

# PDF/A-3 and ZUGFeRD

## Introduction

ZUGFeRD is the German acronym for Zentraler User Guide des Forums elektronische Rechnungen Deutschland which means the Central User Guide of the Forum for Electronic Invoicing in Germany.

ZUGFeRD utilizes structured XML to represent electronic invoice data. In addition, it chooses PDF format as a carrier to embed the XML invoice for exchanging and visualization. PDF can be recognized as a visualization layer and container of the electronic invoice. Combining the advantages of structured XML and PDF representation, the electronic invoice can be viewed as a traditional paper invoice, exchanged electronically, or further processed automatically in billing workflow depending on the requirements from the sender or receiver side.

In simple words, ZUGFeRD requires the PDF file compliant with PDF/A-3 standard. Each ZUGFeRD invoice must be a PDF/A-3 compliant file containing (embedding) one structured XML file representing the electronic invoice data. The main feature PDF/A-3 compliance is the capability to allow embedding extra files (e.g. XML data file) in the PDF.

Since Ver. 7, eDocPrinter supporting creating PDF files compliant with PDF/A-3 and ZUGFeRD Basic modes. ZUGFeRD mode of eDocPrinter **requires the feature and license of Ent. pack installed**. It also requires a ZUGFeRD XML assigned from the SaveAs dialog or by embedded commands to embed into the destination PDF.

## Features related to ZUGFeRD Basic mode

1. The installer supports options in UI for installing ZUGFeRD features and adding printer instances compliant with ZUGFeRD Basic directly.
2. A utility command line [addprn az3z "printer profile name"] is available for adding edocprinter instances with turning on [ZUGFeRD Basic] mode.
3. A new [ZUGFeRD Basic] mode is available to select in Doc Info property page. For creating ZUGFeRD invoices, please select PDF compliant with [ZUGFeRD Basic] mode in Doc Info property page. It also requires a ZUGFeRD XML assigned from the SaveAs dialog or by embedded commands.
4. An embedded commands eczf is added for embedding the ZUGFeRD invoice XML file by commands without using the Saveas dialog for workflow automation. It requires the Ent. pack license installed. The command and its parameter list are like

%%eczf: ZURFeRD xml file path to be embedded, filename if not using default, descriptions%%.

For example,

```
%%eczf: c:\invoices\ZURFeRD1.xml%%
```

It will embed ZURFeRD1.xml file as the invoice XML data and use the default standard ZUGFeRD-invoice.xml as the embedded filename for compliance. It requires the printer profile set in compliance mode ZUGFeRD Basic. By contrast, Adv. commands acef and acex are used for embedding other documents or files into the destination PDF with normal attributes. The command acef is used to embed a file with a visible icon in the PDF. Instead, the command acex is used to embed a file invisibly in the PDF. For example,

```
%%acef: file path, icon type, [R,G,B], [flag, w, h, ox, oy], filename, description%%
```

```
%%acef: c:\images\logo.jpg, Paperclip, 0,255,0%%
```

```
%%acex: file path, filename , description%%
```

```
%%acex: c:\data\report.xls%%
```

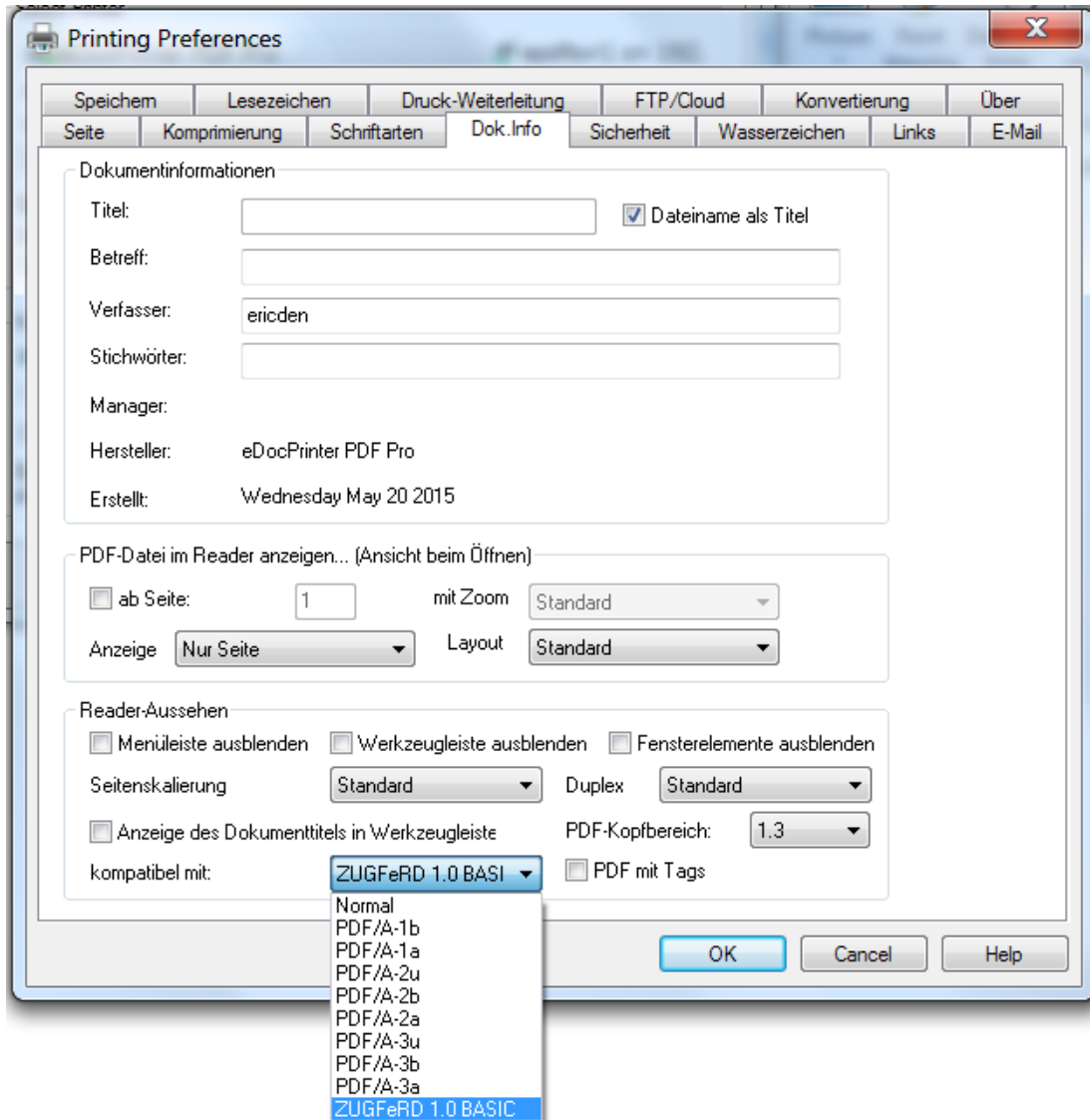
## Features related to PDF/A-3 mode

Listed below are new features related to PDF/A modes.

1. The installer supports options in UI for installing PDF/A-3 features and adding printer instances compliant with PDF/A-3 Basic directly.
2. New modes [az3a] and [az3b] of addprn command line utility are added to support adding printer instances compliant with PDF/A-3. For example, administrators may run [addprn az3a "printer profile name"] or [addprn az3b "printer profile name"].
3. PDF/A-2a, PDF/A-2b, PDF/A-2u, PDF/A-3a, PDF/A-3b, and PDF/A-3u modes are added in the [Compliant with] option in the Doc Info property page. Users can select to create PDF files compliant with the specific standard.

## Illustrations for using ZUGFeRD mode

For creating PDF files compliant with PDF/A-3 or ZUGFeRD, please select the compliant with field properly in the Doc Info property page as illustrated below. For convenience, administrators can create extra edocprinter profiles with enabling PDF/A-3 or PDF ZUGFeRD by default from the Installer feature selection or by addprn command line utility. ZUGFeRD mode is an Ent. pack feature, which requires the Ent. pack license installed.



For ZUGFeRD invoices, users need to embed the invoice xml file. It will show the optional ZUGFeRD invoice field in SaveAs dialog as illustrated when in PDF/A-3 or ZUGFeRD compatible mode. Users can browse to add a valid structured XML file of the electronic invoice to embed into the PDF.

In addition, a new Ent. pack command `%%eczf: path to invoice.xml%%` is added to support directly assigning the path of ZUGFeRD invoice xml when doing silently printing without showing SaveAs dialog. For example, `%%eczf: c:\invoices\ZURFeRD1.xml%%`.

