

Marine- und Automatisierungstechnik Rostock GmbH Friedrich-Barnewitz-Straße 7 18119 Rostock Datum

# PMS.Printprocessor

MAR GmbH

Manual

Version 1.5.3.0



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Marine- und Automatisierungstechnik Rostock GmbH

phone: +49(0 fax: +49(0 www.mar-hro.de info@

+49(0)381 86509-0 +49(0)381 86509-29 info@mar-hro.de Commerzbank AG Rostock: DE98 1304 0000 0107 3790 00 / BIC: COBADEFFXXX Deutsche Bank Rostock: DE91 1307 0000 0120 0849 00 / BIC: DEUTDEBRXXX HypoVereinsbank Rostock: DE58 2003 0000 0016 2593 82 / BIC: HYVEDEMM300 Amtsgericht Rostock: USt-ID-Nr.: Steuer-Nr.: Geschäftsführung: Seite 1 von 22

HRB 7150 DE 813307191 07911403883 Prof. Dr.-Ing. Matthias Markert Dipl.-Ing. Rainer Schau Dipl.-Ing. Dietmar Schedler



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Software					
Version	Date	Status	Range Of Validity	Creator	Note
1.0	29.09.2014	Release	MAR	Lambusch	First release
1.1.1	07.07.2015	Update	MAR	Buse	Demo Modus/Lizenz/OnlyPDF Print
1.2.0.0	20.08.2015	Update	MAR	Korla	Integrated Security, Setup fixes
1.4.1.0	13.06.2016	Update	MAR	Buse	Bug Fixes/PDF Document Name
1.5.2.0	24.11.2017	Update	MAR	Buse	Add Print Charts, Variable document path, add buffer for poll mode printing
1.5.3.0	12.03.2018	Update	MAR	Seidel	Added print to txt option

#### Document

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Version	Date	Status	Range Of Validity	Creator	Document	
1.0	29.09.2014	Conception	MAR	Lambusch	First Release	
	25.03.2015	Conception	MAR	Buse	Add information for ZPL Print	
1.1.1	07.07.2015	Update	MAR	Buse	Add License and Demomodus	
1.2.0.0	20.08.215	Update	MAR	Korla	Update documentation	
1.2.0.1	13.06.2016	Update	MAR	Schuster	License hint for PMS.Cliptest 2016	
1.2.0.2	09.03.2017	Update	MAR	Schuster	Default printer configuration	
1.2.0.3	11.10.2017	Update	MAR	Buse	Printing on shared Printer	
1.5.2.0	24.11.2017	Update	MAR	Buse	Add Print Charts, Variable document path, add buffer for poll mode printing	
1.5.3.0	12.03.2018	Update	MAR	Seidel	Added print to txt option	

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### 1 General Advice

### 1.1 Basic Notes

This operating manual explains the PMS.Printprocessor.Service features and necessary interfaces.

### 1.2 Copyright

This description is protected by copyright

Disclosure to third parties or any other type of disclosure requires the written consent of the contractual partner. This is especially true for the know-how of the entrepreneur in the developed programs.

The purchaser is granted a license to use the software application in a non-exclusive, non-transferable way and limited to the manufacturing location covered by the contract. The buyer is also a licensee of the standard third-party software, which is used for the software applications of the entrepreneur.

### 1.3 Warranty

The manufacturer warrants that this description is edited in accordance with the technical and functional parameters of the delivered system. The manufacturer reserves the right to add additional information.

The manufacturer is not liable for damages resulting from the alienated use of the system respectively its individual components or the violation of the description's code of behavior.

Changes of system functions, especially for the safety devices must be performed only by authorized professionals or the manufacturer's service staff. Inappropriate programming endangers the safety of the plant and leads to the loss of the warranty claim.

The manufacturer guarantees trouble-free operation of the control only in compliance with the requirements of this specification and its intended use.

The manufacturer's liability to the extent permitted by law is limited to grossly negligent and willful misconduct.

This applies in particular to consequential damage.

### 1.4 Contractual Use

The software described in this specification is designed exclusively for use in automated printing of labels or documents. Any other use is considered improper.

Marine- und Automa Rostock GmbH	itisierungstechnik	Commerzbank AG Rostock: DE98 1304 0000 0107 3790 00 / BIC: COBADEFFXXX Deutsche Bank Rostock:
phone:	+49(0)381 86509-0	DE91 1307 0000 0120 0849 00 / BIC: DEUTDEBRXXX
fax: www.mar-hro.de	+49(0)381 86509-29 info@mar-hro.de	HypoVereinsbank Rostock: DE58 2003 0000 0016 2593 82 / BIC: HYVEDEMM300

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HRB 7150 DE 813307191 07911403883 Prof. Dr.-Ing. Matthias Markert Dipl.-Ing. Rainer Schau Dipl.-Ing. Dietmar Schedler

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#### **Functionality** 2

The software PMS.PrintProcessor.Service is used for the automated printing of labels and documents. To realise this Printing is PMS.PrintProcessor.Service need templates, which can be created in TEC-IT's TFORMer Designer (.tff file). To fill up the templates with printing information the PMS.PrintProcessor.Service is using a Database Interface.

With this mentioned designer it is possible to use predefined prototypes or compose the document's structure as desired. Data fields are used for dynamic data by inserting the certain database data into the corresponding bookmarks.

#### 2.1 System Requirements

- Installed Microsoft .NET Framework (included in setup [4.0 in PrintProcessor Version 1.5.3.0])
- Installed TFORMer SDK (included in setup) .
- Installed and shared printer as needed •
- CAL for SQL-Server as needed •

Marine- und Automatisierungstechnik Commerzbank AG Rostock: Rostock GmbH +49(0)381 86509-0 phone: +49(0)381 86509-29 info@mar-hro.de fax: www.mar-hro.de

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### 3 Installation

For the installation, you need to proceed the following Steps

- Start installation
- Read and agree the license terms and conditions. Press "Install"
- The PMS.PrintProcessor.Service.Setup checking the .Net Framework version. In case that the Version is not the right, one the PMS.PrintProcessor.Service.Setup is starting the setup for the needed .NET Framework.
- The PMS.PrintProcessor.Service.Setup is starting the installation of the TFormer SDK. Press Next
- Read and accept the TFormer License argeements. Press Next
- Select the Components you want to install. Minimum you need to install the TFormer SDK. Also you can choose a path for installation of the TFormerSDK. The best way is to change nothing and use the defaults. Press Next
- Unselect the creation of the desktop link. Press Next
- Wait until the TFormer SDK is installed. Press Next
- Uncheck "Dokumentation anzeigen" and "VDA Edikett mit Standarddaten erstellen". Press Finished
- Now the MS.PrintProcesor.Service.Setup is starting. Press Next
- Read and accept the license agreement for the PMS.PrintProcesor.Service. Press Next
- Check the installation path. Press Next
- Press install
- Check "Launch application when setup exits". Press Finish

Now the Installation of the PMS.PrintProcessor.Service is finished.

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fax:	+49(0)381 86509-29	HypoVereinsbank Rostock:		

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07911403883 Prof. Dr.-Ing. Matthias Markert

Dipl.-Ing. Rainer Schau Dipl.-Ing. Dietmar Schedler

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### 4 Configuration

After the installation the PMS.PrintProcessor.Configurator starts automatically. The start the PMS.PrintProcessor.Configurator manually use the entry in Programs.

• Start  $\rightarrow$  Programms  $\rightarrow$  MAR GmbH  $\rightarrow$  PMS.PrintProcessor.Configurator

### 4.1 General

PMS.Printprocessor.Config	jurator
File Help	/AP
General Printing	
Logfile-Directory:	C:\PMS.PrintProcessor.Service_Log\
	Debugmode
Activate Database Interface	:
Database Interface Configu	ration
Printprocessor Name:	PrintProcessor01
Server:	
Database:	
Use Windows integrate	d security
User:	
Password:	•••••
	Test Connection
Database Reconnect Cycle:	60 🔺 sec
Skip Print Jobs older than:	2 min
Poll Mode	
Poll mode active	Poll cycle 5 🚔 sec
Deactivate notification	
Service config file path	
C:\Program Files (x86)\MAR Gr	nbH\PMS.PrintProcessor.Service\PMS.PrintPro
	Save Settings Cancel

In the "General" tab is the main configuration for the PrintProcessor.

- Logfile-Directory
  - Path for the Logfiles.
- Debugmode
  - o If its needed the debugmode writes extended LogFiles
  - Only activate this option if its needed
- Activate Database Interface
  - The Database interface is used by the PrintProcessor when the PMS.PrintProcessor.Service is triggerd by a database to print data.
  - This configuration is not needed when the PMS.PrintProcessor.Service is running as a part of another program like PMS.Cliptest
  - If the Database interface is needed the PMS.PrintProcessor.Service needs a license. The description of the licensing process you can find in [5 Licensing]
- PrintProcessor Name
  - The name of the PrintProcessor must be match with the PrintProcessor name in the database interface.
  - You can use more than one PMS.PrintProcessor.Service for the same database. In that case every PMS.PrintProcessor.Service is only interested in labels which are provide for the configured PrintProcessor name.
- Server
  - o Name of the Database Server
- Database

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phone:	+49(0)381 86509-0	DE91 1307 0000 0120 0849 00 / BIC: DEUTDEBRXXX	Geschäftsführung:	Prof. DrIng. Matthias Markert
fax:	+49(0)381 86509-29	HypoVereinsbank Rostock:		DiplIng. Rainer Schau
www.mar-hro.de	info@mar-hro.de	DE58 2003 0000 0016 2593 82 / BIC: HYVEDEMM300		DiplIng. Dietmar Schedler

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- Name of the Database
- Use Windows integrated security
  - The Windows integrated security is only working when the PMS.PrintProcesor.Service is running with an user account.
  - You can change the user account PMS.PrintProcessor.Service in the windows "Service" configuration.
  - o Per default the PMS.PrintProcessor.Service is running under "Local System" account
- User
  - User for the user based database authentication
- Password
  - Password for the user based authentication
- Test connection
  - Check if the connection to the database is working.
- Database Reconnect Cycle
  - If the connection to the database is broken the PMS.PrintProcessor.Service try to reconnect to the database every X seconds
- Skip PrintJobs older than
  - If the database interface provides a printjob which is older than the configured tome the printjob will be ignored.
- Poll mode active [hidden configuration]
  - If the PMS.PrintProcessor.Service is running with a database connection the information about a new label is provide by a notification. If it is needed that the
    - PMS.PrintProcessor.Service also poll the database this option can be used
- Poll cycle [hidden configuration]
  - If the poll mode is active, this is the time cycle to check the database.
- Deactivate notification [hidden configuration]
  - To deactivate the notifications is the notifications cannot used.
  - Service configuration file path
    - Information about the actual path of the configuration file.

#### 4.2 Printing

- Save PDF documents to database
  - With this option, all printed documents will also be stored in Database as PDF.
  - To store PFDs the procedure [COM\_PRT].[Documents\_add] is used.
- Save PDF Documents to disk
  - Check if every print job also be saved as pdf at the configured location
- Save HTML Documents to disk
  - Check if every print job also be saved as HTML at the configured location
- Save TXT Documents to disk
  - Check if every print job also be saved as TXT at the configured location
- Save JPG Documents to disk
  - o Check if every print job also be saved as JPG at the configured location
- Create PDF only
  - Check if the PMS.PrintProcessor.Service should not print to a real printer.
- Path
  - Configuration for the path where the files like PDF/HTML/JPG should be stored.

#### 4.3 Printer Default Settings

The default settings of the selected printer have to be configured in the windows device and printer configuration. This is required if some specific settings should be configured, e.g. duplex printing or different paper format.

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phone:	+49(0)381 86509-0	DE91 1307 0000 0120 0849 00 / BIC: DEUTDEBRXXX	Geschäftsführung:	Prof. DrIng. Matthias Markert
fax:	+49(0)381 86509-29	HypoVereinsbank Rostock:		DiplIng. Rainer Schau
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To change to the default settings of the printer use the following steps:

- 1. open **Devices and Printers** configuration
- 2. select the printer and open the **Printer properties** with a right click
- 3. switch to the tab page **Advanced**
- 4. edit the default settings with click on **Printing Defaults ...**
- 5. apply the changes

### 4.4 Printing on shared Printer

The PrintProcessor is not able to print on a shared Printer directly. If you want to Print on a shared Printer you have to redirect the print requests.

- 1. Open "Devices and Printer"
- 2. Add Printer
- 3. Add Local Printer
- 4. Create new Port
- 5. Local Port
- 6. Now enter the shared name of the printer (e.G.: <u>\\servername\printername</u>)
- 7. Select a driver for the printer
- 8. Finish the installation

Now the PMS.PrintProcessor is able to print on the new virtual printer. If you get problems you can also check if the PMS.PrintProcessor.Service is running with an local user account. If the PMS.PrintProcessor is running with the SYSTEM account the printing can be blocked.

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fax:	+49(0)381 86509-29	HypoVereinsbank Rostock:	
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HRB 7150

DE 813307191 07911403883 Prof. Dr.-Ing. Matthias Markert

Dipl.-Ing. Rainer Schau Dipl.-Ing. Dietmar Schedler

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### 5 Licensing

If the PMS.PrintProcessor.Service should work with the Database interface the PMS.PrintProcessor.Service needs an MAR license. This License can be bought from MAR. To Activate this license you need to proceed the following Steps

- Activate the Checkbox for "Activate Database Interface".
- The licensing wizard starts. Press Next
- Read the "General Terms and Conditions of license for standard software of the MAR Rostock GmbH". Press next
- Input the "Installation ID". This id you get from MAR when you are buy a PMS.PrintProcessor.Service license. (e.g. 1234-5678-90AB)
- Push the generate installation ID Button. The Programm will generate a "Installation id" (e.g.: 5DA4-9344-B82D-0C7C) Press Next.
- If the PC have an internet connection
  - choose the "automatic activation" button.
- If the PC have no internet connection
  - $\circ$   $\;$  write down the "Licence ID" and the "Installation ID".
  - Go to the website <u>https://pac.mar-hro.de</u>.
  - Press on the word "link" in line "If you want to activate your product please fill out the activation form, which you can find on this *link*."
  - Input the "License key" and the "installation id" and check the "I agree to activate this license id" checkbox
  - Press submit.
  - The system will generate an "activation key" which you can fill in the activation key field of the PMS.PrintProcessor.Service.
- Press Finish

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### 6 Database Interface

### 6.1 COM\_PRT.PrintJob

The COM\_PRT.PrintJob contais all information which are needed for the Printing.

Column Name	Data Type	Description
ID	Big Integer	PK : unique for an order
PrintProcessor	VarChar(50)	Name of the PMS.PrintProcessor.Serivce to carry out the order. Must match with the configuration "General"→"PrintProcessor Name
XML	VarChar(max)	Contains all other print properties
ErrorCode	Integer	Indicates whether an error has occurred
ProcessTime	Datetime	Timestamp of order execution, NULL if not processed yet
CreateTime	Datetime	Timestamp of order creation

#### 6.1.1 Errorcodes

DataType	Description
0	No error
10	<ul> <li>XML structure is wrong</li> <li>Please check the XML column, the string may not be empty and must have the prescribed form</li> </ul>
20	Error in loading the XML column
30	Conversion failed - Please check the format/type of the XML's properties (general, digits,)
40	Error in loading the template - Template or directory does not exist, is not defined or not accessible

If an entry in COM\_PRT.PrintJob has an Errorcode greater than 0 you will also find additional infroamtion in the logfile. The logfile you can find in the configured path.

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### 7 XML Structure

The PMS.PrintProcessor.Service is working with an XML base. The XML contains HEAD information's, PSData Information's and Chart information. An XML can look like this.

```
<?xml version="1.0"?>
<AllData>
  <PrinterName>NameOfAnInstalledPrinter</PrinterName>
  <PrintCopies>NumberOfPrintsAsDigit</PrintCopies>
  <LabelName>TemplateName.tff</LabelName>
  <PrinterType>DefaultOrOtherPrint</PrinterType>
  <DocumentName>Optional</DocumentName>
  <PSData>
    <Form>
      <Records>
        <Record Copies="1">
          <V Name="EnterFieldName1">EnterFieldValue1</V>
          <V Name="EnterFieldName2">EnterFieldValue2</V>
          <V Name="EnterFieldName3">EnterFieldValue3</V>
          <V Name="bookmark for chart"/>
          <V Name="TableName">HEAD</V>
        </Record>
        <Record Copies="1">
          <V Name="Column01">EnterColumn1Row1Value</V>
          <V Name="Column02">EnterColumn2Row1Value</V>
          <V Name="TableName">EnterTableName1</V>
        </Record>
        <Record Copies="1">
          <V Name="Column01">EnterColumn1Row2Value</V>
          <V Name="Column02">EnterColumn2Row2Value</V>
          <V Name="TableName">EnterTableName1</V>
        </Record>
        <Record Copies="1">
          <V Name="Column01">EnterColumn1Row1Value</V>
          <V Name="Column02"/>
          <V Name="Column03">EnterColumn3Row1Value</V>
          <V Name="TableName">EnterTableName2</V>
        </Record>
      </Records>
      <ImportedVariables/>
    </Form>
  </PSData>
  <Charts>
    <Chart Name="chartname"
           Bookmark="bookmark for chart"
           Width="1024"
           Height="860">
      <ChartArea Name="Name"
                 AxisX.IntervalType="Auto"
                 AxisX.LabelStyle.Format="#.##"
                 AxisX.Minimum="0"
                 AxisX.Maximum="100"
                 AxisX.Interval="20"
                 AxisX.IntervalOffset="5"
                 AxisX.Title="X Title"
                 AxisY.Title="Y Title" >
        <Legend Name="Name"
```

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phone: fax:	+49(0)381 86509-0 +49(0)381 86509-29	DE91 1307 0000 0120 0849 00 / BIC: DEUTDEBRXXX HypoVereinsbank Rostock:	Geschäftsführung:	Prof. DrIng. Matthias Markert DiplIng. Rainer Schau
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```
Docking="Top"/>
        <Series Name="Temperatur"
                SeriesChartType="Line"
                XValueType="DateTime">
          <DataPoint X="2016-11-17 09:25:18" Y="50,000"/>
          <DataPoint X="2016-11-17 09:25:19" Y="50,000"/>
          <DataPoint X="2016-11-17 09:25:20" Y="50,000"/>
          <DataPoint X="2016-11-17 09:25:21" Y="50,000"/>
        </Series>
      </ChartArea>
    </Chart>
  </Charts>
</AllData>
```

### 7.1 Head Part

The head can contain the following information

Name	Decription
PrinterName	Name of the Printer where the label should be printed. The Printer must be accessible from the server where this PMS.PrintProcessor.Service is running.
PrintCopies	The number of Copies which should be printed.
LabelName	The name of the *.ttf file which is the master for this printjob. The *.ttf file must be located in the Template folder
PrinterType	The Type of the printer. All possible Types you can found in Chapter 9.1
DocumentName	Name of the Document. This is used when the PMS.PrintProcessor.Service is printing a file and not directly on the Printer. In this case the file gets the name which is used in this part.

```
<PrinterName>NameOfAnInstalledPrinter</printerName>
<PrintCopies>NumberOfPrintsAsDigit</PrintCopies>
<LabelName>TemplateName.tff</LabelName>
<PrinterType>DefaultOrOtherPrint</PrinterType>
<DocumentName>Optinally</DocumentName>
```

### 7.2 PSData Part

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The PSData Part contains all variable information's, which should be used in the label. The PSData part have two logical parts. The first part are variables, which are located outside of any table. In most cases you can found such information's in the Head or in the footer of a document. The block is looking like the following block.

```
<Record Copies="1">
  <V Name="EnterFieldName1">EnterFieldValue1</V>
  <V Name="EnterFieldName2">EnterFieldValue2<//v>
  <V Name="EnterFieldName3">EnterFieldValue3</V>
  <V Name="TableName">HEAD</V>
</Record>
```

On Template variable EnterFieldName1the value EnterFieldValue1 is written and so on.

The second part is related to possible table information's. In this part you can find one line in a table per block. In the example below you can find one line for table EnterTableName1 which have two columns with the name Column01 Column02 and the values EnterColumn1Row1Value and and EnterColumn2Row1Value

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	Deutsche Bank Rostock:	Steuer-Nr.:	07911403883
+49(0)381 86509-0	DE91 1307 0000 0120 0849 00 / BIC: DEUTDEBRXXX	Geschäftsführung:	Prof. DrIng. Matthias Markert
+49(0)381 86509-29	HypoVereinsbank Rostock:	0	DiplIng. Rainer Schau
info@mar-hro.de	DE58 2003 0000 0016 2593 82 / BIC: HYVEDEMM300		DiplIng. Dietmar Schedler



```
<Record Copies="1">
```

```
<V Name="Column01">EnterColumn1Row1Value</V>
```

```
<V Name="Column02">EnterColumn2Row1Value</V>
```

```
<V Name="TableName">EnterTableName1</V>
```

```
</Record>
```

### 7.3 Chart Part

The PMS.PrintProcessor.Service is able to generate chart and print these chart on a printer. The PMS.PrintProcessor.Service is generating an image of the chart which will places on the position of the referenced bookmark.

```
<Charts>
  <Chart Name="chartname"
         Bookmark="bookmark for chart"
         Width="1024"
         Height="860">
    <ChartArea Name="Name"
               AxisX.IntervalType="Auto"
               AxisX.LabelStyle.Format="#.##"
               AxisX.Minimum="0"
               AxisX.Maximum="100"
               AxisX.Interval="20"
               AxisX.IntervalOffset="5"
               AxisX.Title="X Title"
               AxisY.Title="Y Title" >
      <Legend Name="Name"
              Docking="Top"/>
      <Series Name="Temperatur"
              SeriesChartType="Line"
              XValueType="DateTime">
        <DataPoint X="2016-11-17 09:25:18" Y="50,000"/>
        <DataPoint X="2016-11-17 09:25:19" Y="50,000"/>
        <DataPoint X="2016-11-17 09:25:20" Y="50,000"/>
        <DataPoint X="2016-11-17 09:25:21" Y="50,000"/>
      </Series>
    </ChartArea>
  </Chart>
</Charts>
```

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phone:	+49(0)381 86509-0	DE91 1307 0000 0120 0849 00 / BIC: DEUTDEBRXXX	Geschäftsführung:	Prof. DrIng. Matthias Markert
fax:	+49(0)381 86509-29	HypoVereinsbank Rostock:		DiplIng. Rainer Schau
www.mar-hro.de	info@mar-hro.de	DE58 2003 0000 0016 2593 82 / BIC: HYVEDEMM300		DiplIng. Dietmar Schedler

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### 8 Annotations / FAQ

User Guides for the TFORMer Designer and the corresponding SDK by TEC-IT are freely available on the website and also integrated if you install the SDK:

http://www.tec-it.com/de/download/tformer/windows/Download.aspx

Marine- und Automatisierungstechnik Rostock GmbH phone: +49(0)381 86509-0 fax: +49(0)381 86509-29

www.mar-hro.de

+49(0)381 86509-0 DE91 1307 +49(0)381 86509-29 HypoVereins info@mar-hro.de DE58 2003 0

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### 9 Appendix

### 9.1 Printer Types / Output Formats

PrinterType	Description	
Default	The default output device type.	
	A printer of type Win32 will be used on Windows.	
Win32	Direct printing to a Windows printer via GDI-calls	
Cups	A CUPS printer (Linux and UNIX only).	
PostscriptFile	This printer type generates PostScript output as file.	
HtmlFile	This printer type generates HTML output as file.	
PdfFile	This printer type generates PDF output as file.	
PostscriptPrinter	Sends PostScript output directly to the specific printer.	
TextPrinter	Sends ASCII output directly to the specific printer.	
TextFile	This printer type generates ASCII output as file.	
ePrinterType_ImageBmp ImageBmp	This printer type generates BMP image files.	
ePrinterType_ImageGif ImageGif	This printer type generates GIF image files.	
ePrinterType_ImageJpg ImageJpg	This printer type generates JPG image files.	
ePrinterType_ImagePcx ImagePcx	This printer type generates PCX image.	
ePrinterType_ImagePng ImagePng	This printer type generates PNG image files.	
ePrinterType_ImageTga ImageTga	This printer type generates TGA image files.	
ePrinterType_ImageTifSingle ImageTifSingle	This printer type generates TIFF image files.	
ePrinterType_ImageTifMultiPage ImageTifMultiPage	This printer type generates multi-page TIFF image files.	
ePrinterType_ZPLPrinter ZPLPrinter	Sends ZPL-II output directly to the specific printer.	
ePrinterType_ZPLFile ZPLFile	Generates ZPL-II (ZEBRA Printer Language) output as file.	
Invalid	Invalid or unspecified printer type (do not use, internal only!).	

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### 9.2 **TFORMer Minimum Requirements**

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#### 3.4.1 Operating Systems

TFORMer Designer requires one of the operating systems listed below. It works with 32-bit and 64bit operating systems.

- Microsoft<sup>®</sup> Windows 2000
- Microsoft<sup>®</sup> Windows XP
- Microsoft<sup>®</sup> Windows Vista
- Microsoft<sup>®</sup>Windows 7
- Microsoft<sup>®</sup>Windows 8
- Microsoft<sup>®</sup> Windows Server 2003 (including Terminal Server)
- Microsoft<sup>®</sup> Windows Server 2008 (including Terminal Server)

TFORMer Designer includes the output kernel of the TFORMer SDK. This output kernel is available for Linux<sup>®</sup> and UNIX<sup>®</sup> as well. For details check out the Developer Manual.

#### 3.4.2 Memory

512 MB RAM is the recommended minimum (1 GB for Windows Vista or higher). Actual memory requirements depend on the type and size of the generated output.

#### 3.4.3 Disk Space

TFORMer needs approximately 30 MB on disk. When using the .NET based API of the TFORMer SDK or the printing utility TFORMer QuickPrint please also consider .NET 2.0 requirements.

Rostock GmbH		Commerzbank A
		DE98 1304 0000
		Deutsche Bank I
phone:	+49(0)381 86509-0	DE91 1307 0000
fax:	+49(0)381 86509-29	HypoVereinsbar
www.mar-hro.de	info@mar-hro.de	DE58 2003 0000

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### 9.3 **TFORMer Designer Online Licence Activation**

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### 18.2 Entering your License Data

To enter the license data select File > Options... | License... from the menu. The dialog below will appear. TFORMer provides two methods for entering the license data:

- Online Activation using the Activation Key (see 18.2.1). This is the default method. Internet access is required.
- Manual Licensing (see 18.2.2). Please get in touch us with us if your system has no internet access or if you prefer to use the manual activation for any other reason. We will be glad to send you the license data which is suitable for manual licensing

#### 18.2.1 Online Activation using the Activation Key

If you have received an activation key from TEC-IT, please use the online activation 0.

Licensing			
0 Online	Please enter the activation key and your address information:		
<ul> <li>Manual</li> </ul>	Activation key (XXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX);		
	Company:		
	Country: ZIP: Oty:		
	•		
	Freed address to send us a linear information to a		
	Email address to send your license information to:		
	Privacy Proxy Send Cancel		

Figure 89: License Dialog – Online Activation

The following steps are required to license the product:

- In field enter the activation key.
- In field e enter your email address. A license certification will be sent to this address automatically.
- Complete all remaining data (Company, Country, ZIP Code, City). For a successful activation all fields are required.
- Confirm the entered data by clicking Send.

A message will inform you about the successful activation. In case of problems or errors, please contact TEC-IT.

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phone:	+49(0)381 86509-0	DE91 1307 0000 0120 0849 00 / BIC: DEUTDEBRXXX	Geschäftsführung:	Prof. DrIng. Matthias Markert
fax:	+49(0)381 86509-29	HypoVereinsbank Rostock:		DiplIng. Rainer Schau
www.mar-hro.de	info@mar-hro.de	DE58 2003 0000 0016 2593 82 / BIC: HYVEDEMM300		DiplIng. Dietmar Schedler

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### 9.4 TFORMer Designer Manual Licence Activation

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### 18.2.2 Manual Licensing

Manual licensing is the alternative method for licensing if your system has no Internet connection. Select manual licensing ④ and enter the license data as provided by TEC-IT.

Please enter the license data exactly as you received it from TEC-IT! Spacing and upper/lower case letters are to be considered. To avoid typing errors, it is recommended to use "copy and paste" whenever possible: Copy the data from the license email which you have received from TEC-IT and paste it in the license dialog.

#### Single licenses

If you are interested in a single (workstation) license, please tell us the so-called "System ID" of the target computer. You can find the System ID in the licensing dialog (see below).

Licensing	×
Online	Please enter your license information.
🕘 🕘 Manual	System-ID:
	F6D7138F 5
	Product:
	TFORMer 🔹
	Licensee:
	Kind of License: Number of Licenses:
	Workstation
	Your License-Key:
	•••••
	OK Cancel

Figure 90: License Dialog – Manual Licensing

The following steps are required to license the product:

- At the top of the dialog you see the System ID (6) of your computer. For single licenses we will ask you to send us the System ID of the target computer.
- 2. In the field "Product" select "TFORMer".
- 3. In the field "Licensee" enter the name of the license holder.
- 4. In the field *"Kind of License"* select the kind of license that you have purchased. Possible license types are:
  - Workstation
  - Site
- 5. In the field "Number of Licenses" enter the number of licenses that you have purchased.
- 6. In the field "Your License-Key" enter the license key exactly as received from TEC-IT.
- 7. Confirm the dialog with OK.

A message will inform you about the successful licensing. In case of problems or errors, please contact TEC-IT.

Marine- und Automatisierungstechnik Rostock GmbH			
phone:	+49(0)381 86509-0		
fax:	+49(0)381 86509-29		
www.mar-hro.de	info@mar-hro.de		

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HRB 7150

DE 813307191

07911403883 Prof. Dr.-Ing. Matthias Markert

Dipl.-Ing. Rainer Schau Dipl.-Ing. Dietmar Schedler



### 9.5 TFORMer Designer Data Sheet

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TFORMer Designer	
Common	
Supported operating systems	Microsoft <sup>®</sup> Windows (XP SP1 or higher, Vista, Seven). 32 and 64 bit
WYSIWYG document design	✓
Element overview (structured display of your form)	✓
Multi-Level Redo/Undo	✓
Multi select	✓
Metric (mm) and US (inch) measurements	✓
Snap to grid	✓
Zoom	✓
Preview with actual data	✓
Predefined label and report templates	✓
Template organizer	✓
Repository (structured document database)	✓
Stand-alone layouts (without repository)	✓
Data persistence for last session	✓
Serial number printing	QuickPrint or TFORMer Designer
Scripting	✓
Data types	✓
Barcode support	More than 100 linear, 2D, GS1 DataBar and RSS Composite Barcodes
Unicode (Asian and Eastern European languages)	✓
Document Layouts	
Formatted text	✓
Graphics, pictures and images	✓
Label document layouts (barcode labels, stickers,)	✓
Report document layouts (letters, vouchers, lists, tables,)	✓
Multiple reports per page	✓
Expressions and computations	✓
Conditional printing	✓
Document layers	✓
Page X of Y	✓
Date/Time functions	✓
Z-order support	✓
Color support	✓
Fill patterns	✓
Auto-sized text	✓
Watermarking (background-images)	✓
Basic HTML formatting features	✓

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### 9.6 TFORMer SDK Data Sheet

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#### TFORMer SDK

Common	
Supported Operating Systems	Microsoft <sup>®</sup> Windows (XP SP1 or higher, Vista, Seven), Linux <sup>®</sup> , UNIX <sup>®</sup> , Mac OS X <sup>®</sup>
64 Bit availability	×
DLL Interface	Microsoft <sup>®</sup> Windows
Shared Library (100% compatible to DLL)	Linux <sup>®</sup> , UNIX <sup>®</sup> , Mac OS X <sup>®</sup>
COM component	Microsoft <sup>®</sup> Windows
.NET 2.0 component	Microsoft <sup>®</sup> Windows
JAVA API	All Platforms
Command line application <i>tfprint</i>	All Platforms
Available Linux <sup>®</sup> /UNIX <sup>®</sup> Binaries	
SuSE Linux 9.1 (i586)	*
SuSE Enterprise 9 (i586)	×
SuSE Enterprise Server SLES 8.0 (Itanium-2)	×
RedHat Enterprise 4 (i586)	*
RedHat Fedora Core 4 (i586)	×
RedHat Advanced Server V2.1 (Itanium-2)	×
HP-UX 11i v2 (B.11.23) on IA64 (Itanium-2)	×
HP-UX 11 (11.00) (PA-RISC 2.0)	×
AIX 4.3 PPC	×
Other platforms	On request

Document Data	
Manual input	TFORMer Designer and QuickPrint
Import from text file	×
Import from CSV/TSV file	×
Import from XML file	×
Import from ODBC databases	×
Multiple data sources per document	×
Data source parameters (dynamic data sources)	×
API for developers (JAVA, DLL, COM, .NET, Shared Library)	×
BASE64 streams	×
Compressed BASE64 streams	×

Direct Printing and Preview Microso	oft <sup>®</sup> Windows
PostScript (Level 2 or higher)	
PDF 🗸	
HTML 🗸	
Text ✓	
ZPL-II (ZEBRA® thermo direct or thermo transfer printers) ✓	
Image formats (TIFF, GIF, JPG, PNG, BMP, PCX, TGA)	

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phone:	+49(0)381 86509-0	DE91 1307 0000 0120 0849 00 / BIC: DEUTDEBRXXX	Geschäftsführung:	Prof. DrIng. Matthias Markert
fax:	+49(0)381 86509-29	HypoVereinsbank Rostock:		DiplIng. Rainer Schau
www.mar-hro.de	info@mar-hro.de	DE58 2003 0000 0016 2593 82 / BIC: HYVEDEMM300		DiplIng. Dietmar Schedler

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### 9.7 TFORMer SDK .Net Component

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# 8 .NET Component

### 8.1 Introduction

The TFORMer SDK .NET component is perfect suited for application development with any .NET programming language (or Mono on Linux/UNIX).

- On Microsoft Windows the setup application installs the TFORMer assembly automatically in the GAC (Global Assembly Cache) and in the *Bin* subdirectory of the TFORMer SDK default installation path. The .NET classes can be used immediately with development environments like Microsoft Visual Studio.
- On Linux the setup scripts are installing the suitable Mono-bindings automatically. Please
  note, that the .NET developer reference is only available in the Windows installation.
- On Microsoft<sup>®</sup> Windows the TFORMer SDK .NET component requires .NET 2.0 or higher.
- On Linux/UNIX TFORMer SDK for .NET works with Mono 1.2.3 or higher (Mono is the open source equivalent for .NET).

### 8.2 Outline

When establishing a reference the name of the .NET component is TFORMer 7.5 SDK (file TECIT.TFORMer.dll).

The general steps for using the TFORMer SDK .NET assembly are:

- 1. Establish a reference to TFORMer 7.5 SDK.
- 2. Depending on the programming language include the TECIT.TFORMer namespace.
- 3. Create a job-instance (TECIT.TFORMer.Job).
- Create a jobdata instance (TECIT.TFORMer.JobData or derived classes).
- 5. Connect the job with the jobdata.
- Set the properties of the job to the required values (e.g. name of the form layout, output type and printer name).
- 7. Provide or import the values for data fields via the jobdata.
- 8. Finally generate the required output with the Print method.

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Rostock GmbH		DE98 1304 0000 0107 3790 00 / BIC: COBADEFFXXX	USt-ID-Nr.:	DE 813307191
		Deutsche Bank Rostock:	Steuer-Nr.:	07911403883
phone:	+49(0)381 86509-0	DE91 1307 0000 0120 0849 00 / BIC: DEUTDEBRXXX	Geschäftsführung:	Prof. DrIng. Matthias Markert
fax:	+49(0)381 86509-29	HypoVereinsbank Rostock:		DiplIng. Rainer Schau
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