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PrinterHelper for .NET

User Manual

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1 Introduction

PrinterHelper for .Net is a component which helps the user to ease printing from .Net applications. It consists of two parts, the PrinterHelper.dll runtime component and the FormCreator program which allows to create and save document templates.

1.1 License

PrinterHelper for .Net is licensed on a per developer seat basis. This means, you need one license per developer working with PrinterHelper for .Net. Each developer may use PrinterHelper for .Net on any number of computers.

Site licenses are available upon request.

You may include the PrinterHelper.dll with your own applications at no additional cost (“royalty-free license”).

You are however not allowed to include FormCreator with your own applications or otherwise copy, sell, lend, or in any other wise pass the FormCreator.exe to any third-party.

1.2 Requirements

PrinterHelper for .Net requires Windows XP, Windows Vista, Windows 7, or Windows 8 and an installed .Net Framework 3.5.

The runtime may additionally be provided for other versions of the .Net framework.

1.3 Installation

PrinterHelper for .Net does not require installation. Simply extract the package to any location on your harddisk where you are allowed to execute programs.

The folder structure is

- bin includes FormCreator and PrinterHelper.dll for local usage
- runtime\3.5 contains the runtime components for .Net 3.5
- doc contains the documentation
- doc\help contains the PrinterHelper.dll documentation as html

Note: Only the contents of the runtime subfolder may be re-distributed!

2 PrinterHelper.dll

PrinterHelper.dll contains all the necessary functionality for printing from your applications. The component’s reference is given in the PrinterHelper.chm help file which is provided with the software.

To use PrinterHelper.dll, you must create a reference to PrinterHelper.dll in your project (assuming you are using Visual Studio) and reference the AeroAstro.PrinterHelper namespace.

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PrinterHelper provides objects derived from PrintObject which can be used either in document templates or in the PlainPrintDocument. Each of these objects has two specific properties, "PropertyName" and "BackgroundImagePropertyName", which allow to dynamically fill the object during printing. Each of these objects checks DocumentProperties for a key identical to the entry in "PropertyName" or "BackgroundImagePropertyName" and, if the key is defined, replaces the Text with the content of the DocumentProperties with the key "PropertyName" and the background image with the content of DocumentProperties with the key "BackgroundImagePropertyName". A background image is stored in DocumentProperties as Base64 encoded bitmap. The keyword "PageNumber" in "PropertyName" is automatically replaced by the current page number, therefore "DocumentProperties" must not contain a key "PageNumber".

First step is to create a PrintDocument, here a document derived from PrintDocumentX. The available document types are

Document Type	Description
PlainPrintDocument	empty print document, add print objects to the PrintObjects list
PlainTextPrintDocument	prints a plain text in the ContentArea
RichTextPrintDocument	prints a rich text (rtf) in the ContentArea
ImagePrintDocument	prints images in the ContentArea
ArrayDataPrintDocument	prints array data in the ContentArea

All document types other than PlainPrintDocument expect the Template to contain a ContentAreaPrintObject. The content to be printed is then placed inside the ContentAreaPrintObject's are, pages are added until all data is printed.

The PrintObject derived objects are used to define individual objects on your printout. PrintObject derived objects can be used with the DocumentTemplate or, in case of the PlainPrintObject, directly in the PrintObjects collection.

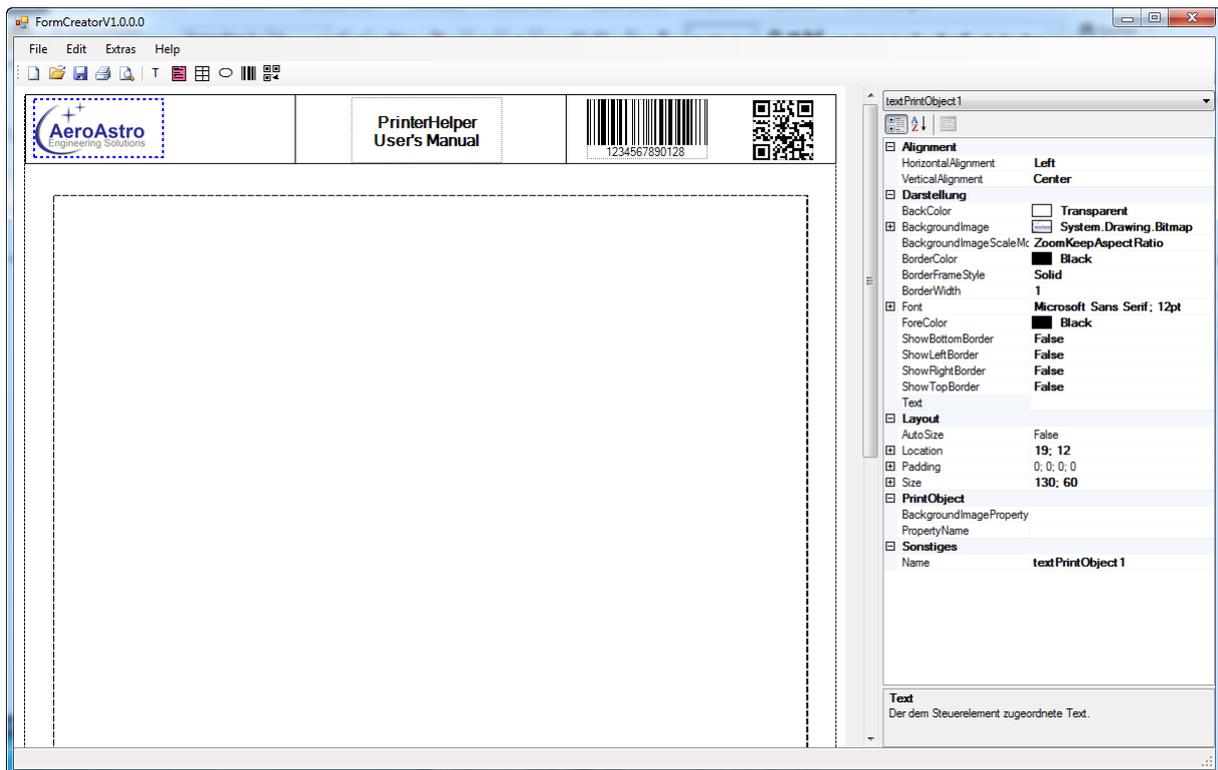
PrintObject	Description
PlainTextPrintObject	prints a text ("label"), this can be multiline text prints a background image (for image only leave Text property empty) prints a frame ("rectangle")
ArrayDataPrintObject	print array data (not: all objects in the array data must be convertibly to string objects)
BarcodePrintObject	prints a barcode
QRCodePrintObject	prints a QR code
ContentAreaPrintObject	used to define content area for PrintDocuments shows a colored rectangle in FormCreator, but does not print itself.
EllipsePrintObject	prints an ellipse
FixedTablePrintObject	prints a fixed (non-dynamic) table

Please refer to the sample project provided with the software for examples on how to use PrinterHelper.dll.

3 FormCreator

FormCreator is an interactive tool to create document templates for PrinterHelper for .Net. The templates can be stored in xml files which can be read by the runtime component PrinterHelper.dll.

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The left part of FormDesigner is the document template. The template is defined in units of 1/100 of an inch. The right part is a property grid allowing you to modify the print object properties.

To add a new print object, click on one of the object buttons in the toolbar. The new object will be added at position (0;0).



From left to right:

- add PlainTextPrintObject
- add ContentAreaPrintObject
- add FixedTablePrintObject
- add EllipsePrintObject
- add BarcodePrintObject
- add QRCodePrintObject

Please note that due to restrictions in the .Net framework, the objects in the FormCreator designer view do not show correct transparency. For a preview of the printout use the print preview menu or toolbar button.

3.1 Positioning of objects

Click and move with the mouse. Use object properties for fine adjustment.

3.2 Removing objects

Click object to activate and press delete or use context menu “Delete Control”

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3.3 Print Order

Use context menu “Send to back” and “Bring to front” to change print order.

3.4 Alignment

Use context menu “Horizontal Alignment” and “Vertical Alignment” to align the object with the page boundaries.

Alignment within each control is defined within the object’s properties.

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