Web services

Web service support for cab label printers

General description
Web Service support for cab Label Printers

valid for following printer types:

**A+ -Series™**
- XD4™
- Mach 4™

**PX -Print ModuleSeries™**
- Hermes+

XD and XC series printers

and all printing systems based on the cab „X2“ board

furthermore for the EOS series

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Webservices

Plattform independent communication with cab printers

What is a Webservice?

- No driver and no specific Software required
- Platform independent
- Independent from the programming language
- Usage of standard protocols,
- Independent form the location
- Simple implementatation (usually with the usage of an assistent)
- Support through all important software manufacturers (Microsoft, SAP, Oracle, IBM, etc.)
- Multi language support (Unicode support)

Technical background

- A Webservice is a collection of functions which can be recalled
- The description of this function calls is defined in a XML file called WSDL - Web Services Description Language.
- The functions are recalled through SOAP (Simple Object Access Protocol) while SOAP uses http for the transmission.
- Nearly each infrastructure can be used.
- Webservices could be used with authentification if required.
- Webservices are supported by each printer which is based on the X2 board and which uses firmware version 3.17 or higher.
- Request and control functions for status, list of labels on the memory card, list of printed jobs and print a job are available.
Web Service support for cab Label Printers

Starting with firmware 3.17 we add Web Services support to cab label printers.
Now you can print labels directly from your ERP system, or also you can develop a client which sends the requests to the printer, without the need for a printer driver.
If you plan to use these feature you have to activate it in the applet first. The WSDL (description file for the services) is then available on the URL: ‘http://(printerIP address or DNS name)/services.wsdl’.
For EOS printers: http://[printer-IP address or DNS name]/cgi-bin/soap/services.wsdl

The printer offers the following functions:

1. **Status query**
   With the status query you get different status values from your printer.
The input and output values are strings.
Values of the input string can be ‘ESCs’, ‘ESCz’, ‘ESCI’, ‘ESCl’, ‘ESCa’, ‘ESCj’, ‘ESC?’, ‘Generic’ and ‘Label’
The ESC keywords are documented in the programming manual.
‘Label’ will return the name from the latest loaded label file. If no label is loaded the response will be empty.

```
XML example:
Request
<statusRequest>ESCs</statusRequest>
Response
<statusResponse>Y-000000N</statusResponse>
```

2. **Format list**
   With the format list query you get a list of available formats on your memory card.
The input value is empty and the response message will be a list with the format names and description. If no formats are available the response list is empty.

```
XML example:
Request
<listOfFormatsRequest/>
Response
<listOfFormatsResponse>
  <format>
    <name>TEXT.LBL</name>
    <description>TEXT</description>
  </format>
  <format>
    <name>OBJ.LBL</name>
    <description>Test for objectinfo</description>
  </format>
</listOfFormatsResponse>
```

3. **Load format**
   With the load format query you load a label format from memory card.
The input value is the name of the format. The output value will be a generic message and a boolean
value. If the value is ‘true’ the format will be loaded, otherwise the requested format could not be found.
(If your label describes a print action without job size, you possibly have to add ‘A 1[NO]’
otherwise you cannot send the load request twice without sending a print request between.)

**XML example:**

<table>
<thead>
<tr>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;loadFormatRequest&gt;OB1.LBL&lt;/loadFormatRequest&gt;</td>
</tr>
<tr>
<td>Response</td>
</tr>
<tr>
<td>&lt;loadFormatResponse&gt;</td>
</tr>
<tr>
<td>&lt;generic&gt;Selected format not found&lt;/generic&gt;</td>
</tr>
<tr>
<td>&lt;result&gt;false&lt;/result&gt;</td>
</tr>
<tr>
<td>&lt;/loadFormatResponse&gt;</td>
</tr>
</tbody>
</table>

### 4. List of objects
With the list of objects query you get a list of the objects from the loaded formats.
The input value is empty and the response will be a list with the names and type from every object on the format. If no format is loaded the response list will be empty.

**XML example:**

<table>
<thead>
<tr>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;listOfObjectsRequest/&gt;</td>
</tr>
<tr>
<td>Response</td>
</tr>
<tr>
<td>&lt;listOfObjectsResponse&gt;</td>
</tr>
<tr>
<td>&lt;fObject&gt;</td>
</tr>
<tr>
<td>&lt;name&gt;text1&lt;/name&gt;</td>
</tr>
<tr>
<td>&lt;type&gt;Text&lt;/type&gt;</td>
</tr>
<tr>
<td>&lt;/fObject&gt;</td>
</tr>
<tr>
<td>&lt;fObject&gt;</td>
</tr>
<tr>
<td>&lt;name&gt;ean&lt;/name&gt;</td>
</tr>
<tr>
<td>&lt;type&gt;Barcode&lt;/type&gt;</td>
</tr>
<tr>
<td>&lt;/listOfObjectsResponse&gt;</td>
</tr>
</tbody>
</table>

### 5. Print format
With the print format query you send a print request. Before you send this you must have loaded a format.
The input values are:
– name and content for the objects you want to change
– an optional job name
– the number of labels to print
With the job name you can identify your job in the following explained job list request.
The output value will be a generic message and a boolean value. If the value is ‘true’ your job will be put into the print queue, otherwise the input message objects do not match the loaded label. The maximum number of prints in a job can be 999999.
6. Job list request
With the job list request you get a list with the processed jobs from the printer. The input value empty and the response will be a list with the ten latest jobs. A job contains his name, the date a time when it was finished and the status. The status can be ‘finished’ or ‘aborted’. If the job is aborted or not complete it contains the number of printed labels. If no jobs have been executed the response will be empty.

XML example:
Request
<listOfJobsRequest/>
Request
<listOfJobsResponse>
  <job>
    <id>a17</id>
    <date>2008-12-09</date>
    <time>12:05:51Z</time>
    <status>aborted</status>
  </job>
  <job>
    <id>a17</id>
    <date>2008-12-09</date>
    <time>12:05:50Z</time>
    <status>printed #3</status>
  </job>
</listOfJobsResponse>