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TFPrint

Command Line Printing Tool

Version 7.0

User Manual

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3 Command Line Printing

3.1 General

The command line based version of **TFORMer SDK** is available for all supported operating systems (Microsoft® Windows®, Linux® and UNIX®). It generates output based on arbitrary form layouts created with **TFORMer Designer**.

The executable file is named *tfprint* (or *tfprint.exe* on Microsoft Windows). It can be used

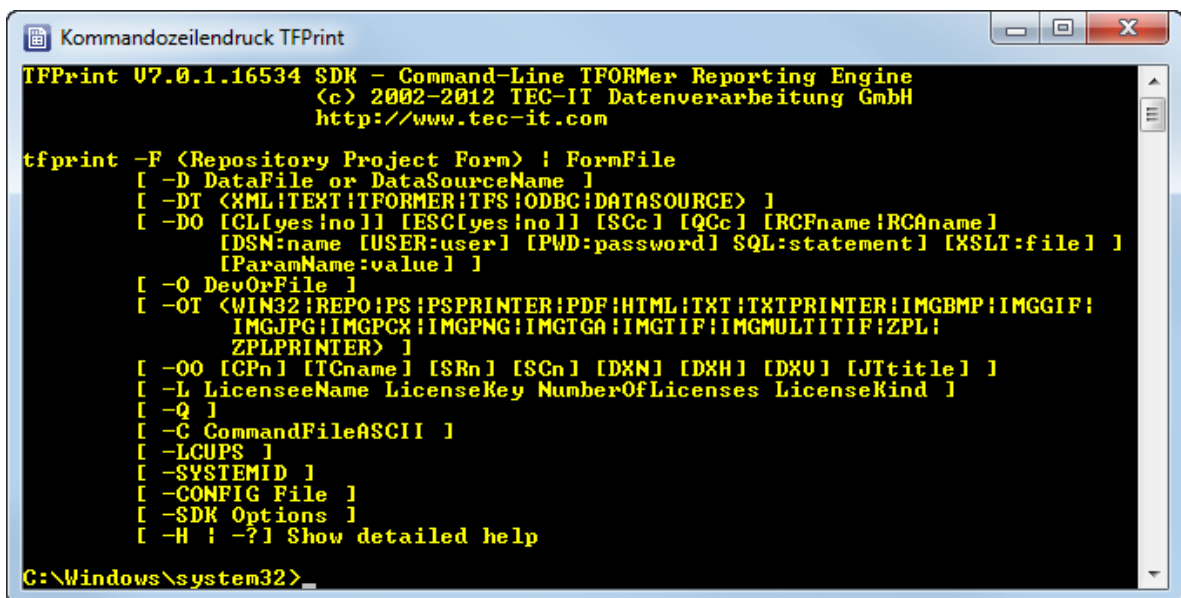
- on its own (executed manually),
- as part of batch jobs or shell scripts,
- via “shell execute” as “out-of-process” reporting engine,
- as extension for printer filter applications on Linux/UNIX.

3.2 Outline

The general steps for using **TFPrint** are:

1. Create the required form layouts using **TFORMer Designer**.
2. Provide data for the form layouts via XML, CSV, TXT or ODBC datasources.
3. Embed **TFPrint** into your batch job, shell script or applications.

- ▶ On Microsoft Windows the files for the form layout and for the file-based datasource (XML, CSV or TXT) may be provided as system-specific file path or as http-based URL.



```
Kommandozeilendruck TFPrint
TFPrint U7.0.1.16534 SDK - Command-Line TFORMer Reporting Engine
(c) 2002-2012 TEC-IT Datenverarbeitung GmbH
http://www.tec-it.com

tfprint -F <Repository Project Form> ! FormFile
[ -D DataFile or DataSourceName ]
[ -DT <XML|TEXT|TFORMER|TFS|ODBC|DATASOURCE> ]
[ -DO [ICL|yes|no|] |ESC|yes|no|] |SCc| |QCc| |RCFname|RCAname|
|DSN:name |USER:user| |PWD:password| |SQL:statement| |XSLT:file| ]
|ParamName:value| ]
[ -O DevOrFile ]
[ -OT <WIN32|REPO|PS|PSPRINTER|PDF|HTML|TXT|TXTPRINTER|IMGBMP|IMGGIF|
IMGJPG|IMGPCX|IMGPNG|IMGTA|IMGTIF|IMGMULTITIF|ZPL|
ZPLPRINTER> ]
[ -OO [CPn] |TCname| |SRn| |SCn| |DXN| |DXH| |DXU| |JTtitle| ]
[ -L LicenseeName LicenseKey NumberOfLicenses LicenseKind ]
[ -Q ]
[ -C CommandFileASCII ]
[ -LCUPS ]
[ -SYSTEMID ]
[ -CONFIG File ]
[ -SDK Options ]
[ -H | -?! Show detailed help

C:\Windows\system32>
```

Figure 1: TFPrint

When using **TFPrint** to generate output you need at least three parameter groups:

- Form layout (command line parameter **-F**)
- Datasource (command line parameters **-D, -DT, -DO**)
- Type and target of the generated output (command line parameters **-O, -OT, -OO**)

3.3 Syntax

If you start **TFPrint** without command line parameters, the following help text is displayed. It shows you the syntax and all available parameters of **TFPrint** in short form. For more detailed information about command line parameters use the command **tfprint -?** or **tfprint -H**.

```
TFPrint V7.0.1.16534 SDK - Command-Line TFORMer Reporting Engine
(c) 2002-2012 TEC-IT Datenverarbeitung GmbH
http://www.tec-it.com

tfprint -F (Repository Project Form) | FormFile
[ -D DataFile or DataSourceName ]
[ -DT (XML|TEXT|TFORMER|TFS|ODBC|DATASOURCE) ]
[ -DO [CL[yes|no]] [ESC[yes|no]] [SCc] [QCc] [RCfname|RCaname]
      [DSN:name [USER:user] [PWD:password] SQL:statement] [XSLT:file] ]
      [ParamName:value] ]
[ -O DevOrFile ]
[ -OT (WIN32|REPO|PS|PSPRINTER|PDF|HTML|TXT|TXTPRINTER|IMGBMP|IMGGIF|
      IMGJPG|IMGPCX|IMGPNG|IMGTGA|IMGTIF|IMGMULTITIF|ZPL|
      ZPLPRINTER) ]
[ -OO [CPn] [TCname] [SRn] [SCn] [DXN] [DXH] [DXV] [JTtitle] ]
[ -L LicenseeName LicenseKey NumberOfLicenses LicenseKind ]
[ -Q ]
[ -C CommandFileASCII ]
[ -LCUPS ]
[ -SYSTEMID ]
[ -CONFIG File ]
[ -SDK Options ]
[ -H | -?] Show detailed help
```

3.3.1 Samples

3.3.1.1 Printing with Default Data

If you want to print the stand-alone form *sample.tff* with default data you could use the following command:

```
tfprint -F C:\sample.tff
```

This command will print the form *sample.tff* to the default windows printer. If manual input was defined as standard datasource, the input data will be retrieved from the file *C:\sample.xml* automatically. This is the data file which is maintained by **TFORMer Designer** (data view).

3.3.1.2 Using CSV Data

You can also specify any other data file like a CSV file:

```
tfprint -F C:\sample.tff -D "C:\Form Data\data.csv" -DT TEXT -DO SC;
```

The file *data.csv* is a plain text file which uses the semicolon (“;”) as column separator.

▶ When using a text input file make sure to always specify the column separator!

3.3.1.3 ODBC Data

If you prefer using an ODBC connection for importing your data, the syntax will look like this:

```
tfprint -F C:\sample.tff -DT ODBC -DO DSN:DSN=TFORMer_Sample SQL:"SELECT * FROM  
tbl_Example"
```

3.3.1.4 Using Repository Forms

In order to print a form from a repository you have to specify the name of the repository, the name of the project and the name of the form:

```
tfprint -F "C:\TFORMER Repositories\MyRepository\MyRepository.tfr" MyProject MyReport -O  
"C:\output.pdf" -OT PDF
```

This sample saves the output as PDF document.

3.3.1.5 More Samples

The help text shows you more samples.

```
tfprint -H
```

3.4 Syntax in Detail

3.4.1 Form Layout

Use the following parameters to specify the form. This command line switch is mandatory.

-F (Repository Project Form) FormFile	
-F Repo Project Form	<p>Specifies a form stored in a specific project in a repository.</p> <p>Repo File name of the repository (*.tfr).</p> <p>Project Name of the project within the repository.</p> <p>Form Name of the form within the project.</p> <p>Example:</p> <pre style="background-color: #f2f2f2; padding: 2px;">-F C:\MyRepository.tfr MyProject MyForm</pre>
-F FormFile	<p>Specifies a stand-alone form.</p> <p>FormFile..... File name of the stand-alone form (*.tff).</p> <p>Example:</p> <pre style="background-color: #f2f2f2; padding: 2px;">-F C:\MyStandAloneForm.tff</pre>

3.4.2 Datasource

Use the following parameters to specify the data file or datasource name. If no data file is specified, **TFPrint** will use the standard data source configured with **TFORMer Designer**. If a data file was specified (-D) it is mandatory to specify the type of the data file (-DT).

[-D DataFile or DataSourceName] [-DT (XML TEXT TFORMER TFS ODBC DATASOURCE)] [-DO [CL[yes no]] [ESC[yes no]] [SCc] [QCc] [RCfname RCaname] [DSN:name [USER:user] [PWD:password] SQL:statement] [XSLT:file] [ParamName:value]]	
-D DataFile or DataSourceName	<p>Specifies the data file (e.g. with data type = XML) or data source name (data type DATA SOURCE). This switch is skipped for -DT ODBC.</p> <p>DataFile Name of the data file.</p> <p>DataSourceName. Name of the datasource defined in the form layout.</p> <p>Examples:</p> <pre style="background-color: #f2f2f2; padding: 2px;">-D C:\MyDataFile.csv -DT TEXT -D MyDataSource -DT DATASOURCE</pre>
-DT (XML TEXT TFORMER TFS ODBC DATASOURCE)	<p>Specifies the type of the data file given with the option -D.</p> <p>XML XML input file.</p> <p>TEXT ASCII input file (in CSV format).</p> <p>TFORMER Internal TFORMer data file (XML).</p> <p>TFS TFORMer Server compatible data file (XML).</p> <p>ODBC ODBC datasource.</p> <p>DATASOURCE Datasource specified in a layout.</p>
-DO [CL[yes no]] [ESC[yes no]] [SCc] [QCc] [RCfname RCaname] [DSN:name [USER:user] [PWD:password] SQL:statement]	<p>Specifies the options for the data file given with the option -D.</p> <p>CL Optional. Clear datafields between records. (Same as CLyes.)</p> <p>CLno Optional. Do not clear datafields between records (default).</p> <p>ESC Optional. Handle escape-sequences in input data. (Same as ESCyes.)</p> <p>ESCno Optional. Do not handle escape-sequences in input data (default).</p>

<p>[XSLT:file] [ParamName:value]</p>	<p>Input data options for text files (for -DT TEXT only):</p> <p>SCc..... Specifies the column separator character c. (e.g. SC; for the separator character ";") For more information on specifying column separators, please see below.</p> <p>QCc Optional. Specifies the text qualifier character c. For more information on specifying text qualifiers, please see below.</p> <p>Record count (used for specifying the number of copies for a specific input record):</p> <p>RCFname Optional. Specifies the name of the field containing the record counter. RCAname Optional. Specifies the name of the attribute containing the record counter (-DT XML only).</p> <p>Import data via ODBC connection (for -DT ODBC only):</p> <p>DSN Name of the data source (connection string). USER..... Optional. User name for ODBC connection. PWD Optional. Password for ODBC connection. SQL SQL-Statement for selecting the data. XSLT..... Optional. XSLT file which is used for transforming the given XML input upon import. ParamName..... Optional. Specifies the value for a datasource parameter in the form [Parameter Name]:[Parameter value] (-DT DATASOURCE only).</p>
--	--

3.4.2.1 Specification of Column Separators

Char	Parameter	Description
TAB	SC\t	Specifies tab as column separator.
;	SC;	Specifies semicolon as column separator.
,	SC,	Specifies comma as column separator.
Space	SC\x20	Specifies space as column separator.
Other	SC\xNN	Any other character can be specified in hex-notation or literally.

3.4.2.2 Specification of Text Qualifiers

Char	Parameter	Description
"	QC"	Specifies the double quote character as text qualifier.
'	QC'	Specifies the single quote character as text qualifier.
Other	QC\xNN	Any other character can be specified in hex-notation or literally.
		None.

3.4.3 Output Device

Use the following parameters to specify the output device (or file).

If no output device is specified, **TFPrint** will send the print job to the default Windows® printer.

```
[ -O DevOrFile ]
[ -OT (WIN32|CUPS|REPO|PS|PSPRINTER|PDF|HTML|TXT|TXTPRINTER|IMGBMP|
  IMGGIF|IMGJPG|IMGPCX|IMGPNG|IMGTGA|IMGTIF|IMGMULTITIF|
  ZPL|ZPLPRINTER) ]
[ -OO [CPn] [TCname] [SRn] [SCn] [DXN] [DXH] [DXV] [JTtitle] ]
```

<p>-O DevOrFile</p>	<p>Specifies the output device or file:</p> <p>DevOrFile..... Name of the output device or of the output file.</p> <p>Example:</p> <pre>-O "HP LaserJet 4050" -OT WIN32 -O C:\output.pdf -OT PDF</pre>
----------------------------	--

<p>-OT [WIN32 CUPS REPO PS PSPRINTER PDF HTML TXT TXTPRINTER IMGBMP IMGGIF IMGJPG IMGPCX IMGPNG IMGTA IMGTIF IMGMULTITIF ZPL ZPLPRINTER]</p>	<p>Specifies the output type:</p> <p>WIN32..... DevOrFile is the printer name available under Microsoft® Windows®.</p> <p>CUPS..... DevOrFile is the name of a CUPS printer (Linux / UNIX only).</p> <p>REPO DevOrFile is the name of a printer specified in the TFORMer repository. (Can be used in combination with the “-F Repo Project Form” switch only!)</p> <p>PS..... DevOrFile is the name of a PostScript file.</p> <p>PSPRINTER DevOrFile is the name of a PostScript printer. The output is sent directly to this device.</p> <p>PDF DevOrFile is the name of a PDF file.</p> <p>HTML..... DevOrFile is the name of a HTML file.</p> <p>TXT DevOrFile is the name of a text file.</p> <p>TXTPRINTER DevOrFile is the name of a text printer. The output is sent directly to this device.</p> <p>IMGBMP DevOrFile is the name of the BMP output file. Each output page is stored in one file. The page-number is appended to the filename if required. The specified filename may contain a series of #-characters as placeholder for the page-number.</p> <p>IMGGIF DevOrFile is the name of the GIF output file. Each output page is stored in one file. See also IMGBMP for additional notes.</p> <p>IMGJPG DevOrFile is the name of the JPG output file. Each output page is stored in one file. See also IMGBMP for additional notes.</p> <p>IMGPCX..... DevOrFile is the name of the PCX output file. Each output page is stored in one file. See also IMGBMP for additional notes.</p> <p>IMGPNG DevOrFile is the name of the PNG output file. Each output page is stored in one file. See also IMGBMP for additional notes.</p> <p>IMGTA..... DevOrFile is the name of the TGA output file. Each output page is stored in one file. See also IMGBMP for additional notes.</p> <p>IMGTIF..... DevOrFile is the name of the TIF output file. Each output page is stored in one file. See also IMGBMP for additional notes.</p> <p>IMGMULTITIF DevOrFile is the name of the TIF output file. All output pages are stored in one file.</p> <p>ZPL..... DevOrFile is the name of a ZPL-II file. ZPL-II is the printer languages used by ZEBRA® printers.</p> <p>ZPLPRINTER..... DevOrFile is the name of a ZPL-II compatible printer. The output is sent directly to this device.</p>
<p>-OO [CPn] [TCname] [SRn] [SCn] [DXN] [DXH] [DXV] [JTtitle]</p>	<p>Specifies the options for the output device or file:</p> <p>CPn..... Optional. Number of copies for the print job [1..n]. (e.g. -CP2 for two copies).</p> <p>TCname Optional. Name of the tray control.</p> <p>SRn..... Optional. Start row [0..n]. Row in which the label printing shall start on the first page of the output. The preceding rows are left empty.</p> <p>SCn..... Optional. Start column [0..n]. Column in which the label printing shall start on the first page of the output. The preceding column s are left empty.</p> <p>DXN Optional. No duplex printing.</p> <p>DXH Optional. Horizontal duplex printing.</p> <p>DXV Optional. Vertical duplex printing.</p> <p>JTtitle Job title for the output (this is the spool name on Microsoft Windows).</p>

3.4.4 SDK Options

The SDK options allow you to specify print job specific output parameters. These parameters will override the default values as given in the form design respectively in the TFORMer.xml file (global output options, repository printer settings).

-SDK Parameters

Please make sure to use the following syntax:

- Parameters are specified as named values delimited by white space in the form of <OptionName>=<value>

- <OptionName> without any additional settings is treated as <OptionName>=true.
- no<OptionName> without any additional settings is treated as <OptionName>=false.

Example:

```
-SDK Media=A4 noDuplex offsetX=2mm offsetY=-3mm
```

Media	<p>Specifies the output medium.</p> <ul style="list-style-type: none"> ▪ Win32 printers: The value has to match an existing printer tray or form name. ▪ Other printers The value has to match a predefined media name or it has to be specified in the format Custom.WidthXHeight. <p>Example:</p> <pre>Media=Custom.220mmX10cm</pre>
Resolution	<p>Affects image printers only. For all other printers this option is ignored.</p> <p>Specifies the output resolution in dpi (dots per inch).</p>
Orientation	<p>Specifies the output orientation.</p> <p>Possible values: Landscape use landscape orientation. Portrait use portrait orientation.</p>
Duplex	<p>Affects Win32 printers and PostScript output (file/printer) only. For all other printers duplex output is disabled by default.</p> <p>Specifies whether to print on both sides of the paper or not.</p> <p>Possible values: Vertical, Yes, True or 1 vertical duplex printing. Horizontal horizontal duplex printing. Simplex, None, No, False or 0 no duplex printing.</p>
Collate	<p>Affects Win32 printers and PostScript output (file/printer) only. For ZPL output this option is ignored (the output is never collated, unless SimulateCopies is enabled). For all other printers (= whenever SimulateCopies is enabled) collation is enabled by default.</p> <p>Specifies output collation. If enabled, TFORMer creates one complete printout (pages 1..n) for each copy. If disabled, all copies of the first page are printed, then all copies of the second page are printed, and so on.</p> <p>Possible values: Yes, True or 1 collate output. No, False or 0 do not collate output.</p>
Copies	<p>Specifies the number of copies.</p>
SimulateCopies	<p>Affects Win32 printers, PostScript output (file/printer) and for ZPL output only. For all other printers SimulateCopies is enabled by default.</p> <p>Specifies whether TFORMer should simulate copies or not. If enabled, the number of copies is not passed as printer command, but each page is repeatedly sent to the printer. Choose this option if the printer driver does not support copies.</p> <p>Possible values: Yes, True or 1 specifies that TFORMer will simulate copies. No, False or 0 specifies that the printer driver should handle copies.</p>
barcode-error	<p>Specifies how TFORMer should react in case of a barcode error.</p> <p>Possible values: abort abort printing if an error occurs. ignore ignore the error and continue printing. print print the error information instead of the barcode.</p>
image-error	<p>Specifies how TFORMer should react in case of an image error.</p> <p>Possible values: abort abort printing if an error occurs. ignore ignore the error and continue printing. print print the error information instead of the image.</p>
expression-error	<p>Specifies how TFORMer should react in case of an expression error.</p> <p>Possible values:</p>

	<p>abort abort printing if an error occurs. ignore..... ignore the error and continue printing. print..... print the error information instead of the element.</p>
unicode-font-error	<p>Specifies how TFORMer should react in case of an Unicode font error. Possible values: abort abort printing if an error occurs. ignore..... ignore the error and continue printing. print..... print the error information instead of the text element.</p>
soft-hyphens	<p>Specifies additional characters (comma separated), which should be treated like soft hyphens. Example: Use the negation character ~ as additional soft hyphen:</p> <pre>soft-hyphens=&#172;</pre>
hyphen	<p>Specifies the hyphen character which should be printed if a word break is triggered by a soft-hyphen.</p>
offsetX	<p>Specifies the horizontal offset for printing. The default unit is mm. If required you can specify other units like in, cm, m, mil, etc. (see TFORMer Designer). Example: Shift right by 3.2 mm:</p> <pre>offsetX=3.2mm</pre>
offsetY	<p>Specifies the vertical offset for printing. The default unit is mm. If required you can specify other units like in, cm, m, mil, etc. (see TFORMer Designer). Example: Shift down by 3.2mm:</p> <pre>offsetY=3.2mm</pre>

3.4.5 Licensing

3.4.5.1 Licensing Through Command Line

If the license data is not available through the Windows® registry (usually when no **TFORMer Designer** installation is available on the machine) you can pass the license data with the following command line arguments:

```
-L LicenseeName LicenseKey NumberOfLicenses LicenseKind
```

<p>-L LicenseeName LicenseKey NumberOfLicenses LicenseKind</p>	<p>Specifies the license data: LicenseeName Name of the licensee. LicenseKey License key. NumberOfLicenses Number of purchased licenses. LicenseKind Kind of purchased license: Single Workgroup Office Site Developer Server. Make sure to specify the parameters in the correct order!</p>
---	--

3.4.5.2 Licensing per tfprint.ini File

Alternatively the license key can be supplied in a file named *tfprint.ini*.

- On Windows create this file in the same directory where the executable (*tfprint.exe*) is located.
- On Linux/UNIX the file *tfprint.ini* has to be located in the directory */usr/local/share/TFORMer6/*.

The following syntax has to be used:

```
[LICENSE_DATA]
License_Product=29
Licensee=John Doe
License Kind=3
Number Of Licenses=1
License_Key=000000000000000000000000000000000000
```

License_Product=[Product ID]

Depending on your operating system, make sure that the correct *Product ID* is used:

Operating System	Product ID	Description
Windows	4001	For Microsoft Windows systems.
Linux, UNIX	4002	For Linux and UNIX systems.

License_Kind=[License ID]

For configuring the file *tfprint.ini*, make sure that the appropriate *license ID* is used:

Kind of License	License ID	Description
Developer	3	Developer license (for one developer / 10000 redistributions).
Web	3	Web license.
Office	4	Office license (100 installations within one site).
Workgroup	5	Workgroup license (10 installations within one site).
Server	6	Server license (Installation on ONE (Web).Server).

3.4.6 Miscellaneous Options

TFPrint offers the following additional options:

```
-Q
-C CommandFileASCII
-LCUPS
-SYSTEMID
-CONFIG File
-H | -?
```

-Q	Quiet. Do not write messages to stdout (e.g. console).
-C CommandFileASCII	Use a command file <u>in addition</u> to any other command line parameters. This file must be stored in ASCII, do not use a UNICODE file here. Example: <pre>-C MyParams.txt</pre> The content of "MyParams.txt" could be as follows: <pre>-DT TEXT -DO SC; QC\ -L "John Doe" ***** 1 "Single"</pre>
-LCUPS	List CUPS printers (Linux/UNIX only).
-SYSTEMID	Retrieve your SystemID (used for ordering licenses).
-CONFIG File	Path to a TFORMer.xml configuration file.
-H -?	This command line switch shows you a detailed help text.

4 Contact and Support Information

4.1 Free Support

If you have any questions, please contact us:

Email: support@tec-it.com

Web: <http://www.tec-it.com/support/>

Don't hesitate to tell us your feedback! If the product does not fulfill your requirements, please tell us why. We are highly interested in meeting the requirements of our customers.

4.2 How to unlock the Demo Version

You can unlock the demo version with a license key. License keys can be obtained from TEC-IT by Email, online order form or FAX.

Email: sales@tec-it.com

Online: <http://www.tec-it.com/order/>

Fax: +43 / (0)7252 / 72 72 0 – 77

4.3 Company Contact Information

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