start and end positions.
KEEPLEADINGSP	Use this keyword to keep leading spaces in the field.
KEEPSP	Use this keyword to keep both leading and trailing spaces in the field.
KEEPTRAILINGSP	Use this keyword to keep trailing spaces in the field.
VARNAME	Specifies a field variable.

FIELDS

Syntax

```
FIELDS <str1> [<num11> <num12>] [KEEPSP | KEEPLEADINGSP |
KEEPTRAILINGSP | SCRIPT <{...}>] [VARNAME <str>];
```

Description

A field definition. Includes the field names and, in case of fixed position records, the start and end positions.

Example

```
FIELDS
    "Record_id" 1 10;
    "Invoice_no" 17 22;
    "Invoice_date" 25 34;
    "Your_ref" 52 71;
    "Our_ref" 76 95;
    "Email_address" 97 126;
    "Fax_no" 128 145;
    "Country_code" 149 151;
END
```

KEEPLEADINGSP

Syntax `KEEPLEADINGSP`

Description Use this keyword to keep leading spaces in the field.

Example

```
FIELDS
    "Record_id" 1 10 KEEPLEADINGSP;
```

KEEPSP

Syntax `KEEPSP`

Description Use this keyword to keep both leading and trailing spaces in the field.

Example

```
FIELDS
    "Record_id" 1 10 KEEPSP;
```

KEEPTRAILINGSP

Syntax `KEEPTRAILINGSP`

Description Use this keyword to keep trailing spaces in the field.

Example

```
FIELDS
    "Record_id" 1 10 KEEPTRAILINGSP;
```

VARNAME

Syntax `VARNAME <str>`

Description Specifies a field variable.

Comment Do not enter the $ prefix and do not use white spaces.

Example

```
FIELDS
    "cust_no" 1 10 VARNAME "cust_no";
```

FieldIN reference

FieldIN input consists of field IDs and field values. The ID and the value can be character separated, or located in fixed positions.

Example 5 *FieldIN input*

```
BEGIN                    Invoice
HEADER_Invoice_no        1234
HEADER_Your_ref          JOHN SMITH
ARTICLE_Pos_no           010
ARTICLE_Item             Ball
ARTICLE_Price            30.00
ARTICLE_Pos_no           020
ARTICLE_Item             Rope
ARTICLE_Text             80 Inches
ARTICLE_Price            125.00
AMOUNT_To_pay            155.00
AMOUNT_Currency          SEK
FREETEXT_Free_text        Merry Christmas!
```

Example 6 *FieldIN description file*

```
FIELDIN "STR456"
       PosLabelStartEvent 1
       LabelStartEvent "BEGIN"
       PosEvent 25
       IgnoreLevel
       PosField 1
       FixLenField 24
       PosValue 25
END
```

FieldIN syntax

```
FIELDIN <str>
   [Comment <str>]
   [DisableLookback]
   Event keywords [<num>|<str>|<{...}>]
   Field keywords [<num>|<str>|<{...}>]
   [Body text keywords [<num>|<str>]|<{...}>]
   [Level keywords [<num>|<str>]]
   [Control keywords [<num>|<str>|<{...}>]]
END
```

- Entries within “`[ ]`” are optional.
- Pipe “`|`” indicates “OR”.
- Scripts are indicated as “<{...}>”.

All string and character arguments must be enclosed by quotation marks, for example "`String 1`" or "`A`". You can also enter characters as ASCII within angle brackets. For example, enter "`<33>`" instead of an exclamation mark ("`!`")

Overall keywords

Keyword overview	
Keyword	**Purpose**
Fieldin	The start of the FieldIN description. This is the Description ID you must specify when you configure the Event settings in the Design Center.
Comment	A string that determines when to treat a line of text as a comment.
DisableLookBack	Turn off the LookBack function.

Fieldin

Syntax `Fieldin <str>`

Description The start of the FieldIN description. This is the Description ID you must specify when you configure the Event settings in the Design Center.

Example `Fieldin "STR456"`

Comment

Syntax `Comment <str>`

Description A string that determines when to treat a line of text as a comment. All lines in the input starting with this string will be ignored.

Example `Comment "//"`

DisableLookBack

Syntax `DisableLookBack`

Description Turn off the LookBack function.

The LookBack function looks in the previous instance of a block (i.e. block defined in the StreamIN Event) to see if there are any missing fields. If there are, the incoming field value will be added to previous instance, and not to the current instance.

Event keywords

Keyword overview	
Keyword	**Purpose**
LabelStartEvent	The text string in the input that indicates the start of an Event.
PosLabelStartEvent	The start position of `LabelStartEvent`.
EndEventDesc	Text string in input that specifies the end of an Event. Any input data between a `LabelEndEvent` and a new `LabelStartEvent` will be ignored.

Keyword overview	
Keyword	**Purpose**
LabelEndEvent	Text string in input that specifies the end of an Event. Any input data between a `LabelEndEvent` and a new `LabelStartEvent` will be ignored.
PosLabelEndEvent	The start position of `LabelEndEvent`.
LabelPageBreak	Triggers a page break in the corresponding Process output.
PosPageBreak	The start position of `LabelPageBreak`.
PosEvent	The start position of the Event trigger. The name of the Event in the Design Center must be the same as the Event trigger text string.
ChrSepEvent	The character used in the input to separate `LabelStartEvent` and the Event trigger.
FixLenEvent	Specifies a maximum length, in characters, for the Event trigger.
BestMatchEvent	Takes the Event trigger specified in the input and compares it with all StreamIN Event names defined in the Project. If there is no matching Event name, the last character is removed from the Event name specified in the input, and a new round starts. This procedure is repeated until a matching Event name is found.
AliasEventPath	Use an alias table to determine which Event to trigger.
ScriptEvent	Use a script to determine which Event to trigger.

LabelStartEvent

Syntax `LabelStartEvent <str>`

Description The text string in the input that indicates the start of an Event.

Example `LabelStartEvent "BEGIN"`

PosLabelStartEvent

Syntax `PosLabelStartEvent <num>`

Description The start position of `LabelStartEvent`.

Example `PosLabelStartEvent 1`

EndEventDesc

Syntax `EndEventDesc <chr>`

Description The character that specifies the end of the Event description section in the input data. Default is line feed.

Example	
Input	**Description file**
`BEGIN;Invoice*ARTICLE_1;Gambozola.....`	`EndEventDesc "*"`

LabelEndEvent

Syntax `LabelEndEvent <str>`

Description Text string in input that specifies the end of an Event. Any input data between a `LabelEndEvent` and a new `LabelStartEvent` will be ignored.

Example	
Input	**Description file**

`BEGIN CLASSIC`
`ARTIST VIVALDI`
`ARTIST GRIEG`
`END_CL`
`ARTIST STING`
`ARTIST EZRA`
	`LabelEndEvent "END_CL"`

`ARTIST STING` and `ARTIST EZRA` will be ignored.

PosLabelEndEvent

Syntax `PosLabelEndEvent <num>`

Description The start position of `LabelEndEvent`.

Example `PosLabelEndEvent 1`

LabelPageBreak

Syntax `LabelPageBreak <str>`

Description Triggers a page break in the corresponding Process output.

Example	
Input	**Description file**

`BEGIN ARTISTS`
`ARTIST VIVALDI`
`ARTIST GRIEG`
`BREAK`
`ARTIST STING`
`ARTIST EZRA`
	`LabelPageBreak "BREAK"`

PosPageBreak

Syntax `PosPageBreak <num>`

Description The start position of `LabelPageBreak`.

Example `PosPageBreak 1`

PosEvent

Syntax `PosEvent <num>`

Description The start position of the Event trigger. The name of the Event in the Design Center must be the same as the Event trigger text string.

Example	
Input	**Description file**

`BEGIN ARTISTS`
`ARTIST VIVALDI`
`ARTIST GRIEG`
	`PosLabelStartEvent 1`
	`LabelStartEvent "BEGIN"`
	`PosEvent 14`

ChrSepEvent

Syntax `ChrSepEvent <chr>`

Description The character used in the input to separate `LabelStartEvent` and the Event trigger (`BEGIN` and `ARTISTS` in the example below).

Example	
Input	**Description file**

`BEGIN;ARTISTS`
`ARTIST VIVALDI`
`ARTIST GRIEG`
	`PosLabelStartEvent 1`
	`LabelStartEvent "BEGIN"`
	`ChrSepEvent ";"`

FixLenEvent

Syntax `FixLenEvent <num>`

Description Specifies a maximum length, in characters, for the Event trigger.

Example `FixLenEvent 16`

BestMatchEvent

Syntax `BestMatchEvent <num>`

Description Takes the Event trigger specified in the input, and compares it with all StreamIN Event names defined in the Project. If there is a matching Event name, the corresponding Event is triggered.

If there is no matching Event name, the last character is removed from the Event name specified in the input, and a new round starts. This procedure is repeated up to `<num>` number of times until a matching Event name is found.

Comment The Event name in the input data cannot have fewer characters than the Event names defined in the Project.

Example	
Input	**Description file**
BEGIN STRIN001 ARTIST VIVALDI ARTIST GRIEG	BestMatchEvent 4

There are two StreamIN Events defined in the Project: `STR_US` and `STRIN`. The match procedure will be run four times, and the Event `STRIN` will be triggered.

AliasEventPath

Syntax `AliasEventPath <str>`

Description Use an alias table to determine which Event to trigger.

Comment You must specify the file relative to the Project's export directory.

Example	
Input	**Description file**
BEGIN STRIN002 ARTIST VIVALDI ARTIST GRIEG	AliasEventPath "aliases/STRALIAS.txt"

Alias table STRALIAS.txt	
STRIN001	CGW32
STRIN002	**AFW104**
STRIN003	RTEA36
STRIN004	HGH326

The Event `AFW104` will be triggered.

ScriptEvent

Syntax `ScriptEvent <{...}>`

Description Use a script to determine which Event to trigger.

Example

```
SCRIPTEVENT
          {
          $time=gettime();
          if ($time <= "120000")
          return "AFW104";
          else
          return "HGH326";
          };
```

Field keywords

Keyword overview	
Keyword	**Purpose**
PosField	The start position of the field names.
FixLenField	Specifies a fixed length, in characters, for the field names. If the field names and field values in the input data are column separated, you must specify a fixed length.
ChrSepField	The character used in the input to separate the field name and field value.
AlwaysCreateField	Always create a field. If the field has no value in the input, a field will be created with an empty value ("").
ScriptField	Use a script to define the start position, length, etc. of the fields.
LabelPrefix	The prefix label.
PosLabelPrefix	The start position of the prefix label.
PosPrefix	The position of the prefix.
ChrSepPrefix	The character used in the input to separate the prefix label and prefix.

Keyword overview	
Keyword	**Purpose**
ScriptPrefix	Use a script to define a prefix.
LabelStartVariable	A key that triggers the creation of a variable. The key should match one or more characters in a field name. When this key is found in the input data, a variable `$<field name>` is created.
PosLabelStartVariable	The start position of `LabelStartVariable`.
ChrStartVariable	A single-character key that triggers the creation of a variable. The key should match the first character in a field name. When this key is found in the input data, a variable `$<field name>` is created. Note that the key character is removed from the variable name.
LabelFieldCont	Several fields in the input data can be concatenated to one single field in the output. When the key specified by `LABELFIELDCONT` is found in the input, the current field and the next field will be concatenated.
PosLabelFieldCont	The start position of `LabelFieldCont`.
FieldContString	Determines which character to insert between the concatenated field values.
PosValue	The start position of the field value.
IgnoreBlankFieldValues	Ignore empty fields, i.e. field values that contain only white spaces.
KeepFieldSpaces	Keep leading spaces in field values.
EndValueDesc	The character that specifies the end of the field value in the input data. Default is line feed.

PosField

Syntax `PosField <num>`

Description The start position of the field names.

Example `PosField 1`

FixLenField

Syntax `FixLenField <num>`

Description Specifies a fixed length, in characters, for the field names. If the field names and field values in the input data are column separated, you must specify a fixed length.

Example `FixLenField 24`

ChrSepField

Syntax `ChrSepField <chr>`

Description The character used in the input to separate the field name and field value (`ARTICLE_1` and `Gambozola` in the example below).

Example	
Input	**Description file**
`BEGIN STRIN002` `ARTICLE_1;Gambozola`	`ChrSepField ";"`

AlwaysCreateField

Syntax `AlwaysCreateField`

Description Always create a field. If the field has no value in the input, a field will be created with an empty value ("").

ScriptField

Syntax `ScriptField <{...}>`

Description Use a script to define the start position, length, etc. of the fields.

LabelPrefix

Syntax `LabelPrefix <str>`

Description The prefix label.

Example	
Input	**Description file**
BEGIN STRIN002 PREFIX CLASSIC ARTIST VIVALDI ARTIST GRIEG PREFIX ROCKPOP ARTIST SPRINSTEEN ARTIST DYLAN	**LABELPREFIX "PREFIX"** POSLABELPREFIX 1 POSPREFIX 14 POSFIELD 1 POSVALUE 14 ...

The corresponding field names in the StreamIN configuration are `CLASSIC_ARTIST` and `ROCKPOP_ARTIST` respectively.

PosLabelPrefix

Syntax `PosLabelPrefix <num>`

Description The start position of the prefix label.

Example	
Input	**Description file**
BEGIN STRIN002 PREFIX CLASSIC ARTIST VIVALDI ARTIST GRIEG PREFIX ROCKPOP ARTIST SPRINSTEEN ARTIST DYLAN	LABELPREFIX "PREFIX" **POSLABELPREFIX 1** POSPREFIX 14 POSFIELD 1 POSVALUE 14 ...

The corresponding field names in the StreamIN configuration are `CLASSIC_ARTIST` and `ROCKPOP_ARTIST` respectively.

PosPrefix

Syntax `PosPrefix <num>`

Description The position of the prefix.

Example	
Input	**Description file**
BEGIN STRIN002 PREFIX CLASSIC ARTIST VIVALDI ARTIST GRIEG PREFIX ROCKPOP ARTIST SPRINSTEEN ARTIST DYLAN	LABELPREFIX "PREFIX" POSLABELPREFIX 1 **POSPREFIX 14** POSFIELD 1 POSVALUE 14 ...

The corresponding field names in the StreamIN configuration are `CLASSIC_ARTIST` and `ROCKPOP_ARTIST` respectively.

ChrSepPrefix

Syntax `ChrSepPrefix <chr>`

Description The character used in the input to separate the prefix label and prefix.

Example	
Input	**Description file**
BEGIN STRIN002 PREFIX;CLASSIC ARTIST VIVALDI ARTIST GRIEG PREFIX;ROCKPOP ARTIST SPRINSTEEN ARTIST DYLAN	LABELPREFIX "PREFIX" POSLABELPREFIX 1 **CHRSEPPREFIX ";"** POSFIELD 1 POSVALUE 14 ...

ScriptPrefix

Syntax `ScriptPrefix <{...}>`

Description Use a script to define the prefix.

LabelStartVariable

Syntax `LabelStartVariable <str>`

Description A key that triggers the creation of a variable. The key should match one or more characters in a field name. When this key is found in the input data, a variable `$<field name>` is created.

Comment You can also use the `ChrStartVariable` keyword instead. See *ChrStartVariable*. You can use either `LabelStartVariable` or `ChrStartVariable` – not both.

Example	
Input	**Description file**

`BEGIN STRIN002`
`...`
`URES 123`
`ASER Gold`
`BRET Agir`
`GBGD 080`
	`POSLABELSTARTVARIABLE 2`
	`LABELSTARTVARIABLE "RE"`

The variables `$URES` and `$BRET` are created.

PosLabelStartVariable

Syntax `PosLabelStartVariable <num>`

Description The start position of `LabelStartVariable`.

Example `PosLabelStartVariable 1`

ChrStartVariable

Syntax `ChrStartVariable <chr>`

Description A single-character key that triggers the creation of a variable. The key should match the first character in a field name. When this key is found in the input data, a variable `$<field name>` is created. Note that the key character is removed from the variable name.

Comments You can also use the `ChrStartVariable` keyword instead. See *LabelStartVariable*. You can use either `LabelStartVariable` or `ChrStartVariable` – not both.

Example	
Input	**Description file**
BEGIN STRIN002 ... URES 123 ASER Gold BRET Agir UBGD 080	CHRSTARTVARIABLE "U"

The variables `$RES` and `$BGD` are created.

LabelFieldCont

Syntax `LabelFieldCont <str>`

Description Several fields in the input data can be concatenated to one single field in the output. When the key specified by `LABELFIELDCONT` is found in the input, the current field and the next field will be concatenated.

Example	
Input	**Description file**
BEGIN STRIN002 ARTIST @Antonio ARTIST Vivaldi ALBUM 4 seasons PRICE 32	PosLabelFieldCont 10 LabelFieldCont "@" FieldContString " "

The two `ARTIST` fields with values `Antonio` and `Vivaldi` are concatenated to one `ARTIST` field with the value `Antonio Vivaldi`.

PosLabelFieldCont

Syntax `PosLabelFieldCont <num>`

Description The start position of `LabelFieldCont`.

Example	
Input	**Description file**

`BEGIN STRIN002`
`ARTIST @Antonio`
`ARTIST Vivaldi`
`ALBUM 4 seasons`
`PRICE 32`
	`PosLabelFieldCont 10`
	`LabelFieldCont "@"`
	`FieldContString " "`

The two `ARTIST` fields with values `Antonio` and `Vivaldi` are concatenated to one `ARTIST` field with the value `Antonio Vivaldi`.

FieldContString

Syntax `FieldContString <chr>`

Description Determines which character to insert between the concatenated field values.

Example	
Input	**Description file**

`BEGIN STRIN002`
`ARTIST @Antonio`
`ARTIST Vivaldi`
`ALBUM 4 seasons`
`PRICE 32`
	`PosLabelFieldCont 10`
	`LabelFieldCont "@"`
	`FieldContString " "`

The two `ARTIST` fields with values `Antonio` and `Vivaldi` are concatenated to one `ARTIST` field with the value `Antonio Vivaldi`.

PosValue

Syntax `PosValue <num>`

Description The start position of the field value.

Example `PosValue 25`

IgnoreBlankFieldValues

Syntax `IgnoreBlankFieldValues`

Description Ignore empty fields, i.e. field values that contain only white spaces.

KeepFieldSpaces

Syntax `KeepFieldSpaces`

Description Keep leading spaces in field values.

EndValueDesc

Syntax `EndValueDesc <chr>`

Description The character that specifies the end of the field value in the input data. Default is line feed.

Example	
Input	**Description file**
`BEGIN;Invoice` `ARTICLE;Gambozola+ARTICLE;Gouda+...`	`EndEventDesc "+"`

Body text keywords

Body text keywords identify and extract body texts. Body text can cover one or several lines.

Keyword overview	
Keyword	**Purpose**
IncludeTextMode	Enables extraction of body texts.
LabelStartInclude	The label that indicates the beginning of a body text.
PosStartInclude	The start position of `LabelStartInclude`.
LabelIncludeRow	A label that specifies whether or not to include a body text line in the output.

Keyword overview	
Keyword	**Purpose**
IncludeContString	Specifies which characters to use when concatenating the body text lines (specified by `LabelIncludeRow`) in the output.
LabelEndInclude	The label that indicates the end of a body text.
PosEndInclude	The start position of `LabelEndInclude`.
IncludeField	Enables the use of `ScriptIncludeField`.
ScriptIncludeField	A script that returns the field name.

Example

Input	Description file

`BEGIN STRIN002`
`...`
`<--`
`::This is not the official`
`::version of the XCH-04.See D-12`
`::for more information.`
`-->`
	`IncludeTextMode`
	`PosStartInclude 1`
	`LabelStartInclude "<--"`
	`LabelIncludeRow "::"`
	`IncludeContString "<0d><0A>"`
	`PosEndInclude 1`
	`LabelEndInclude "-->"`
	`IncludeField`
	`ScriptIncludeField`
	`{`
	`return "TEXT";`
	`};`

The text between the labels `<--` and `-->` will be extracted from the input data, and included in the field `TEXT`.

IncludeTextMode

Syntax `IncludeTextMode`

Description Enable extraction of body texts.

Comment If this keyword is not specified in the description file, only the first line in a body text will be extracted from the input.

Example

```
IncludeTextMode
PosStartInclude 1
LabelStartInclude "<--"
LabelIncludeRow "::"
IncludeContString "<0d><0A>"
PosEndInclude 1
LabelEndInclude "-->"
IncludeField
ScriptIncludeField
       {
       return "TEXT";
       };
```

LabelStartInclude

Syntax `LabelStartInclude <str>`

Description The label that indicates the beginning of a body text.

Example

```
IncludeTextMode
PosStartInclude 1
LabelStartInclude "<--"
LabelIncludeRow "::"
IncludeContString "<0d><0A>"
PosEndInclude 1
LabelEndInclude "-->"
IncludeField
ScriptIncludeField
       {
       return "TEXT";
       };
```

PosStartInclude

Syntax `PosStartInclude <num>`

Description The start position of `LabelStartInclude`.

Example

```
IncludeTextMode
PosStartInclude 1
LabelStartInclude "<--"
LabelIncludeRow "::"
IncludeContString "<0d><0A>"
PosEndInclude 1
LabelEndInclude "-->"
IncludeField
ScriptIncludeField
       {
       return "TEXT";
       };
```

LabelIncludeRow

Syntax `LabelIncludeRow <str>`

Description A label that specifies whether or not to include a body text line in the output.

Example

```
IncludeTextMode
PosStartInclude 1
LabelStartInclude "<--"
LabelIncludeRow "::"
IncludeContString "<0d><0A>"
PosEndInclude 1
LabelEndInclude "-->"
IncludeField
ScriptIncludeField
       {
       return "TEXT";
       };
```

IncludeContString

Syntax `IncludeContString <str>`

Description Specifies which characters to use when concatenating the body text lines (specified by `LabelIncludeRow`) in the output.

Example

```
IncludeTextMode
PosStartInclude 1
LabelStartInclude "<--"
LabelIncludeRow "::"
IncludeContString "<0d><0A>"
PosEndInclude 1
LabelEndInclude "-->"
IncludeField
ScriptIncludeField
        {
        return "TEXT";
        };
```

LabelEndInclude

Syntax `LabelEndInclude <str>`

Description The label that indicates the end of a body text.

Example

```
IncludeTextMode
PosStartInclude 1
LabelStartInclude "<--"
LabelIncludeRow "::"
IncludeContString "<0d><0A>"
PosEndInclude 1
LabelEndInclude "-->"
IncludeField
ScriptIncludeField
        {
        return "TEXT";
        };
```

PosEndInclude

Syntax `PosEndInclude <num>`

Description The start position of `LabelEndInclude`.

Example

```
IncludeTextMode
PosStartInclude 1
LabelStartInclude "<--"
LabelIncludeRow "::"
IncludeContString "<0d><0A>"
PosEndInclude 1
LabelEndInclude "-->"
IncludeField
ScriptIncludeField
       {
       return "TEXT";
       };
```

IncludeField

Syntax `IncludeField`

Description Enables the use of `ScriptIncludeField`.

Example

```
IncludeTextMode
PosStartInclude 1
LabelStartInclude "<--"
LabelIncludeRow "::"
IncludeContString "<0d><0A>"
PosEndInclude 1
LabelEndInclude "-->"
IncludeField
ScriptIncludeField
       {
       return "TEXT";
       };
```

ScriptIncludeField

Syntax `ScriptIncludeField <{...}>`

Description A script that returns the field name.

Example

```
IncludeTextMode
PosStartInclude 1
LabelStartInclude "<--"
LabelIncludeRow "::"
IncludeContString "<0d><0A>"
PosEndInclude 1
LabelEndInclude "-->"
IncludeField
ScriptIncludeField
        {
        return "TEXT";
        };
```

Level keywords

You can use level keywords to categorize the fields in the input data as blocks. If you do not want to categorize any fields, you must include the `IGNORELEVEL` keyword in the description file.

The `LOOKBACK` function is automatically disabled for all fields categorized by level keywords.

Keyword overview	
Keyword	**Purpose**
LabelStartLevel	The label that indicates the beginning of a block.
PosLabelStartLevel	The start position of `LabelStartLevel`.
LevelNotOnSepLine	Specifies that `LabelStartLevel` is not a separate line in the input data. The name of the first field, or a part of this name, is used as the label.
LabelEndLevel	The label that indicates the end of a block.
PosLabelEndLevel	The start position of `LabelEndLevel`.
IgnoreLevel	Disables any other block keyword defined in the description file.

LabelStartLevel

Syntax `LabelStartLevel <str>`

Description The label that indicates the beginning of a block.

Example

```
LabelStartLevel "BLOCK_START"
PosLabelStartLevel 1
LabelEndLevel "BLOCK_END"
PosLabelEndLevel 1
```

PosLabelStartLevel

Syntax `PosLabelStartLevel <num>`

Description The start position of `LabelStartLevel`.

Example

```
LabelStartLevel "BLOCK_START"
PosLabelStartLevel 1
LabelEndLevel "BLOCK_END"
PosLabelEndLevel 1
```

LevelNotOnSepLine

Syntax `LevelNotOnSepLine`

Description Specifies that `LabelStartLevel` is not a separate line in the input data. The name of the first field, or a part of this name, is used as label instead.

Example

```
LabelStartLevel "ARTICLE_pos"
PosLabelStartLevel 1
LabelEndLevel "ARTICLE_total"
PosLabelEndLevel 1
LevelNotOnSepLine
```

LabelEndLevel

Syntax `LabelEndLevel <str>`

Description The label that indicates the end of a block.

Example

```
LabelStartLevel "BLOCK_START"
PosLabelStartLevel 1
LabelEndLevel "BLOCK_END"
PosLabelEndLevel 1
```

PosLabelEndLevel

Syntax `PosLabelEndLevel <num>`

Description The start position of `LabelEndLevel`.

Example

```
LabelStartLevel "BLOCK_START"
PosLabelStartLevel 1
LabelEndLevel "BLOCK_END"
PosLabelEndLevel 1
```

IgnoreLevel

Syntax `IgnoreLevel`

Description Disables any other block keyword defined in the description file.

Control keywords

You can use control keywords to specify scripts that will be triggered by input data. The scripts usually assign values to variables that can be used in other keyword scripts.

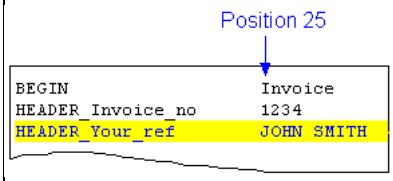
You can specify up to three control scripts. To make this possible, i.e. to prevent the script from being overwritten, each control script has a unique name: `ScriptHeader`, `ScriptControl`, and `ScriptSort`.

Keyword overview	
Keyword	**Purpose**
LabelStartHeader|Control|Sort	The input string that will trigger the script.
PosHeader|Control|Sort	The start position of `LabelStartHeader`, `LabelStartControl`, or `LabelStartSort`.
ScriptHeader|Control|Sort	The control script.

Example

The script `ScriptHeader` is run when the text "`JOHN SMITH`" is found in position 25.

Input	Description file

	`LabelStartHeader "JOHN SMITH"`
	`PosHeader 25`
	`ScriptHeader {`
	`$Type="GOLD";`
	`};`

LabelStartHeader|Control|Sort

Syntax

```
LabelStartHeader <str>
LabelStartControl <str>
LabelStartSort <str>
```

Description The input string that will trigger the script.

Example

```
LabelStartHeader "JOHN SMITH"
PosHeader 25
ScriptHeader {
            $Type="GOLD";
            };
```

PosHeader|Control|Sort

Syntax

```
PosHeader <num>
PosControl <num>
PosSort <num>
```

Description The start position of `LabelStartHeader`, `LabelStartControl`, or `LabelStartSort`.

Example

```
LabelStartHeader  "JOHN SMITH"
PosHeader  25
ScriptHeader {
             $Type="GOLD";
             };
```

ScriptHeader|Control|Sort

Syntax

```
ScriptHeader <{...}>
ScriptControl <{...}>
ScriptSort <{...}>
```

Description The control script.

Example

```
LabelStartHeader  "JOHN SMITH"
PosHeader  25
ScriptHeader {
             $Type="GOLD";
             };
```

StreamIN samples

You can load one or more StreamIN samples in the StreamIN tool, and use these samples when you create a StreamIN configuration. A StreamIN sample is loaded as a structure of blocks and fields that you can drag to the appropriate position in the StreamIN tree structure.

To load a sample

1. In the Integration Tool view, select **Document** > **New Connection**. The Create new Connection dialog box opens.
2. Select **SXD Parser** and click **OK**. The Select Resource dialog box opens.
3. Browse to, and select, the appropriate sample.

Creating RecordIN samples

For RecordIN data, you can generate a sample file automatically from the description file. If the description file is only available as a resource, you must first extract it to file.

Example 7 *Sample file for RecordIN*

```
<?xml version="1.0" ?>
<strsdictionary version="2.0" name="RecordIN">
    <field id="INVOICE_Record_id"/>
    <field id="INVOICE_Invoice_no"/>
    <field id="INVOICE_Your_ref"/>
    <block id="Invoice">
        <field id="ARTICLE_Record_id"/>
        <field id="ARTICLE_Pos_no"/>
        <field id="ARTICLE_Item"/>
        <field id="ARTICLE_Price"/>
        <block id="Text">
            <field id="ARTICLE_TEXT_Record_id"/>
            <field id="ARTICLE_TEXT_Description"/>
        </block>
    </block>
    <field id="AMOUNT_Record_id"/>
    <field id="AMOUNT_Currency"/>
    <field id="AMOUNT_To_pay"/>
    <field id="FREETEXT_Record_id"/>
    <field id="FREETEXT_Free_text"/>
</strsdictionary>
```

The description file does not indicate whether a record is recurring or not. This means that you may have to edit the sample to make sure that the fields and blocks complies to the input data structure.

To create a sample

1. Create an empty SXD resource in a resource set connected to the StreamIN Event.
2. In the StreamIN tool, select **Tools** > **SXD Converter**. The SXD converter dialog box opens.
3. In **Dictionary source**, browse to and select the description file.
4. In **SXD target**, browse to and select the SXD resource you created.
5. Click **OK**. The sample is created in the SXD resource.

You can now load the SXD resource as a sample in the StreamIN tool.

Creating FieldIN samples

For FieldIN data, you must create the sample file manually.

Example 8 *Sample file for FieldIN*

```
<?xml version="1.0"?>
<strsdictionary version="2.0" name="Invoice">
    <field id="HEADER_Invoice_no"/>
    <field id="HEADER_Your_ref"/>
    <block id="Article Block">
        <field id="ARTICLE_Pos_no"/>
        <field id="ARTICLE_Item"/>
        <field id="ARTICLE_Price"/>
        <block id="Text">
            <field id="ARTICLE_Text"/>
        </block>
    </block>
    <field id="AMOUNT_To_pay"/>
    <field id="AMOUNT_Currency"/>
    <field id="FREETEXT_Free_Text"/>
</strsdictionary>
```

Creating a sample file using a text editor

You can create the sample file using a text editor. The sample file must conform to the following DTD:

`www.streamserve.com/strs-xml/strsdictionary.dtd`

The following characters must be escaped:

Character	Escape sequence
Backslash: `"\"`	`"\\"`
Space: `" "`	`"\w"` (only required for leading and trailing spaces).
Tab: `"  "`	`"\t"` (always required to differentiate between space and tab).

Creating a sample file using the StreamIN tool

You can create a StreamIN structure manually in the StreamIN tool by adding blocks and fields to the Message tree. You can then save this structure as a sample file resource in the appropriate resource set.

1. Add the blocks and fields to the Message tree.
2. Select **File** > **Save Message Definition**. The Select Resource dialog box opens.
3. Browse to, and save the resource, in the appropriate resource set.

Checking the sample file syntax

Change the file extension from `.sxd` to `.xml` and open the XML file in Internet Explorer (version 5.0 or higher). If the XML file is correctly displayed in the window, it is well-formed.

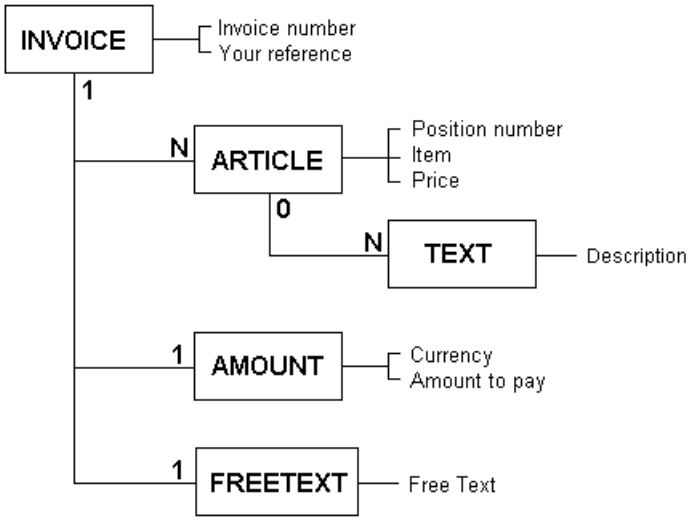
Creating a StreamIN configuration

In the StreamIN tool, you specify how to organize the input data as fields and blocks of fields.

You create the instructions based on analysis of the input data structure. You can create the structure by adding fields and blocks manually, or you can use dictionaries to drag-and-drop fields and blocks. See *StreamIN samples* on page 47.

Example 9 *Input data structure analysis*

Each field belongs to a group, and each group can appear once, several (N) times, or not at all.



Importing a StreamIN configuration

You can import an existing StreamIN configuration and add it to your current StreamIN configuration. Your current configuration can be empty, or it can already contain blocks and fields.

The configuration you import must be available as a sample file. See *StreamIN samples* on page 47.

To import a StreamIN configuration

1. Select **File** > **Load Message Definition**. The Load Message Definition dialog box opens.
2. Browse to, and select, the configuration you want to import.
3. Click **OK**.

Managing blocks and fields

Blocks

A block is a set of recurring fields. You use separate blocks for every set of recurring fields. A block can contain any number of fields and sub-blocks.

Adding blocks

If you have loaded a sample, see *StreamIN samples* on page 47, you can drag-and-drop blocks from the Integration Tool view to the Message view. You can only add a block from the sample once. If you try to add a block that already exists in the Message view, the StreamIN tool cancels the action.

To add a block using a sample

Drag the block, including all fields, from the Integration tool, and drop it at the appropriate position in the Message tree.

To add a block manually

1. Right-click the node (Field folder or block) below which you want to insert the block.
2. Select **New** > **Block**. The new block is added to the Message tree.
3. Rename the block.

Configuring blocks

1. Select the block you want to configure. The block properties are displayed in the Properties view.
2. Edit the properties. See *Block properties* on page 62.

Sorting

You can use sort criteria to specify the order in which data will be delivered to the subsequent Processes. If no sort criteria is used, data will be delivered in the same order as it arrives. Performance will be less affected if data is sorted at Event level, compared to sorting at Process level.

You specify the sort criteria by assigning priorities to blocks. Data associated with blocks with the highest priority will be delivered first, and so on.

To specify sort criteria for Parent-level blocks

1. Select the **Message** node in the Message tree. The Message properties are displayed in the Properties view.
2. Set **Use block sort priority** to **Yes**.

3 Select the first Parent-level block. The Block properties are displayed in the Properties view.

4 Set the **Block sort priority** level. The lower the number, the higher the priority.

5 Repeat steps 3 and 4 for all Parent-level blocks.

To specify sort criteria for sub-blocks within a block

1 Select the block. The block properties are displayed in the Properties view.

2 Set **Use block sort priority** to **Yes**.

3 Select the first sub-block. The Block properties are displayed in the Properties view.

4 Set the **Block sort priority** level. The lower the number, the higher the priority.

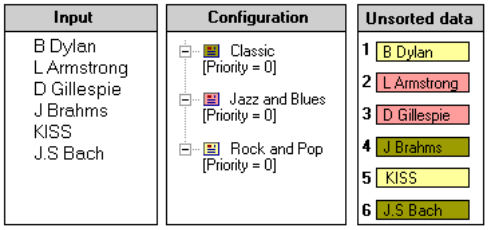
5 Repeat steps 3 and 4 for all sub-blocks.

Sorting examples

The following examples illustrate how the order of the output from an Event changes when sort criteria is specified for the main blocks in the Event.

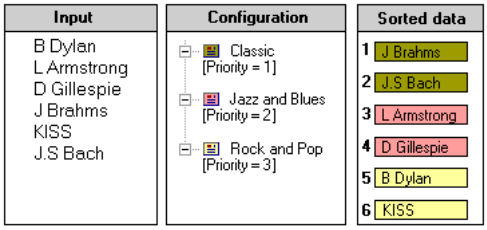
Example 10 Event output without sorting

All blocks have sort priority set to 0. Output is delivered in the same order as it arrived.



Example 11 Event output with sorting

The blocks have sort priority set to 1, 2, and 3. Output is delivered in this order.



Fields

A field in the StreamIN tool corresponds to a field in a description file. In the StreamIN tool, you specify how to organize and configure the fields. You can organize the fields by adding them manually, or you can use dictionaries to drag-and-drop fields. See *StreamIN samples* on page 47.

Adding fields

If you have loaded a sample, see *StreamIN samples* on page 47, you can drag-and-drop fields from the Integration Tool view to the Message view. You can only add a field from the sample once. If you try to add a field that already exists in the Message view, the StreamIN tool cancels the action.

To add a field using a sample

Drag the field from the Integration tool, and drop it at the appropriate position in the Message tree.

To add a field manually

1. Right-click the Field folder below which you want to insert the field.
2. Select **New** > **Field**. The new field is added to the Message tree.
3. Rename the field.

Configuring fields

1. Select the field you want to configure. The field properties are displayed in the Properties view.
2. Edit the properties. See *Field properties* on page 63.

Field variables

You can define field variables, and later on refer to the variable instead of static values. Variables affect performance, so only use them when necessary.

To create a variable

1. Right-click the field and select **Edit** > **Make Variable**. The variable is added to the field properties (Properties view).
2. The variable name will be the same as the field name. If needed, rename the variable.

You can also multi-select fields (`SHIFT` + `select` or `CONTROL` +`select`) and define variables for all fields in one action.

Numeric and date formats

There are three input format categories for the fields:

- **General**. Data will be treated as a regular string of characters. This is the default format.
- **Numeric**. Enables the StreamServer to handle input data as numeric data.
- **Date**. Enables the StreamServer to handle input data as date formatted data.

Format tables

Numeric and date formats are made available through format tables. Before you specify numeric or date formats for the fields, you must add a format table to a resource set connected to the Message. You can import `Formats.txt` from

`<StreamServe installation>\Applications\StreamServer\<version>\Tools\Samples`

to the resource set.

The first time you specify a numeric or date format for a field, a resource selection dialog box opens. In this dialog box you must browse to, and select, the format table you want to use. This table will be selected by default the next time you specify a format for any of the fields in the Event configuration.

To select a numeric | date format for a field

1. Select the field. The field properties are displayed in the Properties view.
2. At the **Input format** field, click the browse button. The Formats dialog box opens.
3. Select the **Numeric** | **Date** category.
4. Double-click the **Format** that corresponds to the input format.

Example 12 Numeric formats

Input `1000000,25` corresponds to `k= d=,`

Input `1000,000.25` corresponds to `k=,d=.`

Example 13 *Date formats*

Input `31/10/03` corresponds to `dd/mm/yy`

Input `2003-10-03` corresponds to `yyyy-mm-dd`

To add a new format

Enter the new format in the **Format** field and click **Add**.

You can also add new formats directly to the format table resource.

StreamIN tool GUI reference

Main window

The Main window contains three views:

- Message view
  This is where you create and configure the structure of the StreamIN Event.
- Properties view
  Select a field or block in the Message view, and configure the corresponding properties in the Properties view.
- Integration Tool view
  Load dictionaries to the Integration Tool view, and drag-and-drop fields and blocks to the Message view.

File menu

New	Create a new StreamIN configuration.
Open	Open an existing (stand-alone) StreamIN configuration file.
Save	Save the StreamIN configuration as data embedded in the corresponding Message file in the Design Center Project.
Save As	Save the StreamIN configuration as a separate file.
Load Message Definition	Import and add a StreamIN configuration to the current StreamIN configuration. The current configuration can be empty, or it can already contain blocks and fields.
Save Message Definition	Save the current StreamIN structure as a sample resource in the appropriate resource set.
Event Information	View and edit information – author, company, etc.
Exit	Exit the StreamIN tool.

Edit menu

Sort	Applicable to the Message node and on Block nodes. Sort the items beneath the selected node.
Make variable	Define a variable for the selected field. You can multi-select fields (`SHIFT` + `select` or `CONTROL` +`select`) and define variables for all fields in one action.

Insert menu

New Field	Insert a new field.
New Block	Insert a new block below the node selected in the Message tree.
New Parent-level block	Insert a new block below the Message node in the Message tree.

Tools menu

Customize	Customize the look-and-feel of the StreamIN tool (tool bars, tool tip, etc.).
SXD Converter	Convert `*.dic` or `*.dsc` files to `*.sxd` files.

Message view

Used for: Creating and configuring the StreamIN Event structure.

Shortcut menu options	
Expand subnodes	Expand all nodes below the selected node.
Collapse subnodes	Collapse all nodes below the selected node.
New > Field	Insert a new field.
New > Block	Insert a new block below the selected node.
New > Parent-level block	Insert a new Parent-level block below the Message node.
Load Message Definition	Import and add a StreamIN configuration to the current StreamIN configuration. The current configuration can be empty, or it can already contain blocks and fields.
Save Message Definition	Save the current StreamIN structure as a sample resource in the appropriate resource set.
Edit > Make Variable	Define a variable for the selected field. You can multi-select fields (`SHIFT` + `select` or `CONTROL` +`select`) and define variables for all fields in one action.
Edit > Sort	Applicable to the Message node and on Block nodes. Sort the items beneath the selected node.

Properties view

Used for: Viewing and editing field and block properties. Select field/block in the Message view, and edit the properties in this view.

Message properties

Used for: Specifying whether or not to use sort criteria for the Parent-level blocks.

Properties	
Use block sort priority	Select to enable sorting of data.

Block properties

Used for: Editing block properties. Select the block in the Message view, and edit the properties in this view.

Properties	
Label (name)	Block name. Will be displayed in the Process tool.
Language	Language for the description below.
Description	Description of the block. You can enter descriptions in several languages.
Comment	Additional description. Language selection does not apply to this property.
Block sort priority	Set the sort criteria for this block. See *Sorting* on page 53.
Use block sort priority	Select to enable sorting of data in the sub-blocks.
Array type	Select whether or not to create an array of field instances within the block. Only applicable to fields defined as variables. **Example** A variable `A` is specified for `Field_1` in `Block_1`. At the first occurrence of `Block_1`, the data in `Field_1` will be placed in element `$A[0]` of the array. At the second occurrence of `Block_1`, the data in `Field_1` will be placed in element `$A[1]`, etc. `A` is the common instance and `[n]` is the index.

Field properties

Used for: Editing field properties. Select the field in the Message view, and edit the properties in this view.

Properties	
Label (name)	Field name. Will be displayed in the Process tool. **RecordIN** The same name as in the description file. If you use the same field names in different records, you must add the record name to the field name: `<record name>_<field name>` **FieldIN** Must have the same name as the field ID in the input data.
Language	Language for the description and sample data below.
Description	Description of the field. You can enter descriptions in several languages.
Sample data	An example of field content. You can enter sample data in several languages.
Comment	Additional description. Language selection does not apply to this property.
Variable	Name of a field variable. See *Field variables* on page 56.
Variable type	Field class that can assist formatting in a PageOUT Process. For example, if you specify a font for a class in the Process, the font will be used for all fields belonging to this class. **Label** – For fields containing static data. **Dynamic** – For fields containing dynamic data. **Header** – For fields containing static header data.
Alignment	Specify alignment of data in the Process tool.
Input format	See *Numeric and date formats* on page 56.
Keep spaces	Select whether or not to keep leading spaces and trailing spaces defined in the field when the field is used in the output data.
Job ID	Select whether or not to assign an index to the content of the field to make it searchable in a Job ID repository.