ACFA PSIM - Axxon One Bridge Settings Guide

ACFA PSIM 1.0

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1 Introduction to ACFA PSIM − Axxon One Bridge Settings Guide

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1.1 Purpose of document

ACFA PSIM − Axxon One bridge settings guide provides comprehensive setup guidance for *Axxon PSIM* and *Axxon One* operators.

This guide contains:

1. General information on a bridge between *ACFA PSIM* and *Axxon One*.
2. Information on how to configure a bridge between *ACFA PSIM* and *Axxon One*.
3. Information on how to configure a parser to process XML packages received from the bridge between *ACFA PSIM* and *Axxon One*.

1.2 General information on a bridge between ACFA PSIM and Axxon One

There is a mechanism of getting text titles in *Axxon One*. It is used in POS devices. Information on how to configure and use this mechanism is given in *Axxon One* documentation the latest version of which can be found in AxxonSoft documentation repository. In *Axxon One* titles are overlaid on video and stored to the database. Search by titles can also be performed.

Note. **XML PROTOCOL** terminal type is to be selected when configuring titles in *Axxon One*.

The **One** object is a part of *ACFA PSIM*. It catches any events from selected objects created in the *ACFA PSIM* equipment tree and sends them to *Axxon One*.

Note. To use a bridge between *ACFA PSIM* and *Axxon One* select the **One bridge** component in the **Applied software** group when installing *ACFA PSIM*. The details on how to install *ACFA PSIM* are given in ACFA PSIM Installation Guide.

2 Licensing policy for Axxon One Bridge

In *ACFA PSIM* the **Axxon One data sender** object is not licensed (i.e. free to use). However, in *Axxon One*, the **Event source** object requires a license per each **Axxon One data sender** object in *ACFA PSIM*.

3 Configuring a bridge between ACFA PSIM and Axxon One

3.1 Setting procedure for a bridge between ACFA PSIM and Axxon One

An object to transfer data from *ACFA PSIM* to *Axxon One* is configured on the settings panel of the **Data bridge** object created under the **Computer** object in the **Hardware** tab of the **System settings** dialog box in *Axxon PSIM.*

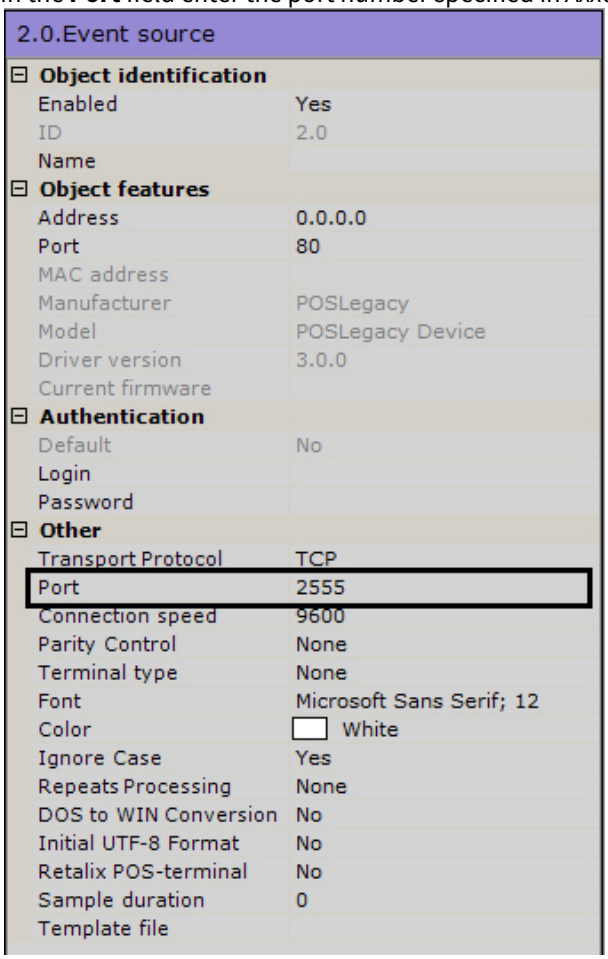
Configure the **Data bridge** object as follows:

1. Configure connection to *Axxon One* Server.
2. Select events to be sent to *Axxon One* Server.

3.2 Configuring connection to Axxon One Server

Configure connection to *Axxon One* Server as follows:

1. Go to the **Data bridge** settings panel.
2. Enter IP address of *Axxon One* Server in the **IP address** field (1).
3. In the **Port** field enter the port number specified in *Axxon One* when configuring the **Event source** object (2).



4. Click the **Apply** button to save the changes (3).

When the connection to *Axxon One* Server is set there will be “Connection set” message in the Event viewer of *Axxon PSIM*.

Connection to *Axxon One* Server is now configured.

3.3 Selecting events to be sent to Axxon One Server

Events to be sent to *Axxon One* Server are selected as follows:

1. Go to the **Data bridge** settings panel.
2. Left click in the table area.
3. Click the down button on the keyboard. As a result a new line is added to the table.
4. In the **Type of object** dropdown list select a type of the object previously created in the system in order to send its events to *Axxon One* (1).

5. If events from a specific object of the selected type are to be sent, then select an ID of the required object in the **Number** dropdown list (2). If a number is not selected, then events from all objects of the selected type created in the system are sent.
   When the ID is selected the name of created object is automatically displayed in the **Object** field (3).
6. In the **Event** dropdown list select the event, coming from the object of the specified type that is to be sent to *Axxon One* Server (4).
7. Select the required object string in the **Events** table and specify all parameters of the selected event are to be sent as follows:
   a. In the **Parameter** dropdown list select the name of parameter (5). Description of parameter which will display in captions in *Axxon One* will be specified in the **Name in parser** column (6). It's possible to change this description if required.

      Attention!

      List of available parameters and their description depends on the settings – see Adding event parameters to ddi-file section.

   b. Enter the parameter name in the **Parameter** field and description in the **Name in parser** field manually (5). The method of finding out available parameters is given in the Event parameters in the Debug window section.

   Note.

   To add a line in the **Parameters** table it's required to select the corresponding event in the **Events** table. Otherwise, the warning message will display.

8. Repeat actions 2-7 for all required objects and events.
9. Click the **Apply** button to save the changes (6).

Events to be sent to *Axxon One* Server are now selected.

4 Event parameters

4.1 Adding event parameters to ddi-file

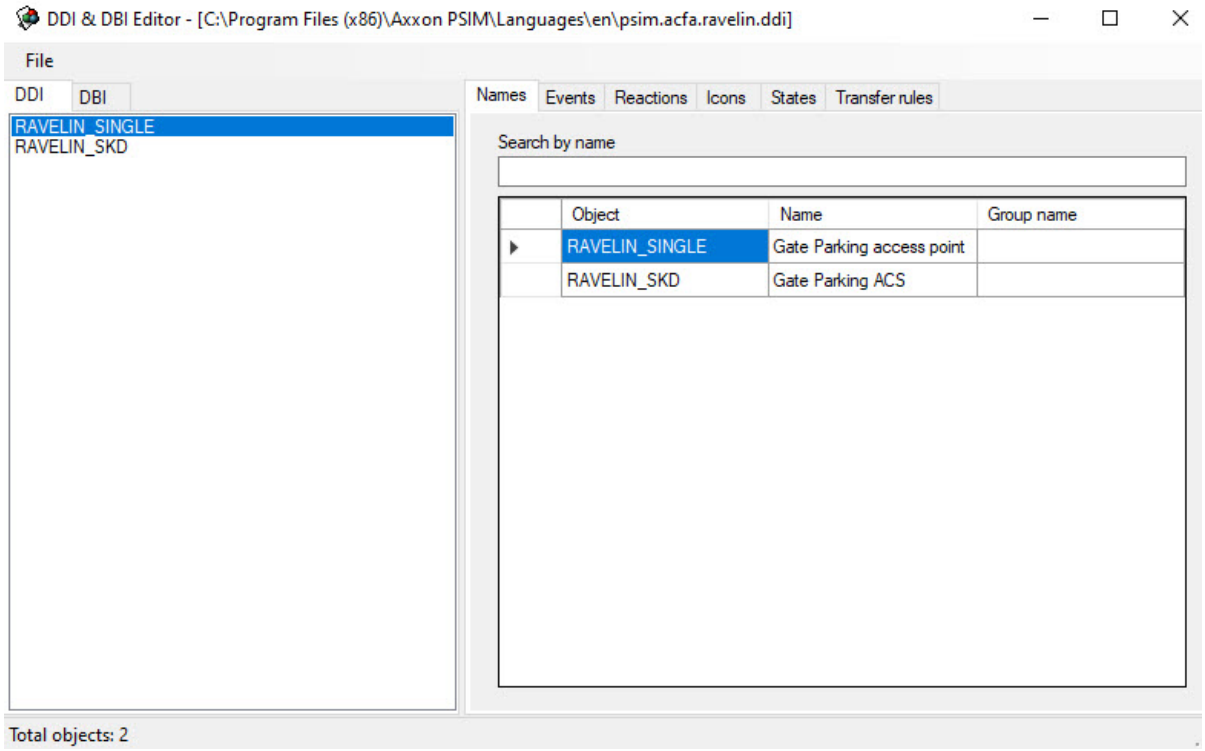
To add event parameters to ddi-file use the *System configuration* ddi.exe utility. Working with this utility is described in the *Axxon PSIM software package. Administrator's Guide*, latest version of which is available in AxxonSoft documentation repository.

To add event parameter, do the following:

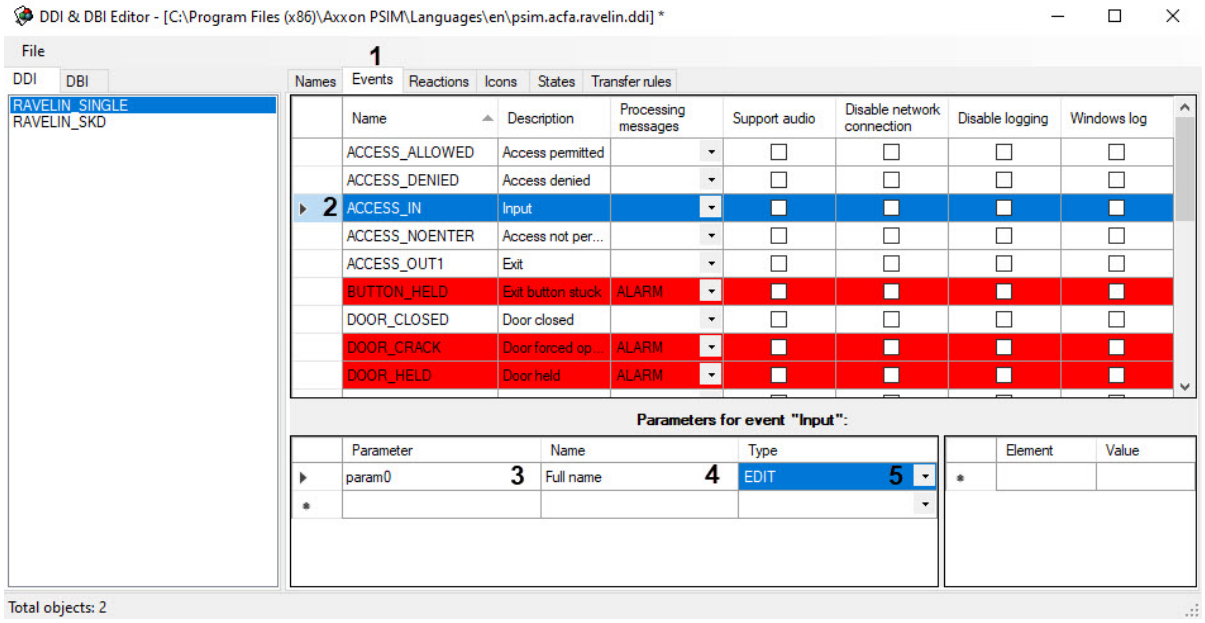
1. Shutdown the *ACFA PSIM* software package.
2. Open the .ddi file corresponding to the required integration module of the *ACFA PSIM* software using the ddi.exe utility.

   > **Note.**
   >
   > Ddi files are located in the <*Axxon PSIM* software installation directory>\Languages\en folder.

3. Select the required object on the **Names** tab.

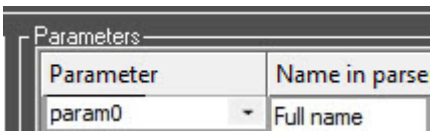


4. Go to the **Events** tab (**1**) and select the required event (**2**).



5. In the **Parameter** field enter the parameter name displaying in the Debug window (**3**) – see Event parameters in the Debug window section.
6. In the **Name** field enter the name of parameter in natural language form (**4**).
7. From the **Type** drop-down list select the parameter type: **EDIT** (text) *или* **COMBOBOX** (set of values) (**5**). If the **COMBOCOX** type is selected, specify available parameter values in the **Element** and **Value** columns.
8. Save changes in the .ddi file.
9. Start the *ACFA PSIM* software package.

The added parameter will be available to select on the settings panel of the **Data bridge** object when selecting the corresponding event in the **Events** column.



Attention!

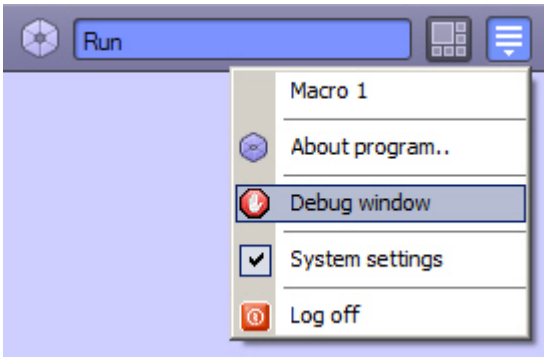
Changed ddi-files will be overwritten when updating the *ACFA PSIM* software. So create backup copies of changed ddi-files before updating the *ACFA PSIM* software and place them to the <*Axxon PSIM* software installation directory>\Languages\En folder after updating.

Adding event parameters to the ddi-file is completed.

4.2 Event parameters in the Debug window

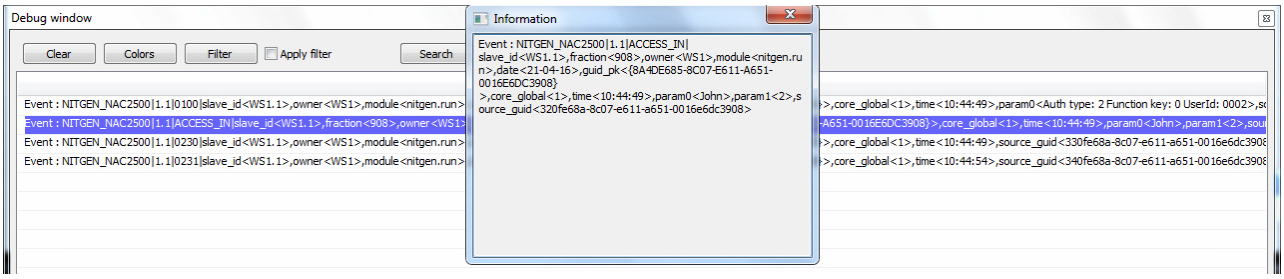
Available parameters of the required event can be found out using the Debug window in *Axxon PSIM* by creating a required event in the system. Information on how to use this window is given in Programming Guide (JScript). The latest version of this document is available in AxxonSoft documentation repository.

To open the Debug window select the **Debug window** item in the **Run** menu in *Axxon PSIM*.



After that create a required event, e.g. put the access card to the reader, trigger an alarm, etc. When the event is shown in the Debug window, right click on it. The available event parameters are shown in the appeared window.

Study an example of getting parameters of **ACCESS_IN** event from **NAC2500** object that is a part of *Nitgen* integration module.



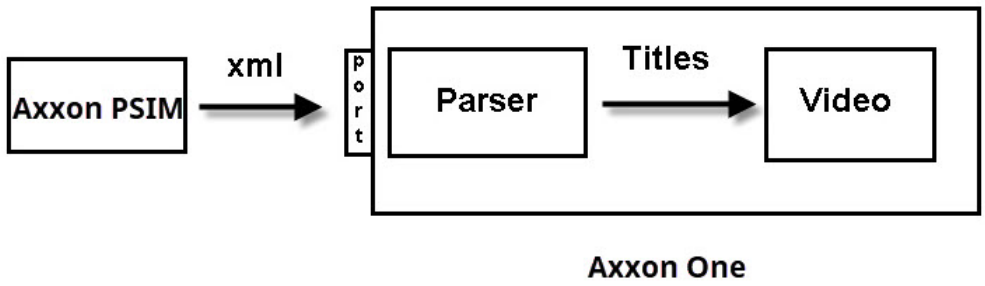
The following parameters can be extracted from this **Access_in** event:

1. param0 – name of the user to whom the access card is assigned.
2. param1 – ID of the user to whom the access card is assigned.

5 Configuring parser

5.1 General information on transferring data from Axxon PSIM to Axxon One

The data transfer using the **Data bridge** object is shown below:



When selected events come to the system the **Data bridge** object creates an XML package as described in Creating XML package on Axxon PSIM's side section and sends it to the IP address and port specified when configuring connection to *Axxon One* Server.

The received XML package is processed by the parser (described in Creating a parser section) on *Axxon One* Server. The titles resulting from processing are overlaid on video in *Axxon One*.

5.2 Creating XML package on Axxon PSIM's side

The following event parameters are sent in XML:

1. Number of the object from which the event is received.
2. Type of the object from which the event is received.
3. Name of the object from which the event is received.
4. Event name.
5. Set event parameters (from 0 to N).

Each event is sending in separate TransactionBlock with unique FunctionNumber parameter. FunctionNumber is specified automatically and it's unique for each event among all NEXT objects in the system.

Low bound of a FunctionNumber values range is specified by FunctionNumberMinValue registry key in the HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\AxxonSoft\PSIM registry section.

Sent XML packages look like:

```
<TransactionBlock>
    <TransactionDate>02.08.10</TransactionDate>
    <TransactionTime>19:53:51</TransactionTime>
    <FunctionNumber>1001</FunctionNumber>
    <FunctionName>Axxon PSIM Event ACCESS_IN</FunctionName>
    <ObjectId>1</ ObjectId >
    <ObjectType>Perco reader</ ObjectType >
```

```
    <ObjectName>Perco 1 reader</ ObjectName >
    <EventName>Access by ID</ EventName >
    <param1>0</param1>
    <param0>0</param0>
</TransactionBlock>
<TransactionBlock>
    <TransactionDate>02.08.10</TransactionDate>
    <TransactionTime>19:54:51</TransactionTime>
    <FunctionNumber>1002</FunctionNumber>
    <FunctionName>Axxon PSIM Event ACCESS_DENIED</FunctionName>
    <ObjectId>1</ ObjectId >
    <ObjectType>Perco reader</ ObjectType >
    <ObjectName>Perco 1 reader</ ObjectName >
    <EventName>Access forbidden</ EventName >
    <param1>0</param1>
    <param0>0</param0>
</TransactionBlock>
```

Important!

The number and names of parameters can differ depending on the **Data bridge** settings – see Selecting events to be sent to Axxon One Server.

5.3 Creating a parser

A parser for XML packages sent by the **Data bridge** object to *Axxon One* Server is configured by the user on the side of *Axxon One* Server. The information on the parser selection is given in *Axxon One* documentation – see AxxonSoft documentation repository.

Parser is a text file. It can be created manually or generated automatically.

To save the automatically generated parser in the local ot network disk, do the following:

1. Go to the settings panel of the **Data bridge** object.
2. Click the **Save parser** button.
3. In the opened standard dialog window select path for saving the parser file and specify its name.

Note.

As *Axxon PSIM* Server and *Axxon One* Server usually locate on different computers, it's recommended to save parser on the network recource to which both servers can access. In this case it will be possible to select a parser name from the selected network folder when selecting a parser file on the *Axxon One* Server.

4. In case of successful saving of a parser the confirmation window will display. Click **OK**.

In the parser text for each event the separate displaying rule is specified. Study the sample below:

```
[1001]
Object: < ObjectName >
Date: <TransactionDate>
Time: <TransactionTime>
Event: < EventName >
<Text 1, specified in the Parameters table>: <Parameter 1 specified in the Parameters table>
<Text 2, specified in the Parameters table>: <Parameter 2 specified in the Parameters table>
[1002]
Object: < ObjectName >
Date: <TransactionDate>
Time: <TransactionTime>
Event: < EventName >
<Text 3, specified in the Parameters table>: <Parameter 3 specified in the Parameters table>
<Text 4, specified in the Parameters table>: <Parameter 4 specified in the Parameters table>
[FUNCTIONNAME]
1001=Axxon PSIM event <Event name, e.g. ACCESS_IN>
1002=Axxon PSIM event <Event name, e.g. ACCESS_DENIED>
```

Note.

Object, Date, Time and Event words do not depend on type of events or parameters and always specified in the same way in the automatically generated parser.

Important!

The number and names of parameters can differ depending on the **Data bridge** settings – see Selecting events to be sent to Axxon One Server.

Note.

Additional information on how to create parsers for titles received from POS terminals is available in POS documentation – see the latest version of *POS PSIM* documentation in AxxonSoft documentation repository.