

PMS.ClipTest - Manual - Nexans

Version 22.2.2.0



MAR Rostock GmbH - 24.08.2022

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Document version management

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Referenced Documents

ID	Document
1	PMS.ClipTest.Documentation.v22.2.2.0.pdf

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1 General Information

PMS.ClipTest communicates to two databases to integrate into production environment. One database is used to read the cliplist which are required according to an order. A second database is used to validate the process and send feedback data from PMS.ClipTest.

2 Workflow

The process is initiated by PMS.ClipTest when all required scans are done. Normally the operator scans an order and a board to start a clipTest. Before the test starts the process is validated by calling the procedure "CheckAndStartProductionNumber". The procedure does several validations and releases or rejects the start request. After the test finished another procedure "CompleteProductionNumberETest" is called to signalize that the process is finished alongside with the result of the test. In addition feedback data is written into a table "ResultsETestTemp" where one row represents data of one clip.

3 Configuration

3.1 Database Configuration

DATABASE CONNECTIONS					
Id	Name	Host	Database		
f766168e-51b2-44ae-8e75-575a5aabf72d	Database Connection APIMS	servername	APIMS	Edit	Delete
4e05e84a-0b5d-4e5e-9c68-27d04d9353c3	Database Connection Cliplist	servername	ACOPS_TEST_PAG	Edit	Delete

This is the overview of available database connections. New connections can be added with the "Add" button and existing can be deleted with the "Remove" button. The selected connection can be edited in the section below.

SELECTED DATABASE CONNECTION

Name	Database Connection ClipList	Host	servername	Database	ACOPS_TEST_PAG
<input type="checkbox"/> Use Integrated Security		Username	sa	Password	*****
Test Connection					

Setting	Description
Name	Free configurable name to identify what the connection is used for
Host	The name or IP address of the machine where the database (Sql Server) is running
Database	The name of the database instance
Username	Name of the database user
Password	Password of the database user
Use Integrated Security	If enabled, the user and password of the account under which the PMS.ClipTest.Service is running is used to connect to the database. Please note that by default PMS.ClipTest.Service is running under local system account which has no access to databases if not changed.

The Id of each connection is generated automatically and is used to assign the actions to a database connection. In this way the assignment is done in which database each action (procedure, table or view) is executed.

3.2 Actions Configuration

ACTIONS CONFIGURATION

ClipListTable

Apply Changes

```

1: <InterfaceParameterGroup>
2:   <ConnectionId>4e65e64a-0b5d-4e5e-9c68-27d04d9353c3</ConnectionId>
3:   <Name>[res].[View_PMS_VehicleClips]</Name>
4:   <Parameters>
5:     <InterfaceParameter>
6:       <Index></Index>
7:       <Name>VC_BuildId</Name>
8:       <Value />
9:       <Direction>Input</Direction>
10:      <Type>VarChar</Type>
11:      <ParameterSize>255</ParameterSize>
12:    </InterfaceParameter>
13:    <InterfaceParameter>
14:      <Index></Index>
15:      <Name>VehicleId</Name>
16:      <Value />
17:      <Direction>Input</Direction>
18:    </InterfaceParameter>

```

TEST CLIP LIST

Order: %

Load Clips

Clip
ID_FIX23
ID_FIX24
ID_FIX25
ID_FIX26
ID_FIX33
ID_FIX34

Actions are implemented at specified steps in the process flow. This can be a procedure call to a database or reading/writing of tables and views. Each action can be configured very detailed with all names, types, amount and order of parameters as well as the contents of each parameter by using bookmarks. Bookmarks will be replaced by process values in the moment of execution. The configuration of the action "ClipListTable" is enhanced by an additional test area on the right side. This can be used to test the reading of the cliplist to ensure the connection works and parameters are configured correctly. The resulting list can optionally filtered by an order to ensure the list is as complete as expected.

Note: If the xml configuration is changed please apply the changes by the "Apply Changes" button prior to test or save changes. If this button is skipped any changes of the xml are being ignored.

3.2.1 Available Actions

Action	Description

StartProcedure	Is executed after all scans are done and PMS.Cliptest requests to start a test. The result of this call will be evaluated and as a result a test will start or not.
CompleteProcedure	Is executed after a test has finished. Relevant process data including the test result is provided by PMS.Cliptest as parameters.
CompleteTable	Feedback data is written by cliptest after a test has finished. Each clip is inserted into this table as a separate row.
ClipListTable	Is read during test generation to retrieve the list of clips which are required for the product. To find the correct clips in masterdata it is required to have at least two parameters defined. One parameter needs to have value "[Order]" which is used to identify the column on which the clips are filtered for the correct order. Another parameter is required with value "[ClipDescription]". This defines the column where to find the description of each clip which needs to match the clip description of the clips in PMS.Cliptest Masterdata. In this way PMS.Cliptest is able to find the required clips in masterdata.

Each Action can be precisely defined as xml structured text. The `<ConnectionId></ConnectionId>` xml node is used to assign an existing database connection to this action. The `<Name></Name>` xml node defines the name of the procedure, table or view in the database. The following `<Parameters></Parameters>` section is a list of parameters when calling procedures or acts as a list of columns when accessing a table or view. Each `<InterfaceParameter></InterfaceParameter>` node include the following fields:

Name	Description
Index	A number which specifies the sort order of the parameters
Name	The name of the parameter when calling a procedure or the name of the column in case of table/view access
Value	The value which is sent with this parameter or which is inserted in a table. Static text can be combined with one or more bookmarks. Bookmarks are placeholders which are dynamically filled with test data when the action is executed. Bookmarks need to be placed in square brackets []. Refer to section Available Bookmarks for a list of available bookmarks and their meanings.
Direction	Defines if the parameter is meant to be "Input", "Output" or "ReturnValue" for a procedure.
Type	The data type of this parameter. Refer to Microsoft Sql Data Types for possible values. Examples are NVarChar, Int, DateTime, Float, Bit.
ParameterSize	Is considered if a Type is used which need to define a size. This is for example required for NVarChar but not for Int.
Format	When specified is used to format the text of dates and times values. Specification is done in Microsoft format like for example "yyyy-MM-dd hh:mm:ss.fff". Can be used for time related bookmarks: StartTime, FinishTime, ClipPressTime, ClipReleaseTime

3.2.2 Available Bookmarks

Bookmark	Description
Order	Ordernumber

OrderType	Ordertype
Board	Name of tested board
Workplace	Name of workplace (ViewClient)
TestType	Type of test (ClipTest, EmptyTest)
StartTime	Time of test start
FinishTime	Time when test ended
Result	Test result (IO, NIO)
ResultBinary	Test result (1, 0)
VariantComment	Comment Masterdata (Variants.csv) when using Variants/Batch production
Operator	Name of logged in operator of the test
Scan1	Value of first additional custom scan
Scan2	Value of second additional custom scan
Scan3	Value of third additional custom scan
Scan4	Value of fourth additional custom scan
Scan5	Value of fifth additional custom scan
ClipCountAll	Amount of all clips
ClipCountIo	Amount of clips with state Ok, GroupOk, NeedlessNotPressed
ClipCountNio	Amount of clips with state Missing, NeedlessPressed, NeedlessUnknown, Unconfigured
Elapsed Time	Duration from test start until now
TestAsXml	The test is serialized as xml (text). Please note that this can be very much data as it includes all available information in xml format. Ensure that the destination of this value can handle large text.
ClipAddress	The (hardware) address of a clip.
ClipDescription	Description property of a clip.
ClipX	The X coordinate of a clip.
ClipY	The Y coordinate of a clip.
ClipState	The state of a clip. Can be Ok, Missing, GroupOk, NeedlessPressed, NeedlessNotPressed, Unconfigured
ClipLED	The LED number of a clip
ClipName	Name property of a clip.
ClipPressCount	Amount how often the clip was pressed during the test
ClipPressTime	The latest time when the clip was pressed

ClipReleaseTime

The latest time when the clip was released

4 Example Configurations

4.1 StartProcedure

```
<InterfaceParameterGroup>
<ConnectionId>f766168e-51b2-44ae-8e75-575a5aabf72d</ConnectionId>
<Name>[dbo].[CheckAndStartProductionNumber]</Name>
<Parameters>
  <InterfaceParameter>
    <Index>0</Index>
    <Name>@productionNumber</Name>
    <Value>[Order]</Value>
    <Direction>Input</Direction>
    <Type>NVarChar</Type>
    <ParameterSize>50</ParameterSize>
    <Format />
  </InterfaceParameter>
  <InterfaceParameter>
    <Index>1</Index>
    <Name>@station</Name>
    <Value>[Workplace]</Value>
    <Direction>Input</Direction>
    <Type>NVarChar</Type>
    <ParameterSize>25</ParameterSize>
    <Format />
  </InterfaceParameter>
  <InterfaceParameter>
    <Index>2</Index>
    <Name>@siteID</Name>
    <Value>1</Value>
    <Direction>Input</Direction>
    <Type>BigInt</Type>
    <ParameterSize>50</ParameterSize>
    <Format />
  </InterfaceParameter>
  <InterfaceParameter>
    <Index>3</Index>
    <Name>@userName</Name>
    <Value>[Scan1]</Value>
    <Direction>Input</Direction>
    <Type>NVarChar</Type>
    <ParameterSize>50</ParameterSize>
    <Format />
  </InterfaceParameter>
  <InterfaceParameter>
    <Index>4</Index>
    <Name>@outputMessage</Name>
    <Value />
    <Direction>Output</Direction>
```

```

<Type>NVarChar</Type>
<ParameterSize>255</ParameterSize>
<Format />
</InterfaceParameter>
<InterfaceParameter>
<Index>5</Index>
<Name>@ReturnVal</Name>
<Value />
<Direction>ReturnValue</Direction>
<Type>Int</Type>
<ParameterSize>255</ParameterSize>
<Format />
</InterfaceParameter>
</Parameters>
</InterfaceParameterGroup>

```

4.2 CompleteProcedure

```

<InterfaceParameterGroup>
<ConnectionId>f766168e-51b2-44ae-8e75-575a5aabf72d</ConnectionId>
<Name>[dbo].[CompleteProductionNumberETest]</Name>
<Parameters>
<InterfaceParameter>
<Index>0</Index>
<Name>@productionNumber</Name>
<Value>[Order]</Value>
<Direction>Input</Direction>
<Type>NVarChar</Type>
<ParameterSize>50</ParameterSize>
<Format />
</InterfaceParameter>
<InterfaceParameter>
<Index>1</Index>
<Name>@station</Name>
<Value>[Workplace]</Value>
<Direction>Input</Direction>
<Type>NVarChar</Type>
<ParameterSize>25</ParameterSize>
<Format />
</InterfaceParameter>
<InterfaceParameter>
<Index>2</Index>
<Name>@siteID</Name>
<Value>1</Value>
<Direction>Input</Direction>
<Type>BigInt</Type>
<ParameterSize>50</ParameterSize>
<Format />
</InterfaceParameter>
<InterfaceParameter>
<Index>3</Index>

```

```

<Name>@userName</Name>
<Value>[Scan1]</Value>
<Direction>Input</Direction>
<Type>NVarChar</Type>
<ParameterSize>50</ParameterSize>
<Format />
</InterfaceParameter>
<InterfaceParameter>
<Index>3</Index>
<Name>@eTestSuccess</Name>
<Value>[ResultBinary]</Value>
<Direction>Input</Direction>
<Type>Bit</Type>
<ParameterSize>1</ParameterSize>
<Format />
</InterfaceParameter>
<InterfaceParameter>
<Index>4</Index>
<Name>@outputMessage</Name>
<Value />
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</InterfaceParameter>
<InterfaceParameter>
<Index>5</Index>
<Name>@ReturnVal</Name>
<Value />
<Direction>ReturnValue</Direction>
<Type>Int</Type>
<ParameterSize>255</ParameterSize>
<Format />
</InterfaceParameter>
</Parameters>
</InterfaceParameterGroup>

```

4.3 CompleteTable

```

<InterfaceParameterGroup>
<ConnectionId>f766168e-51b2-44ae-8e75-575a5aabf72d</ConnectionId>
<Name>[dbo].[ResultsETestTemp]</Name>
<Parameters>
<InterfaceParameter>
<Index>0</Index>
<Name>dateTime</Name>
<Value>[FinishTime]</Value>
<Direction>Input</Direction>
<Type>NVarChar</Type>
<ParameterSize>255</ParameterSize>
<Format />

```

```
</InterfaceParameter>
<InterfaceParameter>
    <Index>1</Index>
    <Name>productionNumber</Name>
    <Value>[Order]</Value>
    <Direction>Input</Direction>
    <Type>NVarChar</Type>
    <ParameterSize>255</ParameterSize>
    <Format />
</InterfaceParameter>
<InterfaceParameter>
    <Index>2</Index>
    <Name>product</Name>
    <Value />
    <Direction>Input</Direction>
    <Type>NVarChar</Type>
    <ParameterSize>255</ParameterSize>
    <Format />
</InterfaceParameter>
<InterfaceParameter>
    <Index>3</Index>
    <Name>station</Name>
    <Value>[Workplace]</Value>
    <Direction>Input</Direction>
    <Type>NVarChar</Type>
    <ParameterSize>255</ParameterSize>
    <Format />
</InterfaceParameter>
<InterfaceParameter>
    <Index>4</Index>
    <Name>operatorPersonalId</Name>
    <Value>[Operator]</Value>
    <Direction>Input</Direction>
    <Type>NVarChar</Type>
    <ParameterSize>255</ParameterSize>
    <Format />
</InterfaceParameter>
<InterfaceParameter>
    <Index>5</Index>
    <Name>testRound</Name>
    <Value />
    <Direction>Input</Direction>
    <Type>NVarChar</Type>
    <ParameterSize>255</ParameterSize>
    <Format />
</InterfaceParameter>
<InterfaceParameter>
    <Index>6</Index>
    <Name>connectionName</Name>
    <Value>[ClipAddress]</Value>
    <Direction>Input</Direction>
    <Type>NVarChar</Type>
```

```

<ParameterSize>255</ParameterSize>
<Format />
</InterfaceParameter>
<InterfaceParameter>
<Index>7</Index>
<Name>testpointFrom</Name>
<Value>[ClipX]/[ClipY]</Value>
<Direction>Input</Direction>
<Type>NVarChar</Type>
<ParameterSize>255</ParameterSize>
<Format />
</InterfaceParameter>
<InterfaceParameter>
<Index>8</Index>
<Name>testpointTo</Name>
<Value />
<Direction>Input</Direction>
<Type>NVarChar</Type>
<ParameterSize>255</ParameterSize>
<Format />
</InterfaceParameter>
<InterfaceParameter>
<Index>9</Index>
<Name>measuredValue</Name>
<Value>[ClipState]</Value>
<Direction>Input</Direction>
<Type>NVarChar</Type>
<ParameterSize>255</ParameterSize>
<Format />
</InterfaceParameter>
</Parameters>
</InterfaceParameterGroup>

```

4.4 ClipListTable

```

<InterfaceParameterGroup>
<ConnectionId>4e05e84a-0b5d-4e5e-9c68-27d04d9353c3</ConnectionId>
<Name>[res].[View_PMS.VehicleClips]</Name>
<Parameters>
<InterfaceParameter>
<Index>0</Index>
<Name>VC_BuildId</Name>
<Value />
<Direction>Input</Direction>
<Type>NVarChar</Type>
<ParameterSize>255</ParameterSize>
<Format />
</InterfaceParameter>
<InterfaceParameter>
<Index>1</Index>
<Name>VC_VehicleId</Name>

```

```
<Value />
<Direction>Input</Direction>
<Type>NVarChar</Type>
<ParameterSize>255</ParameterSize>
<Format />
</InterfaceParameter>
<InterfaceParameter>
<Index>2</Index>
<Name>VC_Productionnr</Name>
<Value>[Order]</Value>
<Direction>Output</Direction>
<Type>NVarChar</Type>
<ParameterSize>255</ParameterSize>
<Format />
</InterfaceParameter>
<InterfaceParameter>
<Index>3</Index>
<Name>VC_Module</Name>
<Value />
<Direction>Input</Direction>
<Type>NVarChar</Type>
<ParameterSize>255</ParameterSize>
<Format />
</InterfaceParameter>
<InterfaceParameter>
<Index>4</Index>
<Name>VC_VINAddedOn</Name>
<Value />
<Direction>Input</Direction>
<Type>NVarChar</Type>
<ParameterSize>255</ParameterSize>
<Format />
</InterfaceParameter>
<InterfaceParameter>
<Index>5</Index>
<Name>VC_Commodity</Name>
<Value />
<Direction>Input</Direction>
<Type>NVarChar</Type>
<ParameterSize>255</ParameterSize>
<Format />
</InterfaceParameter>
<InterfaceParameter>
<Index>6</Index>
<Name>VC_Clip</Name>
<Value>[ClipDescription]</Value>
<Direction>Output</Direction>
<Type>NVarChar</Type>
<ParameterSize>50</ParameterSize>
<Format />
</InterfaceParameter>
```

```
</Parameters>
</InterfaceParameterGroup>
```