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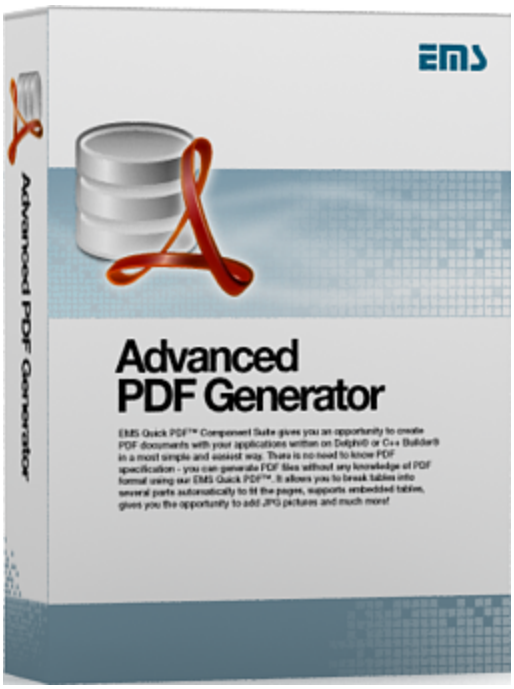
EMS® Software Development

Advanced PDF Generator for RAD Studio User's Manual



Advanced PDF Generator for RAD Studio
User's Manual

This manual documents EMS Advanced PDF Generator for RAD Studio, version 1.3.

Document generated on: 08.12.2023

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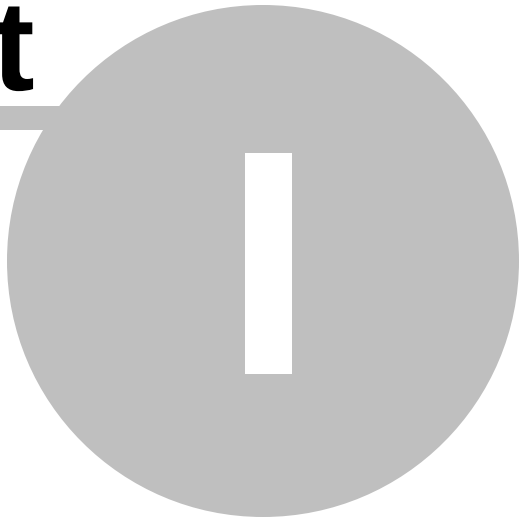
Part



1 Welcome to Advanced PDF Generator for RAD Studio!

1.1 Overview

EMS Advanced PDF Generator for RAD Studio is a component that gives you an opportunity to create PDF documents with your Delphi and C++ Builder applications in the simplest and easiest way. There is no need to know PDF specification - you can generate PDF files without any knowledge of PDF format using our Advanced PDF Generator. It allows you to break tables into several parts automatically in order to fit the pages, supports embedded tables, gives you an opportunity to add JPG pictures and much more!

Visit our web-site for details: https://www.sqlmanager.net/

Key features

- Easy-to-use component API gives you the easiest way to create PDF documents
- Support for 64-bit Windows target platform
- Automatic division of tables into several parts to fit the pages
- Full support of embedded tables
- Adding JPG, BMP pictures to PDF documents
- Adding EMF or WMF files to PDF in vector format
- Adding any other pictures that can be loaded in the TGraphic component
- Generating PDF documents with internal and external links
- Unicode characters full support
- Delphi 2010, XE-XE8, 10 Seattle, 10.1 Berlin, 10.2 Tokyo, 10.3 Rio, 10.4 Sydney, 11 Alexandria, 12 Athens and C++ Builder 2010, XE-XE8, 10 Seattle, 10.1 Berlin, 10.2 Tokyo, 10.3 Rio, 10.4 Sydney, 11 Alexandria, 12 Athens support
- Two encryption methods support - 40-bit and 128-bit
- Defining document properties: author, keywords, producer, subject, title

Product information

Homepage	https://www.sqlmanager.net/products/tools/pdfgenerator
Support Ticket System	https://www.sqlmanager.net/support
Register on-line at	https://www.sqlmanager.net/products/tools/pdfgenerator/buy

1.2 What's new

Version	Release date
Advanced PDF Generator for RAD Studio 2.0.4	December 8, 2023

What's new in Advanced PDF Generator for RAD Studio?

- Support for RAD Studio 12 Athens implemented.
- The paths for 32-bit Clang compiler in RAD Studio options fixed.
- The errors on building application with "Overflow checking" {$Q+} and "Range checking" {$R+} compiler options resolved.

See also:

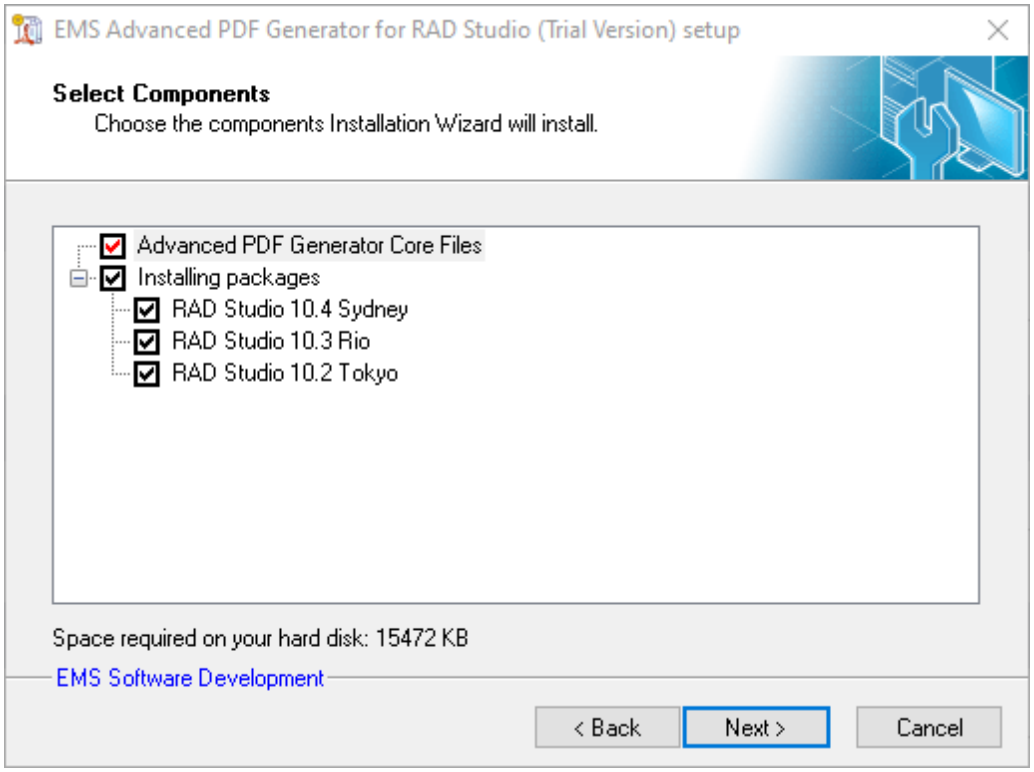
Version history

1.3 Installation

To install the **trial version** of **Advanced PDF Generator for RAD Studio** onto your system:

- download the distribution package of **Advanced PDF Generator for RAD Studio** from the download page available at our website;
- unzip the downloaded file to any local directory, e.g. *C:\unzipped*;
- close all currently opened Delphi and/or C++ Builder IDEs, if any;
- run the executable setup file from the local directory and follow the instructions of the installation wizard.

During the installation you will need to select the packages to install:



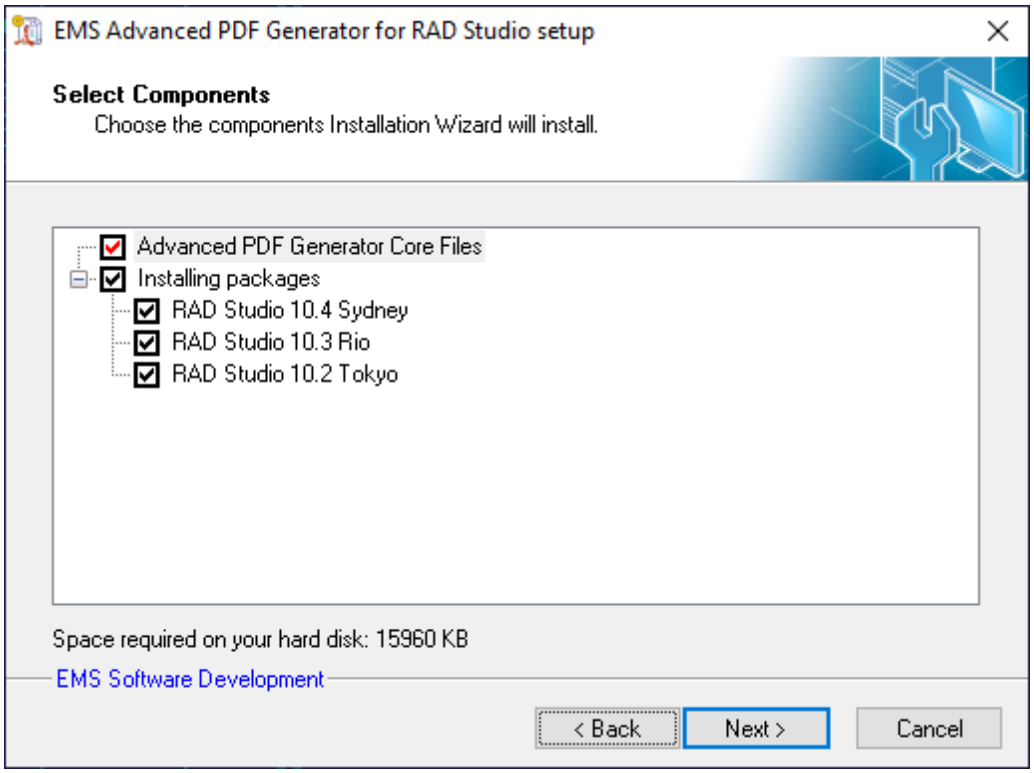
When you are done, you can finish installation of the **trial version** of **Advanced PDF Generator for RAD Studio**.

To install the **full version** of **Advanced PDF Generator for RAD Studio** onto your system:

- download the distribution package of **Advanced PDF Generator for RAD Studio** from the download page available at our website;
- unzip the downloaded file to any local directory, e.g. *C:\unzipped*;
- close all currently opened Delphi and/or C++ Builder IDEs, if any;
- run the executable setup file from the local directory and follow the instructions of the installation wizard.

Enter valid registration information in the appropriate boxes: **Registration name** and **Registration Key**. See details on getting this information.

During the installation you will need to select the packages to install:



When you are done, you can finish installation of the **full version** of **Advanced PDF Generator for RAD Studio**.

Note: If the above given instructions have been insufficient for successful installation of the component suite, please refer to the *readme.1st* file distributed with the product.

1.4 Registration

All purchases are provided by **Digital River** registration service. The **Digital River** order process is protected via a secure connection and makes on-line ordering by credit/debit card quick and safe.

Digital River is a global e-commerce provider for software and shareware sales via the Internet. It accepts payments in US Dollars, Euros, Pounds Sterling, Japanese Yen, Australian Dollars, Canadian Dollars or Swiss Franks by Credit Card (Visa, MasterCard/ EuroCard, American Express, Diners Club), Bank/Wire Transfer, Check or Cash.

If you want to review your order information, or you have questions about ordering or payments please visit our Customer Care Center, provided by **Digital River.**

Please note that all of our products are delivered via ESD (Electronic Software Delivery) only. After purchase you will be able to immediately download the registration keys or passwords. Also you will receive a copy of registration keys or passwords by email. Please make sure to enter a valid email address in your order. If you have not received the keys within 2 hours, please, contact us at sales@sqlmanager.net.

Product distribution	**MyCommerce/Digital River**
Advanced PDF Generator for RAD Studio Component Full version (with sources)*	Register Now!
Advanced PDF Generator for RAD Studio Component Trial version	Download Now!

***EMS Maintenance Program** provides the following benefits:

- Free software bug fixes, enhancements, updates and upgrades during the maintenance period
- Free unlimited communications with technical staff for the purpose of reporting Software failures
- Free reasonable number of communications for the purpose of consultation on operational aspects of the software

After your maintenance expires you will not be able to update your software or get technical support. To protect your investments and have your software up-to-date, you need to renew your maintenance.

You can easily reinitiate/renew your maintenance with our on-line, speed-through Maintenance Reinstatement/Renewal Interface. After reinitiating/renewal you will receive a confirmation e-mail with all the necessary information.

1.5 How to register Advanced PDF Generator

To register your newly purchased copy of **EMS Advanced PDF Generator for RAD Studio**, perform the following steps:

- receive the notification letter from **Share-it!** with the registration info;
- enter the **Registration Name** and the **Registration Key** from this letter while installing the **full version** of the product.

See also:

Registration

1.6 Version history

Product name	Version	Release date
Advanced PDF Generator for RAD Studio	**Version 2.0.3**	September 28, 2021
Advanced PDF Generator for RAD Studio	**Version 2.0.2**	June 25, 2020
Advanced PDF Generator for RAD Studio	**Version 2.0.1**	December 29, 2018
Advanced PDF Generator for RAD Studio	**Version 2.0**	May 29, 2017
Advanced PDF Generator for RAD Studio	**Version 1.5.5**	July 05, 2016
Advanced PDF Generator for RAD Studio	**Version 1.5.4**	December 12, 2015
Advanced PDF Generator for RAD Studio	**Version 1.5.2**	May 5, 2013
Advanced PDF Generator for RAD Studio	**Version 1.5.1**	November 17, 2012
Advanced PDF Generator for RAD Studio	**Version 1.5**	October 7, 2011
Advanced PDF Generator for RAD Studio	**Version 1.4**	February 20, 2011
Advanced PDF Generator for RAD Studio	**Version 1.3**	December 4, 2009
Advanced PDF Generator for RAD Studio	**Version 1.2**	August 27, 2009
QuickPDF	**Version 1.1**	July 1, 2004

Full version history is available at https://www.sqlmanager.net/products/tools/pdfgenerator/news

Version 2.0.3
- Support for RAD Studio 11 Alexandria implemented.

Version 2.0.2
- Support for RAD Studio 10.4 Sydney implemented.
- The exception on creating a PDF file in the win64 apps has been fixed
- End of support for RAD Studio 2009 and older versions

Version 2.0.1
- Support of RAD Studio 10.3 Rio implemented

Version 2.0
- Support of RAD Studio 10.2 Tokyo added.
- Support for 64-bit Windows target platform added.
- Rendering of vector images has been fixed.
- Drawing on PDF page canvas has been fixed.
- Some other minor improvements and bug fixes.

Version 1.5.5
- Added the support of Embarcadero RAD Studio 10.1 Berlin

Version 1.5.4
- Added the support of Embarcadero RAD Studio from XE5 to 10 Seattle.

Version 1.5.2
- Added the support of Embarcadero RAD Studio XE4.

Version 1.5.1
- Added the support of Embarcadero RAD Studio XE3.

Version 1.5
- Added the support of Embarcadero RAD Studio XE2.

- Other small improvements and bug fixes.

Version 1.4

- Support of RAD Studio 2010 is added
- Minor improvements and bug-fixes

Version 1.3

- Support of RAD Studio 2010 is added
- Minor improvements and bug-fixes

Version 1.2

- RAD Studio 2009 support is added
- With the new installer used, the components are installed and registered in Delphi / C++ Builder environment automatically
- Minor improvements and bug-fixes

Version 1.1

- Now the QuickPDF Component Suite supports raster fonts. You can use these fonts without any difficulties when generating documents with our component
- With this version you can add links to external files and FTP servers in the same way as to HTTP resources
- We have added an ability to align text vertically in table cells. Use the Cell.VerticalAlign property for this purpose
- Now you can draw on the document sheet using the TPDFCell.Canvas property
- The new Clipping property of the TPDFTable class is added. Set this property to True to clip any text and pictures that are not fit in cells
- Other minor improvements and bug-fixes

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See also:

What's new

1.7 Other EMS Products

Quick navigation


MySQL


Microsoft SQL Server


PostgreSQL


InterBase / FireBird


Oracle


IBM DB2


Tools & components

MySQL


SQL Management Studio for MySQL
EMS SQL Management Studio for MySQL is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!


SQL Manager for MySQL
Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.


Data Export for MySQL
Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more.


Data Import for MySQL
Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.


Data Pump for MySQL
Migrate from most popular databases (MySQL, PostgreSQL, Oracle, DB2, InterBase/Firebird, etc.) to MySQL.


Data Generator for MySQL
Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.


DB Comparer for MySQL
Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.


DB Extract for MySQL
Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.


SQL Query for MySQL
Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.


Data Comparer for MySQL
Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

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Microsoft SQL Server

SQL Management Studio for SQL Server
EMS SQL Management Studio for SQL Server is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!

EMS SQL Backup for SQL Server
Perform backup and restore, log shipping and many other regular maintenance tasks on the whole set of SQL Servers in your company.

SQL Administrator for SQL Server
Perform administrative tasks in the fastest, easiest and most efficient way. Manage maintenance tasks, monitor their performance schedule, frequency and the last execution result.

SQL Manager for SQL Server
Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.

Data Export for SQL Server
Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more

Data Import for SQL Server
Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.

Data Pump for SQL Server
Migrate from most popular databases (MySQL, PostgreSQL, Oracle, DB2, InterBase/Firebird, etc.) to Microsoft® SQL Server™.

Data Generator for SQL Server
Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.

DB Comparer for SQL Server
Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.

DB Extract for SQL Server
Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.

SQL Query for SQL Server
Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.

Data Comparer for SQL Server
Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

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PostgreSQL

SQL Management Studio for PostgreSQL
EMS SQL Management Studio for PostgreSQL is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!

EMS SQL Backup for PostgreSQL
Creates backups for multiple PostgreSQL servers from a single console. You can use automatic backup tasks with advanced schedules and store them in local or remote folders or cloud storages

SQL Manager for PostgreSQL
Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.

Data Export for PostgreSQL
Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more

Data Import for PostgreSQL
Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.

Data Pump for PostgreSQL
Migrate from most popular databases (MySQL, SQL Server, Oracle, DB2, InterBase/Firebird, etc.) to PostgreSQL.

Data Generator for PostgreSQL
Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.

DB Comparer for PostgreSQL
Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.

DB Extract for PostgreSQL
Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.

SQL Query for PostgreSQL
Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.

Data Comparer for PostgreSQL
Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

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InterBase / Firebird

SQL Management Studio for InterBase/Firebird
EMS SQL Management Studio for InterBase and Firebird is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!

SQL Manager for InterBase/Firebird
Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.

Data Export for InterBase/Firebird
Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more

Data Import for InterBase/Firebird
Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.

Data Pump for InterBase/Firebird
Migrate from most popular databases (MySQL, SQL Server, Oracle, DB2, PostgreSQL, etc.) to InterBase/Firebird.

Data Generator for InterBase/Firebird
Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.

DB Comparer for InterBase/Firebird
Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.

DB Extract for InterBase/Firebird
Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.

SQL Query for InterBase/Firebird
Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.

Data Comparer for InterBase/Firebird
Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

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Oracle

SQL Management Studio for Oracle
EMS SQL Management Studio for Oracle is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!

SQL Manager for Oracle
Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.

Data Export for Oracle
Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more.

Data Import for Oracle
Import your data from MS Access, MS Excel and other popular formats to database tables via

user-friendly wizard interface.


Data Pump for Oracle
Migrate from most popular databases (MySQL, PostgreSQL, MySQL, DB2, InterBase/Firebird, etc.) to Oracle


Data Generator for Oracle
Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.


DB Comparer for Oracle
Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.


DB Extract for Oracle
Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.


SQL Query for Oracle
Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.


Data Comparer for Oracle
Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

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IBM DB2


SQL Manager for DB2
Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.


Data Export for DB2
Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more.


Data Import for DB2
Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.


Data Pump for DB2
Migrate from most popular databases (MySQL, PostgreSQL, Oracle, MySQL, InterBase/Firebird, etc.) to DB2


Data Generator for DB2
Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.


DB Extract for DB2
Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.


SQL Query for DB2
Analyze and retrieve your data, build your queries visually, work with query plans, build charts

based on retrieved data quickly and more.

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Tools & components

Advanced Data Export for RAD Studio VCL
Advanced Data Export for RAD Studio VCL allows you to save your data in the most popular office programs formats.

Advanced Data Export .NET
Advanced Data Export .NET is a component for Microsoft Visual Studio .NET that will allow you to save your data in the most popular data formats for the future viewing, modification, printing or web publication. You can export data into MS Access, MS Excel, MS Word (RTF), PDF, TXT, DBF, CSV and more! There will be no need to waste your time on tiresome data conversion - Advanced Data Export will do the task quickly and will give the result in the desired format.

Advanced Data Import for RAD Studio VCL
Advanced Data Import for RAD Studio VCL will allow you to import your data to the database from files in the most popular data formats.

Advanced PDF Generator for RAD Studio
Advanced PDF Generator for RAD Studio gives you an opportunity to create PDF documents with your applications written on Delphi or C++ Builder.

Advanced Query Builder for RAD Studio VCL
Advanced Query Builder for RAD Studio VCL is a powerful component for Delphi and C++ Builder intended for visual building SQL statements for the SELECT, INSERT, UPDATE and DELETE clauses.

Advanced Excel Report for RAD Studio
Advanced Excel Report for RAD Studio is a powerful band-oriented generator of template-based reports in MS Excel.

Advanced Localizer for RAD Studio VCL
Advanced Localizer for RAD Studio VCL is an indispensable component for Delphi for adding multilingual support to your applications.

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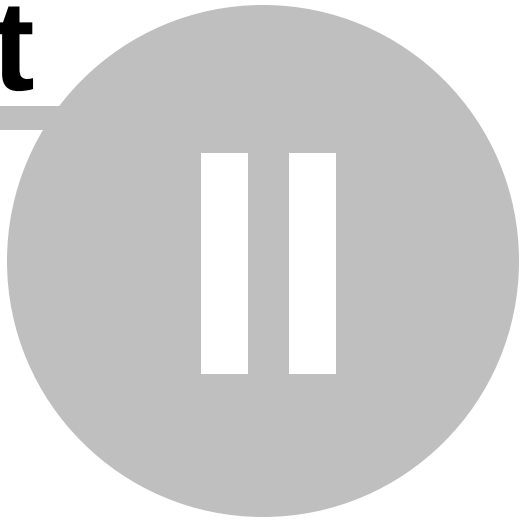
Part



2 Advanced PDF Generator

EMS Advanced PDF Generator for RAD Studio represents a set of tools for generating PDF documents with text, links, images, tables, etc. None of the mechanisms of cooperation between applications in Microsoft Windows environment (DDE, OLE) is used when generating PDF documents, which ensures an extremely high speed of work.

The suite consists of the main TQuickPdf with basic properties, and a set of various objects describing PDF elements.

Advanced PDF Generator for RAD Studio provides a collection of the following components:

Component	Unit	Brief description
TQuickPDF	QuickPDF	The main component of the suite
TQuickPDFContentsItem	QuickPDF	An item of the document contents
TQuickPDFDocument	QuickPDF	An entire PDF document
TQuickPDFPageInfo	QuickPDF	Information about document page sizes
TRenderAtom	QPDFRender	A basic class for all document objects
TRenderCell	QPDFRender	A table cell
TRenderImage	QPDFRender	An image
TRenderRow	QPDFRender	A table row
TRenderSequence	QPDFRender	A sequence of objects
TRenderTable	QPDFRender	A table
TRenderWord	QPDFRender	An unbreakable sentence

2.1 TQuickPdf

2.1.1 TQuickPdf Reference

Unit
QuickPdf

Description
The *TQuickPDF* component is the main component of the suite. In this class the basic properties of the document are determined, and so are the three basic methods - GenerateToString, GenerateToFile, and GenerateToStream.

2.1.2 Properties

Run-time only Key properties

- Contents
- Document
- EmbeddedFonts
- FileName
- PageInfo
- PDFAuthor
- PDFCreator
- PDFKeywords
- PDFSubject
- PDFTitle
- Security
- SecurityOptions
- SecurityOwnerPassword
- SecurityUserPassword

2.1.2.1 Contents

```
property Contents: TQuickPdfContentsItem;
```

Description
The *Contents* property is used to define the document contents. The document contents is formed up as a tree of TQuickPdfContentsItem objects. Each node in a contents consists of a label and a name of the link which the contents item is associated with. Each node can have a list of subnodes associated with it. This property is accessible only at runtime.

See also:
TQuickPdfContentsItem Class

2.1.2.2 Document

```
property Document: TQuickPdfDocument;
```

Description
The *Document* property describes the entire PDF document as a set of objects, such as tables, text, images, etc. This property is read-only and accessible only at runtime.

See also:
TQuickPdfDocument Class

2.1.2.3 EmbeddedFonts

```
property EmbeddedFonts: Boolean;
```

Description
Set this option to True to embed all the fonts used in the decument to the result PDF file.

2.1.2.4 FileName

```
property FileName: String;
```

Description

The *FileName* property defines the name of the result PDF document. The property must not be empty; if it is empty in the moment of the GenerateToFile method invocation, the component will stop being executed having generated an exception with the message 'FileName property is not assigned'.

2.1.2.5 PageInfo

```
property PageInfo: TQuickPdfPageInfo;
```

Description

The *PageInfo* property contains the information about the document page size.

2.1.2.6 PDFAuthor

```
property PDFAuthor: String;
```

Description
The *PDFAuthor* property defines an author of the result PDF document.

See also:
PDFCreator
PDFKeywords
PDFSubject
PDFTitle

2.1.2.7 PDFCreator

```
property PDFCreator: String;
```

Description
The *PDFCreator* property defines a name of the program that generated the result PDF document.

See also:
PDFAuthor
PDFKeywords
PDFSubject
PDFTitle

2.1.2.8 PDFKeywords

```
property PDFKeywords: String;
```

Description
The *PDFKeywords* property defines a list of keywords that relates to the result PDF document.

See also:
PDFAuthor
PDFCreator
PDFSubject
PDFTitle

2.1.2.9 PDFSubject

```
property PDFSubject: String;
```

Description
The *PDFSubject* property defines a subject of the result PDF document.

See also:
PDFAuthor
PDFCreator
PDFKeywords
PDFTitle

2.1.2.10 PDFTitle

```
property PDFTitle: String;
```

Description
The *PDFTitle* property defines a title of the result PDF document.

See also:
PDFAuthor
PDFCreator
PDFKeywords
PDFSubject

2.1.2.11 Security

```
property Security: TQuickPdfSecurityMode;

type
  TQuickPdfSecurityMode = (secDisabled, sec40bit, sec128bit);
```

Description
The *Security* property defines an encoding method that is used to crypt the result document.

See also:
SecurityOptions
SecurityOwnerPassword
SecurityUserPassword

2.1.2.12 SecurityOptions

```
property SecurityOptions: TQuickPdfSecurityOptions;

type
  TQuickPdfSecurityOptions = set of (secPrint, secExtraction, secModify);
```

Description
The *SecurityOptions* property is a set of abilities that are given to user who accessed the document using a password that defined in the SecurityUserPassword. Use this property to limit rights to print, modify, and extract a document content.

See also:
SecurityOptions
SecurityOwnerPassword
SecurityUserPassword

2.1.2.13 SecurityOwnerPassword

```
property SecurityOwnerPassword: String;
```

Description
The *SecurityUserPassword* property defines a user password to access the document. This password gives an ability to use the document with unlimited rights.

See also:
PDFAuthor
PDFCreator
PDFKeywords
PDFTitle

2.1.2.14 SecurityUserPassword

```
property SecurityUserPassword: String;
```

Description
The *SecurityUserPassword* property defines a user password to access the document. This password gives an ability to use the document with rights that are defined by the SecurityOptions property.

See also:
PDFAuthor
PDFCreator
PDFKeywords
PDFTitle

2.1.3 Methods

Key methods

Clear
GenerateToString
GenerateToFile
GenerateToStream

2.1.3.1 Clear

```
procedure Clear;
```

Description
Use this method to clear the document.

2.1.3.2 GenerateToFile

```
procedure GenerateToFile;
```

Description
Use *GeneratetoFile* to generate a document to the file specified by the FileName property.

See also:
GenerateToStream Method
GenerateToString Method

2.1.3.3 GenerateToString

```
function GenerateToString: String;
```

Description
Use *GenerateToString* to generate a document to a string that is returned as a result of the function execution.

See also:
GenerateToFile Method
GenerateToStream Method

2.1.3.4 GenerateToStream

```
procedure GenerateToStream(Stream: TStream);
```

Description
Use *GenerateToStream* to generate a document to the stream specified by the Stream parameter. This can be any TStream descendant.

See also:
GenerateToFile Method
GenerateToStream Method

2.2 TQuickPdfContentsItem

2.2.1 TQuickPdfContentsItem Reference

Unit
QuickPdf

Description
The *TQuickPDFContentsItem* class represents an item of a contents. Use this class to create your contents menu for the document. Each item in a contents consists of a label and a name of the link which the contents item is associated with. Each item can have a list of subitems associated with it.

2.2.2 Properties

Run-time only Key properties

- Count
- Items
- Link
- Parent
- Title

2.2.2.1 Count

```
property Count: Integer;
```

Description
The *Count* property returns an amount of subitems for the item. This property is read-only and accessible only at runtime.

2.2.2.2 Items

```
property Items[Index: Integer]: TQuickPdfContentsItem;
```

Description
Use *Items* to access subitems for the item by index. This property is read-only and accessible only at runtime.

2.2.2.3 Link

```
property Link: String;
```

Description

The *Link* property defines a name of the link in the document which the current item points to. Link names are specified by the LinkNameproperty of all objects in the document.

2.2.2.4 Parent

```
property Parent: TQuickPdfContentsItem;
```

Description
The *Parent* property returns the item which the current item is associated with. This property is accessible only at runtime.

2.2.2.5 Title

```
property Title: String;
```

Description
The *Title* property defines the displayable text for the contents item. This text is displayed in PDF contents.

See also:
LinkTarget

2.2.3 Methods

Key methods

Add
Clear

2.2.3.1 Add

```
function Add(ATitle, ALink: String): TQuickPdfContentsItem;
```

Description
The *Add* method creates a subitem for the item and adds it to a list of subitems. The *ATitle* parameter specifies a title of the new subitem, and the *ALink* property specifies a link which the new subitem is associated with.

See also:
Create
Clear

2.2.3.2 Create

```
constructor Create(ATitle, ALink: String; AParent: TQuickPDFContentsItem = nil); over
```

Description
Use this method to create new instances of the TQuickPDFContentsItem class.

See also:
Add
Clear

2.2.3.3 Clear

```
procedure Clear;
```

Description
Use the *Clear* method to delete all children of an item, freeing all associated memory.

See also:
Add
Create

2.3 TQuickPdfDocument

2.3.1 TQuickPdfDocument Reference

Unit
QuickPdf

Description
The *TQuickPDFDocument* class describes the PDF document as a header, footer, and a set of document sections. This class cannot be created by the user, but can be accessed at runtime through the Document property of the TQuickPDF component.

See also:
TQuickPDF Component

2.3.2 Properties

Run-time only Key properties

- Footer
- Header
- MainTable
- Section
- Width

2.3.2.1 Footer

```
property Footer: TRenderCell;
```

Description
The *Footer* property defines the footer for each page of the document. As a matter of fact, this property returns the first cell in the last row of the main document table defined by the MainTable property. The *Footer* property is read-only and accessible only at runtime.

See also:
Header Property
MainTable Property
TRenderCell Class

2.3.2.2 Header

```
property Header: TRenderCell;
```

Description
The *Header* property defines the header for each page of the document. As a matter of fact, this property returns the first cell in the first row of the main document table defined by the MainTable property. The *Header* property is read-only and accessible only at runtime.

See also:
Footer Property
MainTable Property
TRenderCell Class

2.3.2.3 MainTable

```
property MainTable: TRenderTable;
```

Description
Technically, all the document is represented as a one-column table. The first row is the document *header*, the last is the *footer*, and all the intervening rows are document *sections*. The *MainTable* property defines the main table of the document. Through this property you can work with an entire document in the same way as with a simple table. The *MainTable* property is read-only and accessible only at runtime.

See also:
Footer Property
Header Property
TRenderTable Class

2.3.2.4 Section

```
property Section[Index: Integer]: TRenderCell;
```

Description
Technically, all the document is represented as a one-column table. The first row is the document *header*, the last is the *footer*, and all the intervening rows are document *sections*. The *Section* property is an array of all the document sections. You can access them by index using this property. As a matter of fact, the *Section[Index]* returns the first cell in the *Index+1* row of the main document table defined by the MainTable property. Each section begins from the new page, so you can use sections to manually break your document to pages. The Sections property is read-only and accessible only at runtime.

See also:
Footer
Header
MainTable
TRenderCell Class

2.3.2.5 Width

```
property Width: Integer;
```

Description
The *Width* property returns the width of the work area in points (1/72 inches). This property is accessible only at runtime.

2.3.3 Methods

Key methods

SetMargins

2.3.3.1 SetMargins

```
procedure SetMargins(left, top, right, bottom: Integer);
```

Description
Use this method to set the document margins in points (1/72 inches).

2.4 TQuickPdfPageInfo

2.4.1 TQuickPdfPageInfo Reference

Unit
QuickPdf

Description
The *TQuickPDFContentsItem* class conatins all the properties needed to customize a document page size and layout.

2.4.2 Properties

Run-time only Key properties

Height
MarginBottom
MarginLeft
MarginRight
MarginTop
Size
Width

2.4.2.1 Height

```
property Height: Integer;
```

Description
The *Height* property defines the page height in points (1/72 inches).

See also:
Size
Width

2.4.2.2 MarginBottom

```
property MarginBottom: Integer;
```

Description
Use this property to define a height of the bottom margin of the document pages. A value of the *MarginBottom* property is measured in points (1/72 inches).

See also:
MarginBottom
MarginLeft
MarginRight

2.4.2.3 MarginLeft

```
property MarginLeft: Integer;
```

Description
Use this property to define a width of the left margin of the document pages. A value of the *MarginLeft* property is measured in points (1/72 inches).

See also:
MarginBottom
MarginRight
MarginTop

2.4.2.4 MarginRight

```
property MarginRight: Integer;
```

Description
Use this property to define a width of the right margin of the document pages. A value of the *MarginRight* property is measured in points (1/72 inches).

See also:
MarginBottom
MarginLeft
MarginTop

2.4.2.5 MarginTop

```
property MarginTop: Integer;
```

Description
Use this property to define a height of the top margin of the document pages. A value of the *MarginTop* property is measured in points (1/72 inches).

See also:
MarginBottom
MarginLeft
MarginRight

2.4.2.6 Size

```
property Size: TQuickPdfPageSize;

type TQuickPdfPageSize = (psCustom, psA4, psLetter, psLegal);
```

Description
Use this property to define standard page size for the document. The following page sizes are available:
psA4 (8.27" X 11.69")
Letter (8.5" X 11")
Legal (8.5" X 14")

The *Size* is set to *psCustom* if the page size differs from a standard page size.

2.4.2.7 Width

```
property Width: Integer;
```

Description
The *Width* property defines the page width in points (1/72 inches).

See also:
Height
Size

2.5 TRenderAtom

2.5.1 TRenderAtom Reference

Unit
QPDFRender

Description
The *TRenderAtom* class is the basic class for all the PDF objects available in the suite. This class contains most common properties, such as width and height.

2.5.2 Properties

Run-time only Key properties

- Height
- Width
- BgColor
- LinkName
- LinkTarget

2.5.2.1 BgColor

```
property BgColor: Integer;
```

Description
The *BgColor* property defines a background color for the object.

See also:
Height

2.5.2.2 Height

```
property Height: Integer;
```

Description
The *Height* property returns the calculated height of the object in points (1/72 inches). This property is read-only and accessible only at runtime.

See also:
Width

2.5.2.3 LinkName

```
property LinkName: String;
```

Description
The *LinkName* property is intended to define a link name in the document. To create a link to the current object from any other object:
1) set a value of this property for the current object;
2) set a value of the *LinkTarget* property for the source object to a value of the *LinkName* property for the current object.

Example

See also:
Height

2.5.2.4 LinkTarget

```
property LinkTarget: String;
```

Description
The *LinkTarget* property is intended to define a link target for the object. To create a link from the current object to any other object:
1) set a value of the *LinkName* property for the destination object;
2) set a value of the *LinkTarget* property for the current object to a value of the *LinkName* property for the destination object.

Example

See also:
Height

2.5.2.5 Width

```
property Width: Integer;
```

Description
The *Width* property returns the calculated width of the object in points (1/72 inches). This property is read-only and accessible only at runtime.

See also:
Height

2.5.3 Methods

Run-time only Key properties

Create

2.5.3.1 Create

```
constructor Create(_Width: Integer); overload;
```

Description
Use this method to create new instances of the TRenderAtom class. The _Width parameter defines a width of the object in points (1/72 inches).

2.6 TRenderCell

2.6.1 TRenderCell Reference

Unit
QPDFRender

Description
The *TRenderCell* is a class representing a table cell in the PDF document. It contains all the methods and properties needed to manage table cells. The *TRenderCell* class is a TRenderAtom descendant.

See also:
TRenderRow Class
TRenderTable Class

2.6.2 Properties

Run-time only Key properties

BorderBottom
BorderLeft
BorderRight
BorderTop
Indent
Padding

2.6.2.1 BorderBottom

```
property BorderBottom: Integer;
```

Description
The *BorderBottom* property defines a thickness of the bottom border of the cell in points (1/72 inches). To define a one-pixel thickness of the border, set this property to 0. Set it to -1 to make the border invisible. By default it is set to 0.

See also:
BorderLeft
BorderRight
BorderTop

2.6.2.2 BorderLeft

```
property BorderLeft: Integer;
```

Description
The *BorderLeft* property defines a thickness of the left border of the cell in points (1/72 inches). To define a one-pixel thickness of the border, set this property to 0. Set it to -1 to make the border invisible. By default it is set to 0.

See also:
BorderBottom
BorderRight
BorderTop

2.6.2.3 BorderRight

```
property BorderRight: Integer;
```

Description
The *BorderRight* property defines a thickness of the right border of the cell in points (1/72 inches). To define a one-pixel thickness of the border, set this property to 0. Set it to -1 to make the border invisible. By default it is set to 0.

See also:
BorderBottom
BorderLeft
BorderTop

2.6.2.4 BorderTop

```
property BorderTop: Integer;
```

Description
The *BorderTop* property defines a thickness of the top border of the cell in points (1/72 inches). To define a one-pixel thickness of the border, set this property to 0. Set it to -1 to make the border invisible. By default it is set to 0.

See also:
BorderBottom
BorderLeft
BorderRight

2.6.2.5 Indent

```
property Indent: Integer;
```

Description
The *Indent* property defines an indentation interval for the first row of the cell in points (1/72 inches). By default it is set to 0.

See also:
BorderLeft
BorderRight
BorderTop

2.6.2.6 Padding

```
property Padding: TRect;
```

Description
The *Padding* property defines cell padding intervals in points (1/72 inches). Use this property to customize left, right, top, and bottom padding intervals separately, or at once using the Rect function. If any of padding intervals is set to -1, then this interval would be inherited from the parent table.

See also:
BorderLeft
BorderRight
BorderTop

2.6.3 Methods

Key methods

AddItem
AddParagraph
AddText
AddTextItem
InternalWidth

2.6.3.1 AddItem

```
procedure AddItem(X, Y: Integer; Item: TRenderAtom);
```

Description
The *AddItem* method places the Item object to the current cell by specified coordinates. Use this method to place objects (tables, images, words, etc.) to a definite place in the cell.

Note: The cell becomes solid if any coordinate differs from 0. A solid cell cannot be split into pages, and no word wrapping is available.

See also:
AddParagraph
AddText
AddTextItem
TRenderAtom Class

2.6.3.2 AddParagraph

```
function AddParagraph: TRenderCell;
```

Description
Use this method to add a paragraph to a cell. Technically, if the cell has no paragraphs, this method creates a table within the cell and returns the first cell in the first row of the created table. If the cell already has paragraphs, the method adds a row to the inner table and returns the first cell in its last row.

Note: If you want to add a mixed content to a cell, always use *AddParagraph* before each new object, i.e. if you want to add two tables and a text to the table cell, use the following code:

```
Cell.AddParagraph;
Cell.AddTextItem(Table1);
Cell.AddParagraph;
Cell.AddText('Text', Font, TextAlignment);
Cell.AddParagraph;
Cell.AddTextItem(Table2);
```

If you will skip the first row, then the second *AddParagraph* will create a new row in the Table1 table and the document appearance will become incorrect. So be careful when using mixed content in a single cell.

See also:
AddItem
AddText
AddTextItem

2.6.3.3 AddText

```
procedure AddText(_Text: WideString; _Font: TFont; _Align: TRenderTextAlign = rtaLeft,
```

Description
Use this method to add a text to the last paragraph of the cell. The *_Font* parameter defines a text font, the *_Align* parameter defines a text alignment. The *_Link* parameter defines a target link for the added text. For more information about linking see the TRenderAtom.LinkName and the TRenderAtom.LinkTarget topics.

See also:
AddItem
AddParagraph
AddTextItem
TRenderAtom Class
TRenderAtom.LinkName
TRenderAtom.LinkTarget
TRenderTextAlign Type

2.6.3.4 AddTextItem

```
procedure AddTextItem(_Item: TRenderAtom);
```

Description
Use this method to add any *TRenderAtom* object (or its descendant) to the last paragraph of the cell as a text word. This object would be processed by the laying out system as a part of text.

See also:
AddItem
AddParagraph
AddText
TRenderAtom Class

2.6.3.5 InternalWidth

```
function InternalWidth: Integer;
```

Description
Use this function to collect an internal width of the cell - a width of a cell work area excluding padding intervals.

See also:
Width

2.7 TRenderImage

2.7.1 TRenderImage Reference

Unit
QPDFRender

Description
The *TRenderImage* class represents an image in a PDF document. Use it to add your images to documents. This class is a TRenderAtom descendant.

2.7.2 Methods

Key methods

Create

2.7.2.1 Create

```
constructor Create(_graphic: TGraphic; _Raster: Boolean = false); overload;
constructor Create(_Width: Integer; _graphic: TGraphic; _Raster: Boolean = false); ove
constructor Create(_Width, _Height: Integer; _graphic: TGraphic; _Raster: Boolean = fa
```

Description

Use this method to create new instances of the TRenderImage class. The *_graphic* parameter is a *TGraphic* object containing an image you want to add. If the *_Raster* parameter is set to *True*, then any JPEG or meta images would be converted to bitmap images. You can also define the image size with *_Width* and *_Height* parameters. If only the *_Width* parameter is set, then the image would be scaled automatically.

2.8 TRenderRow

2.8.1 TRenderRow Reference

Unit
QPDFRender

Description
The *TRenderRow* class represents a table row. This class is a collection of the TRenderCell objects. Use the Cell property to access these objects by their indices. This class is a TRenderAtom descendant.

See also:
TRederCell Class
TRenderTable Class

2.8.2 Properties

Run-time only Key properties

- Cell
- CellCount

2.8.2.1 Cell

```
property Cell[Index: Integer]: TRenderCell;
```

Description
Use the *Cell* property to access the row cells by *Index*. this property is read-only and accessible only at runtime.

See also:
CellCount

2.8.2.2 CellCount

```
property CellCount: Integer;
```

Description
This property returns an amount of elements in the Cell array. This property is read-only and accessible only at runtime.

See also:
Cell

2.9 TRenderSequence

2.9.1 TRenderSequence Reference

Unit
QPDFRender

Description
The *TRenderSequence* class represents a sequence of different objects (TRenderAtom descendants). This class can be used to place a sequence of objects with fixed width and height by defined coordinates. This class is a TRenderAtom descendant.

2.9.2 Methods

Key methods

Create
AddItem
AddText
NewLine

2.9.2.1 AddItem

```
procedure AddItem(_Item: TRenderAtom);
```

Description
Use this method to add items to a sequence.

See also:
AddText
NewLine

2.9.2.2 AddText

```
procedure AddText(_Text: WideString; _Font: TFont; _Link: String = '');
```

Description
Use this method to add a text to a sequence. The *_Font* parameter defines a text font. The *_Link* parameter defines a target link for the added text. For more information about linking see the TRenderAtom.LinkName and the TRenderAtom.LinkTarget topics.

See also:
AddItem
NewLine

2.9.2.3 Create

```
constructor Create(_Text: WideString; _Font: TFont; _Align: TRenderTextAlign = rtaLeft
```

Description

Use this method to create a new instance of the *TRenderSequence* class. The *_Text* parameter defines an initial text in the sequence; this parameter can be set to an empty string if you create a sequence of non-textual objects. The *_Font* parameter defines a text font, the *_Align* parameter defines a text alignment. The *_Link* parameter defines a target link for the added text. For more information about linking see the TRenderAtom.LinkName and the TRenderAtom.LinkTarget topics.

2.9.2.4 NewLine

```
procedure NewLine;
```

Description
This method inserts line break to a sequence.

See also:
AddItem
AddText

2.10 TRenderTable

2.10.1 TRenderTable Reference

Unit
QPDFRender

Description
The *TRenderTable* represents a table in the PDF document. This class contains all the methods and properties needed to manage table rows and cells.

2.10.2 Properties

Run-time only Key properties

- Cell
- RowCount
- Rows
- Border
- HasFooter
- HasHeader
- Padding

2.10.2.1 Border

```
property Border: Integer;
```

Description
The *Border* property defines a thickness of the border for the table in points (1/72 inches). To define a one-pixel thickness of the border, set this property to 0. Set it to -1 to make the border invisible. By default it is set to 0.

See also:
BorderLeft
BorderRight
BorderTop

2.10.2.2 Cell

```
property Cell[x,y: Integer]: TRenderCell;
```

Description
Use the *Cell* property to access table cells by their coordinates. This property is read-only and accessible only at runtime.

See also:
Rows
TRenderCell

2.10.2.3 HasFooter

```
property HasFooter: Boolean;
```

Description
If this property is set to *True*, then the first row of the table would be processed as a table footer. This row would be copied to each page where the table is located.

See also:
HasFooter

2.10.2.4 HasHeader

```
property HasHeader: Boolean;
```

Description
If this property is set to *True*, then the first row of the table would be processed as a table header. This row would be copied to each page where the table is situated.

See also:
HasFooter

2.10.2.5 Padding

```
property Padding: TRect;
```

Description
The *Padding* property defines padding intervals for the table in points (1/72 inches). Use this property to customize left, right, top, and bottom padding intervals separately, or at once using the Rect function. By default these parameters are set to 0.

See also:
BorderLeft
BorderRight
BorderTop

2.10.2.6 RowCount

```
property RowCount: Integer;
```

Description
This property returns an amount of items in the Rows array. This property is read-only and accessible only at runtime.

See also:
Rows

2.10.2.7 Rows

```
property Rows[Index: Integer]: TRenderRow;
```

Description
Use this property to access the table rows by *Index*. The *Rows* property is read-only and accessible only at runtime.

See also:
Cell
RowCount

2.10.3 Methods

Key methods

Create
AddRow
LastRow

2.10.3.1 Create

```
constructor Create(_Widths: array of Integer); overload;
```

Description
Use this method to create new instances of the TRenderTable class. The *_Width* parameter set widths of table columns in points (1/72 inches).

2.10.3.2 AddRow

```
function AddRow: TRenderRow;
```

Description
This method adds a new row in the table and returns it as a result of execution.

See also:
LastRow
TRenderRow

2.10.3.3 LastRow

```
function LastRow: TRenderRow;
```

Description
This method returns the last row of the table.

See also:
AddRow
TRenderRow

2.11 TRenderWord

2.11.1 TRenderWord Reference

Unit
QPDFRender

Description
The *TRenderWord* class represent a single word in a document. This word cannot be wrapped. Use this class to create unbreakable sentences or single words. This class is a TRenderAtom descendant.

2.11.2 Methods

Key methods

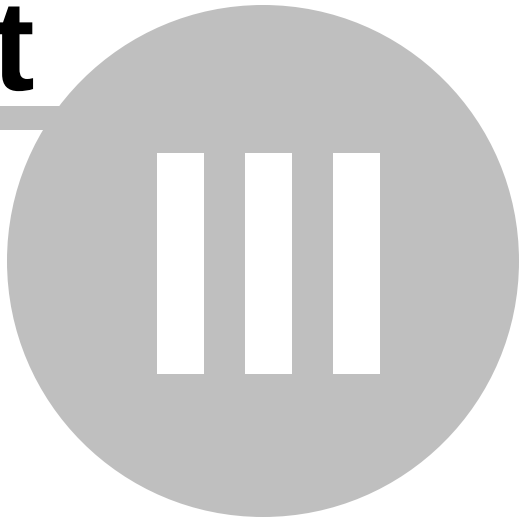
Create

2.11.2.1 Create

```
constructor Create(_Word: WideString; _Font: TFont);
```

Description
Use this method to create a new instance on the TRenderWord class. The *_Word* parameter defines a text, and a *_Font* parameter defines a text font in the document.

Part



3 Units

3.1 QuickPdf unit

Components
TQuickPDF

Classes
TQuickPDFDocument
TQuickPDFContentsItem

3.2 QPDFRender unit

Classes
TRenderAtom
TRenderCell
TRenderRow
TRenderTable
TRenderWord
TRenderSequence
TRenderImage

Types
TRenderTextAlign

3.2.1 TRenderTextAlign type

Unit
QPDFRender

Declaration
```
type TRenderTextAlign = (rtaLeft, rtaRight, rtaCenter, rtaJustify, rtaTerminal);
```

Description
This type defines the text alignment. The following values are available:

Value	Alignment
rtaLeft	Text aligned to left
rtRight	Text aligned to right
rtaCenter	Centered text
rtaJustify	Justified text
rtaTerminal	Spaces are processed as symbols. Use this alignment type to print a space-formatted text

Part

4 Appendix

4.1 LinkName and LinkTarget Example

This example displays the usage of the **LinkName** and the **LinkTarget** properties of the TRenderAtom class and its descendants. The following code creates a link from the 'Click Here' text to the 'Link Position' text in the document footer, and a link from the document footer to the *EMS Software Development* site.

```
procedure TForm1.Button1Click(Sender: TObject);
var
  LinkPosition: TRenderWord;
begin
  LinkPosition := TRenderWord.Create('Link Position',TFont.Create());
  LinkPosition.LinkName := 'position';
  QuickPDF1.Document.Footer.AddItem(0, 0, LinkPosition);
  QuickPDF1.Document.Section[0].AddText('Click Here', TFont.Create(),rtaLeft, 'positio
  QuickPDF1.Document.Footer.LinkTarget := 'http://www.sqlmanager.net/';
  QuickPDF1.GenerateToFile;
end;
```

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