

DCR 200i
IPS 200i



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1 General information about the document

This document describes the XML communication between a Leuze sensor and a controller or PC. Different actions can be performed on the sensor using diverse commands.

Tab. 1.1: Information about the document

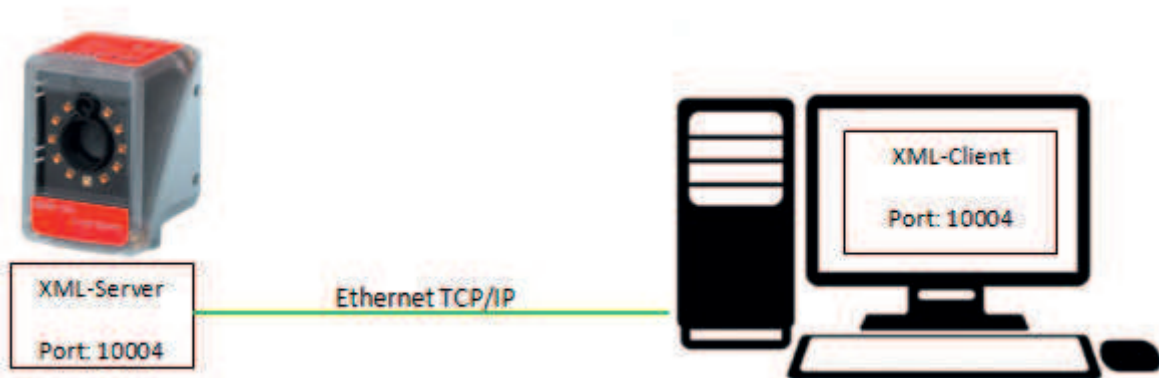
Project	XML interface description
Version	1.2

Tab. 1.2: List of changes

Author	Date	Version	Comment
S. Abraham	21.04.2016	1.0	created
S. Abraham	14.11.2017	1.1	setDefaultLogin extension
S. Abraham	2018-08-17	1.2	IPS 200i extension

2 General information on the XML interface

The sensor makes an XML server available. This XML server communicates with the XML client on a configurable port via Ethernet TCP/IP. The default value for this port is 10004. The sensor must be in process mode in order to communicate via this interface.



NOTICE



In future versions in which there are requests and responses, additional information can be added. This applies to both attribute and element.

NOTICE



Port 10004 cannot be changed in the webConfig configuration tool.

3 Requests

Requests are messages which are sent from the XML client (e.g. controller) to the XML server (Leuze sensor). This can be the querying or setting of parameters or the sending of commands. Almost all requests (except reset) trigger a response from the server.

The response behavior can be controlled by specifying a="1" (sensor sends response) or a="0" (sensor does not respond).

3.1 Reset and configuration

3.1.1 Reset

Triggers a reset (complete restart), including the sensor's operating system. The request has no response regardless of whether a="0" or a="1" has been set.

Request:

```
<LEUZE_XML><PUT s="cmd"><CMD n="reset" a="1">1</CMD></PUT></LEUZE_XML>
```

```
<LEUZE_XML>
  <PUT s="cmd">
    <CMD n="reset" a="1">
      1
    </CMD>
  </PUT>
</LEUZE_XML>
```

3.1.2 Factory reset

Triggers a reset to factory settings. The settings for Ethernet communication (IP, Net mask, Gateway) are preserved.

Request:

```
<LEUZE_XML><PUT s="cmd"><CMD n="factoryReset" a="1"></CMD></PUT></LEUZE_XML>
```

```
<LEUZE_XML>
  <PUT s="cmd">
    <CMD n="factoryReset " a="1">
    </CMD>
  </PUT>
</LEUZE_XML>
```


Answer:

```
<LEUZE_XML>
  <STATE s="cmd">
    <CMD a="1" n="factoryReset" result="OK">
    </CMD>
  </STATE>
</LEUZE_XML>
```

3.1.3 Auto Setup

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The auto setup function determines the optimal illumination settings, decodes the current codes and saves the found codes (code types and number of digits) permanently in the decoder table. The previously saved code types and number of digits in the decoder table are deleted.

NOTICE	
	The auto setup function can also be activated in other ways (e.g. switching input or device key). In this case, the DCR 200i spontaneously generates STATE messages to the XML client.

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Function not available.

Request:

```
<LEUZE_XML><PUT s="cmd"><CMD n="autoSetup" a="1"></CMD></PUT></LEUZE_XML>
<LEUZE_XML>
  <PUT s="cmd">
    <CMD n="autoSetup" a="1">
      </CMD>
    </PUT>
  </LEUZE_XML>
```

This command without a parameter has the same effect as the "start" parameter:

Request:

```
<LEUZE_XML><PUT s="cmd"><CMD n="autoSetup" a="1">start</CMD></PUT></LEUZE_XML>
<LEUZE_XML>
  <PUT s="cmd">
    <CMD n="autoSetup" a="1">
      start
    </CMD>
  </PUT>
</LEUZE_XML>
```

In addition to "start", "stop" can also be used.

Response (one or more responses):

DCR 200i:

```
<LEUZE_XML>
  <STATE s="cmd">
    <CMD a="1" n="autoSetup" result="OK">
      </CMD>
    </STATE>
  </LEUZE_XML>

<LEUZE_XML>
  <STATE v="autoSetup.result" s="cur">
    <DAT>
      <BARCODE d="base64Binary">
        MmRfZGFkYSBdXT4gbWl0IDwhW0NEQVRBWYBNdXJrcyBdXT4=
      </BARCODE>
      <NUMBER_OF_DIGITS>
        35
      </NUMBER_OF_DIGITS>
      <BARCODE_TYPE>
        32
      </BARCODE_TYPE>
    </DAT>
  </STATE>
</LEUZE_XML>
```

3.1.4 Alignment mode

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Activates or deactivates the alignment mode for simple mounting alignment of the device. After activating the function, the code reader constantly outputs status information on the Ethernet interface. With the command, the code reader is set so that it constantly outputs the floating average value of the last 10 image acquisitions in [%] and the decoding result. These values can be used to determine the reading quality or decoding quality. Alignment mode must be deactivated via "stop".

NOTICE



The alignment mode function can also be activated in other ways (e.g. switching input or device key). In this case, the DCR 200i spontaneously generates STATE messages to the XML client.

IPS 200i

Function not available.

Request:

```
<LEUZE_XML><PUT s="cmd"><CMD n="adjust" a="1">start</CMD></PUT></LEUZE_XML>
```

```
<LEUZE_XML>
  <PUT s="cmd">
    <CMD n="adjust" a="1">
      start
    </CMD>
  </PUT>
</LEUZE_XML>
```

Response (one or more responses):

DCR 200i:


```
<LEUZE_XML>
  <STATE s="cmd">
    <CMD a="1" n="adjust" result="OK">
      Start
    </CMD>
  </STATE>
</LEUZE_XML>

<LEUZE_XML>
  <STATE v="adjustment.result" s="cur">
    <DAT>
      <BARCODE d="base64Binary">
        MmRfZGFkYSBdXT4gbWl0IDwhW0NEQVRBWYBNdXJrcyBdXT4=
      </BARCODE>
      <DECODE_QUALITY>
        70
      </DECODE_QUALITY>
    </DAT>
  </STATE>
</LEUZE_XML>
...
```

3.1.5 Teach

DCR 200i

By activating the teach function, the code content of a present code is taught-in as a reference code and saved in the device. The code type and number of digits of the taught-in reference code must be set via the auto setup function beforehand.

NOTICE	
	The teach function can also be activated in other ways (e.g. switching input or device key). In this case, the DCR 200i spontaneously generates STATE messages to the XML client.

IPS 200i

Function not available.

Request:

```
<LEUZE_XML><PUT s="cmd"><CMD n="teach" a="1"></CMD></PUT></LEUZE_XML>
```

```
<LEUZE_XML>
  <PUT s="cmd">
    <CMD n="teach" a="1">
    </CMD>
  </PUT>
</LEUZE_XML>
```

Response (one or more responses):

```
<LEUZE_XML>
  <STATE s="cmd">
    <CMD a="1" n="teach" result="OK">
    </CMD>
  </STATE>
</LEUZE_XML>
```

```
<LEUZE_XML>
  <STATE v="teach.result" s="cur">
    <DAT>
      <BARCODE d="base64Binary">
        MmRfZGFkYSBdXT4gbWl0IDwhW0NEQVRBWyBNdXJrcyBdXT4=
      </BARCODE>
    </DAT>
  </STATE>
</LEUZE_XML>
```


3.1.6 Query configuration (getConfig)

The getConfig function queries the configuration of the sensor for the purpose of the subsequent restoration of this configuration with setConfig. The configuration file is located in the body of the answer, coded in base-64. This body is to be sent with the setConfig command to restore the configuration.

Valid for DCR 200i and IPS 200i.

Request:

```
<LEUZE_XML><GET s="cmd"><CMD n="getConfig" a="1"></CMD></GET></LEUZE_XML>
<LEUZE_XML>
  <GET s="cmd">
    <CMD n="getConfig" a="1">
      </CMD>
    </GET>
  </LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE s="cmd">
    <CMD a="1" n="getConfig" d="base64Binary" result="OK">
      ...
      Qk02xBIAAAAAADYEAAAoAAAAAAUAAMADAAABAAgAAAAAADAEgAAAAAAAAAAAAAAAAALgAvLy8AM-
      DAwADExMQAyMjIAMzMzADQ0NAA1NTUANjY2ADc3NwA4ODgAOTk5ADo6OgA7OzsAPDw8AD09PQA
      +Pj4APz8/AEBAQABBQUEAQkJCAENDQwBEREQARUVFAEZG
      ...
    </CMD>
  </STATE>
</LEUZE_XML>
```

3.1.7 Restore configuration (setConfig)

The setConfig function sends the configuration file to the connected sensor. The configuration file is coded in base-64 here.

Valid for DCR 200i and IPS 200i.

Request:

```
<LEUZE_XML><PUT s="cmd"><CMD n="setConfig" a="1">...</CMD></PUT></LEUZE_XML>
<LEUZE_XML>
  <PUT s="cmd">
    <CMD a="1" n="setConfig" d="base64Binary">
      Qk02xBIAAAAAADYEAAAoAAAAAAUAAMADAAABAAgAAAAAADAEgAAAAAAAAAAAAAAAAALgAvLy8AMDAwADExMQAyMjIAMzMzADQ0NAA1NTUANjY2ADc3NwA4ODgAOTk5ADo6OgA7OzsAPDw8AD09PQA+Pj4APz8/AEBAQABBQUEAQkJCAENDQwBEREQARUVFAEZG
    </CMD>
  </PUT>
</LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE s="cmd">
    <CMD a="1" n="setConfig" d="base64Binary" result="OK">
      </CMD>
  </STATE>
</LEUZE_XML>
```

3.2 Get Parameter

A GET message whose v-attribute specifies the name of the parameter is used for querying variables. A distinction is made between device parameters and job parameters when doing this. Even if device parameters and job parameters are listed separately in the following examples, handling is identical for the user.

3.2.1 Example: Querying the Etherhost UDP port (device parameter)

Request:

```
<LEUZE_XML><GET v="..."><DAT a="1"></DAT></GET></LEUZE_XML>
<LEUZE_XML>
  <GET v="EtherHostServer.ethhost_App.ethhost_udp.ethhost_udp_port">
    <DAT a="1">
      </DAT>
    </GET>
  </LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE v="EtherHostServer.ethhost_App.ethhost_udp.ethhost_udp_port">
    <DAT a="1" result="OK">10001</DAT>
  </STATE>
</LEUZE_XML>
```

3.2.2 Example: Querying the exposure time (job parameter)

The exposure time is specified in μs .

Valid for DCR 200i and IPS 200i. With the IPS 200i: valid for the currently active program.

Request:

```
<LEUZE_XML><GET v="exp"><DAT a="1"></DAT></GET></LEUZE_XML>
<LEUZE_XML>
  <GET v="exp">
    <DAT a="1">
      </DAT>
    </GET>
  </LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE v="exp">
    <DAT a="1" result="OK">500</DAT>
  </STATE>
</LEUZE_XML>
```

3.2.3 Example: Querying the reference code (job parameter)

Valid for DCR 200i.

Request:

```
<LEUZE_XML><GET v="vmcd"><DAT a="1"></DAT></GET></LEUZE_XML>
<LEUZE_XML>
  <GET v="vmcd">
    <DAT a="1">
    </DAT>
  </GET>
</LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE v=" vmcd">
    <DAT a="1" result="OK">8765123411110</DAT>
  </STATE>
</LEUZE_XML>
```

3.3 Put parameter

To set variables, a PUT message is used in which the v-attribute specifies the name of the device parameter or the job parameter.

3.3.1 Example: Setting the Etherhost UDP-Port (device parameter), temporary

Request:

```
<LEUZE_XML><PUT v="..."><DAT a="1">10001</DAT></PUT></LEUZE_XML>
<LEUZE_XML>
  <PUT v="EtherHostServer.ethhost_App.ethhost_udp.ethhost_udp_port">
    <DAT a="1">10002</DAT>
  </PUT>
</LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE v="EtherHostServer.ethhost_App.ethhost_udp.ethhost_udp_port">
    <DAT a="1" result="OK">10002</DAT>
  </STATE>
</LEUZE_XML>
```

3.3.2 Example: Setting the exposure time (job parameter), temporary

The exposure time is specified in μ s.

Valid for DCR 200i and IPS 200i. With the IPS 200i: valid for the currently active program.

Request:

```
<LEUZE_XML><PUT v="exp"><DAT a="1">600</DAT></PUT></LEUZE_XML>
<LEUZE_XML>
  <PUT v="exp">
    <DAT a="1">600</DAT>
  </PUT>
</LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE v="exp">
    <DAT a="1" result="OK">600</DAT>
  </STATE>
</LEUZE_XML>
```

3.3.3 Example: Setting the exposure time (job parameter), permanent

The exposure time is specified in μ s.

Valid for DCR 200i and IPS 200i. With the IPS 200i: valid for the currently active program.

Request:

```
<LEUZE_XML><PUT v="exp" s="perm"><DAT a="1">600</DAT></PUT></LEUZE_XML>
<LEUZE_XML>
  <PUT v="exp" s="perm">
    <DAT a="1">600</DAT>
  </PUT>
</LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE v="exp">
    <DAT a="1" result="OK">600</DAT>
  </STATE>
</LEUZE_XML>
```

3.3.4 Example: Setting the reference code (job parameter), temporary

Valid for DCR 200i.

Request:

```
<LEUZE_XML><PUT v="vmcd"><DAT a="1">HALLO</DAT></PUT></LEUZE_XML>
<LEUZE_XML>
  <PUT v="vmcd">
    <DAT a="1">12345</DAT>
  </PUT>
</LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE v="vmcd">
    <DAT a="1" result="OK">12345</DAT>
  </STATE>
</LEUZE_XML>
```

3.4 Other examples

3.4.1 A few examples for setting and querying of "Etherhost-TCP-Enabled"

Setting to TRUE/FALSE not permanent:

```
<LEUZE_XML><PUT
v="EtherHostServer.ethhost_App.ethhost_tcpip.ethhost_tcpip_enabled"><DAT
a="1">TRUE</DAT></PUT></LEUZE_XML>
```

```
<LEUZE_XML><PUT
v="EtherHostServer.ethhost_App.ethhost_tcpip.ethhost_tcpip_enabled"><DAT
a="1">FALSE</DAT></PUT></LEUZE_XML>
```

Setting to TRUE/FALSE permanently (the processing time is clearly lengthened):

```
<LEUZE_XML><PUT
v="EtherHostServer.ethhost_App.ethhost_tcpip.ethhost_tcpip_enabled"
s="perm"><DAT a="1">TRUE</DAT></PUT></LEUZE_XML>
```

```
<LEUZE_XML><PUT
v="EtherHostServer.ethhost_App.ethhost_tcpip.ethhost_tcpip_enabled"
s="perm"><DAT a="1">FALSE</DAT></PUT></LEUZE_XML>
```

3.5 Device queries

Valid for DCR 200i and IPS 200i.

3.5.1 Get Status

Querying the current device status

Mode:	PM (process mode) / SM (service mode)
ErrorState:	0 : No fault, 1 : Fault present. The error state specifies whether there is at least one error in error memory.
Busy:	1 : Busy, 0 : Not busy.

Request:

```
<LEUZE_XML><GET s="cmd"><CMD n="getStatus" a="1"></CMD></GET></LEUZE_XML>
```

```
<LEUZE_XML>
  <GET s="cmd">
    <CMD n="getStatus" a="1">
    </CMD>
  </GET>
</LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE s="cmd">
    <CMD a="1" n="getStatus" result="OK">
      <mode>PM</mode>
      <errorState>0</errorState>
      <busy>0</busy>
    </CMD>
  </STATE>
</LEUZE_XML>
```

3.5.2 Version Request

You query the current device version with this request.

Request:

```
<LEUZE_XML><GET s="cmd"><CMD n="versionRequest" a="1"></CMD></GET></LEUZE_XML>
```

```
<LEUZE_XML>
  <GET s="cmd">
    <CMD n="versionRequest" a="1">
    </CMD>
  </GET>
</LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE s="cmd">
    <CMD a="1" n="versionRequest" result="OK">
      <iox-app-sw>V 1.0.0</iox-app-sw>
    </CMD>
  </STATE>
</LEUZE_XML>
```

3.5.3 setDefaultLogin

The command is used to define a default role (characterized by a user name and the user's password) that webConfig is to take on when logging into the DCR 200i/IPS 200i.

Request:

```
<LEUZE_XML><PUT s="cmd"><CMD n="setDefaultLogin" a="1">...</CMD></PUT></LEUZE_XML>
<LEUZE_XML>
  <PUT s="cmd">
    <CMD n="setDefaultLogin" a="1">
      <USER>UserName</USER>
      <PASS>PlainTextPW</PASS>
    </CMD>
  </PUT>
</LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE s="cmd">
    <CMD a="1" n="setDefaultLogin" result="OK">
      <USER>UserName</USER>
      <PASS>PlainTextPW</PASS>
    </CMD>
  </STATE>
</LEUZE_XML>
```

Canceling the default role:

Request:

```
<LEUZE_XML><PUT s="cmd"><CMD n="setDefaultLogin" a="1">...</CMD></PUT></LEUZE_XML>
<LEUZE_XML>
  <PUT s="cmd">
    <CMD n="setDefaultLogin" a="1">
      <USER></USER>
      <PASS></PASS>
    </CMD>
  </PUT>
</LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE s="cmd">
    <CMD a="1" n="setDefaultLogin" result="OK">
      <USER></USER>
      <PASS></PASS>
    </CMD>
  </STATE>
</LEUZE_XML>
```

3.6 Control and image query

3.6.1 Scan Activate

This parameter activates the configuration saved in the device (reading).

Valid for DCR 200i and IPS 200i. With the IPS 200i: valid for the currently active program.

Request:

```
<LEUZE_XML><PUT s="cmd"><CMD n="scanActivate" a="1">1</CMD></PUT></LEUZE_XML>
```

```
<LEUZE_XML>
  <PUT s="cmd">
    <CMD n="scanActivate" a="1">
      1
    </CMD>
  </PUT>
</LEUZE_XML>
```

Response (one or more responses):

```
<LEUZE_XML>
  <STATE s="cmd">
    <CMD a="1" n="scanActivate" result="OK">
      1
    </CMD>
  </STATE>
</LEUZE_XML>
```

```
<LEUZE_XML>
  <STATE v="barcode.result" s="cur">
    <DAT>
      <BARCODE d="base64Binary">
        MmRfZGFkYSBdXT4gbWl0IDwhW0NEQVRBWyBNdXJrcyBdXT4=
      </BARCODE>
    </DAT>
  </STATE>
</LEUZE_XML>
```

3.6.2 Scan Deactivate

This parameter deactivates the configuration saved in the device (reading).

Valid for DCR 200i and IPS 200i. With the IPS 200i: valid for the currently active program.

Request:

```
<LEUZE_XML><PUT s="cmd"><CMD n="scanActivate" a="1">0</CMD></PUT></LEUZE_XML>
```

```
<LEUZE_XML>
  <PUT s="cmd">
    <CMD n="scanActivate" a="1">
      0
    </CMD>
  </PUT>
</LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE s="cmd">
    <CMD a="1" n="scanActivate" result="NOK">
      0
    </CMD>
  </STATE>
</LEUZE_XML>
```

3.6.3 Get Image

This request requests the current captured image.

Valid for DCR 200i and IPS 200i. With the IPS 200i: valid for the currently active program.

Request:

```
<LEUZE_XML><GET s="cmd"><CMD n="getImage" a="1"></CMD></GET></LEUZE_XML>
```

```
<LEUZE_XML>
  <GET s="cmd">
    <CMD n="getImage" a="1">
    </CMD>
  </GET>
</LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE s="cmd">
    <CMD a="1" n="getImage" d="base64Binary" result="OK">
```

```
    ...
Qk02xBIAAAAAADYEAAAoAAAAAAUAMADAAAABAaGAAAAAADAEgAAAAAAAAAAAA
AAAAAAAAAAAAAAAAEBAQACAgIAAwMDAAQEBAAFBQUABgYGAAcHBwAICAgACQkJAAoK
CgALCwsADAwMAA0NDQAODg4ADw8PABAQEAAAREAEhISABMTEwAUFBQAFRUVABYW
FgAXFxcAGBgYABkzGQAaGhoAGxsbABwcHAAAdHR0AHh4eAB8fHwAgICAAISEhACIi
IgAjIyMAJQCQkACU1JQAmJiYAJycnACgoKAApKSkAKioqACsrKwAsLCwALS0tAC4u
LgAvLy8AMDawADExMQAyMjIAMzMzADQ0NAA1NTUANjY2ADc3NwA4ODgAOTk5ADo6
OgA7OzsAPDw8AD09PQA+Pj4APz8/AEBAQABBQUEAQkJCAENDQwBEREQARUVFAEZG
```

```
    ...
  </CMD>
</STATE>
</LEUZE_XML>
```

“...” stands for the Base64 coded content of the image whose format is a bitmap. If an image is available, then this results in an “OK”, otherwise a “NOK”.

3.6.4 Program query (activeJob)

This query requests the currently active program (selection ID).

Valid for IPS 200i.

Request:

```
<LEUZE_XML><GET s="cmd"><CMD n="activeJob" a="1"></CMD></GET></LEUZE_XML>
```

```
<LEUZE_XML>
  <GET s="cmd">
    <CMD n="activeJob" a="1">
    </CMD>
  </GET>
</LEUZE_XML>
```

The 1 in the command stands for the (job) selection ID.

Answer:

```
<LEUZE_XML>
  <STATE s="cmd">
    <CMD a="1" n="activeJob" result="OK">
      1
    </CMD>
  </STATE>
</LEUZE_XML>
```


3.6.5 Program changeover (activeJob)

This command activates changeover to the desired program (selection ID) in the sensor.

Valid for IPS 200i.

Request:

```
<LEUZE_XML><PUT s="cmd"><CMD n="activeJob" a="1">1</CMD></PUT></LEUZE_XML>
<LEUZE_XML>
  <PUT s="cmd">
    <CMD n="activeJob" a="1">
      1
    </CMD>
  </PUT>
</LEUZE_XML>
```

The 1 in the command stands for the (job) selection ID.

Answer:

```
<LEUZE_XML>
  <STATE s="cmd">
    <CMD a="1" n="activeJob" result="OK">
      1
    </CMD>
  </STATE>
</LEUZE_XML>
```

3.6.6 Subscribe / Unsubscribe

Subscribe and Unsubscribe can be used to control whether the sensor spontaneously sends messages with information on the changes to the XML client in the event of parameter changes. The states of Subscribe/Unsubscribe are not stored in non-volatile memory. After the sensor is started, it is always in the "Unsubscribe" state.

Valid for DCR 200i and IPS 200i.

Subscribe

Request:

```
<LEUZE_XML><SUBS a="1" v="*"></SUBS></LEUZE_XML>
<LEUZE_XML>
  <SUBS a="1" v="*">
  </SUBS>
</LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE a="1" v="*">
    subscribed
  </STATE>
</LEUZE_XML>
```

Following a successful Subscribe, all parameter changes are sent as a spontaneous message in the following format:

Example of a spontaneous message in the event of changes to job parameters (here: Exposuretime)

```
<LEUZE_XML>
  <STATE v="exp">
    <DAT>
      164
    </DAT>
  </STATE>
</LEUZE_XML>
```

Example of a spontaneous message in the event of changes to application parameters (here: operating mode)

```
<LEUZE_XML>
  <STATE v="ToolGeneral.RunMode">
    <DAT>
      RunMode_Tiggered
    </DAT>
  </STATE>
</LEUZE_XML>
```

Unsubscribe

Request:

```
<LEUZE_XML><UNSUBS a="1" v="*"></SUBS></LEUZE_XML>
```

```
<LEUZE_XML>
  <UNSUBS a="1" v="*">
  </UNSUBS>
</LEUZE_XML>
```

Answer:

```
<LEUZE_XML>
  <STATE a="1" v="*">
    unsubscribed
  </STATE>
</LEUZE_XML>
```

Following a successful Unsubscribe, no further spontaneous messages are sent in the event of parameter changes:

3.7 Case of failure

3.7.1 Refused request

Request:

```
<LEUZE_XML><PUT s="cmd"><CMD n="getStatus" a="1">service</CMD></PUT></LEUZE_XML>
```

```
<LEUZE_XML>
  <PUT s="cmd">
    <CMD n="getStatus" a="1">
    </CMD>
  </PUT>
</LEUZE_XML>
```

The command is refused because getStatus expected a "GET" instead of "PUT".

Answer:

```
<LEUZE_XML result="rejected">
  <PUT s="cmd">
    <CMD a="1" n="getStatus">
    </CMD>
  </PUT>
</LEUZE_XML>
```

Reason for refusal: getStatus is a request which must be sent via <GET>.

3.7.2 Failed command

An attempt was made to execute a valid command but the attempt failed.

Request:

```
<LEUZE_XML><GET s="cmd"><CMD n="getImage" a="1"></CMD></GET></LEUZE_XML>
<LEUZE_XML>
  <GET s="cmd">
    <CMD n="getImage" a="1">
      </CMD>
    </GET>
  </LEUZE_XML>
```

The command is refused if no image is available. Another reason for the failure can be the lack of an active session.

Answer:

```
<LEUZE_XML>
  <STATE s="cmd">
    <CMD a="1" n="getImage" result="NOK">
      </CMD>
    </STATE>
  </LEUZE_XML>
```

3.7.3 Timeout after incomplete command

If an incomplete command is sent to the device or part of the message gets lost on the transmission path, the device internal command processing will be in an undefined state.

Example of an incomplete command:

```
<LEUZE_XML>
  <PUT s="cmd">
    <CMD n="
```

If further commands are now sent to the device, these cannot normally be processed.

In order to prevent this from happening, a timeout resets the device internal command processing within a few seconds in the event of an error and rejects incomplete commands.