

a:control

Fileparser / XML Functionality



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Table of contents

1. SYSTEM REQUIREMENTS	3
2. FILEPARSER	3
3. XML	6
Action Tags:	8
Examples:	10

Note:

All screenshots and pictures of the application which are shown in this document are to be taken as examples and are subjected to the copyright of Diagraph GmbH.

1. System requirements

PC-Hardware	Requirements
Installed a:control	CPU min. 1.0 GHz processor speed
Network	Ethernet
RS232 / COM Ports	COM-Port for scanner (optional)
Scanner	Installed scanner with COM-Port (optional)
USB- Ports	USB A for data exchange with stick drive
Software	Windows 7 or higher Microsoft .NET Framework 4.8

It's possible that the software is running without problems on differing system constellations. The performance of the application will possibly slow down with older hardware. Most important for a faultless application execution is enough free working memory and hard disk space.

NGT System

Printer-Hardware	Requirements
Printer model	NG2, NG2+, NG4, NG4+, NG6, NG6E, NG8, NG8E
Firmware	Current printer firmware
Connectivity	Ethernet / Serial

53 System

Printer-Hardware	Requirements
Printer model	53XL40, 53XL80u, 53XLC, XL5000, XL5000C
Firmware	Current printer firmware
Connectivity	Ethernet / Serial

MLi System

Printer-Hardware	Requirements
Printer model	MLi
Firmware	Current printer firmware
Connectivity	Ethernet / Serial

2. FileParser

a:control automatically creates a file parser directory for each printer.

Name	Änderungsdatum	Typ
brokenxlu	21.01.2020 15:32	Dateiordner
HitachiRX192.168.173.118	21.01.2020 15:32	Dateiordner
HitachiUX192.168.173.119	21.01.2020 15:32	Dateiordner
MLi192.168.173.67	21.01.2020 15:32	Dateiordner
MLiseriall	21.01.2020 15:32	Dateiordner
NG6Frede	21.01.2020 15:32	Dateiordner
NG6seriall	21.01.2020 15:32	Dateiordner
NG8e	21.01.2020 15:32	Dateiordner
NGT6Frede192.168.173.127	21.01.2020 15:36	Dateiordner
NGT192.168.173.130	21.01.2020 15:32	Dateiordner
NGT192.168.173.131	21.01.2020 15:32	Dateiordner
NGTNB080.allen.de	21.01.2020 15:32	Dateiordner
NGTTRAINING	21.01.2020 15:32	Dateiordner
NOTAccessible	21.01.2020 15:32	Dateiordner
XLFrede192.168.173.122	21.01.2020 15:32	Dateiordner
XLseriall	21.01.2020 15:32	Dateiordner

Activation of the file parser

As soon as a printer is connected, the corresponding printer directory is searched for images or file parser XML files. It is therefore often useful to connect the printer automatically when the program starts. This is defined in the printer settings configuration:

Drucker hinzufügen/Wert ändern

Druckerbezeichnung
NGT6 Frede (192.168.173.127)

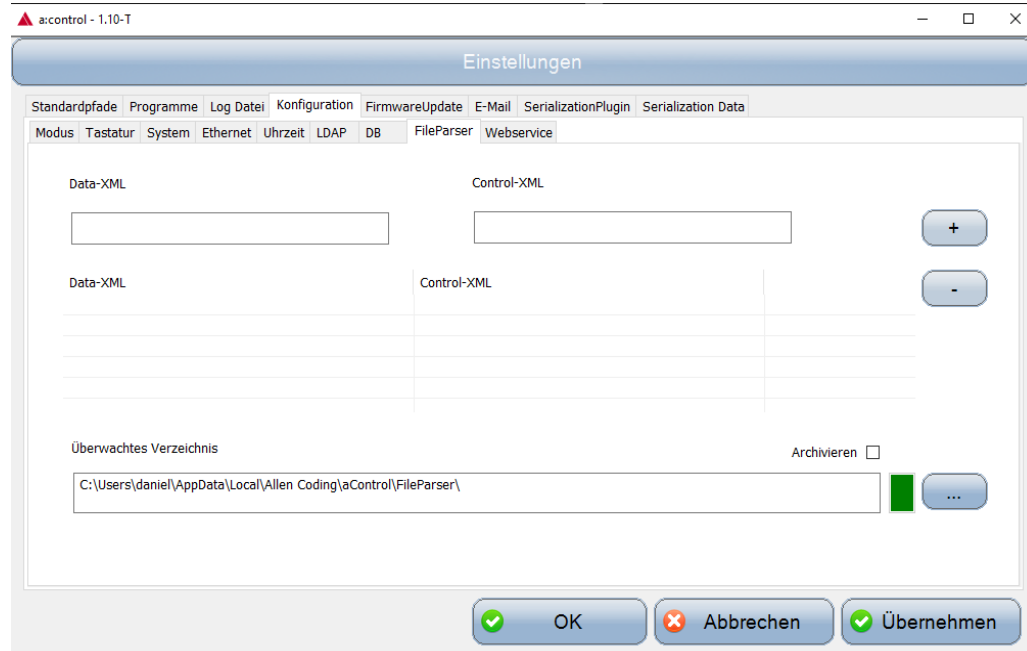
Netzwerk Verbindung | Serielle Verbindung | Druckertyp | **Konfiguration**

- ☐ Sende E-Mail bei Fehler
- ☐ Beim Programmstart automatisch verbinden
- ☒ Immer verbunden bleiben
- ☐ Druckerzähler einblenden
- ☐ Farbbandlänge einblenden

OK Abbrechen

Settings in a:control

The settings for the file parser can be found in the program settings:



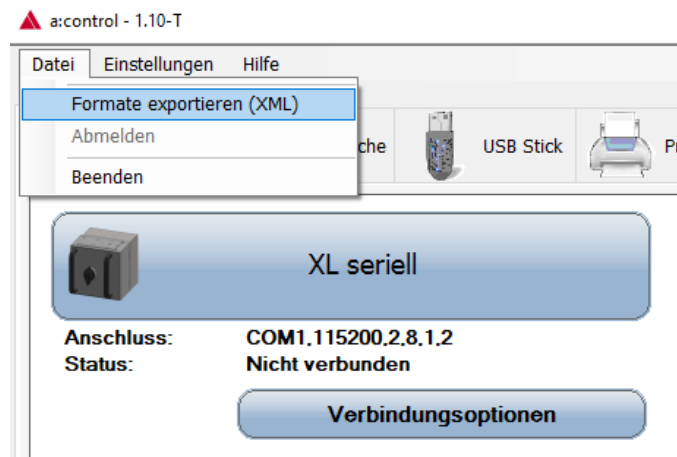
Apply print formats / XML files

if a print format is now copied into such a subdirectory, the formats are loaded onto the corresponding printers. If the file is a valid a:control XML file, it will be used. An XML file can also be drag-dropped onto a printer.

3. XML

Creating an XML template:

Connect to one or more printers and load a format there, e.g. a format with variables. After you have loaded the format, you can create a template with "Export Formats":



This action creates an XML file that can be edited as a template:

Example: FileParser130207_092356.xml

```
<?xml version="1.0" encoding="utf-8"?>
<!--FileParser export: date 130207_092356 (a:control1.5.10-T) -->
<aControl xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="aControl.xsd">
    <Printer id="126AF8F4-1F41-4FB6-83DA-39285405CF04" name="NG8IP">
        <CMD action="LoadConfiguration" id="A6D02A1C6EA04E6C9D942F427542BF74" />
        <CMD action="SetVariable" name="Density" value="020, 3 bar" global="false"
sql="" />
        <CMD action="SetVariable" name="Folientyp" value="000" global="false" sql=""
/>
        <CMD action="SetVariable" name="Zaehler1" value="0" global="false" sql="" />
        <CMD action="SetCounter" name="Zaehler1" start="0" stop="9999999" step="1"
duration="1" value="0000000" />
        <CMD action="LoadFormat" name="Muster pol">
            <Format>
                <Content sql=""
base64="fjEwMDA0NzgbRk11c3RlciBwb2wbVkrEYXR1bVplaXQxCzAxMTcuAzA1MTcuAzEwC0YwMDAwMDAwMDAbVknA
YwVobGVyMQtTMDAwMDAwMDAwMDA50Tk50Tk5MDAwMDAwMDAxMDAwMDAwMDAwMDAwMDAwMDEyMzQ1Njc4Q0swADAw
MDcLCxtwSUZvbG1lbnR5cAswMDALRm9sawVudHlwCzAAMDAwMDAwMjULCxtWSURlbnNpdHkLMDIwLCAzIGJhcgtEZW5z
aXR5CzAAMDAwMDAwMjULCxsjQjA0MDAxODcwMDA3NjAwRjEYmZQ1Njc4CzAwNTIwMDkxMDAwGyNUMDQwMDA4NzAwNjcx
MDBWRERhdHVtWmVpdDElMjBMDAwGyNUMDQwMDc2MjAwNjUwMDBGTVVTVVEVSFRJFVQ0sLMTRMMDAwGyNUMDQwMDU4NTAw
NzIyMDBWQ1phZW5hZXIxCzEwTDAwMBsjVDA1MDAwOTAwMDg2NTAwRkZvbG1lbnR5cCA6IAx0EwwMDAbi1QwNTAwNTEz
MDA4NzUwMFZJRm9sawVudHlwCzE4TDAwMBsjVDA1MDA4NzYwMDg2NTAwVk1EZW5zaXR5CzE4TDAwMBtTMjAwG1gwNzA1
MP8bUTAwMDAw" />
            </Format>
        </CMD>
        <CMD action="SetParameter" name="Speed" value="200" global="false" sql="" />
        <CMD action="SetParameter" name="Density" value="050" global="false" sql="" />
    </Printer>
    <Configuration>
        <CMD action="Configuration" id="A6D02A1C6EA04E6C9D942F427542BF74" database=""
dbtype="SQLite|OleDB|SQLServer" />
    </Configuration>
</aControl>
```

The XML file is checked against a valid a:control DTD.

Action Tags:

A list of the valid action tags for printers is explained below. The action tags are located as subnodes under the printer tag

Download the current configuration.

An XML file with the current printer configuration is generated here. This can possibly be used for verification. The file is stored in the printer directory:

```
C:\Users\<Benutzername>\AppData\Local\Diagraph\Control\FileParser
\<printername>\info\B29695F57B8C4E2290E99C4B02ECCF8B.xml
```

```
<CMD action="GetInfo" />
```

Set a variable

```
<CMD action="SetVariable" name="Variable2" value="123"/>
```

Set a counter

```
<Counter name="GlobalCounter1" value="0" start="0" stop="999999999" step="1" duration="1"/>
```

Set a free variable

```
<CMD action="SetFreeVariable" name="free1" value="hello"
```

Setting a parameter (Speed)

```
<CMD action="SetParameter" name="Speed" value="160" />
```

Setting a parameter (density)

```
<CMD action="SetParameter" name="Density" value="160" />
```

Setting a parameter (quantity)

```
<CMD action="SetParameter" name="Quantity" value="10" />
```

Load a configuration with the specified ID.

The configuration tag is specified at the same level as printer tags. Information such as database connections, global variable information and other information is defined for the printer in the configuration.

```
<CMD action="LoadConfiguration" id="9FCAC9CC8A154D0785DDA94DFDB47098" />
```

Loading a print image.

The print image with the specified name is loaded.

```
<CMD action="LoadFormat" name="AZ_NERI_LA">
```

The print image can also be specified directly in Base64-coded form.

```
<CMD action="LoadFormat" name="AZ_NERI_LA">
  <Format>
```

```
<Content sql="" base64="fjEwMDAyNzIbRkFaX05FUK1fTEEbVklURVhUTE1ORTELMITzNDU2Nzg5C1RFWFRM
SU5FMQswADAwMDAwMDI1CwsbVklURVhUTE1ORTILMTIzNDU2Nzg5C1RFWFRMSU5FMgswADAwMDAwMDI1CwsbVklU
RVhUTE1ORTMLMTIzNDU2Nzg5C1RFWFRMSU5FMswADAwMDAwMDI1CwsbI1QwMDAwMTU2MDAwNDgwMFZJVEVYVExJ
```

```
TkUxCzA3TDAwMBsjVDAwMDAxNTYwMDA4NDAwVk1URVhUTE1ORTILMDdMMDAwGyNUMDAwMDE1NjAwMTIxMDBWSVRF
WFRMSU5FMwswN0wwMDAbUzE2MBtYMDcwNTD/G1EwMDAwMA==" />
    </Format>
</CMD>
```

Examples:

An XML file does not have to contain a format, only variables or counters can be changed, as in the following example:

```
<?xml version="1.0" encoding="UTF-8"?>
<aControl xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="aControl.xsd">
  <Printer name="Printer1" id="C3E20533-6C04-47bb-9B7E-7BD2BA6AFB05">
    <CMD action="SetVariable" name="Variable2" value="123"/>
    <CMD action="SetVariable" name="Variable2" keyfield="123" table="Tabelle1"
dbtype="ArtNr"/>
    <CMD action="SetCounter" name="Counter1" value="123" start="0"
stop="999999999" step="1" duration="1" global="true"/>
  </Printer>
</aControl>
```

Printer-independent a:control settings can be made in a configuration section of the XML, e.g. Global variables or database connection strings

```
<Configuration>
  <!--Setup Configuration-->
  <CMD action="Configuration" id="A6D02A1C6EA04E6C9D942F427542BF74"
name="Beispiel.cfg"
database="Server=technik4\sqlxpress;Database=toennies;Trusted_Connection=True;"
dbtype="SQLServer">
    <Parameters>
      <Parameter name="GlobalSpeed" value="200"/>
      <Parameter name="GlobalGlobalDensity" value="60"/>
      <Parameter name="GlobalQuantity1" value="00001"/>
      <Parameter name="GlobalQuantity2" value="00011"/>
    </Parameters>
    <!--Setup Global Variables-->
    <Variables>
      <Variable name="GTINGlobal" value="AB1345678901234"/>
      <Variable name="GlobalVariable1" value="Text"/>
      <Counter name="GlobalCounter1" value="0" start="0"
stop="999999999" step="1" duration="1"/>
      <Counter name="GlobalCounter2" value="0" keyfield="1234"
sql="select art_nr from Tabelle1" table="Tabelle1" fields="ArtNr" start="0" stop="999999999"
step="1" duration="1"/>
    </Variables>
  </CMD>
</Configuration>
```

Customer example with filling variables from an Excel file:

-The Excel spreadsheet "Knob.xls" is an extract from a SAP database.

- The name of the printer is "192.168.173.70"

-There is a print image on this printer ("Knob").

The free variables defined in it should now be filled using an XML from the Excel spreadsheet "Product specs\$". - the "Knauf.xml" file, which is copied to the file parser directory, has the following content:

```
<?xml version="1.0" encoding="utf-8"?>
<!--FileParser export: date 140311_135223 (a:control1.5.12-R) -->
<aControl xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="aControl.xsd">
  <Printer id="6F4F8FD0-8CDC-433D-8410-55C2F72BFBA0" name="192.168.173.70">
    <CMD action="LoadConfiguration" id="B52827A9830949B69686B88ADA1B72CD" />

    <CMD action="SetFreeVariable" name="AREA" value="" fields="AREA" />
    <CMD action="SetFreeVariable" name="BARCODE- roll" value="" fields="BARCODE- roll" />
    <CMD action="SetFreeVariable" name="Lambda" value="" fields="Lambda" />
    <CMD action="SetFreeVariable" name="Length mm" value="" fields="Length mm" />
    <CMD action="SetFreeVariable" name="PRODUCT" value="" fields="PRODUCT" />
    <CMD action="SetFreeVariable" name="RValue" value="" fields="RValue" />
    <CMD action="SetFreeVariable" name="SAPCODE" value="" fields="SAPCODE"/>
    <CMD action="SetFreeVariable" name="Thick" value="" fields="Thick" />
    <CMD action="SetFreeVariable" name="Width full" value="" fields="Width full" />

    <CMD action="LoadFormat" name="knob"/>
    <CMD action="SetParameter" name="Speed" value="100" sql="" />
    <CMD action="SetParameter" name="Density" value="050" sql="" />
  </Printer>
  <Configuration>
    <CMD action="Configuration" id="B52827A9830949B69686B88ADA1B72CD"

    database="Provider=Microsoft.ACE.OLEDB.12.0;Data source=C:\Users\knob\Desktop\Knob.xls;Extended Properti
es='Excel 12.0 Xml;HDR=YES'"
    dbtype="OleDB"
    sql="Select * from [Product specs$] where SAPCODE='426005'" />
  </Configuration>
</aControl>
```

Example with filling variable customer data from an XML file:

The format named "lloreal" is a print format in the printer

- The name of the printer is "NGTSERIAL".
 - These are two printer variables mapped to the XML (CHARG->CHARG, MATNR->MATNR).
 - In the configuration section, the location of the XML file is defined, the dbtype is set to XML. Each time the XML file is copied to the file parser directory, the SAP export is applied to the format.
- (Usually under C:\Users\<username>\AppData\Local\Diagraph\AControl\FileParser)

```
<?xml version="1.0" encoding="utf-8"?>
<!--FileParser export: date 20190218_092836 (a:control1.9-R) -->
<aControl xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="aControl.xsd">
  <Printer id="F5048111-3EB7-D467-CC55-8F6AD1C94BB1" name="NGTSERIELL">
    <CMD action="LoadConfiguration" id="01354130A0BF4653BB03D4FC84370EEC" />
    <CMD action="SetVariable" name="CHARG" value="" global="false" sql="CHARG" />
    <CMD action="SetVariable" name="MATNR" value="" global="false" sql="MATNR" />
    <CMD action="LoadFormat" name="lloreal"/>
  </Printer>
  <Configuration>
    <CMD action="Configuration" id="01354130A0BF4653BB03D4FC84370EEC"
database="C:\Users\AllUsers\SAP_Export\sap.xml" dbtype="XML" />
  </Configuration>
</aControl>
```

Customer file in C:\Users\AllUsers\SAP_Export\sap.xml

```
<?xml version="1.0" encoding="utf-8"?>
<Lot xmlns="http://www.Apriso.com/Lot.xsd">
  <WERKS>280</WERKS>
  <AUFNR>300001962400</AUFNR>
  <RSHID>BD63</RSHID>
  <VERAN>UP2</VERAN>
  <MATNR>D1254003</MATNR>
  <GSTRI>20190110</GSTRI>
  <CHARG>123456</CHARG>
  <VFDAT>20220109</VFDAT>
</Lot>
```

Set up copy triggers to run the fileparser-xml every time the customer file has been modified:

