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Developer Reference

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MANUAL  
for Reference & Learning

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Rave revision 7.0.5C



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Prepared: December 2008 in Arizona

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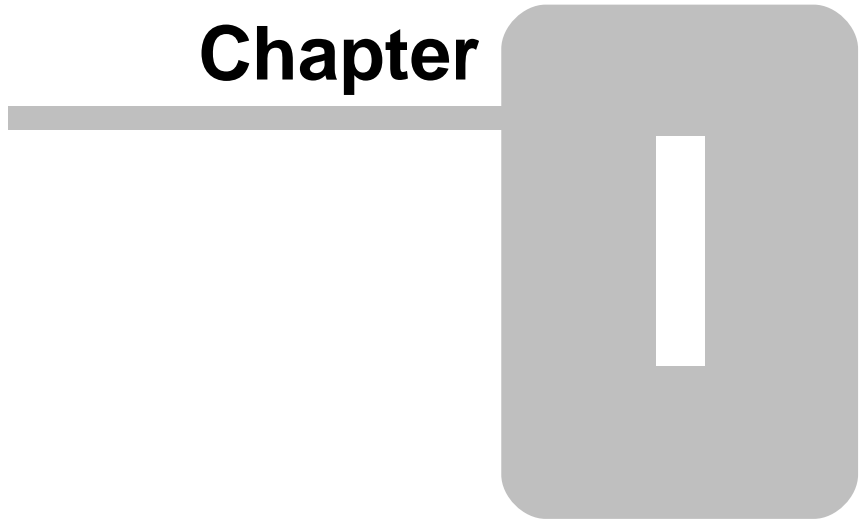
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# Introduction

Chapter



# 1 Introduction

Congratulations! You've made an excellent choice. Rave was designed to give the power of reporting back to the programmer where it belongs. Rave does this by offering a powerful suite of printing components that simplify the task of creating professional reports. Rave does not need any extra .DLL's, .VBX's or .EXE's. Reports can be written entirely with code and compiled in your application for easier distribution and faster execution. Or you can use the visual designer and its components for creating your reports. The visually designed reports are normally stored in one or more file(s) that are saved as an external RAV file. If desired, these report definitions can be saved in the application EXE. Read through this manual and the examples on the accompanying disk and you'll soon be turning nightmare printing jobs into dream reports.

See Rave Reports Developer Guide for information on upgrading from a bundled version of Rave Reports to the BEX version.

[Contacting Nevrona Designs](#)

## 1.1 TechSupport

### Contacting Nevrona Designs

Web page:	<a href="http://www.nevrona.com">http://www.nevrona.com</a>
<b>Sales:</b>	Please email <a href="mailto:sales@nevrona.com">sales@nevrona.com</a> or call (480) 491-5492.
<b>Technical Support:</b>	Please see <a href="http://www.nevrona.com/support">http://www.nevrona.com/support</a> for full information.
News Groups:	<a href="news://news.nevrona.com">news://news.nevrona.com</a>
Mailing Address:	5301 S Superstition Mountain Dr Ste 104-345 Gold Canyon AZ 85218-1917
Voice Phone:	(480) 491-5492
Fax:	(602) 296-0189

Please include both your Rave version and serial number in all messages to Nevrona. If it is a technical support request then it would also help if you included your operating system and language you are using.

Operating Systems including SP (service pack level)

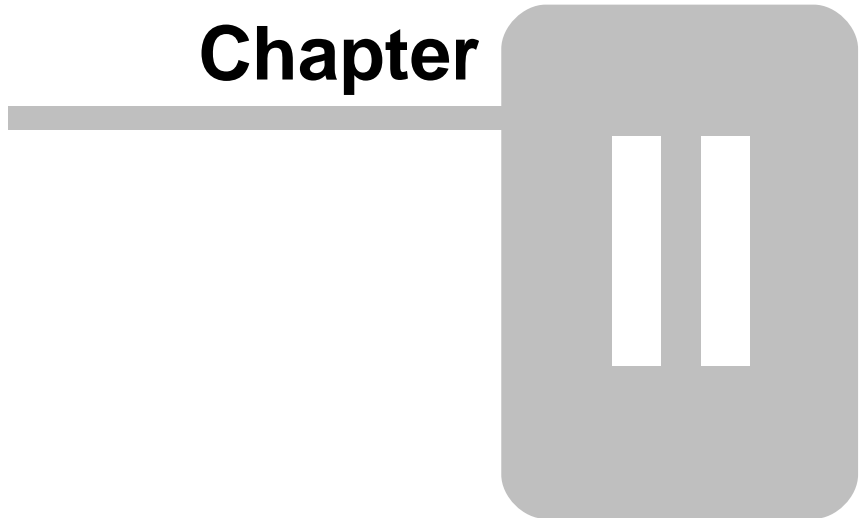
Windows	Linux	.NET	other
---------	-------	------	-------

Language including version and service pack

Delphi	C++Builder	VB	C#	other
--------	------------	----	----	-------

# Classes

Chapter



## 2 Classes

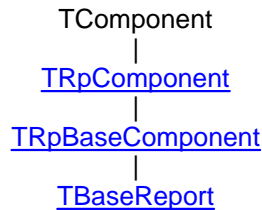
A class, or class type, defines a structure consisting of fields, methods, and properties. Instances of a class type are called objects. The fields, methods, and properties of a class are called its components or members.

### 2.1 TBaseReport

#### Unit

RpBase

#### Hierarchy



#### Description

TBaseReport is the primary ancestor class for all report generation classes. TBaseReport defines the methods, properties and events used by all output components. While most interaction with TBaseReport is for code-based reporting, all of the visual components in Rave are built to use the functionality stored in this cornerstone class of Rave.

#### Events Derived from TBaseReport

[OnAfterPrint](#), [OnBeforePrint](#), [OnDecodeImage](#), [OnNewColumn](#), [OnNewPage](#), [OnPrint](#), [OnPrintFooter](#), [OnPrintHeader](#), [OnPrintPage](#)

#### Methods Derived from TBaseReport

[Abort](#), [AbortPage](#), [AdjustLine](#), [AllowAll](#), [AllowPreviewOnly](#), [AllowPrinterOnly](#), [Arc](#), [AssignFont](#), [BrushCopy](#), [CalcGraphicHeight](#), [CalcGraphicWidth](#), [Chord](#), [ClearAllTabs](#), [ClearColumns](#), [ClearTabs](#), [CopyRect](#), [CR](#), [Create](#), [CreateBrush](#), [CreateFont](#), [CreatePen](#), [CreatePoint](#), [CreateRect](#), [Destroy](#), [DrawFocusRect](#), [Draw](#), [Ellipse](#), [EndLink](#), [Execute](#), [FillRect](#), [Finish](#), [FinishTabBox](#), [FloodFill](#), [FrameRect](#), [GetMemoLine](#), [GetNextLine](#), [GetTab](#), [GotoFooter](#), [GotoHeader](#), [GotoXY](#), [GraphicFieldToBitmap](#), [Home](#), [LF](#), [LinesLeft](#), [LineTo](#), [Macro](#), [MakeLink](#), [MemoLines](#), [MoveTo](#), [NewColumn](#), [NewLine](#), [NewPage](#), [NoPrinters](#), [Pie](#), [Polygon](#), [Polyline](#), [PopFont](#), [PopPos](#), [PopTabs](#), [Print](#), [PrintBitmap](#), [PrintBitmapRect](#), [PrintBlock](#), [PrintCenter](#), [PrintCharJustify](#), [PrintData](#), [PrintDataStream](#), [PrintFooter](#), [PrintHeader](#), [PrintImageRect](#), [PrintJustify](#), [PrintLeft](#), [PrintLn](#), [PrintMemo](#), [PrintRight](#), [PrintTab](#), [PrintXY](#), [PushFont](#), [PushPos](#), [PushTabs](#), [RecoverPrinter](#), [Rectangle](#), [RegisterGraphic](#), [ReleasePrinter](#), [Reset](#), [ResetLineHeight](#), [ResetPrinter](#), [ResetSection](#), [ResetTabs](#), [RestoreFont](#), [RestorePos](#), [RestoreTabs](#), [ReuseGraphic](#), [RoundRect](#), [SaveFont](#), [SavePos](#), [SaveTabs](#), [SelectBin](#), [SelectPaper](#), [SelectPrinter](#), [SetBrush](#), [SetColumns](#), [SetColumnWidth](#), [SetFont](#), [SetPaperSize](#), [SetPen](#), [SetPIVar](#), [SetTab](#), [SetTopOfPage](#), [ShadeToColor](#), [ShowPrintDialog](#), [ShowPrinterSetupDialog](#), [Start](#), [StartLink](#), [StretchDraw](#), [SupportBin](#), [SupportCollate](#), [SupportDuplex](#), [SupportOrientation](#), [SupportPaper](#), [Tab](#), [TabEnd](#), [TabStart](#), [TabWidth](#), [TextRect](#), [TextWidth](#), [UnregisterGraphic](#), [UpdateStatus](#), [XD2U](#), [XI2D](#), [XI2U](#), [XU2D](#), [XU2I](#), [YD2I](#), [YD2U](#), [YI2D](#), [YI2U](#), [YU2D](#), [YU2I](#)

#### Properties Derived from TBaseReport

[Aborted](#), [AccuracyMethod](#), [AscentHeight](#), [Bins](#), [BKColor](#), [Bold](#), [BottomWaste](#), [BoxLineColor](#), [Canvas](#), [Collate](#), [ColumnEnd](#), [ColumnLinesLeft](#), [ColumnNum](#), [Columns](#), [ColumnStart](#), [ColumnWidth](#), [Copies](#), [CurrentPage](#), [CurrentPass](#), [CursorXPos](#), [CursorYPos](#), [DescentHeight](#), [DeviceName](#), [DevMode](#), [DriverName](#), [Duplex](#), [FileName](#), [FirstPage](#), [FontAlign](#), [FontBaseline](#), [FontBottom](#), [FontCharset](#), [FontColor](#), [FontHandle](#), [FontHeight](#), [FontName](#), [FontPitch](#), [FontRotation](#), [Fonts](#), [FontSize](#), [FontTop](#), [FontWidth](#), [FrameMode](#), [GridVert](#), [Italic](#), [LastPage](#), [LeftWaste](#), [LineBottom](#), [LineHeight](#), [LineHeightMethod](#), [LineMiddle](#), [LineNum](#), [LinesPerInch](#), [LineTop](#), [MacroData](#), [MarginBottom](#), [MarginLeft](#), [MarginRight](#), [MarginTop](#), [MaxCopies](#), [NoBufferLine](#), [NoNTColorFix](#), [NoPrinterPageHeight](#), [NoPrinterPageWidth](#), [Orientation](#), [OriginX](#), [OriginY](#), [OutputInvalid](#), [OutputName](#), [PageHeight](#), [PageInvalid](#), [PageWidth](#), [Papers](#), [PIVar](#), [Port](#), [PrinterIndex](#), [Printers](#), [Printing](#), [ReportDateTime](#), [RightWaste](#), [ScaleX](#), [ScaleY](#), [SectionBottom](#), [SectionLeft](#), [SectionRight](#), [SectionTop](#), [Selection](#), [ShadowDepth](#), [StatusFormat](#), [StatusLabel](#), [StatusText](#), [Stream](#), [StreamMode](#), [Strikeout](#), [Subscript](#), [Superscript](#), [TabColor](#), [TabJustify](#), [TabShade](#), [TextBKMode](#), [Title](#), [TopWaste](#), [TotalPasses](#),



[TransparentBitmaps](#), [TruncateText](#), [Underline](#), [Units](#), [UnitsFactor](#), [XDPI](#), [XPos](#), [YDPI](#), [YPos](#)

## Properties Derived from TRpComponent

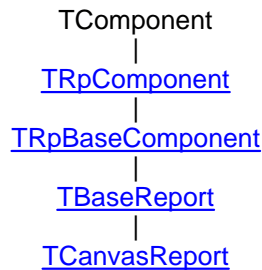
[Version](#)

## 2.2 TCanvasReport

### Unit

RpCanvas

### Hierarchy



### Description

TCanvasReport attaches many of the abstract methods in TBaseReport to TCanvas methods and is used by all output components that write to a canvas. TRvRenderPrinter (printer canvas) and TRvRenderPreview (preview canvas) are two examples of components that descend from TCanvasReport.

### Events Derived from TBaseReport

[OnAfterPrint](#), [OnBeforePrint](#), [OnDecodeImage](#), [OnNewColumn](#), [OnNewPage](#), [OnPrint](#), [OnPrintFooter](#), [OnPrintHeader](#), [OnPrintPage](#)

### Methods Derived from TBaseReport

[Abort](#), [AbortPage](#), [AdjustLine](#), [AllowAll](#), [AllowPreviewOnly](#), [AllowPrinterOnly](#), [Arc](#), [AssignFont](#), [BrushCopy](#), [CalcGraphicHeight](#), [CalcGraphicWidth](#), [Chord](#), [ClearAllTabs](#), [ClearColumns](#), [ClearTabs](#), [CopyRect](#), [CR](#), [Create](#), [CreateBrush](#), [CreateFont](#), [CreatePen](#), [CreatePoint](#), [CreateRect](#), [Destroy](#), [DrawFocusRect](#), [Draw](#), [Ellipse](#), [Execute](#), [FillRect](#), [Finish](#), [FinishTabBox](#), [FloodFill](#), [FrameRect](#), [GetMemoLine](#), [GetNextLine](#), [GetTab](#), [GotoFooter](#), [GotoHeader](#), [GotoXY](#), [GraphicFieldToBitmap](#), [Home](#), [LF](#), [LinesLeft](#), [LineTo](#), [Macro](#), [MemoLines](#), [MoveTo](#), [NewColumn](#), [NewLine](#), [NewPage](#), [NoPrinters](#), [Pie](#), [Polygon](#), [Polyline](#), [PopFont](#), [PopPos](#), [PopTabs](#), [Print](#), [PrintBitmap](#), [PrintBitmapRect](#), [PrintBlock](#), [PrintCenter](#), [PrintCharJustify](#), [PrintData](#), [PrintDataStream](#), [PrintFooter](#), [PrintHeader](#), [PrintImageRect](#), [PrintJustify](#), [PrintLeft](#), [PrintLn](#), [PrintMemo](#), [PrintRight](#), [PrintTab](#), [PrintXY](#), [PushFont](#), [PushPos](#), [PushTabs](#), [RecoverPrinter](#), [Rectangle](#), [RegisterGraphic](#), [ReleasePrinter](#), [Reset](#), [ResetLineHeight](#), [ResetPrinter](#), [ResetSection](#), [ResetTabs](#), [RestoreFont](#), [RestorePos](#), [RestoreTabs](#), [ReuseGraphic](#), [RoundRect](#), [SaveFont](#), [SavePos](#), [SaveTabs](#), [SelectBin](#), [SelectPaper](#), [SetBrush](#), [SetColumns](#), [SetColumnWidth](#), [SetFont](#), [SetPaperSize](#), [SetPen](#), [SetPIVar](#), [SetTab](#), [SetTopOfPage](#), [ShadeToColor](#), [ShowPrintDialog](#), [ShowPrinterSetupDialog](#), [Start](#), [StretchDraw](#), [SupportBin](#), [SupportCollate](#), [SupportDuplex](#), [SupportOrientation](#), [SupportPaper](#), [Tab](#), [TabEnd](#), [TabStart](#), [TabWidth](#), [TextRect](#), [TextWidth](#), [UnregisterGraphic](#), [UpdateStatus](#), [XD2U](#), [XI2D](#), [XI2U](#), [XU2D](#), [XU2I](#), [YD2I](#), [YD2U](#), [YI2D](#), [YI2U](#), [YU2D](#), [YU2I](#)

### Properties Derived from TBaseReport

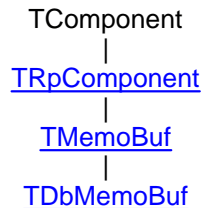
[Aborted](#), [AccuracyMethod](#), [AscentHeight](#), [Bins](#), [BKColor](#), [Bold](#), [BottomWaste](#), [BoxLineColor](#), [Canvas](#), [Collate](#), [ColumnEnd](#), [ColumnLinesLeft](#), [ColumnNum](#), [Columns](#), [ColumnStart](#), [ColumnWidth](#), [Copies](#), [CurrentPage](#), [CurrentPass](#), [CursorXPos](#), [CursorYPos](#), [DescentHeight](#), [DeviceName](#), [DevMode](#), [DriverName](#), [Duplex](#), [FileName](#), [FirstPage](#), [FontAlign](#), [FontBaseline](#), [FontBottom](#), [FontCharset](#), [FontColor](#), [FontHandle](#), [FontHeight](#), [FontName](#), [FontPitch](#), [FontRotation](#), [Fonts](#), [FontSize](#), [FontTop](#), [FontWidth](#), [FrameMode](#), [GridVert](#), [Italic](#), [LastPage](#), [LeftWaste](#), [LineBottom](#), [LineHeight](#), [LineHeightMethod](#), [LineMiddle](#), [LineNum](#), [LinesPerInch](#), [LineTop](#), [MacroData](#), [MarginBottom](#), [MarginLeft](#), [MarginRight](#), [MarginTop](#), [MaxCopies](#), [NoBufferLine](#), [NoNTColorFix](#), [NoPrinterPageHeight](#), [NoPrinterPageWidth](#), [Orientation](#), [OriginX](#), [OriginY](#), [OutputInvalid](#), [OutputName](#), [PageHeight](#), [PageInvalid](#), [PageWidth](#), [Papers](#), [PIVar](#), [Port](#), [PrinterIndex](#), [Printers](#), [Printing](#), [ReportDateTime](#), [RightWaste](#), [ScaleX](#), [ScaleY](#), [SectionBottom](#), [SectionLeft](#), [SectionRight](#), [SectionTop](#), [Selection](#), [ShadowDepth](#), [StatusFormat](#), [StatusLabel](#), [StatusText](#), [Stream](#), [StreamMode](#), [Strikeout](#), [Subscript](#), [Superscript](#), [TabColor](#), [TabJustify](#), [TabShade](#), [TextBKMode](#), [Title](#), [TopWaste](#), [TotalPasses](#), [TransparentBitmaps](#), [TruncateText](#), [Underline](#), [Units](#), [UnitsFactor](#), [XDPI](#), [XPos](#), [YDPI](#), [YPos](#)

**Properties Derived from TRpComponent**[Version](#)

## 2.3 TDbMemoBuf

**Unit**

RpDBUtil

**Hierarchy****Description**

This class adds TMemoField processing to the TMemoBuf class through the *Field* and *RTFField* properties.

**Methods Derived from TMemoBuf**

[Append](#), [AppendMemoBuf](#), [ConstraintHeightLeft](#), [Delete](#), [Empty](#), [FreeSaved](#), [InsertMemoBuf](#), [Insert](#), [LoadFromFile](#), [LoadFromStream](#), [MemoHeightLeft](#), [MemoLinesLeft](#), [PrintHeight](#), [PrintLines](#), [ReplaceAll](#), [Reset](#), [RestoreBuffer](#), [RestoreState](#), [RTFLoadFromFile](#), [RTFLoadFromStream](#), [SaveBuffer](#), [SaveState](#), [SaveToStream](#), [SearchFirst](#), [SearchNext](#), [SetData](#)

**Properties Derived from TMemoBuf**

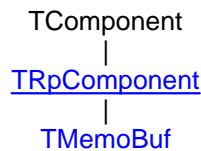
[BaseReport](#), [Buffer](#), [BufferInc](#), [Field](#), [Justify](#), [MaxSize](#), [Memo](#), [NoCRLF](#), [NoNewLine](#), [Pos](#), [PrintEnd](#), [PrintStart](#), [RichEdit](#), [RTFField](#), [RTFText](#), [Size](#), [Text](#)

**Properties Derived from TRpComponent**[Version](#)

## 2.4 TMemoBuf

**Unit**

RpMemo

**Hierarchy****Description**

TMemoBuf provides access to the code based word wrapping functionality of Rave. TMemoBuf allows text to be loaded into it via several different properties and methods. Output can then be processed using methods such as *PrintLines* or *PrintHeight*.

**Methods Derived from TMemoBuf**

[Append](#), [AppendMemoBuf](#), [ConstraintHeightLeft](#), [Delete](#), [Empty](#), [FreeSaved](#), [InsertMemoBuf](#), [Insert](#), [LoadFromFile](#), [LoadFromStream](#), [MemoHeightLeft](#), [MemoLinesLeft](#), [PrintHeight](#), [PrintLines](#), [ReplaceAll](#), [Reset](#), [RestoreBuffer](#), [RestoreState](#), [RTFLoadFromFile](#), [RTFLoadFromStream](#), [SaveBuffer](#), [SaveState](#), [SaveToStream](#), [SearchFirst](#), [SearchNext](#), [SetData](#)

**Properties Derived from TMemoBuf**

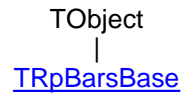
[BaseReport](#), [Buffer](#), [BufferInc](#), [Field](#), [Justify](#), [MaxSize](#), [Memo](#), [NoCRLF](#), [NoNewLine](#), [Pos](#), [PrintEnd](#), [PrintStart](#), [RichEdit](#), [RTFField](#), [RTFText](#), [Size](#), [Text](#)

**Properties Derived from TRpComponent**[Version](#)

## 2.5 TRpBarsBase

**Unit**

RpBars

**Hierarchy****Description**

This is the base class for all bar code output classes and provides basic bar processing and drawing functionality.

**Methods Derived from TRpBarsBase**

[Create](#), [IsValidChar](#), [Print](#), [PrintFimA](#), [PrintFimB](#), [PrintFimC](#), [PrintXY](#)

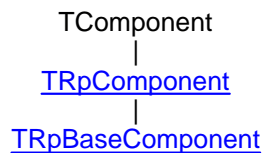
**Properties Derived from TRpBarsBase**

[BarBottom](#), [BarCodeJustify](#), [BarCodeRotation](#), [BarHeight](#), [BarTop](#), [BarWidth](#), [BaseReport](#), [Bottom](#), [Center](#), [CheckSum](#), [CodePage](#), [Extended](#), [ExtendedText](#), [Height](#), [Left](#), [Position](#), [PrintChecksum](#), [PrintReadable](#), [PrintTop](#), [ReadableHeight](#), [Right](#), [Text](#), [TextJustify](#), [Top](#), [UseChecksum](#), [WideFactor](#), [Width](#)

## 2.6 TRpBaseComponent

**Unit**

RpBase

**Hierarchy****Description**

TRpBaseComponent is the ancestor class for all output related components in Rave. Non-output related components will descend from TRpComponent instead of TRpBaseComponent.

**Property Derived from TRpComponent**[Version](#)

## 2.7 TRpComponent

**Unit**

RpDefine

**Hierarchy****Description**

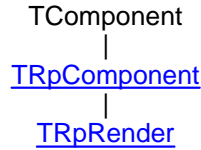
This is the base class for all Rave components. TRpComponent defines the Version property.

**Properties Derived from TRpComponent**[Version](#)

## 2.8 TRpRender

**Unit**

RpRender

**Hierarchy****Description**

This is the base class for all rendering components and provides basic connectivity to the NDR conversion functions and output methods.

**Properties Derived from TRpRender**

[Active](#), [BufferDocument](#), [CacheDir](#), [DisplayName](#), [ImageQuality](#), [MetafileDPI](#), [OnCompress](#), [ServerMode](#), [UseCompression](#)

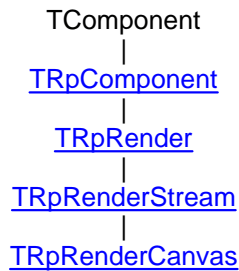
**Properties Derived from TRpComponent**

[Version](#)

## 2.9 TRpRenderCanvas

**Unit**

RpRenderCanvas

**Hierarchy****Description**

This class provides basic connectivity to the output methods to a TCanvas object. TRvRenderPrinter and TRvRenderPreview descend from this class.

**Derived from TRpRender**

[Active](#), [CacheDir](#), [DisplayName](#), [ImageQuality](#), [MetafileDPI](#), [OnCompress](#), [ServerMode](#), [UseCompression](#)

**Derived from TRpComponent**

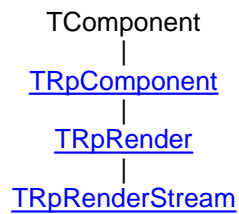
[Version](#)

## 2.10 TRpRenderStream

### Unit

RpRender

### Hierarchy



### Description

This class provides basic streaming functionality to the basic TRpRender class.

### Derived from TRpRender

[Active](#), [CacheDir](#), [DisplayName](#), [ImageQuality](#), [MetafileDPI](#), [OnCompress](#), [ServerMode](#), [UseCompression](#)

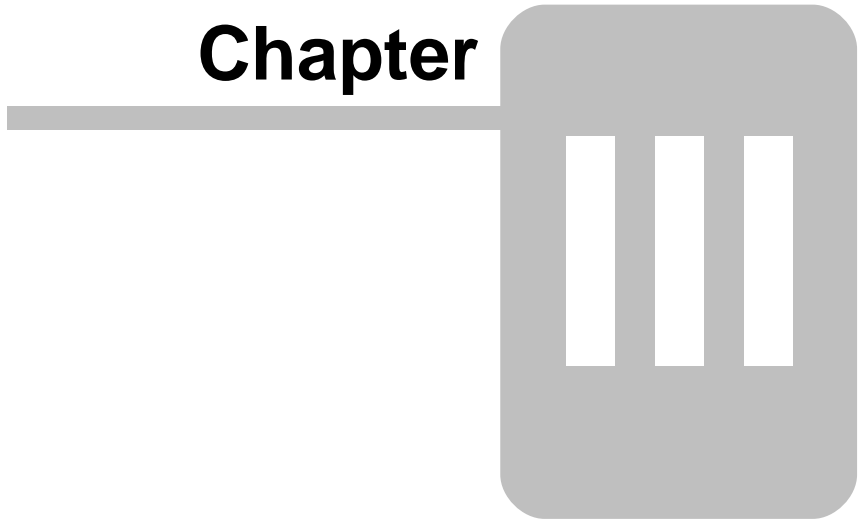
### Derived from TRpComponent

[Version](#)



# Components

Chapter



## 3 Components

A component is defined as something placed on the page, such as a barcode, line, region, shape, etc. The components available in Rave can be found on any of the component toolbars (e.g. Standard, Drawing, Report and Barcode).

The toolbars are made available by clicking on the Tools menu followed by the Toolbars menu. The available toolbars will then be shown in another submenu and will have check marks showing the toolbars that are currently visible. Once a component toolbar is active and selected, a component can be selected and placed on the page. The Page is a special base component, and more details are given in the Page Designer chapter.

Special properties are associated with each component. These component properties can be seen using the Property Panel. Set the properties of each component to the desired setting by either typing the setting in a text dialog, using a drop down menu, or by using the special ellipse (...) button to get to the property dialog box.

There are many properties associated with each component, but don't be intimidated by the number of properties. The properties are there to allow adjustment for a component's behavior and in many cases the default settings are adequate. Also, please note that the number of properties listed with each component may vary depending on the user level that has been set under preferences. To adjust the user's level, please visit the environment tab in the preferences dialog. See the Preferences chapter for more details.

Since there are many properties associated with each component, this chapter will focus mainly on the component toolbars rather than their associated properties. Property details are listed in Appendix D. The current chapter provides a good overview of what each component toolbar does without too much detail about the property specifics. Do note that many components share common properties, so once the common properties are learned for one component, they can be applied to other properties.

Components are also defined by their relationship relative to other components. This relationship is defined by a parent-child relationship. When a text component is placed on the page, the parent is the page component and the child is the text component. Another way to look at it is that the page contains the text component, thus the parent component contains the child component.

The parent-child relationship also extends into the positioning of the components. All positions are relative to the upper left corner of the parent, thus the Left property and Top property are used to define the relative position of a component. If the parent is like a Section component, which can contain any number of other components; then as the parent component is moved around, it's children components will move accordingly. If the parent component is deleted, all of its children will also be deleted.

### 3.1 TRvCustomConnection

Unit

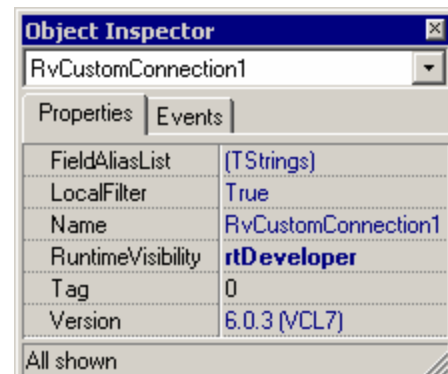


RpCon

Hierarchy

```

TComponent
|
TRpComponent
|
TRvCustomConnection
  
```





**Description**

Through the events in the data connection components, you can customize how the data is sent to your Rave reports. For non-database data using the TRvCustomConnection component, you will need to provide all access to your data through these events. For database data connection components such as TRvDataSetConnection, you will normally only want to override the OnValidateRow event.

**NOTE:**

The TRvCustomConnection component has a DataIndex and DataRows property of type integer. These are provided for use by custom connector events and if used, can alleviate the need to define the OnFirst, OnNext and OnEOF events. DataIndex is intended to be used as the data cursor position with 0 representing the first row. DataRows is intended to be used as the row count of the data. For example, if you were defining a custom data connection for a memory array, you would only need to initialize the Connection.DataRows property to the number of elements in the memory array and then let Rave handle the OnFirst, OnNext and OnEOF events. In the OnGetRow event you would then access the Connection.DataIndex property to determine which array element to pass back (remember that DataIndex is 0 for the first row).

**Properties from TRvCustomConnection**

[FieldAliasList](#) [LocalFilter](#) [RuntimeVisibility](#)

**Properties from TRpComponent**

[Version](#)

**Methods from TRvCustomConnection**

[WriteBCDData](#) [WriteBlobData](#) [WriteBoolData](#) [WriteCurrData](#) [WriteDateTime](#) [WriteFloatData](#) [WriteIntData](#)  
[WriteNullData](#) [WriteStrData](#)

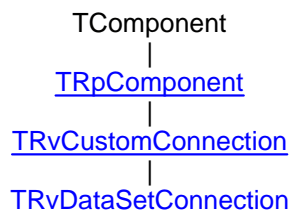
**Events from TRvCustomConnection**

[OnEOF](#) [OnFirst](#) [OnGetCols](#) [OnGetRow](#) [OnGetSorts](#) [OnNext](#) [OnOpen](#) [OnRestore](#) [OnSetFilter](#) [OnSetSort](#)  
[OnValidateRow](#)

## 3.2 TRvDataSetConnection

**Unit**

RpConDS

**Hierarchy****Description**

Data connection components - Rave uses data from your application. This is accomplished with data connection components, TRvCustomConnection, TRvDataSetConnection, TRvTableConnection and TRvQueryConnection to provide a bridge between the data in your application and the Rave visual components.

**TRvCustomConnection** component can be used to access **non-database data** such as memory arrays or binary record files.

**TRvDataSetConnection** can be used to provide access to **TDataSet** descendent components including 3rd party dataset components.

**TRvTableConnection** is to be used specifically with **TTable** components or their descendent's respectively.

**TRvQueryConnection** is to be used specifically with **TQuery** components or their descendent's respectively.

**Events Derived from TRvCustomConnection**

[OnEOF](#), [OnFirst](#), [OnGetCols](#), [OnGetRow](#), [OnGetSorts](#), [OnNext](#), [OnOpen](#), [OnRestore](#), [OnSetFilter](#), [OnSetSort](#), [OnValidateRow](#)

**Methods Derived from TRvCustomConnection**

[WriteBCDDData](#), [WriteBlobData](#), [WriteBoolData](#), [WriteCurrData](#), [WriteDateTime](#), [WriteFloatData](#), [WriteIntData](#), [WriteNullData](#), [WriteStrData](#)

**Properties Derived from TRvDataSetConnection**

[DataSet](#)

**Properties Derived from TRvCustomConnection**

[FieldAliasList](#), [LocalFilter](#), [RuntimeVisibility](#)

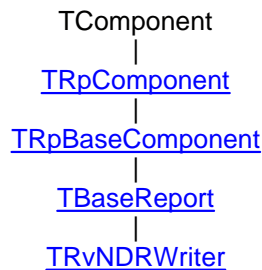
**Properties Derived from TRpComponent**

[Version](#)

### 3.3 TRvNDRWriter

**Unit**

RpFiler

**Hierarchy****Description**

The TRvNDRWriter component is used in conjunction with TRvRenderPrinter and TRvRenderPreview to store a report in a special binary format until it is ready to be printed or previewed.

**Properties and Events**

TRvNDRWriter has properties and events to control file output. AccuracyMethod determines the way that strings are output for more accurate print preview. FileName is the file that will be created if StreamMode is anything other than smUser. Use smFile for large reports (>10 pages or lots of bitmaps) and smMemory for smaller reports (< 10 pages). To send a report to a file call the Execute method.

**NOTE:**

The binary file that TRvNDRWriter creates does not contain actual printer commands (such as PCL) but rather a custom tokenized version of the report. This format is not officially documented but the source code that writes the file is located in RpFBASE.PAS and RpFILER.PAS and the source code that reads the file is located in RpFPRINT.PAS. These files should be located in \RAVE\SOURCE.

**Events Derived from TBaseReport**

[OnAfterPrint](#), [OnBeforePrint](#), [OnDecodeImage](#), [OnNewColumn](#), [OnNewPage](#), [OnPrint](#), [OnPrintFooter](#), [OnPrintHeader](#), [OnPrintPage](#)

**Methods Derived from TBaseReport**

[Abort](#), [AbortPage](#), [AdjustLine](#), [AllowAll](#), [AllowPreviewOnly](#), [AllowPrinterOnly](#), [Arc](#), [AssignFont](#), [BrushCopy](#), [CalcGraphicHeight](#), [CalcGraphicWidth](#), [Chord](#), [ClearAllTabs](#), [ClearColumns](#), [ClearTabs](#), [CopyRect](#), [CR](#), [Create](#), [CreateBrush](#), [CreateFont](#), [CreatePen](#), [CreatePoint](#), [CreateRect](#), [Destroy](#), [DrawFocusRect](#), [Draw](#), [Ellipse](#), [Execute](#), [FillRect](#), [Finish](#), [FinishTabBox](#), [FloodFill](#), [FrameRect](#), [GetMemoLine](#), [GetNextLine](#), [GetTab](#), [GotoFooter](#), [GotoHeader](#), [GotoXY](#), [GraphicFieldToBitmap](#), [Home](#), [LF](#), [LinesLeft](#), [LineTo](#), [Macro](#), [MemoLines](#), [MoveTo](#), [NewColumn](#), [NewLine](#), [NewPage](#), [NoPrinters](#), [Pie](#), [Polygon](#), [Polyline](#), [PopFont](#), [PopPos](#), [PopTabs](#), [Print](#), [PrintBitmap](#), [PrintBitmapRect](#), [PrintBlock](#), [PrintCenter](#), [PrintCharJustify](#), [PrintData](#), [PrintDataStream](#), [PrintFooter](#), [PrintHeader](#), [PrintImageRect](#), [PrintJustify](#), [PrintLeft](#), [PrintLn](#), [PrintMemo](#), [PrintRight](#), [PrintTab](#), [PrintXY](#), [PushFont](#), [PushPos](#), [PushTabs](#), [RecoverPrinter](#), [Rectangle](#), [RegisterGraphic](#), [ReleasePrinter](#), [Reset](#), [ResetLineHeight](#), [ResetPrinter](#), [ResetSection](#), [ResetTabs](#), [RestoreFont](#), [RestorePos](#), [RestoreTabs](#), [ReuseGraphic](#), [RoundRect](#), [SaveFont](#), [SavePos](#), [SaveTabs](#), [SelectBin](#), [SelectPaper](#), [SelectPrinter](#), [SetBrush](#), [SetColumns](#), [SetColumnWidth](#), [SetFont](#), [SetPaperSize](#), [SetPen](#), [SetPIVar](#), [SetTab](#), [SetTopOfPage](#), [ShadeToColor](#), [ShowPrintDialog](#), [ShowPrinterSetupDialog](#), [Start](#), [StretchDraw](#), [SupportBin](#), [SupportCollate](#), [SupportDuplex](#), [SupportOrientation](#), [SupportPaper](#), [Tab](#), [TabEnd](#), [TabStart](#), [TabWidth](#), [TextRect](#), [TextWidth](#), [UnregisterGraphic](#), [UpdateStatus](#), [XD2U](#), [XI2D](#), [XI2U](#), [XU2D](#), [XU2I](#), [YD2I](#), [YD2U](#), [YI2D](#), [YI2U](#), [YU2D](#), [YU2I](#)

**Properties Derived from TBaseReport**

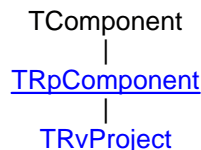
[Aborted](#), [AccuracyMethod](#), [AscentHeight](#), [Bins](#), [BKColor](#), [Bold](#), [BottomWaste](#), [BoxLineColor](#), [Canvas](#), [Collate](#), [ColumnEnd](#), [ColumnLinesLeft](#), [ColumnNum](#), [Columns](#), [ColumnStart](#), [ColumnWidth](#), [Copies](#), [CurrentPage](#), [CurrentPass](#), [CursorXPos](#), [CursorYPos](#), [DescentHeight](#), [DeviceName](#), [DevMode](#), [DriverName](#), [Duplex](#), [FileName](#), [FirstPage](#), [FontAlign](#), [FontBaseline](#), [FontBottom](#), [FontCharset](#), [FontColor](#), [FontHandle](#), [FontHeight](#), [FontName](#), [FontPitch](#), [FontRotation](#), [Fonts](#), [FontSize](#), [FontTop](#), [FontWidth](#), [FrameMode](#), [GridVert](#), [Italic](#), [LastPage](#), [LeftWaste](#), [LineBottom](#), [LineHeight](#), [LineHeightMethod](#), [LineMiddle](#), [LineNum](#), [LinesPerInch](#), [LineTop](#), [MacroData](#), [MarginBottom](#), [MarginLeft](#), [MarginRight](#), [MarginTop](#), [MaxCopies](#), [NoBufferLine](#), [NoNTColorFix](#), [NoPrinterPageHeight](#), [NoPrinterPageWidth](#), [Orientation](#), [OriginX](#), [OriginY](#), [OutputInvalid](#), [OutputName](#), [PageHeight](#), [PageInvalid](#), [PageWidth](#), [Papers](#), [PIVar](#), [Port](#), [PrinterIndex](#), [Printers](#), [Printing](#), [ReportDateTime](#), [RightWaste](#), [ScaleX](#), [ScaleY](#), [SectionBottom](#), [SectionLeft](#), [SectionRight](#), [SectionTop](#), [Selection](#), [ShadowDepth](#), [StatusFormat](#), [StatusLabel](#), [StatusText](#), [Stream](#), [StreamMode](#), [Strikeout](#), [Subscript](#), [Superscript](#), [TabColor](#), [TabJustify](#), [TabShade](#), [TextBKMode](#), [Title](#), [TopWaste](#), [TotalPasses](#), [TransparentBitmaps](#), [TruncateText](#), [Underline](#), [Units](#), [UnitsFactor](#), [XDPI](#), [XPos](#), [YDPI](#), [YPos](#)

**Properties Derived from TRpComponent**

[Version](#)

**3.4 TRvProject****Unit**

RpRave

**Hierarchy****Description**

The TRvProject component is the key to providing access to the visual reports you create with Rave. Normally you will have a single TRvProject component in your application, although you can have more if necessary. The ProjectFile property defines the report project file that your application uses to hold the report definitions. This file will have an extension of .RAV and even though it is a single file, it can contain as many report definitions as you need. When the Open method of TRaveReport is called, this report project file will be loaded into memory to prepare for printing or end-user design changes. You should make sure that the Close method is called when you no longer need the report project or before you close your application. If any changes are made to the report project you can save them by calling the Save method. TRvProject also has several properties and methods, such as SelectReport, GetReportList, ReportDescToMemo, ReportDesc, ReportName and ReportFullName to make it easy to create an efficient interface for your users. See the RAVEDEMO project for a good example of how to define a Rave interface.

The Engine property of TRvProject allows you to define an alternate output engine to be used. This allows you to output Rave reports through the Text, RTF or HTML filer components or to define custom setup and preview screens through the TRvSystem component.

#### TRvProject Events

[OnAfterClose](#), [OnAfterOpen](#), [OnBeforeClose](#), [OnBeforeOpen](#), [OnCreate](#), [OnDesignerSave](#), [OnDesignerSaveAs](#), [OnDesignerShow](#), [OnDestroy](#)

#### TRvProject Methods

[ClearRaveBlob](#), [Close](#), [Design](#), [DesignReport](#), [Execute](#), [ExecuteReport](#), [GetParam](#), [GetReportCategoryList](#), [GetReportList](#), [LoadFromFile](#), [LoadFromStream](#), [LoadRaveBlob](#), [Open](#), [ReportDescToMemo](#), [Save](#), [SaveRaveBlob](#), [SaveToFile](#), [SaveToStream](#), [SelectReport](#), [SetParam](#)

#### TRvProject Properties

[Active](#), [DLLFile](#), [Engine](#), [LoadDesigner](#), [ProjectFile](#), [RaveBlobDateTime](#), [ReportDesc](#), [ReportFullName](#), [ReportName](#), [StoreRAV](#)

#### TRpComponent Properties

[Version](#)

## 3.5 TRvQueryConnection

#### Unit



RpConBDE

#### Hierarchy

TRvCustomDataSetConnection



[TRvQueryConnection](#)

#### Description

Data connection components - Rave uses data from your application. This is accomplished with data connection components, TRvCustomConnection, TRvDataSetConnection, TRvTableConnection and TRvQueryConnection to provide a bridge between the data in your application and the Rave visual components.

**TRvCustomConnection** component can be used to access **non-database data** such as memory arrays or binary record files.

**TRvDataSetConnection** can be used to provide access to **TDataSet** descendent components including 3rd party dataset components.

**TRvTableConnection** is to be used specifically with **TTable** components or their descendent's respectively.

**TRvQueryConnection** is to be used specifically with **TQuery** components or their descendent's respectively.

#### Properties Derived from TRvQueryConnection

[Query](#)

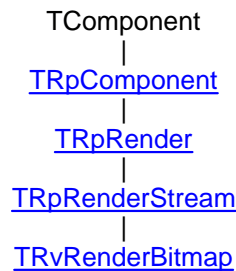
## 3.6 TRvRenderBitmap

Unit



RvRenderBitmap

Hierarchy



**Description**

TRvRenderBitmap will convert an NDR stream or file to a bitmap graphic image format. Each page in the report will be generated to a separate formatted file.

**Properties Derived from TRpRender**

[Active](#) , [DisplayName](#) , [FileExtension](#) , [ImageDPI](#)

**Properties Derived from TRpComponent**

[Version](#)

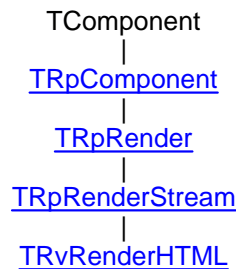
## 3.7 TRvRenderHTML

Unit



RvRenderHTML

Hierarchy



**Description**

TRvRenderHTML will convert an NDR stream or file to HTML format. Each page in the report will be generated to an HTML 4.0 formatted file. Text, graphic, line and rectangle objects are supported.

**Properties Derived from TRpRender**

[Active](#), [CacheDir](#), [DisplayName](#), [FileExtension](#), [OnDecodeImage](#) , [ServerMode](#), [UseBreakingSpaces](#)

**Properties Derived from TRpComponent**

[Version](#)

*removed*

[ImageQuality](#), [MetafileDPI](#), [OnCompress](#), [UseCompression](#)

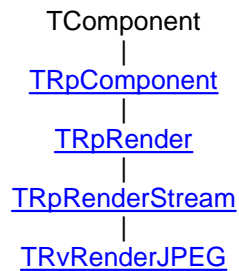
## 3.8 TRvRenderJPEG

Unit



RvRenderJPEG

Hierarchy



### Description

TRvRenderJPEG will convert an NDR stream or file to a JPEG graphic image format. Each page in the report will be generated to a separate formatted file.

### Properties Derived from TRpRender

[Active](#) , *CompressionQuality* , [DisplayName](#) , *FileExtension* , *ImageDPI*

### Properties Derived from TRpComponent

[Version](#)

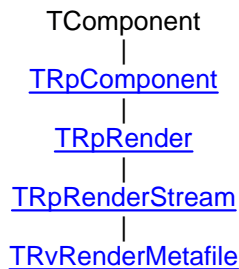
## 3.9 TRvRenderMetafile

Unit



RvRenderMetafile

Hierarchy



### Description

TRvRenderMetafile will convert an NDR stream or file to a Windows Metafile graphic image format. Each page in the report will be generated to a separate formatted file.

### Properties Derived from TRpRender

[Active](#) , [DisplayName](#) , *Enhanced* , *FileExtension* , *ImageDPI*

### Properties Derived from TRpComponent

[Version](#)

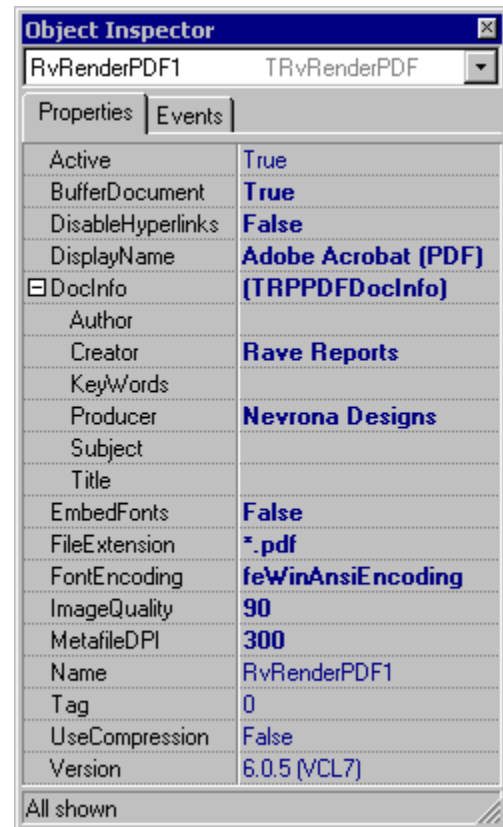
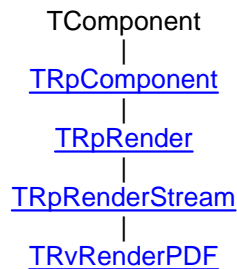
### 3.10 TRvRenderPDF

#### Unit



RvRenderPDF

#### Hierarchy



#### Description

TRvRenderPDF will convert an NDR stream or file to PDF format. Text, graphic, line and shape (rectangle, ellipse) objects are supported.

#### Properties Derived from TRpRender

[Active](#), [BufferDocument](#), [DisableHyperlinks](#), [DisplayName](#), [DocInfo](#), [EmbedFonts](#), [FileExtension](#), [FontEncoding](#), [ImageQuality](#), [MetafileDPI](#), [OnCompress](#), [OnDecodeImage](#), [UseCompression](#)

#### Properties Derived from TRpComponent

[Version](#)

[CacheDir](#), [ServerMode](#)

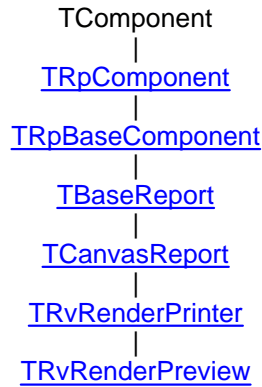
## 3.11 TRvRenderPreview

### Unit



RvRenderPreview

### Hierarchy



### Description

The TRvRenderPreview component takes a file generated by a TRvNDRWriter component and sends it to the screen for previewing. TRvRenderPreview has many methods and events that allow the programmer to create a completely customized user interface.

### Properties

*ScrollBar* defines the TScrollBar component that the report will be drawn in. *FileName* and *StreamMode* are used in the same manner as TRvNDRWriter and TRvRenderPreview. *GridHoriz* and *GridVert* define the horizontal and vertical spacing, in inches or metric, between each grid marking drawn with *GridPen*. *RulerType* along with the grid settings can be useful during report development for determining accurate placement of items without having to produce printed output. *MarginMethod* and *MarginPercent* determine the method and size of the blank margin around the page image. *ShadowDepth* defines the number of pixels for the page shadow. *Monochrome* defines whether the output is drawn on a monochrome or color bitmap. *NextPage* or *PrevPage* are skipped when calling *NextPage* or *PrevPage*. *ZoomInc* defines the amount that *ZoomIn* and *ZoomOut* will use to modify the current zoom percentage, *ZoomFactor*.

### Events

*OnPageChange* is called whenever the current page is changed and allows the programmer to update the user interface with the new current page number. *OnZoomChange* is called whenever the current zoom factor, *ZoomFactor*, is changed and allows the programmer to update the user interface with the new zoom factor.

### Events Derived from TRvRenderPreview

[OnPageChange](#), [OnZoomChange](#)

### Events Derived from TBaseReport

[OnAfterPrint](#), [OnBeforePrint](#), [OnDecodeImage](#), [OnNewColumn](#), [OnNewPage](#), [OnPrint](#), [OnPrintFooter](#), [OnPrintHeader](#), [OnPrintPage](#)

### Methods Derived from TRvRenderPreview

[Clear](#), [ExecuteCustom](#), [NextPage](#), [PrevPage](#), [PrintPage](#), [RedrawPage](#), [XD2I](#), [ZoomIn](#), [ZoomOut](#)



**Methods Derived from TBaseReport**

[Abort](#), [AbortPage](#), [AdjustLine](#), [AllowAll](#), [AllowPreviewOnly](#), [AllowPrinterOnly](#), [Arc](#), [AssignFont](#), [BrushCopy](#), [CalcGraphicHeight](#), [CalcGraphicWidth](#), [Chord](#), [ClearAllTabs](#), [ClearColumns](#), [ClearTabs](#), [CopyRect](#), [CR](#), [Create](#), [CreateBrush](#), [CreateFont](#), [CreatePen](#), [CreatePoint](#), [CreateRect](#), [Destroy](#), [DrawFocusRect](#), [Draw](#), [Ellipse](#), [Execute](#), [FillRect](#), [Finish](#), [FinishTabBox](#), [FloodFill](#), [FrameRect](#), [GetMemoLine](#), [GetNextLine](#), [GetTab](#), [GotoFooter](#), [GotoHeader](#), [GotoXY](#), [GraphicFieldToBitmap](#), [Home](#), [LF](#), [LinesLeft](#), [LineTo](#), [Macro](#), [MemoLines](#), [MoveTo](#), [NewColumn](#), [NewLine](#), [NewPage](#), [NoPrinters](#), [Pie](#), [Polygon](#), [Polyline](#), [PopFont](#), [PopPos](#), [PopTabs](#), [Print](#), [PrintBitmap](#), [PrintBitmapRect](#), [PrintBlock](#), [PrintCenter](#), [PrintCharJustify](#), [PrintData](#), [PrintDataStream](#), [PrintFooter](#), [PrintHeader](#), [PrintImageRect](#), [PrintJustify](#), [PrintLeft](#), [PrintLn](#), [PrintMemo](#), [PrintRight](#), [PrintTab](#), [PrintXY](#), [PushFont](#), [PushPos](#), [PushTabs](#), [RecoverPrinter](#), [Rectangle](#), [RegisterGraphic](#), [ReleasePrinter](#), [Reset](#), [ResetLineHeight](#), [ResetPrinter](#), [ResetSection](#), [ResetTabs](#), [RestoreFont](#), [RestorePos](#), [RestoreTabs](#), [ReuseGraphic](#), [RoundRect](#), [SaveFont](#), [SavePos](#), [SaveTabs](#), [SelectBin](#), [SelectPaper](#), [SelectPrinter](#), [SetBrush](#), [SetColumns](#), [SetColumnWidth](#), [SetFont](#), [SetPaperSize](#), [SetPen](#), [SetPIVar](#), [SetTab](#), [SetTopOfPage](#), [ShadeToColor](#), [ShowPrintDialog](#), [ShowPrinterSetupDialog](#), [Start](#), [StretchDraw](#), [SupportBin](#), [SupportCollate](#), [SupportDuplex](#), [SupportOrientation](#), [SupportPaper](#), [Tab](#), [TabEnd](#), [TabStart](#), [TabWidth](#), [TextRect](#), [TextWidth](#), [UnregisterGraphic](#), [UpdateStatus](#), [XD2U](#), [XI2D](#), [XI2U](#), [XU2D](#), [XU2I](#), [YD2I](#), [YD2U](#), [YI2D](#), [YI2U](#), [YU2D](#), [YU2I](#)

**Properties Derived from TRvRenderPreview**

[MarginMethod](#), [MarginPercent](#), [Monochrome](#), [PageInc](#), [Pages](#), [ScrollBar](#), [ZoomFactor](#), [ZoomInc](#), [ZoomPageFactor](#), [ZoomPageWidthFactor](#)

**Properties Derived from TRvRenderPrinter**

[IgnoreFileSettings](#)

**Properties Derived from TBaseReport**

[Aborted](#), [AccuracyMethod](#), [AscentHeight](#), [Bins](#), [BKColor](#), [Bold](#), [BottomWaste](#), [BoxLineColor](#), [Canvas](#), [Collate](#), [ColumnEnd](#), [ColumnLinesLeft](#), [ColumnNum](#), [Columns](#), [ColumnStart](#), [ColumnWidth](#), [Copies](#), [CurrentPage](#), [CurrentPass](#), [CursorXPos](#), [CursorYPos](#), [DescentHeight](#), [DeviceName](#), [DevMode](#), [DriverName](#), [Duplex](#), [FileName](#), [FirstPage](#), [FontAlign](#), [FontBaseline](#), [FontBottom](#), [FontCharset](#), [FontColor](#), [FontHandle](#), [FontHeight](#), [FontName](#), [FontPitch](#), [FontRotation](#), [Fonts](#), [FontSize](#), [FontTop](#), [FontWidth](#), [FrameMode](#), [GridVert](#), [Italic](#), [LastPage](#), [LeftWaste](#), [LineBottom](#), [LineHeight](#), [LineHeightMethod](#), [LineMiddle](#), [LineNum](#), [LinesPerInch](#), [LineTop](#), [MacroData](#), [MarginBottom](#), [MarginLeft](#), [MarginRight](#), [MarginTop](#), [MaxCopies](#), [NoBufferLine](#), [NoNTColorFix](#), [NoPrinterPageHeight](#), [NoPrinterPageWidth](#), [Orientation](#), [OriginX](#), [OriginY](#), [OutputInvalid](#), [OutputName](#), [PageHeight](#), [PageInvalid](#), [PageWidth](#), [Papers](#), [PIVar](#), [Port](#), [PrinterIndex](#), [Printers](#), [Printing](#), [ReportDateTime](#), [RightWaste](#), [ScaleX](#), [ScaleY](#), [SectionBottom](#), [SectionLeft](#), [SectionRight](#), [SectionTop](#), [Selection](#), [ShadowDepth](#), [StatusFormat](#), [StatusLabel](#), [StatusText](#), [Stream](#), [StreamMode](#), [Strikeout](#), [Subscript](#), [Superscript](#), [TabColor](#), [TabJustify](#), [TabShade](#), [TextBKMode](#), [Title](#), [TopWaste](#), [TotalPasses](#), [TransparentBitmaps](#), [TruncateText](#), [Underline](#), [Units](#), [UnitsFactor](#), [XDPI](#), [XPos](#), [YDPI](#), [YPos](#)

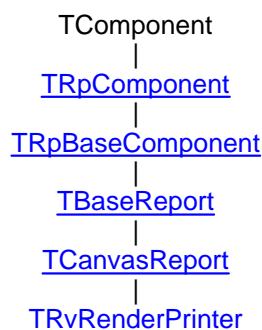
**Properties Derived from TRpComponent**

[Version](#)

## 3.12 TRvRenderPrinter

**Unit**

RvRenderPrinter

**Hierarchy**

**Description**

The TRvRenderPrinter component takes a file generated by a TRvNDRWriter component and sends it to the current printer. TRvRenderPrinter is often used to do a print from the preview screen. TRvRenderPrinter is a simple component but does have methods and properties to customize the selection of what gets printed.

**Properties and Events**

*FileName* is the name of the report file generated by TRvNDRWriter if StreamMode is *smMemory* or *smFile*. A stream mode of *smUser* is used when the programmer wants to provide their own stream object (any descendent of TStream will work) by assigning it to the *Stream* property of TRvNDRWriter, TRvRenderPrinter and/or TRvRenderPreview. There are no events for TRvRenderPrinter. To send a report file to the printer call the *Execute* or *ExecuteCustom* methods.

**Events Derived from TBaseReport**

[OnAfterPrint](#), [OnBeforePrint](#), [OnDecodeImage](#), [OnNewColumn](#), [OnNewPage](#), [OnPrint](#), [OnPrintFooter](#), [OnPrintHeader](#), [OnPrintPage](#)

**Methods Derived from TBaseReport**

[Abort](#), [AbortPage](#), [AdjustLine](#), [AllowAll](#), [AllowPreviewOnly](#), [AllowPrinterOnly](#), [Arc](#), [AssignFont](#), [BrushCopy](#), [CalcGraphicHeight](#), [CalcGraphicWidth](#), [Chord](#), [ClearAllTabs](#), [ClearColumns](#), [ClearTabs](#), [CopyRect](#), [CR](#), [Create](#), [CreateBrush](#), [CreateFont](#), [CreatePen](#), [CreatePoint](#), [CreateRect](#), [Destroy](#), [DrawFocusRect](#), [Draw](#), [Ellipse](#), [Execute](#), [FillRect](#), [Finish](#), [FinishTabBox](#), [FloodFill](#), [FrameRect](#), [GetMemoLine](#), [GetNextLine](#), [GetTab](#), [GotoFooter](#), [GotoHeader](#), [GotoXY](#), [GraphicFieldToBitmap](#), [Home](#), [LF](#), [LinesLeft](#), [LineTo](#), [Macro](#), [MemoLines](#), [MoveTo](#), [NewColumn](#), [NewLine](#), [NewPage](#), [NoPrinters](#), [Pie](#), [Polygon](#), [Polyline](#), [PopFont](#), [PopPos](#), [PopTabs](#), [Print](#), [PrintBitmap](#), [PrintBitmapRect](#), [PrintBlock](#), [PrintCenter](#), [PrintCharJustify](#), [PrintData](#), [PrintDataStream](#), [PrintFooter](#), [PrintHeader](#), [PrintImageRect](#), [PrintJustify](#), [PrintLeft](#), [PrintLn](#), [PrintMemo](#), [PrintRight](#), [PrintTab](#), [PrintXY](#), [PushFont](#), [PushPos](#), [PushTabs](#), [RecoverPrinter](#), [Rectangle](#), [RegisterGraphic](#), [ReleasePrinter](#), [Reset](#), [ResetLineHeight](#), [ResetPrinter](#), [ResetSection](#), [ResetTabs](#), [RestoreFont](#), [RestorePos](#), [RestoreTabs](#), [ReuseGraphic](#), [RoundRect](#), [SaveFont](#), [SavePos](#), [SaveTabs](#), [SelectBin](#), [SelectPaper](#), [SelectPrinter](#), [SetBrush](#), [SetColumns](#), [SetColumnWidth](#), [SetFont](#), [SetPaperSize](#), [SetPen](#), [SetPIVar](#), [SetTab](#), [SetTopOfPage](#), [ShadeToColor](#), [ShowPrintDialog](#), [ShowPrinterSetupDialog](#), [Start](#), [StretchDraw](#), [SupportBin](#), [SupportCollate](#), [SupportDuplex](#), [SupportOrientation](#), [SupportPaper](#), [Tab](#), [TabEnd](#), [TabStart](#), [TabWidth](#), [TextRect](#), [TextWidth](#), [UnregisterGraphic](#), [UpdateStatus](#), [XD2U](#), [XI2D](#), [XI2U](#), [XU2D](#), [XU2I](#), [YD2I](#), [YD2U](#), [YI2D](#), [YI2U](#), [YU2D](#), [YU2I](#)

**Properties Derived from TRvRenderPrinter**

[IgnoreFileSettings](#)

**Properties Derived from TBaseReport**

[Aborted](#), [AccuracyMethod](#), [AscentHeight](#), [Bins](#), [BKColor](#), [Bold](#), [BottomWaste](#), [BoxLineColor](#), [Canvas](#), [Collate](#), [ColumnEnd](#), [ColumnLinesLeft](#), [ColumnNum](#), [Columns](#), [ColumnStart](#), [ColumnWidth](#), [Copies](#), [CurrentPage](#), [CurrentPass](#), [CursorXPos](#), [CursorYPos](#), [DescentHeight](#), [DeviceName](#), [DevMode](#), [DriverName](#), [Duplex](#), [FileName](#), [FirstPage](#), [FontAlign](#), [FontBaseline](#), [FontBottom](#), [FontCharset](#), [FontColor](#), [FontHandle](#), [FontHeight](#), [FontName](#), [FontPitch](#), [FontRotation](#), [Fonts](#), [FontSize](#), [FontTop](#), [FontWidth](#), [FrameMode](#), [GridVert](#), [Italic](#), [LastPage](#), [LeftWaste](#), [LineBottom](#), [LineHeight](#), [LineHeightMethod](#), [LineMiddle](#), [LineNum](#), [LinesPerInch](#), [LineTop](#), [MacroData](#), [MarginBottom](#), [MarginLeft](#), [MarginRight](#), [MarginTop](#), [MaxCopies](#), [NoBufferLine](#), [NoNTColorFix](#), [NoPrinterPageHeight](#), [NoPrinterPageWidth](#), [Orientation](#), [OriginX](#), [OriginY](#), [OutputInvalid](#), [OutputName](#), [PageHeight](#), [PageInvalid](#), [PageWidth](#), [Papers](#), [PIVar](#), [Port](#), [PrinterIndex](#), [Printers](#), [Printing](#), [ReportDateTime](#), [RightWaste](#), [ScaleX](#), [ScaleY](#), [SectionBottom](#), [SectionLeft](#), [SectionRight](#), [SectionTop](#), [Selection](#), [ShadowDepth](#), [StatusFormat](#), [StatusLabel](#), [StatusText](#), [Stream](#), [StreamMode](#), [Strikeout](#), [Subscript](#), [Superscript](#), [TabColor](#), [TabJustify](#), [TabShade](#), [TextBKMode](#), [Title](#), [TopWaste](#), [TotalPasses](#), [TransparentBitmaps](#), [TruncateText](#), [Underline](#), [Units](#), [UnitsFactor](#), [XDPI](#), [XPos](#), [YDPI](#), [YPos](#)

**Properties Derived from TRpComponent**

[Version](#)

### 3.13 TRvRenderRTF

Unit



RvRenderRTF

Hierarchy

```

TComponent
|
TRpComponent
|
TRpRender
|
TRpRenderStream
|
TRvRenderRTF

```

#### Description

TRvRenderRTF will convert an NDR stream or file to an RTF document. Text, graphic, line and rectangle objects are supported.

#### Properties Derived from TRpRender

[Active](#), [DisplayName](#), [FileExtension](#), [ImageEncoding](#), [ImageOutput](#), [OnDecodeImage](#)

#### Properties Derived from TRpComponent

[Version](#)

### 3.14 TRvRenderText

Unit



RvRenderText

Hierarchy

```

TComponent
|
TRpComponent
|
TRpRender
|
TRpRenderStream
|
TRvRenderText

```

#### Description

TRvRenderText will convert an NDR stream or file to an text document. Only text objects are supported in the output, all other objects will be ignored.

#### TRpRender Properties

[Active](#), [CPI](#), [DisplayName](#), [FileExtension](#), [FormFeed](#), [LeftBorder](#), [LPI](#), [TopBorder](#)

#### TRpComponent Properties

[Version](#)

*removed*

[CacheDir](#), [ImageQuality](#), [MetafileDPI](#), [OnCompress](#), [ServerMode](#), [UseCompression](#)

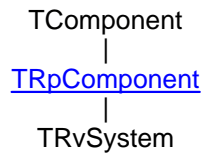
## 3.15 TRvSystem

### Unit



RpSystem

### Hierarchy



### Description

The TRvSystem component is a very powerful component that integrates the functionality of the previous three components, TRvRenderPreview, TRvRenderPrinter and TRvNDRWriter in one easy to use system. TRvSystem can send a report to the printer or a preview screen and can display a setup and status screen as well.

### Properties

*DefaultDest* is where the report will be sent if no setup screen is used or is the default during setup.

*SystemFiler*, which can be accessed by double-clicking on the left column in the Object Inspector, will display all of the filer type options from TRvNDRWriter, TRvRenderPreview and TRvRenderPrinter. All *SystemFiler* options operate the same as the other components except for a stream mode of *smMemory* which does not require a filename and will use a TMemoryStream to contain the report.

The *SystemOptions* properties control the configuration of the TRvSystem component. *soUseFiler* will always send the report to a report file. This can be very useful if the *Macro* method has been used in the report. *soWaitForOK* will determine whether the user has to press the OK button once the report has been generated for output. *soShowStatus* will determine whether or not the status screen is displayed when the report is being generated or printing. *soAllowPrintFromPreview* will determine whether the user can print from the preview screen. *soPreviewModal* determines the modal mode that the preview window is brought up in *soNoGenerate* will skip over the generation phase of the report and proceed straight to the screen. This options should only be used with a *StreamMode* of *smFile* where the report file has been previously generated and needs only to be viewed or printed.

*SystemPreview* displays all of the preview type options found in TRvRenderPreview. *SystemPrinter* displays all of the printer type options found in TRvNDRWriter.

The *SystemSetups* properties control the configuration of the standard setup screen for TRvSystem. *ssAllowSetup* will determine whether or not the setup screen is displayed. *ssAllowCopies*, *ssAllowCollate* and *ssAllowDuplex* will enable those options in the setup screen. *ssAllowDestPreview*, *ssAllowDestPrinter* and *ssAllowDestFile* will determine which destination options the user has access to. *ssAllowPrinterSetup* will determine whether the user can select the printer setup dialog which allows the selection of alternate printers and other printer options. *ssAllowPreviewSetup* determines whether the user will be allowed to select the printer setup dialog after preview.

### from TRvSystem

[BaseReport](#) [DefaultDest](#) [GridHoriz](#) [GridPen](#) [OutputFileName](#) [ReportDest](#) [RulerType](#) [SystemFiler](#) [SystemOptions](#) [SystemPreview](#) [SystemPrinter](#) [SystemSetups](#) [TitlePreview](#) [TitleSetup](#) [TitleStatus](#)

### from TRpComponent

[Version](#)

### Events

All of the OnXxxx events for TRvSystem operate exactly like they do for TRvNDRWriter. The override events, *OverridePreview*, *OverrideSetup* and *OverrideStatus* allow the programmer to replace the default screens provided with Rave with their own. There is no printed documentation on how to do this but the TRvSystem component uses the same method as a user would have to. Reference the methods *OverridePreviewProc*, *OverrideStatusProc* and *OverrideSetupProc* for how to create an override event method. The units RpFormPreview, RpFormStatus and RpFormSetup located in \RAVE\SOURCE will also show how to interface with TRvSystem and can be used as starting points for customized versions of the different forms.

### from TRvSystem

[OnPreviewSetup](#) [OnPreviewShow](#) [OverridePreview](#) [OverrideSetup](#) [OverrideStatus](#)

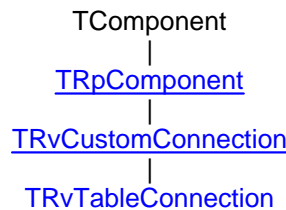
## 3.16 TRvTableConnection

### Unit



RpConBDE

### Hierarchy



### Description

Data connection components - Rave uses data from your application. This is accomplished with data connection components, TRvCustomConnection, TRvDataSetConnection, TRvTableConnection and TRvQueryConnection to provide a bridge between the data in your application and the Rave visual components.

**TRvCustomConnection** component can be used to access **non-database data** such as memory arrays or binary record files.

**TRvDataSetConnection** can be used to provide access to **TDataSet** descendent components including 3rd party dataset components.

**TRvTableConnection** is to be used specifically with **TTable** components or their descendents respectively.

**TRvQueryConnection** is to be used specifically with **TQuery** components or their descendents respectively.

### Events Derived from TRvCustomConnection

[OnEOF](#), [OnFirst](#), [OnGetCols](#), [OnGetRow](#), [OnGetSorts](#), [OnNext](#), [OnOpen](#), [OnRestore](#), [OnSetFilter](#), [OnSetSort](#), [OnValidateRow](#)

### Methods Derived from TRvCustomConnection

[WriteBCDDData](#), [WriteBlobData](#), [WriteBoolData](#), [WriteCurrData](#), [WriteDateTime](#), [WriteFloatData](#), [WriteIntData](#), [WriteNullData](#), [WriteStrData](#)

### Properties Derived from TRvTableConnection

[Table](#), [UseSetRange](#)

### Properties Derived from TRvCustomConnection

[FieldAliasList](#), [LocalFilter](#), [RuntimeVisibility](#)

### Properties Derived from TRpComponent

[Version](#)



# Events

## Chapter



**IV**

## 4 Events

An event is a mechanism that links an occurrence to some code. More specifically, an event is a method pointer that points to a method in a specific class instance.

### 4.1 OnAfterClose

**Declaration**

```
procedure OnAfterClose( Sender: TObject );
```

**Category**

[Rave](#)

**Description**

This event will be called immediately after the Rave project is closed.

**See also**

[TRvProject Class](#), [Active](#), [Close](#), [OnAfterOpen](#), [OnBeforeClose](#), [OnBeforeOpen](#), [Open](#)

### 4.2 OnAfterOpen

**Declaration**

```
procedure OnAfterOpen( Sender: TObject );
```

**Category**

[Rave](#)

**Description**

This event will be called immediately after the Rave project is opened.

**See also**

[TRvProject Class](#), [Active](#), [Close](#), [OnAfterClose](#), [OnBeforeClose](#), [OnBeforeOpen](#), [Open](#)

### 4.3 OnAfterPrint

**Declaration**

```
procedure OnAfterPrint(Sender: TObject)
```

**Category**

[Control](#)

**Description**

This event will be called after each print job has finished printing, even if the print job was aborted or an exception has been generated. This can be useful for cleaning up resources that were allocated in *OnBeforePrint*.

**See also**

[TBaseReport Class](#), [Execute](#), [OnBeforePrint](#)

**Example (Delphi)**

```
procedure TReportForm.AfterPrintReport2(Sender: TObject);
begin { AfterPrintReport2 }
  CustomerTable.Close;
end; { AfterPrintReport2 }
```

**Example (C++Builder)**

```
void __fastcall TReportForm::AfterPrintReport2 (TObject *Sender)
{
  CustomerTable->Close();
}
```



## 4.4 OnBeforeClose

### Declaration

```
procedure OnBeforeClose( Sender: TObject );
```

### Category

[Rave](#)

### Description

This event will be called immediately before the Rave project is closed.

### See also

[TRvProject Class](#), [Active](#), [Close](#), [OnAfterClose](#), [OnAfterOpen](#), [OnBeforeOpen](#), [Open](#)

## 4.5 OnBeforeOpen

### Declaration

```
procedure OnBeforeOpen( Sender: TObject );
```

### Category

[Rave](#)

### Description

This event will be called immediately before the Rave project is opened.

### See also

[TRvProject Class](#), [Active](#), [Close](#), [OnAfterClose](#), [OnAfterOpen](#), [OnBeforeClose](#), [Open](#)

## 4.6 OnBeforePrint

### Declaration

```
procedure OnBeforePrint(Sender: TObject);
```

### Category

[Control](#)

### Description

This event is called before the print job has begun. This can be useful to initialize non-report items such as table record pointers. This event can also be useful to set report items that must be set before the print job begins (such as paper size and orientation).

### See also

[TBaseReport Class](#), [Execute](#), [OnAfterPrint](#)

### Example (Delphi)

```
procedure TReportForm.BeforePrintReport5(Sender: TObject);
begin { BeforePrintReport5 }
  with Sender as TBaseReport do begin
    StatusFormat := 'Printing Page '#13' '#13';
    StatusText.Add('');
    StatusText.Add('');
  end; { with }
  CustomerTable.First;
end; { BeforePrintReport5 }
```

**Example (C++Builder)**

```
void __fastcall TReportForm:: BeforePrintReport5 (TObject *Sender)
{
    TBaseReport* rp = dynamic_cast<TBaseReport*>(Sender);
    rp1->StatusFormat = "Printing Page \n\n";
    rp1->StatusText->Add("");
    rp1->StatusText->Add("");
    CustomerTable->First();
} / BeforePrintReport5
```

## 4.7 OnCreate

**Declaration**

```
procedure OnCreate(Sender: TObject);
```

**Category**

[Rave](#)

**Description**

This event is called when the TRvProject is created. This is the normal place to register custom Rave components by calling the RaveRegister procedure for the unit containing the custom Rave components. See the tutorials for more information.

**See also**

[TRvProject Class](#), [OnDestroy](#)

## 4.8 OnDecodeImage

**Declaration**

```
procedure OnDecodeImage( Sender: TObject); ImageStream: TStream; ImageType:
String; Bitmap: TBitmap );
```

**Category**

[Graphics](#) HTML PDF RTF

**Description**

This event is called when Rave needs to convert image data (created from the PrintImageRect method) to a bitmap for printing. This would normally appear on a TRvRenderPrinter or TRvRenderPreview component, but could also be defined in a TRvSystem component.

**See also**

[TBaseReport Class](#), [PrintImageRect](#)

**Example (Delphi)**

```
var
    Image: TJPEGImage;
    Format: word;
    Data: THandle;
    Palette: HPalette;
if ImageType = 'JPG' then begin
    Image := TJPEGImage.Create;           // Create a TJPEGImage class
    Image.LoadFromStream(ImageStream);    // Load JPEG image from ImageStream
    Image.DIBNeeded;                     // Convert JPEG to bitmap format
    // Save JPEG to clipboard in bitmap format
    Image.SaveToClipboardFormat(Format,Data,Palette);
    Image.Free;                           // Free the image
    // Load bitmap from clipboard
    Bitmap.LoadFromClipboardFormat(Format,Data,Palette);
end; { if }
```

**Example (C++Builder)**

```

if (ImageType == "JPG") {
    Image = new TJPEGImage();           // Create a JPEGImage class
    Image->LoadFromStream(ImageStream);  // Load JPEG image from ImageStream
    Image->DIBNeeded();                  // Convert JPEG to bitmap format
    // Save JPEG to clipboard in bitmap format
    Image->SaveToClipboardFormat(Format,Data,Palette);
    delete Image;                       // Free the image
    // Load bitmap from clipboard
    Bitmap->LoadFromClipboardFormat(Format,Data,Palette);
} // if

```

## 4.9 OnDesignerSave

**Declaration**

```
procedure OnDesignerSave(Sender: TObject);
```

**Category**

[Rave](#)

**Description**

When this event is defined, a save button and save menu item will be displayed in the end user version of the Rave visual designer to allow the end user to perform intermediate saves. In this event, you will normally call `RvProject.Save` or whatever code you are using to save the project (i.e., `RvProject1.SaveToStream(BlobStream)`). The `Sender` parameter is the `TRvProject` component that generated the event.

**NOTE:**

This feature is only available with a Rave EUDL license. See the Nevrona website at <http://www.nevrona.com> for more information on obtaining an EUDL license.

**See also**

[TRvProject Class](#), [OnDesignerSaveAs](#), [OnDesignerShow](#), [SaveToStream](#)

## 4.10 OnDesignerSaveAs

**Declaration**

```
procedure OnDesignerSaveAs(Sender: TObject);
```

**Category**

[Rave](#)

**Description**

When this event is defined, a Save As menu item will be displayed in the end user version of the Rave visual designer to allow the end user to perform saves to alternate destinations. In this event, you will normally prompt the user for an alternate destination and then call `RvProject.Save` or whatever code you are using to save the project (i.e., `RvProject1.SaveToStream(BlobStream)`). The `Sender` parameter is the `TRvProject` component that generated the event.

**NOTE:**

This feature is only available with a Rave EUDL license. See the Nevrona website at <http://www.nevrona.com> for more information on obtaining an EUDL license.

**See also**

[TRvProject Class](#), [OnDesignerSave](#), [OnDesignerShow](#), [SaveToStream](#)

## 4.11 OnDesignerShow

**Declaration**

```
procedure OnDesignerShow(Sender: TObject);
```

**Category**[Rave](#)**Description**

This event will be called after the Rave visual designer is initialized but immediately before it is displayed. This will allow you to show a splash screen or change the mouse cursor while the designer is loading, then restore everything just before Rave is displayed. The Sender parameter is the TRvProject component that generated the event.

**NOTE:**

This feature is only available with a Rave EUDL license. See the Nevrona website at <http://www.nevrona.com> for more information on obtaining an EUDL license.

**See also**[TRvProject Class](#), [OnDesignerSave](#)

## 4.12 OnDestroy

**Declaration**

```
procedure OnDestroy(MyPrinter: Trave);
```

**Category**[Rave](#)**Description**

This event is called when the TRvProject component is being destroyed. This is useful for freeing up resources that were allocated in the OnCreate event.

**See also**[TRvProject Class](#), [OnCreate](#)

## 4.13 OnEOF

**Declaration**

```
procedure OnEOF(Connection: TRvCustomConnection; var Eof: Boolean);
```

**Category**[Rave](#)**Description**

This event is called when the Rave data system wants the EOF status for the data. See the tutorial on customizing data connections for more information.

**See also**[TRvCustomConnection Class](#), [OnFirst](#), [OnNext](#)

## 4.14 OnFirst

**Declaration**

```
procedure OnFirst(Connection: TRvCustomConnection);
```

**Category**[Rave](#)**Description**

This event is called when the Rave data system wants the data cursor to be positioned to the beginning of the data. See the tutorial on customizing data connections for more information.

**See also**[TRvCustomConnection Class](#), [OnEOF](#), [OnNext](#)

## 4.15 OnGetCols

### Declaration

```
procedure OnGetCols(Connection: TRvCustomConnection);
```

### Category

[Rave](#)

### Description

This event is called when the Rave data system wants to retrieve the meta-data information (field names, types, sizes and descriptions) for the data. See the tutorial on customizing data connections for more information.

### See also

[TRvCustomConnection Class](#), [OnGetRow](#)

## 4.16 OnGetRow

### Declaration

```
procedure OnGetRow(Connection: TRvCustomConnection);
```

### Category

[Rave](#)

### Description

This event is called when the Rave data system wants to retrieve the data for the current row of the data. See the tutorial on customizing data connections for more information.

### See also

[TRvCustomConnection Class](#), [OnFirst](#), [OnNext](#)

## 4.17 OnGetSorts

### Declaration

```
procedure OnGetSorts(Connection: TRvCustomConnection);
```

### Category

[Rave](#)

### Description

This event is called when the Rave data system wants the available sorting methods available for the data. See the tutorial on customizing data connections for more information.

### See also

[TRvCustomConnection Class](#), [OnSetSort](#)

## 4.18 OnNewColumn

### Declaration

```
procedure OnNewColumn(Sender: TObject);
```

### Category

[Control](#)

### Description

This event will be called whenever a new column has begun (after a call to *PrintLn*, *NewLine*, *SetColumns* or *SetColumnWidth*). This can be useful for printing column headers.

### See also

[TBaseReport Class](#), [NewLine](#), [PrintLn](#), [SetColumns](#), [SetColumnWidth](#)

**Example (Delphi)**

```

procedure TReportForm.OnNewColumnReport10(Sender: TObject);
begin
  with Sender as TBaseReport do begin
    Underline := true;
    PrintLn('Column Titles');
    Underline := false;
  end; { with }
end;

```

**Example (C++Builder)**

```

void __fastcall TReportForm::OnNewColumnReport10 (TObject *Sender)
{
  TBaseReport* rp = dynamic_cast<TBaseReport*>(Sender);
  rp->Underline = true;
  rp->PrintLn("Column Titles");
  rp->Underline = false;
}

```

## 4.19 OnNewPage

**Declaration**

```

procedure OnNewPage(Sender: TObject);

```

**Category**

[Control](#)

**Description**

This event will be called whenever a new page is generated. This can be useful to initialize page related items.

**See also**

[TBaseReport Class](#), [NewPage](#), [SelectBin](#)

**Example (Delphi)**

```

procedure TRpForm.RvNDRWriter1NewPage(Sender: TObject);
begin
  with Sender as TBaseReport do begin
    PrintBitmapRect(0.5,0.5,1.20,1.20,Logo);
    MarginTop := 0.5;
    Home;
    SetFont('Arial',24);
    PrintHeader('Report Title', pjCenter);
    MarginTop := 1.0;
    Home;
    SetFont('Arial',10);
    PrintHeader(FormatDateTime(DateFormat, now), pjRight);
  end; { with }
end;

```

**Example (C++Builder)**

```

void __fastcall TRpForm::RvNDRWriter1NewPage (TObject *Sender)
{
    TBaseReport* rp = dynamic_cast<TBaseReport*>(Sender);
    rp1->PrintBitmapRect(0.5,0.5,1.20,1.20,Logo);
    rp1->MarginTop = 0.5;
    rp1->Home();
    rp1->SetFont("Arial",24);
    rp1->PrintHeader("Report Title", pjCenter);
    rp1->MarginTop = 1.0;
    rp1->Home();
    rp1->SetFont("Arial",10);
    rp1->PrintHeader(FormatDateTime("ddd, dd mmm yyyy hh:mm:ss", Now()),
    pjRight);
}

```

## 4.20 OnNext

**Declaration**

```
procedure OnNext(Connection: TRvCustomConnection);
```

**Category**

[Rave](#)

**Description**

This event is called when the Rave data system wants the data cursor to be moved to the next row of the data. See the tutorial on customizing data connections for more information.

**See also**

[TRvCustomConnection Class](#), [OnEOF](#), [OnFirst](#)

## 4.21 OnOpen

**Declaration**

```
procedure OnOpen(Connection: TRvCustomConnection);
```

**Category**

[Rave](#)

**Description**

This event is called when the Rave data system wants to initialize the data session. See the tutorial on customizing data connections for more information.

**See also**

[TRvCustomConnection Class](#), [OnRestore](#)

## 4.22 OnPageChange

**Declaration**

```
procedure OnPageChange(Sender: TObject);
```

**Category**

[Preview](#)

**Description**

This event will be called whenever the current page changes on the preview screen. This can be useful for updating the current page number on visual controls on the preview screen.

**See also**

[TRvRenderPreview Class](#), [NextPage](#), [PrevPage](#), [PrintPage](#)

**Example (Delphi)**

```
procedure TPreForm.RvRenderPreview1PageChange(Sender: TObject);
```

```

begin
  with RvRenderPreview1 do begin
    PageEdit.Text := IntToStr(CurrentPage);
    PageLabel.Caption := 'Page ' + IntToStr(CurrentPage -
      FirstPage + 1) + ' of ' + IntToStr(Pages);
  end; { with }
end;

```

#### **Example (C++Builder)**

```

void __fastcall TPreForm::RvRenderPreview1PageChange(TObject *Sender)
{
  TBaseReport* rp = dynamic_cast<TBaseReport*>(Sender);
  PageEdit->Text = IntToStr(rp1->CurrentPage);
  PageLabel->Caption = "Page " + IntToStr(rp1->CurrentPage -
    rp1->FirstPage + 1) + " of " + IntToStr(RvRenderPreview1->Pages);
}

```

## 4.23 OnPreviewSetup

### **Declaration**

```
procedure OnPreviewSetup( Sender: TObject );
```

### **Category**

[Preview](#)

### **Description**

This will allow you to modify the TRvRenderPreview component on a preview form as well as the preview form itself. Some functions, such as ZoomPageWidthFactor will need to be called in the *OnPreviewShow* event.

### **NOTE:**

*OnPreviewSetup* is called before the form is shown and TRvRenderPreview is started.

### **See also**

[TRvSystem Class](#), [OnPreviewShow](#)

#### **Example (Delphi)**

```

Procedure TForm1.RvSystem1PreviewSetup( Sender: TObject);
begin
  with Sender as TRvRenderPreview do begin
    ZoomFactor := 50;
    with Owner as TForm do begin
      Position := poDesigned;
      Top := 10;
      Left := 10;
    end; { with }
  end; { with }
end;

```

#### **Example (C++Builder)**

```

void __fastcall TForm1::RvSystem1PreviewSetup(TObject *Sender)
{
  TRvRenderPreview* fp = dynamic_cast<TRvRenderPreview*>(Sender);
  fp->ZoomFactor = 50;
  TForm* pf = dynamic_cast<TForm*>(fp->Owner);
  fp->Position = poDesigned;
  fp->Top = 10;
  fp->Left = 10;
}

```



## 4.24 OnPreviewShow

### Declaration

```
procedure OnPreviewShow( Sender: TObject );
```

### Category

[Preview](#)

### Description

This will allow you to modify the TRvRenderPreview component on the preview form itself.

### NOTE:

This event is called during the OnShow event of the preview form.

### See also

[TRvSystem Class](#), [OnPreviewSetup](#)

### Example (Delphi)

```
Procedure TForm1.RvSystem1PreviewShow( Sender: TObject);  
begin  
  with Sender as TRvRenderPreview do begin  
    ZoomFactor := ZoomPageWidthFactor;  
  end; { with }  
end;
```

### Example (C++Builder)

```
void __fastcall TForm1::RvSystem1PreviewShow(TObject *Sender)  
{  
  TRvRenderPreview* fp = dynamic_cast<TRvRenderPreview*>(Sender);  
  fp->ZoomFactor = fp->ZoomPageWidthFactor;  
}
```

## 4.25 OnPrint

### Declaration

```
procedure OnPrint(Sender: TObject);
```

### Category

[Control](#)

### Description

This event will be called when it is time to print the body of the report. To begin a new page call the *NewPage* method. To finish the report just exit this event. The event is useful for more complicated reports that are different from page to page.

### See also

[TBaseReport Class](#), [Execute](#), [NewPage](#), [OnPrintPage](#)

## 4.26 OnPrintFooter

### Declaration

```
procedure OnPrintFooter(Sender: TObject);
```

### Category

[Control](#)

### Description

This event will be called after the body for each page that has been printed. This can be useful for printing similar footers for each page.

### See also

[TBaseReport Class](#), [GotoFooter](#), [PrintFooter](#), [OnPrintHeader](#)

**Example (Delphi)**

```

procedure TReportForm.PrintFooterReport5(Sender: TObject);
begin { PrintFooterReport5 }
  with Sender as TBaseReport do begin
    SetFont('Times New Roman',8);
    MarginBottom := 0.5;
    PrintFooter('Page ' + IntToStr(CurrentPage),pjLeft);
    PrintFooter('Date 01/20/95',pjRight);
    MarginBottom := 1.0;
  end; { with }
end; { PrintFooterReport5 }

```

**Example (C++Builder)**

```

void __fastcall TReportForm:: PrintFooterReport5 (TObject *Sender)
{
  TBaseReport* rp = dynamic_cast<TBaseReport*>(Sender);
  rp1->SetFont("Times New Roman",8);
  rp1->MarginBottom = 0.5;
  rp1->PrintFooter("Page " + IntToStr(rp1->CurrentPage),pjLeft);
  rp1->PrintFooter("Date 01/20/95",pjRight);
  rp1->MarginBottom = 1.0;
}

```

## 4.27 OnPrintHeader

**Declaration**

```

procedure OnPrintHeader(Sender: TObject);

```

**Category**

[Control](#)

**Description**

This event will be called before the body for each page that has been printed. This can be useful for printing similar headers for each page.

**See also**

[TBaseReport Class](#), [GotoHeader](#), [OnPrintFooter](#), [PrintHeader](#)

**Example (Delphi)**

```

procedure TReportForm.PrintHeaderReport5(Sender: TObject);
begin { PrintHeaderReport5 }
  with Sender as TBaseReport do begin
    MarginTop := 0.5;
    SetFont('Arial',24);
    Underline := true;
    Home;
    PrintCenter('Customer List', PageWidth / 2);
    MarginTop := 1.0;
  end; { with }
end; { PrintHeaderReport5 }

```

**Example (C++Builder)**

```

void __fastcall TReportForm:: PrintHeaderReport5 (TObject *Sender)
{
  TBaseReport* rp = dynamic_cast<TBaseReport*>(Sender);
  rp1->MarginTop = 0.5;
  rp1->SetFont("Arial",24);
  rp1->Underline = true;
  rp1->Home();
  rp1->PrintCenter("Customer List", rp1->PageWidth / 2);
  rp1->MarginTop = 1.0;
}

```

## 4.28 OnPrintPage

### Declaration

```
function OnPrintPage( Sender: TObject; var PageNum: Integer): Boolean;
```

### Category

[Control](#)

### Description

This event will be called when it is time to print the body of a page for the report. This event will only be called if an *OnPrint* event handler does not already exist for this report. To begin a new page, return a result of true; otherwise, to finish the report just exit this event with a result of false. This event is useful for reports that are the same from page to page.

### See also

[TBaseReport Class](#), [Execute](#), [OnPrint](#)

### Example (Delphi)

```
function TReportForm.PrintPageReport3(Sender: TObject;
                                     var PageNum: integer): Boolean;
begin { PrintPageReport3 }
  with Sender as TBaseReport do begin
    SetFont('Times New Roman',10);
    Home;

    { Print memo buffer }
    SetColumns(3,0.25);
    MemoBuf.PrintStart := ColumnStart;
    MemoBuf.PrintEnd   := ColumnEnd;
    PrintMemo(MemoBuf, ColumnLinesLeft, false);
    ClearColumns;

    Result := not MemoBuf.Empty;
  end; { with }
end; { PrintPageReport3 }
```

### Example (C++Builder)

```
bool __fastcall TReportForm:: PrintPageReport3 (TObject *Sender,
        int &PageNum)
{
    TBaseReport* rp = dynamic_cast<TBaseReport*>(Sender);

    rp1->SetFont("Times New Roman",10);
    rp1->Home();

    // Print memo buffer
    rp1->SetColumns(3,0.25);
    MemoBuf->PrintStart = rp1->ColumnStart;
    MemoBuf->PrintEnd   = rp1->ColumnEnd;
    rp1->PrintMemo(MemoBuf, rp1->ColumnLinesLeft(), false);
    rp1->ClearColumns();

    return !MemoBuf->Empty();
}
```

## 4.29 OnRestore

### Declaration

```
procedure OnRestore(Connection: TRvCustomConnection);
```

### Category

[Rave](#)

**Description**

This event is called when the Rave data system wants to restore the data session to its state before the OnOpen event was called. See the tutorial on customizing data connections for more information.

**See also**

[TRvCustomConnection Class](#), [OnOpen](#)

## 4.30 OnSetFilter

**Declaration**

```
procedure OnSetFilter(Connection: TRvCustomConnection);
```

**Category**

[Rave](#)

**Description**

This event is called when the Rave data system wants to filter the data based on field criteria. See the tutorial on customizing data connections for more information.

**See also**

[TRvCustomConnection Class](#), [OnSetSort](#)

## 4.31 OnSetSort

**Declaration**

```
procedure OnSetSort(Connection: TRvCustomConnection);
```

**Category**

[Rave](#)

**Description**

This event is called when the Rave data system wants to sort the data. See the tutorial on customizing data connections for more information.

**See also**

[TRvCustomConnection Class](#), [OnSetFilter](#)

## 4.32 OnValidateRow

**Declaration**

```
procedure OnValidateRow(Connection: TRvCustomConnection; var ValidRow: Boolean);
```

**Category**

[Rave](#)

**Description**

This event is called for each row in the data and allows the custom selection of which records will be included in the report by setting ValueRow to true or false. See the tutorial on customizing data connections for more information.

**See also**

[TRvCustomConnection Class](#), [OnSetFilter](#)

## 4.33 OnZoomChange

**Declaration**

```
procedure OnZoomChange(Sender: TObject);
```

**Category**

[Preview](#)

**Description**

This event will be called whenever the current zoom factor changes for the preview screen. This can be useful for updating the current zoom factor on visual controls on the preview screen.

**NOTE:**

If an *OnZoomChange* event handler is created, it is responsible for redrawing the page by calling *RedrawPage*.

**See also**

[TRvRenderPreview Class](#), [RedrawPage](#), [ZoomIn](#), [ZoomOut](#)

**Example Delphi**

```
procedure TRpPreviewForm.RvRenderPreview1ZoomChange(Sender: TObject);
var   S1: string[10];
begin
    Str(RvRenderPreview1.ZoomFactor:1:1,S1);
    ZoomEdit.Text := S1;
    RvRenderPreview1.RedrawPage;
end;
```

**Example (C++Builder)**

```
void __fastcall TForm1::RvRenderPreview1ZoomChange(TObject *Sender)
{
    AnsiString S1;
    S1 = FloatToStrF(RvRenderPreview1->ZoomFactor, ffGeneral,1,1);
    ZoomEdit->Text = S1;
    RvRenderPreview1->RedrawPage();
}
```

## 4.34 OverridePreview

**Declaration**

```
procedure OverridePreview(RvSystem: TRvSystem; OverrideMode: TOverrideMode; var OverrideForm: TForm);
```

**Category**

[ReportSystem](#)

**Description**

This event allows the programmer to replace the default preview screen with a custom preview screen. See RpSYSTEM.PAS for more information.

**See also**

[TRvSystem Class](#), [OverridePreviewProc](#)

## 4.35 OverrideSetup

**Declaration**

```
procedure OverrideSetup( RvSystem: TRvSystem; OverrideMode: TOverrideMode; var OverrideForm: TForm);
```

**Category**

[ReportSystem](#)

**Description**

This event allows the programmer to replace the default preview screen with a custom preview screen. See RpSYSTEM.PAS for more information.

**See also**

[TRvSystem Class](#), [OverrideSetupProc](#)

## 4.36 OverrideStatus

### Declaration

```
procedure OverrideStatus( RvSystem: TRvSystem; OverrideMode: TOverrideMode; var OverrideForm: TForm);
```

### Category

[ReportSystem](#)

### Description

This event allows the programmer to replace the default preview screen with a custom preview screen. See RpSYSTEM.PAS for more information.

### See also

[TRvSystem Class](#), *OverrideStatusProc*

# Methods

## Chapter



V

## 5 Methods

A method is a procedure or function associated with a class. A call to a method specifies the object (or, if it is a class method, the class) that the method should operate on.

### 5.1 Abort

#### Declaration

```
procedure Abort;
```

#### Category

[Control](#)

#### Description

This method will abort the printing of the report and set the property [Aborted](#) to true.

#### NOTE:

*Abort* raises the silent exception *Abort* that will cease the current thread of execution. Make sure to use exception handling (try...finally) to restore any resources that you may allocate in your reporting code.

#### See Also

[TBaseReport Class](#), [Aborted](#), [Execute](#)

#### Example (Delphi)

```
procedure TRpStatusForm.CancelButtonClick(Sender:TObject);
begin
    RvNDRWriter1.Abort;
end;
```

#### Example (C++Builder)

```
void __fastcall
TRpStatusForm::CancelButtonClick(TObject* Sender)
{
    RvNDRWriter1->Abort();
}
```

### 5.2 AbortPage

#### Declaration

```
procedure AbortPage;
```

#### Category

[Control](#)

#### Description

This method will abort the printing of the current page and start printing a new page.

#### See also

[TBaseReport Class](#), [Abort](#)

#### Example (Delphi)

```
RvNDRWriter1.AbortPage;
```

#### Example (C++Builder)

```
rp1->AbortPage();
```

### 5.3 AdjustLine

#### Declaration

```
procedure AdjustLine;
```



**Category**[Position](#)**Description**

This method will adjust the current text cursor so that the current line is placed correctly below the previous line after a change in font size. Use *AdjustLine* when you want to reset the line height and line font *after* the cursor is already on the next line.

**See also**[TBaseReport Class](#), [ResetLineHeight](#)**Example (Delphi)**

```
SetFont('Arial',14);
PrintLn('This is the first line of text');
SetFont('Arial',10);
AdjustLine;
PrintLn('This is the second line of text');
```

**Example (C++Builder)**

```
rp1->SetFont("Arial",14);
rp1->PrintLn("This is the first line of text");
rp1->SetFont("Arial",10);
rp1->AdjustLine();
rp1->PrintLn("This is the second line of text");
```

## 5.4 AllowAll

**Declaration**

```
procedure AllowAll;
```

**Category**[Control](#)**Description**

This method will reset the valid destinations to all after they have been modified by *AllowPreviewOnly* or *AllowPrinterOnly*.

**See also**[TBaseReport Class](#), [AllowPreviewOnly](#), [AllowPrinterOnly](#)**Example (Delphi)**

```
// Draw a line on the preview screen only
AllowPreviewOnly;
MoveTo(1.5,1.5);
LineTo(6.5,1.5);
AllowAll;
```

**Example (C++Builder)**

```
rp1->AllowPreviewOnly();
rp1->MoveTo(1.5,1.5);
rp1->LineTo(6.5,1.5);
rp1->AllowAll();
```

## 5.5 AllowPreviewOnly

**Declaration**

```
procedure AllowPreviewOnly;
```

**Category**[Control](#)

**Description**

This method will set the valid destinations to preview only. Any printing commands that follow will only be sent to the preview screen. The method can be very useful to print items that you want to appear on the preview screen but not the printer (**Such as the label extents for the TLabelShell component**).

**See also**

[TBaseReport Class](#), [AllowAll](#), [AllowPrinterOnly](#)

**Example**

See [AllowAll](#)

## 5.6 AllowPrinterOnly

**Declaration**

```
procedure AllowPrinterOnly;
```

**Category**

[Control](#)

**Description**

This method will set the valid destinations to printer only. Any printing commands that follow will only be sent to the printer. This method can be very useful to print items that you want to appear on the printer but not the preview screen.

**See also**

[TBaseReport Class](#), [AllowAll](#), [AllowPreviewOnly](#)

**Example**

See [AllowAll](#)

## 5.7 Append

**Declaration**

```
procedure Append(Text: string);
```

**Category**

[Memo](#)

**Description**

This method will append Text to the end of the memo buffer.

**See also**

[TMemoBuf Class](#), [Insert](#)

**Example (Delphi)**

```
MemoBuf.Append(' This is a new sentence on the end.');
```

**Example (C++Builder)**

```
MemoBuf->Append(" This is a new sentence on the end.");
```

## 5.8 AppendMemoBuf

**Declaration**

```
procedure AppendMemoBuf(MemoBuf: TMemoBuf);
```

**Category**

[Memo](#)

**Description**

Will append MemoBuf to the current memo buffer.

See also

[TMemoBuf Class](#), [InsertMemoBuf](#)

**Example (Delphi)**

```
MemoBuf1.AppendMemoBuf (MemoBuf2) ;
```

**Example (C++Builder)**

```
MemoBuf1->AppendMemoBuf (MemoBuf2) ;
```

## 5.9 Arc

**Declaration**

```
procedure Arc(X1,Y1,X2,Y2,X3,Y3,X4,Y4: double);
```

**Category**

[Graphics](#)

**Description**

This method draws an arc inside an ellipse bounded by the rectangle defined by (X1,Y1) and (X2,Y2). The arc starts at the intersection of the line drawn between the ellipse center  $((X1+X2) / 2.0, (Y1+Y2) / 2.0)$  and the point (X3,Y3) and is drawn counterclockwise until it reaches the intersection of the line drawn between the ellipse center and the point (X4,Y4).

See also

[TBaseReport Class](#), [Ellipse](#), [Pie](#)

**Example (Delphi)**

```
RvNDRWriter1.Arc(1.0,1.0,3.0,3.0,3.0,2.0,0.0,0.0);
```

**Example (C++Builder)**

```
RvNDRWriter1->Arc(1.0,1.0,3.0,3.0,3.0,2.0,0.0,0.0);
```

## 5.10 AssignFont

**Declaration**

```
procedure AssignFont(Font: TFont);
```

**Category**

[Font](#)

**Description**

Selects current font to the TFont object from list.

See also

[TBaseReport Class](#), [SetFont](#)

**Example (Delphi)**

```
RvNDRWriter1.AssignFont( FontDialog1.Font );
```

**Example (C++Builder)**

```
RvNDRWriter1->AssignFont( FontDialog1->Font );
```

## 5.11 BrushCopy

**Declaration**

```
procedure BrushCopy(const Dest: TRect; Bitmap: TBitmap; const Source: TRect;  
Color: TColor);
```

**Category**

[Graphics](#)

**Description**

Copies a portion of Bitmap specified by the rectangle *Source* to the printer canvas. *Color of Bitmap* is replaced by the brush color of the destination canvas. The rectangle *Dest* defines the region to copy the bitmap to.

**See also**

[TBaseReport Class](#), [CreateRect](#), [TColor](#), [TRect](#)

**Example (Delphi)**

```
RvNDRWriter1.BrushCopy(DestRect, UserBMP, SrcRect, clBlack);
```

**Example (C++Builder)**

```
RvNDRWriter1->BrushCopy(DestRect, UserBMP, SrcRect, clBlack);
```

## 5.12 CalcGraphicHeight

**Declaration**

```
function CalcGraphicHeight(Width: double; Graphic: TGraphic): double;
```

**Category**

[Graphics](#)

**Description**

This method will calculate and return the value for the new *Height* of the *Graphic* based on the *Width* value while maintaining the original ratio of the *Graphic*. This could be used to see if there is enough room left on the page before attempting to print the graphic. This can be used for both bitmaps and metafiles.

**See also**

[TBaseReport Class](#), [CalcGraphicWidth](#), [PrintBitmap](#), [PrintBitmapRect](#), [StretchDraw](#)

**Example (Delphi)**

```
Bitmap := TBitmap.Create;
Bitmap.LoadFromFile('RpDEMO.BMP');
PrintBitmapRect(X1, Y1, X1 + 3.0,
                Y1 + CalcGraphicHeight(3.0, Bitmap), Bitmap);
Bitmap.Free;
```

**Example (C++Builder)**

```
Graphics::TBitmap* Bitmap;
Bitmap = new Graphics::TBitmap();
Bitmap->LoadFromFile("RpDEMO.BMP");
rpl->PrintBitmapRect(X1, Y1, X1 + 3.0,
                    Y1 + rpl->CalcGraphicHeight(3.0, Bitmap), Bitmap);
delete Bitmap;
```

## 5.13 CalcGraphicWidth

**Declaration**

```
function CalcGraphicWidth(Height: double; Graphic: TGraphic): double;
```

**Category**

[Graphics](#)

**Description**

This method will calculate and return the value for the new *Width* of the *Graphic* based on the *Height* value while maintaining the original ratio of the *Graphic*. This can be used for both bitmaps and metafiles.

**See also**

[TBaseReport Class](#), [CalcGraphicHeight](#), [PrintBitmap](#), [PrintBitmapRect](#), [StretchDraw](#)

**Example (Delphi)**

```
Bitmap := TBitmap.Create;
```

```

Bitmap.LoadFromFile('RpDEMO.BMP');
PrintBitmapRect(X1, Y1,
                X1 + CalcGraphicWidth(3.0,Bitmap), Y1 + 3.0,Bitmap);
Bitmap.Free;

```

#### **Example (C++Builder)**

```

Graphics::TBitmap* Bitmap;
Bitmap = new Graphics::TBitmap();
Bitmap->LoadFromFile("RpDEMO.BMP");
rpl->PrintBitmapRect(X1, Y1,
                    X1 + rpl->CalcGraphicHeight(3.0,Bitmap),3.0,Bitmap);
delete Bitmap;

```

## 5.14 Chord

### **Declaration**

```
procedure Chord(X1,Y1,X2,Y2,X3,Y3,X4,Y4: double);
```

### **Category**

[Graphics](#)

### **Description**

This method draws a chord inside an ellipse bounded by the rectangle defined by (X1,Y1) and (X2,Y2). The chord starts at the intersection of the line drawn between the ellipse center  $((X1+X2)/2.0, (Y1+Y2)/2.0)$  and the point (X3,Y3) and is drawn to the line drawn between the ellipse center and the point (X4,Y4).

### **See also**

[TBaseReport Class](#), [Ellipse](#)

### **Example (Delphi)**

```
RvNDRWriter1.Chord(1.0,1.0,3.0,3.0,0.0,0.8,3.0,2.0);
```

### **Example (C++Builder)**

```
RvNDRWriter1->Chord(1.0,1.0,3.0,3.0,0.0,0.8,3.0,2.0);
```

## 5.15 Clear

### **Declaration**

```
procedure Clear;
```

### **Category**

[Preview](#)

### **Description**

This method will remove the *TImage* from the preview *TScrollBar* and refresh the display. This method can be useful for clearing the preview screen without having to destroy the preview form.

### **See also**

[TRvRenderPreview Class](#), [ScrollBar](#)

### **Example (Delphi)**

```
// Clear the preview screen
RvRenderPreview1.Clear;
```

### **Example (C++Builder)**

```
RvRenderPreview1->Clear();
```

## 5.16 ClearAllTabs

### **Declaration**

```
procedure ClearAllTabs;
```

**Category**[Tabs](#)**Description**

This method will clear the current tab settings as well as all saved tab settings. This call is normally not needed since the tabs are cleared once the report is finished.

**See also**[TBaseReport Class](#), [ClearTabs](#), [SaveTabs](#)**Example (Delphi)**

```
// Clear all tabs, including saved tabs  
ClearAllTabs;
```

**Example (C++Builder)**

```
rpl->ClearAllTabs();
```

## 5.17 ClearColumns

**Declaration**

```
procedure ClearColumns;
```

**Category**[Column](#)**Description**

This method removes all current column settings.

**See also**[TBaseReport Class](#), [SetColumns](#), [SetColumnWidth](#)**Example (Delphi)**

```
RvNDRWriter1.ClearColumns;
```

**Example (C++Builder)**

```
RvNDRWriter1->ClearColumns();
```

## 5.18 ClearRaveBlob

**Declaration**

```
procedure ClearRaveBlob;
```

**Category**[Rave](#)**Description**

This method will clear the currently loaded report project from the application form. You should not need to call this function since the normal method of clearing the loaded report project is through the TRvProject.StoreRAV property editor.

**See also**[TRvProject Class](#), [LoadRaveBlob](#), [RaveBlobDateTime](#), [SaveRaveBlob](#), [StoreRAV](#)**Example (Delphi)**

```
RvProject1.ClearRaveBlob;
```

**Example (C++Builder)**

```
RvProject1->ClearRaveBlob();
```

## 5.19 ClearTabs

### Declaration

```
procedure ClearTabs;
```

### Category

[Tabs](#)

### Description

This method removes all current tab settings but will leave saved tab settings as they were.

### See also

[TBaseReport Class](#), [ResetTabs](#), [SetTab](#)

### Example (Delphi)

```
RvNDRWriter1.ClearTabs;
```

### Example (C++Builder)

```
RvNDRWriter1->ClearTabs();
```

## 5.20 Close

### Declaration

```
procedure Close;
```

### Category

[Rave](#)

### Description

This method will close the report project and unload it from memory. If you call the Open method of TRvProject, you should insure that this method is called before the application terminates.

### See also

[TRvProject Class](#), [Active](#), [OnAfterClose](#), [OnAfterOpen](#), [OnBeforeClose](#), [OnBeforeOpen](#), [Open](#)

### Example (Delphi)

```
RvProject1.Close;
```

### Example (C++Builder)

```
RvProject1->Close();
```

## 5.21 ConstraintHeightLeft

### Declaration

```
function ConstraintHeightLeft(Constraint: double): double;
```

### Category

[Memo](#)

### Description

This method will return the height necessary to print the memo buffer for the current font between *PrintStart* and *PrintEnd*. However, for speed purposes, this method will stop processing when the height exceeds the Constraint parameter.

### NOTE:

You must initialize the TMemBuf.BaseReport before calling this method.

### See also

[TMemBuf Class](#), [MemoHeightLeft](#), [PrintEnd](#), [PrintMemo](#), [PrintStart](#), [TMemBuf](#)

**Example (Delphi)**

```
MemoBuf.BaseReport := Sender as TBaseReport;
HeightLeft := MemoBuf.ConstraintHeightLeft(5.0);
```

**Example (C++Builder)**

```
MemoBuf->BaseReport = rp;
HeightLeft = MemoBuf->ConstraintHeightLeft(5.0);
```

## 5.22 CopyRect

**Declaration**

```
procedure CopyRect(const Dest: TRect; Canvas: TCanvas; const Source: TRect);
```

**Category**

[Graphics](#)

**Description**

This method copies part of an image defined by the rectangle *Source* from another canvas to the area on the printer canvas defined by the rectangle *Dest*.

**See also**

[TBaseReport Class](#), [CreateRect](#), [TCanvas](#), [TRect](#)

**Example (Delphi)**

```
RvNDRWriter1.CopyRect( DestRect, DestCanvas, SrcRect);
```

**Example (C++Builder)**

```
RvNDRWriter1->CopyRect( DestRect, DestCanvas, SrcRect);
```

## 5.23 CR

**Declaration**

```
procedure CR;
```

**Category**

[Position](#)

**Description**

This method performs a carriage return which moves the horizontal text cursor position to the beginning of the current line. The beginning of the current line is defined by either the current *SectionLeft* setting or the setting of *ColumnStart* if columns are in use.

**See also**

[TBaseReport Class](#), [ColumnStart](#), [LF](#), [NewLine](#), [SectionLeft](#)

**Example (Delphi)**

```
with RvNDRWriter1 do begin
  SectionLeft := 3.0;
  PrintLn('This text is 3 inches from left');
  SectionLeft := 1.0;
  CR;
end; { with }
```

**Example (C++Builder)**

```
rp1->SectionLeft = 3.0;
rp1->PrintLn("This text is 3 inches from left");
rp1->SectionLeft = 1.0;
rp1->CR();
```

## 5.24 Create (TBaseReport)

**Declaration**

```
constructor Create(AOwner: TComponent);
```



**Category**[Misc](#)**Description**

This constructor should be called to create an instance of a component. This constructor should not normally be called if the component is placed visually on a form.

**See also**[TBaseReport Class](#), [Destroy](#)**Example (Delphi)**

```
// Dynamically create a Rave component
var   MyReportPrinter: TRvNDRWriter;
begin
    MyReportPrinter := TRvNDRWriter.Create(self);
    with MyReportPrinter do try
        MarginTop      := 1.0;
        MarginBottom   := 1.5;
        MarginRight    := 1.0;
        MarginLeft     := 1.0;
        OnPrint        := MyOnPrintMethod;
        Execute;
    finally
        Free;           { This will call the Destroy method }
    end; { with }
end;
```

**Example (C++Builder)**

```
TRvNDRWriter* rp1;
rp1 = new TRvNDRWriter(this);
try {
    rp1->MarginTop      = 1.0;
    rp1->MarginBottom   = 1.5;
    rp1->MarginRight    = 1.0;
    rp1->MarginLeft     = 1.0;
    rp1->OnPrint        = MyOnPrintMethod;
    rp1->Execute();
}
__finally {
    delete rp1;
}/ tryf
```

## 5.25 Create (TRpBarsBase)

**Declaration**

```
constructor Create( BaseRpt: TBaseReport );
```

**Category**[BarCode](#)**Description**

This constructor is called to create an instance of the Bar Code Class. The current reporting object should be passed into the BaseRpt parameter.

**See also**[TRpBarsBase Class](#), [BaseReport](#) (bar code)**Example (Delphi)**

```
BarCode1 := TRpBarsPostNet.Create(Sender as TBaseReport);
with BarCode1 do begin
    BarHeight := 0.125;
```

```

    BarWidth := 0.020;
    UseChecksum := True;
    Text := '85283-3558'; {'-' will be stripped}
    Left := MarginLeft + 1.0;
    Print;
end; {if}
Barcode1.Free;

```

#### Example (C++Builder)

```

TBaseReport* rp = dynamic_cast<TBaseReport*>(Sender);
TRpBarsPostNet* bcl = new TRpBarsPostNet(rp);
bcl->BarHeight = 0.125;
bcl->BarWidth = 0.020;
bcl->UseChecksum = true;
bcl->Text = "85283-3558"; / "-" will be stripped
bcl->Left = rpl->MarginLeft + 1.0;
bcl->Print();
delete bcl;

```

## 5.26 CreateBrush

### Declaration

```

function CreateBrush(NewColor: TColor; NewStyle: TBrushStyle; NewBitmap:
TBitmap): TBrush;

```

### Category

[Graphics](#)

### Description

This method will create a *TBrush* object for the given parameters. If a bitmap is not desired, pass in the value of nil. You can assign this brush to the canvas to change the current brush.

### NOTE:

The brush object returned must be released by calling the free method of *TBrush*.

### See also

[TBaseReport Class](#), [SetBrush](#), *TBrush*, *TBrushStyle*, *TColor*

#### Example (Delphi)

```

var MyBrush: TBrush;
begin
    MyBrush := CreateBrush(clRed, bsSolid, nil);
end;

```

#### Example (C++Builder)

```

TBrush* MyBrush;
MyBrush = rpl->CreateBrush(clRed, bsSolid, NULL);
MyBrush->Free();

```

## 5.27 CreateFont

### Declaration

```

function CreateFont(NewName: string; NewSize: integer): TFont;

```

### Category

[Font](#)

### Description

This method will create a *TFont* object for the given parameters. *NewSize* is the point size of the font (1/72nds of an inch). You can assign this font to the canvas to change the current font.

### NOTE:

The font object returned must be released by calling the free method of *TFont*. Also, it is preferable to use

*SaveFont* and *RestoreFont*.

**See also**

[TBaseReport Class](#), [RestoreFont](#), [SaveFont](#), [SetFont](#), [TFont](#)

**Example (Delphi)**

```
var MyFont: TFont;  
begin  
    MyFont := CreateFont('Times New Roman',8.00);  
end;
```

**Example (C++Builder)**

```
TFont* MyFont;  
MyFont = rpl->CreateFont("Times New Roman",8.00);
```

## 5.28 CreatePen

**Declaration**

```
function CreatePen(NewColor: TColor; NewStyle: TPenStyle; NewWidth: integer;  
    NewMode: TPenMode): TPen;
```

**Category**

[Graphics](#)

**Description**

This method will create a *TPen* object for the given parameters. The *NewWidth* parameter, if positive, is the width of the pen in printer units (dots) and if negative, is the width of the pen in 1/100ths of an inch. You can assign this pen to the canvas to change the current pen.

**NOTE:**

The pen object returned must be released by calling the free method of *TPen*.

**See also**

[TBaseReport Class](#), [SetPen](#), [TColor](#), [TPen](#), [TPenMode](#), [TPenStyle](#)

**Example (Delphi)**

```
MyPen := CreatePen(clBlack,psSolid,1,pmBlack);
```

**Example (C++Builder)**

```
MyPen = rpl->CreatePen(clBlack,psSolid,1,pmBlack);
```

## 5.29 CreatePoint

**Declaration**

```
function CreatePoint(X,Y: double): TPoint;
```

**Category**

[Graphics](#)

**Description**

This method will return a *TPoint* record initialized to the point (X,Y).

**See also**

[TBaseReport Class](#), [TPoint](#)

**Example (Delphi)**

```
MyPoint := CreatePoint(1.00,6.00);
```

**Example (C++Builder)**

```
MyPoint = rpl->CreatePoint(1.00,6.00);
```

## 5.30 CreateRect

### Declaration

```
function CreateRect(X1,Y1,X2,Y2: double): TRect;
```

### Category

[Graphics](#)

### Description

This method will return a *TRect* record initialized to the rectangle defined by the points (X1,Y1) and (X2,Y2).

### See also

[TBaseReport Class](#), [CopyRect](#), [TextRect](#), [TRect](#)

### Example (Delphi)

```
MyRect := CreateRect(1.00,6.00,3.00,8.00);
```

### Example (C++Builder)

```
MyRect = rpl->CreateRect(1.00,6.00,3.00,8.00);
```

## 5.31 Delete

### Declaration

```
procedure Delete(BufPos: longint; DelLen: longint);
```

### Category

[Memo](#)

### Description

This method will delete DelLen characters starting at BufPos in the memo buffer.

### See also

[TMemoBuf Class](#), [Insert](#)

### Example (Delphi)

```
// Delete 5 characters at current position  
MemoBuf.Delete(MemoBuf.Pos,5);
```

### Example (C++Builder)

```
MemoBuf->Delete(MemoBuf->Pos,5);
```

## 5.32 Design

### Declaration

```
procedure Design;
```

### Category

[Rave](#)

### Description

This method will start the execution of the Rave visual designer for the currently selected report.

### NOTE:

This feature is only available with a Rave EUDL license. See the Nevrona website at <http://www.nevrona.com> for more information on obtaining an EUDL license.

### See also

[TRvProject Class](#), [DesignReport](#), [Execute](#), [ExecuteReport](#), [SelectReport](#)

**Example (Delphi)**

```
RvProject1.Design;
```

**Example (C++Builder)**

```
RvProject1->Design();
```

## 5.33 DesignReport

**Declaration**

```
procedure DesignReport(ReportName: string);
```

**Category**

[Rave](#)

**Description**

This method will start the execution of the Rave visual designer for the specified report. ReportName is the short name of the report as defined in the report project. If you want to design the report by it's full name you will need to call the SelectReport and Design methods.

**NOTE:**

This feature is only available with a Rave EUDL license. See the Nevrona website at <http://www.nevrona.com> for more information on obtaining an EUDL license.

**See also**

[TRvProject Class](#), [Design](#), [Execute](#), [ExecuteReport](#)

**Example (Delphi)**

```
RvProject1.DesignReport('CustomerListing');
```

**Example (C++Builder)**

```
RvProject1->DesignReport("Customer Listing");
```

## 5.34 Destroy

**Declaration**

```
Destructor Destroy;
```

**Category**

[Misc](#)

**Description**

The *Destroy* destructor should never be called directly. To destroy a component created with *Create*, call the *Free* method.

**See also**

[TBaseReport Class](#), [Create](#)

**Example**

see [Create](#)

## 5.35 Draw

**Declaration**

```
procedure Draw(X,Y: double; Graphic: TGraphic);
```

**Category**

[Graphics](#)

**Description**

This method draws *Graphic* to the printer canvas at the location (X,Y).

**NOTE:**

Do not use *Draw* for bitmaps. Use *PrintBitmap* or *PrintBitmapRect* instead.

**See also**

[TBaseReport Class](#), [PrintBitmap](#), [PrintBitmapRect](#), [StretchDraw](#), [TGraphic](#)

**Example (Delphi)**

```
var    MyLogo: TGraphic;
begin
    MyLogo := TMetafile.Create;
    try
        MyLogo.LoadFromFile('MYLOGO.WMF');
        RvNDRWriter1.Draw(1.0,2.0,MyLogo);
    finally
        MyLogo.Free;
    end; { tryf }
end;
```

**Example (C++Builder)**

```
TGraphic* MyLogo;
MyLogo = new TMetafile();
try {
    MyLogo->LoadFromFile("MYLOGO.WMF");
    RvNDRWriter1->Draw(1.0,2.0,MyLogo);
}
__finally {
    delete MyLogo;
}/ tryf
```

## 5.36 DrawFocusRect

**Declaration**

```
procedure DrawFocusRect(const Rect: TRect);
```

**Category**

[Graphics](#)

**Description**

This method will draw a rectangle, defined by *Rect*, in the style used to indicate that the rectangle has focus.

**See also**

[TBaseReport Class](#), [CreateRect](#), [TRect](#)

**Example (Delphi)**

```
RvNDRWriter1.DrawFocusRect(CreateRect(1.0,1.0,2.0,3.0));
```

**Example (C++Builder)**

```
RvNDRWriter1->DrawFocusRect(rp1->CreateRect(1.0,1.0,2.0,3.0));
```

## 5.37 Ellipse

**Declaration**

```
procedure Ellipse(X1,Y1,X2,Y2: double);
```

**Category**

[Graphics](#)

**Description**

This method draws an ellipse bounded by the rectangle defined by (X1,Y1) and (X2,Y2).

See also

[TBaseReport Class](#), [Arc](#), [Pie](#)

**Example (Delphi)**

```
Ellipse(5.375,1.25,7.375,2.75);
```

**Example (C++Builder)**

```
rp1->Ellipse(5.375,1.25,7.375,2.75);
```

## 5.38 Empty

**Declaration**

```
function Empty: Boolean;
```

**Category**

[Memo](#)

**Description**

This method will return true if the memo buffer does not have anything in it or if the current position, *Pos*, is beyond the end of the buffer.

See also

[TMemoBuf Class](#), [Pos](#), [Size](#)

**Example (Delphi)**

```
if not MemoBuf1.Empty then begin
    PrintMemo(MemoBuf1,0,false);
end; { if }
```

**Example (C++Builder)**

```
if (!MemoBuf1->Empty()) {
    rp1->PrintMemo(MemoBuf1,0,false);
}/ if
```

## 5.39 Execute (TBaseReport)

**Declaration**

```
procedure Execute;
```

**Category**

[Control](#)

**Description**

This method will begin the printing task assigned to the component. For report generation components ( [TRvSystem](#), *TRvNDRWriter*) the event handlers *OnBeforePrint*, *OnPrint*, *OnPrintPage*, *OnNewPage*, *OnNewColumn*, *OnPrintHeader*, *OnPrintFooter* and *OnAfterPrint* will be called at their appropriate times. For *TRvRenderPrinter* or *TRvRenderPreview* the contents of the report stream from a *TRvNDRWriter* will be sent to either the printer or the preview screen. See *Start* for printing the report for a *TRvRenderPreview* component.

See also

[TBaseReport Class](#), [Abort](#), [Printing](#), All printing event handlers

**Example (Delphi)**

```
RvNDRWriter1.Execute;
```

**Example (C++Builder)**

```
RvNDRWriter1->Execute();
```

## 5.40 Execute (TRvProject)

### Declaration

```
procedure Execute;
```

### Category

[Rave](#)

### Description

This method will start the printing of the currently selected Rave report. This method can be called while a printing job is in progress from a *TRvNDRWriter* component (typically inside of the *OnPrint* event) to add in the Rave report to the current code generated report.

### See also

[TRvProject Class](#), [ExecuteReport](#), [SelectReport](#)

### Example (Delphi)

```
RvProject1.Execute;
```

### Example (C++Builder)

```
RvProject1->Execute();
```

## 5.41 ExecuteCustom

### Declaration

```
procedure ExecuteCustom(NewFirstPage: integer; NewLastPage: integer;  
NewCopies: integer);
```

### Category

[Control](#)

### Description

This method will print the report but only for the specified parameters. *NewCopies*, if non-zero, will override the copies setting in the report file. *NewFirstPage* and *NewLastPage*, if non-zero, will only print the report file for that page range.

### See also

[TRvRenderPreview Class](#), [Copies](#), [Execute](#)

### Example (Delphi)

```
// Print 2 copies of only the first four pages  
RvRenderPrinter1.ExecuteCustom( 1, 4, 2);
```

### Example (C++Builder)

```
RvRenderPrinter1->ExecuteCustom( 1, 4, 2);
```

## 5.42 ExecuteReport

### Declaration

```
procedure ExecuteReport(ReportName: string);
```

### Category

[Rave](#)

### Description

This method will start the execution of the named Rave report. This method can be called while a printing job is in progress from a *TRvNDRWriter* component (typically inside of the *OnPrint* event) to add in the Rave report to the current code generated report.

### See also

[TRvProject Class](#), [Execute](#)



**Example (Delphi)**

```
RvProject1.ExecuteReport('CustomerListing');
```

**Example (C++Builder)**

```
RvProject1->ExecuteReport("CustomerListing");
```

## 5.43 FillRect

**Declaration**

```
procedure FillRect(const Rect: TRect);
```

**Category**

[Graphics](#)

**Description**

This method fills the rectangle defined by *Rect* with the current brush.

**See also**

[TBaseReport Class](#), [CreateRect](#), *TRect*

**Example (Delphi)**

```
FillRect( CreateRect( 1.0, 1.0, 2.0, 3.0 ) );
```

**Example (C++Builder)**

```
rp1->FillRect(rp1->CreateRect(1.0, 1.0, 2.0, 3.0));
```

## 5.44 Finish

**Declaration**

```
procedure Finish;
```

**Category**

[Control](#)

**Description**

This method finishes a preview session for the TRvRenderPreview component or finishes a print job for TRvNDRWriter. *Start* must have been called first before *Finish* will be a valid call.

**See also**

[TBaseReport Class](#), [Start](#)

**Example (Delphi)**

```
RvRenderPreview1.Finish;
```

**Example (C++Builder)**

```
RvRenderPreview1->Finish();
```

## 5.45 FinishTabBox

**Declaration**

```
procedure FinishTabBox(Width: integer);
```

**Category**

[Tabs](#)

**Description**

Draws the top line for the current set of tabs using a line width of *Width*. Useful when printing a table drawn with the setting of BOXLINELEFTRIGHT to finish the bottom of each tab box. This function can also be called at the beginning to draw the top line of the table.

**See also**

[TBaseReport Class](#), [SetTab](#)

**Example (Delphi)**

```
ClearTabs;
SetTab(0.5,pjLeft,1.5,5,BOXLINELEFTRIGHT,0);
SetTab(NA, pjLeft,1.5,5,BOXLINELEFTRIGHT,0);
SetTab(NA, pjLeft,4.5,5,BOXLINELEFTRIGHT,0);
FinishTabBox(1);
PrintTab('Name');
PrintTab('Picture');
PrintTab('Description');
NewLine;
FinishTabBox(1);
```

**Example (C++Builder)**

```
rp1->ClearTabs();
rp1->SetTab(0.5,pjLeft,1.5,5,BOXLINELEFTRIGHT,0);
rp1->SetTab(NA, pjLeft,1.5,5,BOXLINELEFTRIGHT,0);
rp1->SetTab(NA, pjLeft,4.5,5,BOXLINELEFTRIGHT,0);
rp1->FinishTabBox(1);
rp1->PrintTab("Name");
rp1->PrintTab("Picture");
rp1->PrintTab("Description");
rp1->NewLine();
rp1->FinishTabBox(1);
```

## 5.46 FloodFill

**Declaration**

```
procedure FloodFill(X,Y: double; Color: TColor; FillStyle: TFillStyle);
```

**Category**

[Graphics](#)

**Description**

This method fills an area of the printer canvas using the current brush. *FloodFill* begins at the point (X,Y) and fills until the boundary specified by the color, *Color*, is encountered. *FillStyle* defines the method of fill used. (*fsBorder* will fill until the color, *Color*, is encountered and *fsSurface* will fill while the color, *Color*, is still encountered.)

**See also**

[TBaseReport Class](#), [PageInvalid](#), *TColor*

**Example (Delphi)**

```
FloodFill(2.0,3.0,clRed,fsBorder);
```

**Example (C++Builder)**

```
FloodFill(2.0,3.0,clRed,fsBorder);
```

## 5.47 FrameRect

**Declaration**

```
procedure FrameRect(const Rect: TRect);
```

**Category**

[Graphics](#)

**Description**

This method draws the rectangle *Rect* using the current brush to draw the border of the rectangle. *FrameRect* does not fill the rectangle with the current brush.

See also

[TBaseReport Class](#), [CreateRect](#), [TRect](#)

#### Example (Delphi)

```
RvNDRWriter1.FrameRect( CreateRect( 1.0,1.0, 2.0,3.0 ) );
```

#### Example (C++Builder)

```
RvNDRWriter1->FrameRect( rp1->CreateRect(1.0,1.0,2.0,3.0) );
```

## 5.48 FreeSaved

### Declaration

```
procedure FreeSaved;
```

### Category

[Memo](#)

### Description

This method will free the memory allocated by a previous call to *SaveBuffer*. This method is normally not needed as the saved buffer is freed when the memo buffer is freed.

See also

[TMemoBuf Class](#), [RestoreBuffer](#), [SaveBuffer](#)

#### Example (Delphi)

```
MemoBuf1.FreeSaved;
```

#### Example (C++Builder)

```
MemoBuf1->FreeSaved();
```

## 5.49 GetMemoLine

### Declaration

```
function GetMemoLine( MemoBuf: TMemoBuf; var EOL: Boolean): string;
```

### Category

[Memo](#)

### Description

This method will return a single line from the memo buffer each time it is called. You can print the memo buffer line by line by placing this function inside a *PrintLn* statement. *EOL* returns true when it encounters a carriage return or the end of the memo buffer.

See also

[TBaseReport Class](#), [MemoLines](#), [PrintMemo](#), [TMemoBuf](#)

#### Example (Delphi)

```
PrintLn(GetMemoLine(MemoBuf, EOL));
```

#### Example (C++Builder)

```
rp1->PrintLn(rp1->GetMemoLine(MemoBuf, EOL));
```

## 5.50 GetNextLine

### Declaration

```
function GetNextLine(var EOL: Boolean): string;
```

### Category

[Memo](#)

### Description

This method will return a single line from the memo buffer each time it is called. You can print the memo

buffer line by line by placing this function inside a *PrintLn* statement. *EOL* returns true when it encounters a carriage return or the end of the memo buffer.

**NOTE:**

You must initialize the *TMemoBuf.BaseReport* before calling this method.

**See also**

[TBaseReport Class](#), [MemoLines](#), [PrintMemo](#), [TMemoBuf](#)

**Example (Delphi)**

```
PrintLn(GetNextLine(EOL));
```

**Example (C++Builder)**

```
rpl->PrintLn(rpl->GetNextLine(EOL));
```

## 5.51 GetParam

**Declaration**

```
procedure GetParam(ParamName: string);
```

**Category**

[Rave](#)

**Description**

*GetParam* allows an event in the Visual Designer to get a parameter that was passed from the application to the currently loaded Rave project. These parameters can be used to control dynamic layouts, SQL parameters or other items to print in a visually designed report.

**See also**

[TRvProject Class](#), [SetParam](#)

**Example (in Visual Designer Event)**

```
RaveProject.GetParam('UserName',UserName);
```

## 5.52 GetReportCategoryList

**Declaration**

```
procedure GetReportCategoryList(ReportList: TStrings; Categories: string;  
FullName: Boolean);
```

**Category**

[Rave](#)

**Description**

This method will allow you to get all of the reports matching specific categories. If you had categories called Accounting, General, Status and System. Now if you want to get a list of all reports except System, then you would call *RvProject1.GetReportCategoryList(ReportList, 'Accounting; Status; General; ;')*. If *FullName* is true, this will return the full names of all reports in the current report project and if it is false, it will return the short names of the reports.

**NOTE:**

The double ";" at the end of the category list is to include all reports where the category is not defined (the default value).

**See also**

[TRvProject Class](#), [SelectReport](#)

## 5.53 GetReportList

### Declaration

```
procedure GetReportList(ReportList: TStrings;FullName: Boolean);
```

### Category

[Rave](#)

### Description

This method will fill *ReportList* with a list of Rave defined reports that could then be used in a list box or other TStrings compatible object. ReportList must be an already created TStrings object. If *FullName* is true, this will return the full names of all reports in the current report project and if it is false it will return the short names of the reports.

### See also

[TRvProject Class](#), [SelectReport](#)

## 5.54 GetTab

### Declaration

```
function GetTab(Index: integer): PTab;
```

### Category

[Tabs](#)

### Description

This method will return the tab setting specified by *Index*. If *Index* is 0 then *GetTab* will return the current tab setting and if *Index* is greater than the number of defined tabs then a value of nil will be returned. See RpDEFINE.PAS for information on the PTab structure.

### See also

[TBaseReport Class](#), [TabIndex](#)

## 5.55 GotoFooter

### Declaration

```
procedure GotoFooter;
```

### Category

[Position](#)

### Description

This method will position the text cursor just above the current *SectionBottom*.

### See also

[TBaseReport Class](#), [MarginBottom](#), [PrintFooter](#), [SectionBottom](#)

### Example (Delphi)

```
GotoFooter;  
Print('Line just above SectionBottom');
```

### Example (C++Builder)

```
rp1->GotoFooter();  
rp1->Print("Line just above SectionBottom");
```

## 5.56 GotoHeader

### Declaration

```
procedure GotoHeader;
```

### Category

[Position](#)

**Description**

This method will position the text cursor just below the current *SectionTop*.

**See also**

[TBaseReport Class](#), [MarginTop](#), [PrintHeader](#), [SectionTop](#)

**Example (Delphi)**

```
RvNDRWriter1.GotoHeader;
RvNDRWriter1.Print('Line just below SectionTop');
```

**Example (C++Builder)**

```
RvNDRWriter1->GotoHeader();
RvNDRWriter1->Print("Line just below SectionTop");
```

## 5.57 GotoXY

**Declaration**

```
procedure GotoXY(NewXPos: double; NewYPos: double);
```

**Category**

[Position](#)

**Description**

This method will move the text cursor to the position *NewXPos*, *NewYPos*.

**See also**

[TBaseReport Class](#), [XPos](#), [YPos](#)

**Example (Delphi)**

```
// This code shows how to position the output at specific coordinates.
GotoXY(1.0,8.5);
Print('Text at 1.0,8.5');
```

**Example (C++Builder)**

```
rp1->GotoXY(1.0,8.5);
rp1->Print("Text at 1.0,8.5");
```

## 5.58 GraphicFieldToBitmap

**Declaration**

```
procedure GraphicFieldToBitmap(GraphicField: TGraphicField; Bitmap: TBitmap);
```

**Category**

[Graphics](#)

**Description**

This method will convert a TGraphicField (graphical data from a database) to a bitmap.

**NOTE:**

You must include RpDBUTIL in your Uses statement to access this procedure.

**See also**

[TBaseReport Class](#), [PrintBitmap](#), [PrintBitmapRect](#), [TGraphicField](#)

**Example (Delphi)**

```
// Convert and print a TGraphicField
Bitmap := TBitmap.Create;
GraphicFieldToBitmap(Table1Graphic, Bitmap);
PrintBitmapRect(5.375,3.5,7.375,5.5,Bitmap);
Bitmap.Free;
```

**Example (C++Builder)**

```
Bitmap := new Graphic::TBitmap();
rpl->GraphicFieldToBitmap(Tabel1Graphic, Bitmap);
rpl->PrintBitmapRect(5.375, 3.5, 7.375, 5.5, Bitmap);
delete Bitmap;
```

## 5.59 Home

**Declaration**

```
procedure Home;
```

**Category**

[Position](#)

**Description**

This method will move the text cursor to the beginning of line 1.

**See also**

[TBaseReport Class](#)

**Example (Delphi)**

```
SetFont('Arial', 10);
Home;
Print('Text in the Home position');
```

**Example (C++Builder)**

```
rpl->SetFont("Arial", 10);
rpl->Home();
Print("Text in the Home position");
```

## 5.60 Insert

**Declaration**

```
procedure Insert(BufPos: longint; Text: string);
```

**Category**

[Memo](#)

**Description**

This method will insert Text into the memo buffer at BufPos. BufPos should be 0 to insert before the entire buffer.

**See also**

[TMemoBuf Class](#), [Append](#)

**Example (Delphi)**

```
MemoBuf.Insert(0, 'This text will now be first');
```

**Example (C++Builder)**

```
MemoBuf->Insert(0, "This text will now be first");
```

## 5.61 InsertMemoBuf

**Declaration**

```
procedure InsertMemoBuf(BufPos: longint; MemoBuf: TMemoBuf);
```

**Category**

[Memo](#)

**Description**

Will insert a MemoBuf at BufPos into the current memo buffer.

**See also**

[TMemoBuf Class](#), [AppendMemoBuf](#)

**Example (Delphi)**

```
MemoBuf1.InsertMemoBuf(10,MemoBuf2);
```

**Example (C++Builder)**

```
MemoBuf1->InsertMemoBuf(10,MemoBuf2);
```

## 5.62 IsValidChar

**Declaration**

```
function IsValidChar( Ch: char ): Boolean;
```

**Category**

[BarCode](#)

**Description**

Is used to determine whether a character is a valid character for the particular bar code being printed.

**See also**

[TRpBarsBase Class](#)

**Example (Delphi)**

```
// following will return false because 2of5 only support numbers
Code2of5.IsValidCar('A')
```

**Example (C++Builder)**

```
Code2of5->IsValidChar('A')
```

## 5.63 LF

**Declaration**

```
procedure LF;
```

**Category**

[Position](#)

**Description**

This method performs a line feed which moves the vertical text cursor position down by the distance specified by the property *LineHeight*. It also increments the property *LineNum*. If Columns are in use, and the text cursor is moved below the current *SectionBottom*, the text cursor is placed at the top of the next column. The top of the next column is defined by the setting of *SectionTop*.

**See also**

[TBaseReport Class](#), [CR](#), [LineHeight](#), [LineNum](#), [NewLine](#), [SectionBottom](#), [SectionTop](#)

**Example (Delphi)**

```
RvNDRWriter1.LF;
```

**Example (C++Builder)**

```
RvNDRWriter1->LF();
```

## 5.64 LinesLeft

**Declaration**

```
function LinesLeft: integer;
```

**Category**

[Position](#)



**Description**

This method will return the number of lines that can be printed above the current SectionBottom including the current line.

**See also**

[TBaseReport Class](#), [ColumnLinesLeft](#), [SectionBottom](#)

**Example (Delphi)**

```
if RvNDRWriter1.LinesLeft < 3 then begin
  RvNDRWriter1.NewPage;
end; { if }
```

**Example (C++Builder)**

```
if (RvNDRWriter1->LinesLeft() < 3) {
  RvNDRWriter1->NewPage();
}/ if
```

## 5.65 LineTo

**Declaration**

```
procedure LineTo(X,Y: double);
```

**Category**

[Graphics](#)

**Description**

This method will draw a line using the current pen from the previous graphic cursor position to the point specified by (X,Y).

**See also**

[TBaseReport Class](#), [MoveTo](#)

**Example (Delphi)**

```
with RvNDRWriter1 do begin
  MoveTo( 1.0, 1.0 );
  LineTo( 3.0, 3.0 );
  MoveTo( 1.0, 3.0 );
  LineTo( 3.0, 1.0 );
end; { with }
```

**Example (C++Builder)**

```
rp1->MoveTo( 1.0, 1.0 );
rp1->LineTo( 3.0, 3.0 );
rp1->MoveTo( 1.0, 3.0 );
rp1->LineTo( 3.0, 1.0 );
```

## 5.66 LoadFromFile (TMemoBuf)

**Declaration**

```
function LoadFromFile( FileName: String);
```

**Category**

[Memo](#)

**Description**

This method will load a memo buffer with the contents of a text file. To load RTF text, use RTFLoadFile.

**See also**

[TMemoBuf Class](#), [LoadFromStream](#), [RTFLoadFromFile](#), [SaveToStream](#)

**Example (Delphi)**

```
MemoBuf1.LoadFromFile('Letter.Txt');
```

**Example (C++Builder)**

```
MemoBuf1->LoadFromFile( "Letter.Txt" );
```

## 5.67 LoadFromFile (TRvProject)

**Declaration**

```
procedure LoadFromFile(FileName: string);
```

**Category**

[Rave](#)

**Description**

This method will load the report project file specified by the FileName parameter as the current Rave project.

**See also**

[TRvProject Class](#), [LoadFromStream](#), [SaveToFile](#), [SaveToStream](#)

**Example (Delphi)**

```
RvProject1.LoadFromFile('Project1.Rav');
```

**Example (C++Builder)**

```
RvProject1->LoadFromFile( "Project1.Rav" );
```

## 5.68 LoadFromStream (TMemoBuf)

**Declaration**

```
procedure LoadFromStream(Stream: TStream; BufSize: longint);
```

**Category**

[Memo](#)

**Description**

This method will load the memo buffer from the stream for *BufSize* number of bytes.

**See also**

[TMemoBuf Class](#), [SaveToStream](#)

**Example (Delphi)**

```
MemoBuf1.LoadFromStream( MyStream, StreamSize );
```

**Example (C++Builder)**

```
MemoBuf1->LoadFromStream( MyStream, StreamSize );
```

## 5.69 LoadFromStream (TRvProject)

**Declaration**

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

**Category**

[Rave](#)

**Description**

This method will load the report project store in Stream as the current report project.

**See also**

[TRvProject Class](#), [LoadFromFile](#), [SaveToFile](#), [SaveToStream](#)

**Example (Delphi)**

```
RvProject1.LoadFromStream(BlobStream);
```

**Example (C++Builder)**

```
RvProject1->LoadFromStream(BlobStream);
```

**5.70 LoadRaveBlob****Declaration**

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

**Category**

[Rave](#)

**Description**

This method will load the report project stored in *Stream* into the application form. You should not need to call this function since the normal method of loading a report project is through the TRvProject. StoreRAV property editor.

**See also**

[TRvProject Class](#), [ClearRaveBlob](#), [RaveBlobDateTime](#), [SaveRaveBlob](#), [StoreRAV](#)

**Example (Delphi)**

```
RvProject1.LoadRaveBlob( MyStream );
```

**Example (C++Builder)**

```
RvProject1->LoadRaveBlob( MyStream );
```

**5.71 Macro****Declaration**

```
function Macro(MacroID: TMacroID): string;
```

**Default**

6

**Category**

[Misc](#) , [Printing](#)

**Description**

This function inserts a macro into your report. The macro will be inserted at the time of report output (to preview or printer) and not at report generation time. Use this method with all printing methods. For a list of MacroID see the type definition of TMacroID.

**See also**

[TBaseReport Class](#), [MacroData](#), [TMacroID](#)

**Example (Delphi)**

```
// Print the current page and total pages
PrintRight(Macro(midCurrentPage) + ' of ' +
Macro(midTotalPages), 8.0);
```

**Example (C++Builder)**

```
rp1->PrintRight(rp1->Macro(midCurrentPage) + " of " +
rp1->Macro(midTotalPages), 8.0);
```

**5.72 MakeLink****Declaration**

```
function MakeLink(aDisplayText:String ; aHyperlink: String): string;
```

```
function StartLink(aHyperlink: String);
```

```
function EndLink;
```

**Default**  
nil

**Category**  
[Control](#) , [Printing](#)

**Description**

This function creates a text string which contains an embedded link. This text string is a "hot area" and clicking within that "hot area" will jump you to the HyperLink location. This method only works when your reports are rendered in HTML or PDF formats.

**See also**

[TBaseReport Class](#), [StartLink](#), [EndLink](#)

**Example (Delphi)**

```
// Print your text with a Hyperlink
PrintLeft(MakeLink('Tutorials',www.nevrona.com/Default.aspx?tabid=179), 2.5);
```

**Example (C++Builder)**

```
rpl->PrintLeft(rpl->MakeLink('Tutorials',www.nevrona.com/Default.aspx?tabid=179), 2.5);
```

## 5.73 MemoHeightLeft

**Declaration**

```
function MemoHeightLeft: double;
```

**Category**  
[Memo](#)

**Description**

This method will return the height necessary to print the memo buffer for the current font between *PrintStart* and *PrintEnd*.

**NOTE:**

You must initialize the TMemoBuf.BaseReport before calling this method.

**See also**

[TMemoBuf Class](#), [ConstraintHeightLeft](#), [MemoLinesLeft](#), [PrintEnd](#), [PrintMemo](#), [PrintStart](#), [TMemoBuf](#)

**Example (Delphi)**

```
MemoBuf.BaseReport := Sender as TBaseReport;
HeightLeft := MemoBuf.MemoHeightLeft;
```

**Example (C++Builder)**

```
MemoBuf->BaseReport = rp;
HeightLeft = MemoBuf->MemoHeightLeft();
```

## 5.74 MemoLines

**Declaration**

```
function MemoLines(MemoBuf: TMemoBuf): longint;
```

**Category**  
[Memo](#)

**Description**

This method will return the number of lines necessary to print the memo buffer *MemoBuf* for the current font between *PrintStart* and *PrintEnd*.

**See also**

[TBaseReport Class](#), [PrintEnd](#), [PrintMemo](#), [PrintStart](#), [TMemoBuf](#)

**Example (Delphi)**

```
// Save number of lines needed to print memo
LinesLeft := RvNDRWriter1.MemoLines(MyMemo);
```

**Example (C++Builder)**

```
LinesLeft = RvNDRWriter1->MemoLines(MyMemo);
```

## 5.75 MemoLinesLeft

**Declaration**

```
function MemoLinesLeft: longint;
```

**Category**

[Memo](#)

**Description**

This method will return the number of lines necessary to print the memo buffer for the current font between *PrintStart* and *PrintEnd*.

**NOTE:**

You must initialize the TMemoBuf.BaseReport before calling this method

**See also**

[TMemoBuf Class](#), [PrintEnd](#), [PrintMemo](#), [PrintStart](#), [MemoHeightLeft](#), [TMemoBuf](#)

**Example (Delphi)**

```
MemoBuf.BaseReport := Sender as TBaseReport;
LinesLeft := MemoBuf.MemoLinesLeft;
```

**Example (C++Builder)**

```
MemoBuf->BaseReport = rp;
LinesLeft = MemoBuf->MemoLinesLeft();
```

## 5.76 MoveTo

**Declaration**

```
procedure MoveTo(X,Y: double);
```

**Category**

[Graphics](#)

**Description**

This method will move the current graphic cursor position to the point specified by (X,Y).

**See also**

[TBaseReport Class](#), [LineTo](#)

**Example (Delphi)**

```
RvNDRWriter1.MoveTo( NewX, NewY );
```

**Example (C++Builder)**

```
RvNDRWriter1->MoveTo( NewX, NewY );
```

## 5.77 NewColumn

**Declaration**

```
procedure NewColumn;
```

**Category**

[Column](#), [Control](#)

**Description**

Creates a new column in addition to the columns that already exist (that were set using the `SetColumns` or `SetColumnWidth` methods). If there is not enough space on the current page, it will create one with the current settings on the next page.

**See also**

[TBaseReport Class](#), [SetColumns](#), [SetColumnWidth](#)

**Example (Delphi)**

```
RvNDRWriter1.NewColumn;
```

**Example (C++Builder)**

```
RvNDRWriter1->NewColumn();
```

## 5.78 NewLine

**Declaration**

```
procedure NewLine;
```

**Category**

[Column](#) , [Position](#)

**Description**

This method performs a carriage return (CR) followed by a line feed (LF), then resets the tabs.

**See also**

[TBaseReport Class](#), [ColumnStart](#), [CR](#), [LF](#), [ResetTabs](#)

**Example (Delphi)**

```
RvNDRWriter1.NewLine;
```

**Example (C++Builder)**

```
RvNDRWriter1->NewLine();
```

## 5.79 NewPage

**Declaration**

```
procedure NewPage;
```

**Category**

[Control](#)

**Description**

This method will end the current page and start printing on a new page. The *OnPrintFooter* event handler will be called before the current page is finished. The *OnPrintHeader* and *OnNewPage* event handlers will be called after the new page has been created.

**See also**

[TBaseReport Class](#), [AbortPage](#), [OnNewPage](#), [OnPrintHeader](#), [OnPrintFooter](#)

**Example (Delphi)**

```
RvNDRWriter1.NewPage;
```

**Example (C++Builder)**

```
RvNDRWriter1->NewPage();
```

## 5.80 NewPara

**Declaration**

```
procedure NewPara;
```

**Category**

[Column](#) , [Control](#) , [RTF](#)

**Description**

Starts a new paragraph when exporting to HTML or RTF. This differs from `NewLine` method in that it inserts a physical carriage return in the RTF or HTML document.

**NOTE:**

This is a method of all `TBaseReport` components but does nothing except for `TRvRenderHTML` and `TRvRenderRTF`.

**See also**

[TBaseReport Class](#), [CR](#), [LF](#), [NewLine](#)

**Example (Delphi)**

```
RvNDRWriter1.NewPara;
```

**Example (C++Builder)**

```
RvNDRWriter1->NewPara();
```

## 5.81 NextPage

**Declaration**

```
procedure NextPage;
```

**Category**

[Preview](#)

**Description**

This method will go to and print the next page to the preview window. The *OnPageChange* event handler will be called if the current page number changes.

**See also**

[TRvRenderPreview Class](#), [CurrentPage](#), [PrevPage](#), [OnPageChange](#)

**Example (Delphi)**

```
RvRenderPreview1.NextPage;
```

**Example (C++Builder)**

```
RvRenderPreview1->NextPage();
```

## 5.82 NoPrinters

**Declaration**

```
function NoPrinters: Boolean;
```

**Category**

[Printer](#)

**Description**

This function will return true if there are no printers defined in the current Windows system and false if there are. [TRvRenderPrinter](#) will not function without an installed printer driver; however, [TRvNDRWriter](#) and [TRvRenderPreview](#) will still work.

**See also**

[TBaseReport Class](#), [NoPrinterPageHeight](#), [NoPrinterPageWidth](#)

**Example (Delphi)**

```
// Set up for landscape paper  
if NoPrinters then begin
```

```
NoPrinterPageHeight := 8.5;
NoPrinterPageWidth := 11.0;
end; { if }
```

#### Example (C++Builder)

```
if (rpl->NoPrinters()) {
    rpl->NoPrinterPageHeight = 8.5;
    rpl->NoPrinterPageWidth = 11.0;
}/ if
```

## 5.83 Open

### Declaration

```
procedure Open;
```

### Category

[Rave](#)

### Description

This method will open the report project file defined by ProjectFile to make it available for printing or modification.

### See also

[TRvProject Class](#), [Close](#), [LoadDesigner](#), [OnAfterOpen](#), [OnBeforeOpen](#), [ProjectFile](#), [Save](#)

## 5.84 Pie

### Declaration

```
procedure Pie(X1,Y1,X2,Y2,X3,Y3,X4,Y4: double);
```

### Category

[Graphics](#)

### Description

This method draws a pie slice inside an ellipse bounded by the rectangle defined by (X1,Y1) and (X2,Y2). The slice starts at the intersection of the line drawn between the ellipse center ((X1+X2) / 2.0,(Y1+Y2) / 2.0) and the point (X3,Y3) and is drawn counterclockwise until it reaches the intersection of the line drawn between the ellipse center and the point (X4,Y4).

### See also

[TBaseReport Class](#), [Arc](#), [Ellipse](#)

#### Example (Delphi)

```
SetBrush(clBlack, bsHorizontal, nil);
Pie(3.25,1.0,5.25,3.0,5.25,2.0,0.0,0.0);
SetBrush(clBlack, bsVertical, nil);
Pie(3.25,1.0,5.25,3.0,0.0,0.0,3.25,7.0);
SetBrush(clBlack, bsBDiagonal, nil);
Pie(3.25,1.0,5.25,3.0,3.25,7.0,5.25,2.0);
```

#### Example (C++Builder)

```
rpl->SetBrush(clBlack, bsHorizontal, NULL);
rpl->Pie(3.25,1.0,5.25,3.0,5.25,2.0,0.0,0.0);
rpl->SetBrush(clBlack, bsVertical, NULL);
rpl->Pie(3.25,1.0,5.25,3.0,0.0,0.0,3.25,7.0);
rpl->SetBrush(clBlack, bsBDiagonal, NULL);
rpl->Pie(3.25,1.0,5.25,3.0,3.25,7.0,5.25,2.0);
```

## 5.85 Polygon

### Declaration

```
procedure Polygon(const Points: array of TPoint);
```



**Category**[Graphics](#)**Description**

This method will draw a polygon using the current pen defined by the points contained in the open array *Points*. It also closes the shape between the first and last points and fills it using the current brush.

**See also**[TBaseReport Class](#)**Example (Delphi)**

```
RvNDRWriter1.Polygon([CreatePoint(1.0,2.0),
                      CreatePoint(2.0,3.0),
                      CreatePoint(5.0,2.0)]);
```

**Example (C++Builder)**

```
POINT points[3];
points[0] = rpl->CreatePoint(1.0,2.0);
points[1] = rpl->CreatePoint(2.0,3.0);
points[2] = rpl->CreatePoint(5.0,2.0);
RvNDRWriter1->Polygon(points,2);
```

## 5.86 Polyline

**Declaration**

```
procedure Polyline(const Points: array of TPoint);
```

**Category**[Graphics](#)**Description**

This method will draw a series of lines using the current pen connecting the points defined in the open array *Points*.

**See also**[TBaseReport Class](#), [CreatePoint](#), [TPoint](#)**Example (Delphi)**

```
PolyLineArr[1] := CreatePoint( 0 , -1 );
PolyLineArr[2] := CreatePoint(-0.59, 0.81);
PolyLineArr[3] := CreatePoint( 0.95, -0.31);
PolyLineArr[4] := CreatePoint(-0.95, -0.31);
PolyLineArr[5] := CreatePoint( 0.59, 0.81);
PolyLineArr[6] := CreatePoint( 0 , -1);
Polyline(PolyLineArr);
```

**Example (C++Builder)**

```
POINT PolyLineArr[7];
PolyLineArr[1] = rpl->CreatePoint( 0 , -1 );
PolyLineArr[2] = rpl->CreatePoint(-0.59, 0.81);
PolyLineArr[3] = rpl->CreatePoint( 0.95, -0.31);
PolyLineArr[4] = rpl->CreatePoint(-0.95, -0.31);
PolyLineArr[5] = rpl->CreatePoint( 0.59, 0.81);
PolyLineArr[6] = rpl->CreatePoint( 0 , -1);
rpl->Polyline(PolyLineArr,6);
```

## 5.87 PopFont

**Declaration**

```
function PopFont: Boolean;
```

**Category**[Font](#)**Description**

This method will set the font to the setting that was last pushed by *PushFont*. *PopFont* will return false if no more fonts exist on the stack.

**See also**[TBaseReport Class](#), [PushFont](#)**Example (Delphi)**

```
PushFont;  
SetFont('Arial',10);  
PrintLn('This is in Arial');  
PopFont;
```

**Example (C++Builder)**

```
rpl->PushFont();  
rpl->SetFont("Arial",10);  
rpl->PrintLn("This is in Arial");  
rpl->PopFont();
```

## 5.88 PopPos

**Declaration**

```
function PopPos: Boolean;
```

**Category**[Position](#)**Description**

This method will set the text cursor position to the setting that was last pushed by *PushPos*. *PopPos* will return false if no more positions exist on the stack.

**See also**[TBaseReport Class](#), [PushPos](#)**Example (Delphi)**

```
PushPos;  
PrintXY(4,1.5,'Name');  
PopPos;
```

**Example (C++Builder)**

```
rpl->PushPos();  
rpl->PrintXY(4,1.5,"Name");  
rpl->PopPos();
```

## 5.89 PopTabs

**Declaration**

```
function PopTabs: Boolean;
```

**Category**[Tabs](#)**Description**

This method will set the tabs to the setting that was last pushed by *PushTabs*. *PopTabs* will return false if no more tabs exist on the stack.

**See also**[TBaseReport Class](#), [PushTabs](#)

## 5.90 PrevPage

### Declaration

```
procedure PrevPage;
```

### Category

[Preview](#)

### Description

This method will go to and print the previous page to the preview window. The *OnPageChange* event handler will be called if the current page number changes.

### See also

[TRvRenderPreview Class](#), [CurrentPage](#), [NextPage](#), [OnPageChange](#)

### Example (Delphi)

```
RvRenderPreview1.PrevPage;
```

### Example (C++Builder)

```
RvRenderPreview1->PrevPage();
```

## 5.91 Print (TBaseReport)

### Declaration

```
procedure Print(Text: string);
```

### Category

[Printing](#)

### Description

This method will print the string, Text, at the current text cursor position. If the string contains any tab characters (9) the Tab method will be called with the default parameters. The text cursor is left at the end of the string that is printed.

### See also

[TBaseReport Class](#), *all other print functions*

### Example (Delphi)

```
RvNDRWriter1.Print('Hello World!');
```

### Example (C++Builder)

```
RvNDRWriter1->Print("Hello World!");
```

## 5.92 Print (TRpBarsBase)

### Declaration

```
procedure Print;
```

### Category

[BarCode](#)

### Description

This method will print the bar code at the current text cursor position. The text cursor is left at the end of the string that is printed.

### See also

[TRpBarsBase Class](#), [GotoXY](#), [PrintReadable](#), [PrintTop](#), [PrintXY](#), [Text](#)

### Example (Delphi)

```
BarCode1.Text := '12345';  
BarCode1.Print;
```

**Example (C++Builder)**

```
BarCode1->Text = "12345";  
BarCode1->Print();
```

## 5.93 PrintBitmap

**Declaration**

```
procedure PrintBitmap(X,Y: double; ScaleX, ScaleY: double; Bitmap: TBitmap);
```

**Category**

[Graphics](#)

**Description**

This method will draw *Bitmap* on the printer canvas at the point defined by (X,Y). The bitmap will be scaled by the factors *ScaleX* and *ScaleY*. (Example (Delphi) A scaling factor of 2 would draw each pixel in the bitmap as 2 pixels on the printer canvas.)

**See also**

[TBaseReport Class](#), [TBaseReport Class](#), [PrintBitmapRect](#)

**Example (Delphi)**

```
// Print MyBitmap in upper left corner four times its size  
RvNDRWriter1.PrintBitmap( 1.0, 1.0, 2.0, 2.0, MyBitmap );
```

**Example (C++Builder)**

```
RvNDRWriter1->PrintBitmap( 1.0, 1.0, 2.0, 2.0, MyBitmap );
```

## 5.94 PrintBitmapRect

**Declaration**

```
procedure PrintBitmapRect(X1,Y1,X2,Y2: double; Bitmap: TBitmap);
```

**Category**

[Graphics](#)

**Description**

This method will draw *Bitmap* on the printer canvas stretched or shrunk to fit within the rectangle defined by the points (X1,Y1) and (X2,Y2).

**See also**

[TBaseReport Class](#), [CalcGraphicHeight](#), [CalcGraphicWidth](#), [PrintBitmap](#), [StretchDraw](#)

**Example (Delphi)**

```
Bitmap := TBitmap.Create;  
Bitmap.LoadFromFile('RpDEMO.BMP');  
PrintBitmapRect(5.375,3.5,7.375,5.5,Bitmap);  
Bitmap.Free;
```

**Example (C++Builder)**

```
TBitmap* Bitmap = new TBitmap();  
Bitmap.LoadFromFile("RpDEMO.BMP");  
rp1->PrintBitmapRect(5.375,3.5,7.375,5.5,Bitmap);  
delete Bitmap;
```

## 5.95 PrintBlock

**Declaration**

```
procedure PrintBlock(Text: string; Pos: double; Width: double);
```

**Category**

[Printing](#)

**Description**

This method will print *Text* on the current line starting at *Pos*. The text will be block justified within the area defined by *Width*.

**See also**

[TBaseReport Class](#), *All other print functions*

**Example (Delphi)**

```
PrintBlock('This is block justified text',0.5,4.0);
```

**Example (C++Builder)**

```
rpl->PrintBlock("This is block justified text",0.5,4.0);
```

## 5.96 PrintCenter

**Declaration**

```
procedure PrintCenter(Text: string; Pos: double);
```

**Category**

[Printing](#)

**Description**

This method will print the string, *Text*, on the current line centered horizontally at the position, *Pos*.

**See also**

[TBaseReport Class](#), *all other print functions*

**Example (Delphi)**

```
PrintCenter('Text centered at 2.0', 2.0);
```

**Example (C++Builder)**

```
rpl->PrintCenter("Text centered at 2.0", 2.0);
```

## 5.97 PrintCharJustify

**Declaration**

```
procedure PrintCharJustify(Text: string; Ch: char; Pos: double);
```

**Category**

[Printing](#)

**Description**

This method will print a text string out, justified at *Pos* with respect to the first occurrence of *Ch* in *Text*. This can be useful for printing columns of numbers, aligned by the decimal point, when there can be a variable number of digits after the decimal point.

**See also**

[TBaseReport Class](#), [PrintLeft](#), [PrintRight](#)

**Example (Delphi)**

```
// Print the number justified by the decimal point
PrintCharJustify(NumStr, '.', 4.25);
```

**Example (C++Builder)**

```
rpl->PrintCharJustify(NumStr, ".", 4.25);
```

## 5.98 PrintData

**Declaration**

```
procedure PrintData(Value: string);
```

**Category**[Printer](#)**Description**

This method will print the string Value directly to the printer. This can be useful for sending printer specific commands to do things not normally supported by the Windows printer driver (Example (Delphi) electronic forms or HP-GL commands).

**WARNING:**

Including any printer specific commands in your reports may render the reports unusable on other computer systems. Use this method only on a limited basis.

**NOTE:**

This property may be used to send raw HTML tags and text out to the page which is not altered in any way by Rave.

**See also**

[TBaseReport Class](#), *All other print functions*, [PrintDataStream](#)

**Example (Delphi)**

```
RvNDRWriter1.PrintData( SpecialCodes );
```

**Example (C++Builder)**

```
RvNDRWriter1->PrintData( SpecialCodes );
```

## 5.99 PrintDataStream

**Declaration**

```
procedure PrintDataStream(Stream: TStream; BufSize: longint);
```

**Category**[Printer](#)**Description**

This procedure will send *BufSize* bytes from *Stream* directly to the printer. If *BufSize* is 0 the remaining contents of *Stream* will be send.

**NOTE:**

Depending upon the content of the data sent to the printer, this command may cause your reports to be incompatible across different brands of printers. There are also many printer functions that are incompatible with the Windows printer driver and should not be used.

**See also**

[TBaseReport Class](#), [PrintData](#)

**Example (Delphi)**

```
MyFileStream := TFileStream.Create('PAGE.PCL', fmOpenRead);
PrintDataStream(MyFileStream,0);
MyFileStream.Free;
```

**Example (C++Builder)**

```
MyFileStream = new TFileStream("PAGE.PCL", fmOpenRead);
rpl->PrintDataStream(MyFileStream,0);
delete MyFileStream;
```

## 5.100 PrintFimA

**Declaration**

```
procedure PrintFimA( X,Y: double );
```

**Category**[BarCode](#)

**Description**

This method prints a PostNet FIM A at the given X, Y location.

**See also**

[TRpBarsBase Class](#), [PrintFimB](#), [PrintFimC](#)

**Example (Delphi)**

```
PostNetBC1.PrintFimA(3.5,0.5);
```

**Example (C++Builder)**

```
PostNetBC1->PrintFimA(3.5,0.5);
```

## 5.101 PrintFimB

**Declaration**

```
procedure PrintFimB( X,Y: double );
```

**Category**

[BarCode](#)

**Description**

This method prints a PostNet FIM B at the given X, Y location.

**See also**

[TRpBarsBase Class](#), [PrintFimA](#), [PrintFimC](#)

**Example (Delphi)**

```
PostNetBC1.PrintFimB(3.5,0.5);
```

**Example (C++Builder)**

```
PostNetBC1->PrintFimB(3.5,0.5);
```

## 5.102 PrintFimC

**Declaration**

```
procedure PrintFimC( X,Y: double );
```

**Category**

[BarCode](#)

**Description**

This method prints a PostNet FIM C at the given X, Y location.

**See also**

[TRpBarsBase Class](#), [PrintFimA](#), [PrintFimB](#)

**Example (Delphi)**

```
PostNetBC1.PrintFimC(3.5,0.5);
```

**Example (C++Builder)**

```
PostNetBC1->PrintFimC(3.5,0.5);
```

## 5.103 PrintFooter

**Declaration**

```
procedure PrintFooter(Text: string; Justify: TPrintJustify);
```

**Category**

[Printing](#)

**Description**

This method will print the string, *Text*, just above the current *SectionBottom* justified by, *Justify*, between the current *SectionLeft* and *SectionRight*.

**See also**

[TBaseReport Class](#), All other print functions, [GotoFooter](#)

**Example (Delphi)**

```
PrintFooter('Date 01/20/95', pjRight);
```

**Example (C++Builder)**

```
PrintFooter("Date 01/20/95", pjRight);
```

## 5.104 PrintHeader

**Declaration**

```
procedure PrintHeader(Text: string; Justify: TPrintJustify);
```

**Category**

[Printing](#)

**Description**

This method will print the string, *Text*, just below the current *SectionTop* justified by, *Justify*, between the current *SectionLeft* and *SectionRight*.

**See also**

[TBaseReport Class](#), All other print functions, [GotoHeader](#)

**Example (Delphi)**

```
PrintHeader('Report Header Text', pjCenter);
```

**Example (C++Builder)**

```
PrintHeader("Report Header Text", pjCenter);
```

## 5.105 PrintHeight

**Declaration**

```
procedure PrintHeight(Height:double; PrintTabs: Boolean);
```

**Category**

[Memo](#)

**Description**

This method will print the memo buffer for the height specified by the *Height* parameter. If *Height* is 0 then all lines in the memo buffer will be printed. If *PrintTabs* is true, then *PrintHeight* will print lines of empty tabs for each line that the memo buffer is printed on.

**NOTE:**

If the entire memo buffer is not printed, the internal position of *MemoBuf* will be set to the last character that was printed. This will allow the memo buffer to be continued on another page.

**NOTE:**

You must initialize the *TMemoBuf.BaseReport* before calling this method.

**See also**

[TMemoBuf Class](#), [BaseReport](#), [TMemoBuf](#), [MemoHeightLeft](#)

## 5.106 PrintImageRect

**Declaration**

```
procedure PrintImageRect(X1,Y1,X2,Y2: double; ImageStream: TStream; ImageType: string);
```



**Category**[Graphics](#)**Description**

This method will draw ImageStream on the printer canvas stretched or shrunken to fit within the rectangle defined by the points (X1,Y1) and (X2,Y2).

**See also**

[TBaseReport Class](#), [CalcGraphicHeight](#), [CalcGraphicWidth](#), [OnDecodeImage](#), [PrintBitmap](#), [StretchDraw](#)

**Example (Delphi)**

```
with Sender as TBaseReport do begin
  Stream := TMemoryStream.Create;
  Image := TJPEGImage.Create;
  try
    Image.LoadFromFile('image1.jpg');
    Image.SaveToStream(Stream);
    Stream.Position := 0;
    PrintImageRect(1,1,3,3,Stream,'JPG');
  finally
    Image.Free;
    Stream.Free;
  end; {tryf}
end; {with}
```

**Example (C++Builder)**

```
TBaseReport *rp = dynamic_cast<TBaseReport*>(Sender);
Stream = new TMemoryStream->Create();
Image = new TJPEGImage->Create();
try {
  Image->LoadFromFile("image1.jpg");
  Image->SaveToStream(Stream);
  Stream->Position = 0;
  rp1->PrintImageRect(1,1,3,3,Stream, "JPG");
}
finally {
  delete Image;
  delete Stream;
}; {tryf}
```

## 5.107 PrintJustify

**Declaration**

```
procedure PrintJustify(Text: string; Pos: double; Justify: TPrintJustify;
  Margin: double; Width: double);
```

**Category**

[BarCode](#) , [Printing](#)

**Description**

This method will print left, right, center or block justified text. The text will be justified inside a measurement rectangle starting at Pos and with a horizontal size of Width. Margin is the spacing between the text and the sides of the measurement rectangle in units.

**See also**

[TBaseReport Class](#), [PrintBlock](#), [PrintCenter](#), [PrintLeft](#), [PrintRight](#)

**Example (Delphi)**

```
PrintJustify('Centered Text',  
    SectionLeft,pjCenter,0.0,SectionRight - SectionLeft);  
{ Same as PrintCenter('Centered Text',  
    (SectionLeft + SectionRight) / 2.0); }
```

**Example (C++Builder)**

```
rp1->PrintJustify("Centered Text",  
    SectionLeft,pjCenter,0.0,SectionRight - SectionLeft);  
/* Same as PrintCenter("Centered Text",  
    (SectionLeft + SectionRight) / 2.0); */</pre>
```

## 5.108 PrintLeft

**Declaration**

```
procedure PrintLeft(Text: string; Pos: double);
```

**Category**

[Printing](#)

**Description**

This method will print the string *Text* on the current line left justified at the position *Pos*.

**See also**

[TBaseReport Class](#), *All other print functions*

**Example (Delphi)**

```
RvNDRWriter1.PrintLeft( 'Text left at 4.0', 4.0);
```

**Example (C++Builder)**

```
RvNDRWriter1->PrintLeft( "Text left at 4.0", 4.0);
```

## 5.109 PrintLines

**Declaration**

```
procedure PrintLines(Lines: longint; PrintTabs: Boolean);
```

**Category**

[Memo](#)

**Description**

This method will print the memo buffer for the number of lines specified by *Lines*. If *Lines* is 0 then all lines in the memo buffer will be printed. If *PrintTabs* is true, then *PrintMemo* will print lines of empty tabs for each line that the memo buffer is printed on.

**NOTE:**

If the entire memo buffer is not printed, the internal position of *MemoBuf* will be set to the last character that was printed. This will allow the memo buffer to be continued on another page.

**NOTE:**

You must initialize the TMemoBuf.BaseReport before calling this method.

**See also**

[TMemoBuf Class](#), [BaseReport](#), [MemoLinesLeft](#), [TMemoBuf](#)

## 5.110 PrintLn

**Declaration**

```
procedure PrintLn(Text: string);
```

**Category**[Printing](#)**Description**

This method will print the string *Text* just like the *Print* method does; however, it also calls *NewLine* to go to the next line.

**See also**[TBaseReport Class](#), All other print functions, [NewLine](#)**Example (Delphi)**

```
RvNDRWriter1.Println( 'Text on a line');  
RvNDRWriter1.Println( 'Text on another line');
```

**Example (C++Builder)**

```
RvNDRWriter1->PrintLn( "Text on a line");  
RvNDRWriter1->PrintLn( "Text on another line");
```

## 5.111 PrintMemo

**Declaration**

```
procedure PrintMemo(MemoBuf: TMemoBuf; Lines: longint; PrintTabs: Boolean);
```

**Category**[Memo](#)**Description**

This method will print the memo buffer, *MemoBuf*, for the number of lines specified by *Lines*. If *Lines* is 0 then all lines in the memo buffer will be printed. If *PrintTabs* is true, then *PrintMemo* will print lines of empty tabs for each line that the memo buffer is printed on.

**NOTE:**

If the entire memo buffer is not printed, the internal position of *MemoBuf* will be set to the last character that was printed. This will allow the memo buffer to be continued on another page.

**See also**[TBaseReport Class](#), [MemoLines](#), [TMemoBuf](#)**Example (Delphi)**

```
SetColumns(3,0.25);  
MemoBuf.PrintStart := ColumnStart;  
MemoBuf.PrintEnd := ColumnEnd;  
PrintMemo(MemoBuf, ColumnLinesLeft, false);  
ClearColumns;
```

**Example (C++Builder)**

```
rp1->SetColumns(3,0.25);  
MemoBuf->PrintStart = rp1->ColumnStart;  
MemoBuf->PrintEnd := rp1->ColumnEnd;  
rp1->PrintLines(MemoBuf, rp1->ColumnLinesLeft, false);  
rp1->ClearColumns();
```

## 5.112 PrintPage

**Declaration**

```
procedure PrintPage(PageNum: word);
```

**Category**[Preview](#)

**Description**

This method will print the page specified by *PageNum* to the preview window. The *OnPageChange* event handler will be called if the current page number changes.

**See also**

[TRvRenderPreview Class](#), [OnPageChange](#), [RedrawPage](#)

**Example (Delphi)**

```
RvRenderPreview1.PrintPage( 2 );
```

**Example (C++Builder)**

```
RvRenderPreview1->PrintPage( 2 );
```

## 5.113 PrintRight

**Declaration**

```
procedure PrintRight(Text: string; Pos: double);
```

**Category**

[Printing](#)

**Description**

This method will print the string, *Text*, on the current line right justified at the position, *Pos*.

**See also**

[TBaseReport Class](#), *all other print functions*

**Example (Delphi)**

```
RvNDRWriter1.PrintRight('Right justified at 3.0',3.0 );
```

**Example (C++Builder)**

```
RvNDRWriter1->PrintRight("Right justified at 3.0",3.0 );
```

## 5.114 PrintTab

**Declaration**

```
procedure PrintTab(Text: string);
```

**Category**

[Printing](#)

**Description**

This method will print the next tab setting and then print *Text* within that tab box. This is equivalent to `Print( #9 + Text );` with the exception that *Text* is truncated if it is too long.

**See also**

[TBaseReport Class](#), [Print](#), [PrintLn](#), [Tab](#)

**Example (Delphi)**

```
PrintTab(FieldByName('Name'));
```

**Example (C++Builder)**

```
PrintTab(FieldByName("Name"));
```

## 5.115 PrintXY (TBaseReport)

**Declaration**

```
procedure PrintXY(X,Y: double; Text: string);
```

**Category**

[Printing](#)

**Description**

This method will print the string, *Text*, at the location specified by the point (X,Y).

**NOTE:**

The Y position will determine the location of the baseline of the printed text.

**See also**

[TBaseReport Class](#), *All other print functions*, [GotoXY](#)

**Example (Delphi)**

```
RvNDRWriter1.PrintXY( 1.0, 2.0, 'Text above (1.0, 2.0)');
```

**Example (C++Builder)**

```
RvNDRWriter1->PrintXY( 1.0, 2.0, "Text above (1.0, 2.0)");
```

## 5.116 PrintXY (TRpBarsBase)

**Declaration**

```
procedure PrintXY( X,Y: double );
```

**Category**

[BarCode](#)

**Description**

This method will print the bar code at the location specified by the point (X,Y).

**NOTE:**

The Y position will determine the location of the top of the bar code.

**See also**

[TRpBarsBase Class](#), [Print](#), [PrintReadable](#), [PrintTop](#), [Text](#)

**Example (Delphi)**

```
Code2of5.Text := '12345';  
Code2of5.PrintXY( 1.0, 2.0 );
```

**Example (C++Builder)**

```
Code2of5->Text = "12345";  
Code2of5->PrintXY( 1.0, 2.0 );
```

## 5.117 PushFont

**Declaration**

```
function PushFont: Boolean;
```

**Category**

[Font](#)

**Description**

This method will push the current font onto an internal stack for later retrieval by *PopFont*.

**See also**

[TBaseReport Class](#), [PopFont](#)

**Example**

see [PopFont](#)

## 5.118 PushPos

**Declaration**

```
function PushPos: Boolean;
```

**Category**[Position](#)**Description**

This method will push the current text cursor position onto an internal stack for later retrieval by *PopPos*.

**See also**[TBaseReport Class](#), [PopPos](#)**Example**

see [PopPos](#)

## 5.119 PushTabs

**Declaration**

```
function PushTabs: Boolean;
```

**Category**[Tabs](#)**Description**

This method will push the current tab settings onto an internal stack for later retrieval by *PopTabs*.

**See also**[TBaseReport Class](#), [PopTabs](#)

## 5.120 RecoverPrinter

**Declaration**

```
procedure RecoverPrinter;
```

**Category**[Printer](#)**Description**

This method will recover the printer handle that was released by a prior call to *ReleasePrinter*.

**See also**[TBaseReport Class](#), [ReleasePrinter](#)**Example**

See [ReleasePrinter](#)

## 5.121 Rectangle

**Declaration**

```
procedure Rectangle(X1,Y1,X2,Y2: double);
```

**Category**[Graphics](#)**Description**

This method will draw a rectangle defined by the points (X1,Y1) and (X2,Y2). The rectangle will be drawn with a border of the current *pen* and filled with the current *brush*.

**See also**[TBaseReport Class](#), [RoundRect](#)**Example (Delphi)**

```
RvNDRWriter1.Rectangle(1.0, 1.0, 4.0, 5.0);
```

**Example (C++Builder)**

```
RvNDRWriter1->Rectangle(1.0, 1.0, 4.0, 5.0);
```

**5.122 RedrawPage****Declaration**

```
procedure RedrawPage;
```

**Category**

[Preview](#)

**Description**

This method will redraw the current page for the preview screen.

**See also**

[TRvRenderPreview Class](#), [PrintPage](#)

**Example (Delphi)**

```
RvRenderPreview1.RedrawPage;
```

**Example (C++Builder)**

```
RvRenderPreview1->RedrawPage();
```

**5.123 RegisterGraphic****Declaration**

```
procedure RegisterGraphic( index: integer);
```

**Category**

[Graphics](#)

**Description**

This method will help manage repeating, large bitmaps in a print job. You can register up to 10 bitmaps at once by passing in the index value from 1 to 10. With this method only one copy of the bitmap would be stored in the file with all other print functions referencing the same copy.

**NOTE:**

Use *UnregisterGraphic*( n ) to make sure that the graphic index that you are using is cleared.

**NOTE:**

This method will only optimize the execution of a report through TRvNDRWriter.

**See also**

[TBaseReport Class](#), [ReuseGraphic](#), [UnregisterGraphic](#)

**Example (Delphi)**

```
Bitmap := TBitmap.Create;
with Sender as TBaseReport do try
  Bitmap.LoadFromFile( 'LOGO.BMP' );
  UnregisterGraphic( 1 );
  while not Table1.EOF do begin
    ReuseGraphic( 1 );
    PrintBitmapRect( 1,1,2,2,Bitmap );
    RegisterGraphic( 1 );
    { other printing code }
  end; { while }
finally
  Bitmap.Free;
end; { with }
```

**Example (C++Builder)**

```

Bitmap = new TBitmap();
try {
    Bitmap->LoadFromFile( "LOGO.BMP" );
    rpl->UnregisterGraphic( 1 );
    while (!Table1->Eof) {
        rpl->ReuseGraphic( 1 );
        rpl->PrintBitmapRect( 1,1,2,2,Bitmap );
        rpl->RegisterGraphic( 1 );
        / other printing code
    }/ while
}
__finally {
    delete Bitmap;
}/ tryf

```

## 5.124 ReleasePrinter

**Declaration**

```
procedure ReleasePrinter;
```

**Category**

[Printer](#)

**Description**

This method will release the printer handle from Rave so that other components, such as *TPrinterSetupDialog*, can access the printer. Use *RecoverPrinter* to re-initialize Rave and recover the printer handle.

**See also**

[TBaseReport Class](#), [RecoverPrinter](#)

**Example (Delphi)**

```

RvNDRWriter1.ReleasePrinter;
PrinterSetupDialog1.Execute;
RvNDRWriter1.RecoverPrinter;

```

**Example (C++Builder)**

```

RvNDRWriter1->ReleasePrinter();
PrinterSetupDialog1->Execute();
RvNDRWriter1->RecoverPrinter();

```

## 5.125 ReplaceAll

**Declaration**

```
procedure ReplaceAll(SearchText: string; ReplaceText: string; CaseMatters: Boolean);
```

**Category**

[Memo](#)

**Description**

This method will replace all occurrences of *SearchText* with *ReplaceText*. If *CaseMatters* is true then the case of the characters must match; otherwise, case will not be a factor for a match.

**See also**

[TMemoBuf Class](#), [SearchFirst](#), [SearchNext](#)

**Example (Delphi)**

```

MemoBuf.ReplaceAll('ame, Name, false);
MemoBuf.ReplaceAll('ddress, Address, false);

```



**Example (C++Builder)**

```
MemoBuf->ReplaceAll("ame, Name, false);  
MemoBuf->ReplaceAll("ddress, Address, false);
```

## 5.126 ReportDescToMemo

**Declaration**

```
procedure ReportDescToMemo(Memo: TCustomMemo);
```

**Category**

[Rave](#)

**Description**

Initializes the memo component, Memo, to the contents of the currently selected report description.

**See also**

[TRvProject Class](#), [ReportDesc](#), [SelectReport](#)

## 5.127 Reset (TBaseReport)

**Declaration**

```
procedure Reset;
```

**Category**

[Control](#)

**Description**

This method will reset certain settings (*Pen, Brush, Origins, Columns, Tabs, Sections* and *Text Cursor position*) to their default values.

**See also**

[TBaseReport Class](#), [ResetPrinter](#)

**Example (Delphi)**

```
RvNDRWriter1.Reset;
```

**Example (C++Builder)**

```
RvNDRWriter1->Reset();
```

## 5.128 Reset (TMemoBuf)

**Declaration**

```
procedure Reset;
```

**Category**

[Memo](#)

**Description**

This method will reset the memo buffer back to the beginning position. Use this method if you have printed a portion of a memo buffer, but want to start at the beginning again.

**See also**

[TMemoBuf Class](#), [Pos](#)

**Example (Delphi)**

```
MemoBuf1.Reset;
```

**Example (C++Builder)**

```
MemoBuf1->Reset();
```

## 5.129 ResetLineHeight

### Declaration

```
procedure ResetLineHeight;
```

### Category

[Position](#)

### Description

This method will reset the property *LineHeight* to the current font if the *LineHeightMethod* property is equal to *lhmFont*. Otherwise, *ResetLineHeight* sets *LineHeight* to the value of 1.0 *LinesPerInch* or leaves it alone if *LineHeightMethod* is *lhmUser*.

### See also

[TBaseReport Class](#), [LineHeight](#), [LineHeightMethod](#)

### Example (Delphi)

```
RvNDRWriter1.ResetLineHeight;
```

### Example (C++Builder)

```
RvNDRWriter1->ResetLineHeight();
```

## 5.130 ResetPrinter

### Declaration

```
procedure ResetPrinter;
```

### Category

[Printer](#)

### Description

This method will reset the current printer for the settings given in the *DevMode* structure as well as other printer related settings. This function is called automatically whenever you change the current printer or change the orientation.

### See also

[TBaseReport Class](#), [DevMode](#)

### Example (Delphi)

```
RvNDRWriter1.ResetPrinter;
```

### Example (C++Builder)

```
RvNDRWriter1->ResetPrinter();
```

## 5.131 ResetSection

### Declaration

```
procedure ResetSection;
```

### Category

[Position](#)

### Description

This method will reset the section values, *SectionLeft*, *SectionRight*, *SectionTop* and *SectionBottom* to be equal to the current margin settings.

### See also

[TBaseReport Class](#), *All Margin and Section properties*

### Example (Delphi)

```
RvNDRWriter1.ResetSection;
```

**Example (C++Builder)**

```
RvNDRWriter1->ResetSection();
```

## 5.132 ResetTabs

**Declaration**

```
procedure ResetTabs;
```

**Category**

[Tabs](#)

**Description**

This method resets the current tab to the beginning. *NewLine* calls this function to reset the current tab.

**See also**

[TBaseReport Class](#), [ClearTabs](#), [SetTab](#)

**Example (Delphi)**

```
RvNDRWriter1.ResetTabs;
```

**Example (C++Builder)**

```
RvNDRWriter1->ResetTabs();
```

## 5.133 RestoreBuffer

**Declaration**

```
procedure RestoreBuffer;
```

**Category**

[Memo](#)

**Description**

This method will restore the memo buffer to the state it was in during the last call to *SaveBuffer*.

**See also**

[TMemoBuf Class](#), [SaveBuffer](#)

## 5.134 RestoreFont

**Declaration**

```
function RestoreFont(Index: integer): Boolean;
```

**Category**

[Font](#)

**Description**

This method will restore the font settings, saved by a previous *SaveFont* call, using an Index from 1 to 10. The result of this function will be true if the call was successful.

**See also**

[TBaseReport Class](#), [SaveFont](#)

**Example (Delphi)**

```
// Restore the font saved in position 10
RestoreFont(10);
```

**Example (C++Builder)**

```
rp1->RestoreFont(10);
```

## 5.135 RestorePos

### Declaration

```
function RestorePos(Index: byte): Boolean;
```

### Category

[Position](#)

### Description

This method will set the text cursor position to the setting that was last stored at index, *Index*, by *SavePos*. The valid values for *Index* are 1 to 10.

### See also

[TBaseReport Class](#), [SavePos](#)

### Example (Delphi)

```
RvNDRWriter1.RestorePos(1);
```

### Example (C++Builder)

```
RvNDRWriter1->RestorePos(1);
```

## 5.136 RestoreState

### Declaration

```
procedure RestoreState;
```

### Category

[Memo](#)

### Description

This method restores the cursor position and other state information of the memo buffer back to what it was when *SaveState* was called.

### NOTE:

This does not effect the contents of the memo buffer.

### See also

[TMemoBuf Class](#), [Pos](#), [RestoreBuffer](#), [SaveState](#)

## 5.137 RestoreTabs

### Declaration

```
function RestoreTabs(Index: integer): Boolean;
```

### Category

[Tabs](#)

### Description

This method will restore the tab settings, saved by a previous *SaveTabs* call, using an *Index* from 1 to 10. The result of this function will be true if the call was successful.

### See also

[TBaseReport Class](#), [RestoreTabs](#), [SetTab](#)

### Example (Delphi)

```
// Restore the tab settings in position 3  
RestoreTabs(3);
```

### Example (C++Builder)

```
RestoreTabs(3);
```

## 5.138 ReuseGraphic

### Declaration

```
procedure ReuseGraphic;
```

### Category

[Graphics](#)

### Description

This method allows the use of a repeating, large bitmaps in a print job that has been registered with the *RegisterGraphic* method. With this method only one copy of the bitmap would be stored in the file with all other print functions referencing the same copy.

### NOTE:

This method will only optimize the execution of a report through TRvNDRWriter.

### See also

[TBaseReport Class](#), [RegisterGraphic](#), [UnregisterGraphic](#)

### Example

See [RegisterGraphic](#)

## 5.139 RoundRect

### Declaration

```
procedure RoundRect(X1,Y1,X2,Y2,X3,Y3: double);
```

### Category

[Graphics](#)

### Description

This method will draw a rectangle defined by the points (X1,Y1) and (X2,Y2). The corners of the rectangle will be drawn as quarters of an ellipse with a width of X3 and a height of Y3. The rectangle will be drawn with a border of the current *pen* and filled with the current *brush*.

### See also

[TBaseReport Class](#), [Ellipse](#), [Rectangle](#)

### Example (Delphi)

```
RoundRect(1.125,3.5,3.125,5.0,0.25,0.25);
```

### Example (C++Builder)

```
rp1->RoundRect(1.125,3.5,3.125,5.0,0.25,0.25);
```

## 5.140 RTFLoadFromFile

### Declaration

```
procedure RTFLoadFromFile( FileName: String);
```

### Category

[Memo](#)

### Description

Load an RTF text file into the memo buffer.

### See also

[TMemoBuf Class](#), [LoadFromFile](#), [RTFLoadFromStream](#)

### Example (Delphi)

```
MemoBuf1.RTFLoadFromFile('Letter.RTF');
```

**Example (C++Builder)**

```
MemoBuf1->RTFLoadFromFile("Letter.RTF");
```

## 5.141 RTFLoadFromStream

**Declaration**

```
procedure RTFLoadFromStream( stream: TStream; BufSize: longint);
```

**Category**

[Memo](#)

**Description**

Loads a RTF text from a stream into the memo buffer. If BufSize is 0 then remaining length of the stream is read in, otherwise, BufSize bytes are read in.

**See also**

[TMemoBuf Class](#), [LoadFromFile](#), [RTFLoadFromFile](#)

## 5.142 Save

**Declaration**

```
procedure Save;
```

**Category**

[Rave](#)

**Description**

This method will save the current report project to the file specified by the ProjectFile property.

**See also**

[TRvProject Class](#), [Close](#), [Open](#), [ProjectFile](#)

## 5.143 SaveBuffer

**Declaration**

```
procedure SaveBuffer;
```

**Category**

[Memo](#)

**Description**

This method will save the current memo buffer to a saved buffer that can later be restored with RestoreBuffer. This can be useful for printing form letters that you need to modify for each print run, but want to return to the original settings at the beginning of each page.

**See also**

[TMemoBuf Class](#), [FreeSaved](#), [RestoreBuffer](#)

**Example (Delphi)**

```
// Save original contents  
MemoBuf.SaveBuffer;
```

**Example (C++Builder)**

```
MemoBuf->SaveBuffer();
```

## 5.144 SaveFont

**Declaration**

```
function SaveFont(Index: integer): Boolean;
```

**Category**

[Font](#)

**Description**

This method will save the current font settings using a value of Index from 1 to 10. These settings can later be restored with a call to `RestoreFont`. The result of this function will be true if the call was successful.

**See also**

[\*TBaseReport Class\*](#), [\*RestoreFont\*](#)

**Example (Delphi)**

```
// Save the current font settings in position 2
SaveFont(2);
```

**Example (C++Builder)**

```
rp1->SaveFont(2);
```

## 5.145 SavePos

**Declaration**

```
function SavePos(Index: byte): Boolean;
```

**Category**

[\*Position\*](#)

**Description**

This method will store the current text cursor position into an array at index, Index. The valid values for Index are 1 to 10.

**See also**

[\*TBaseReport Class\*](#), [\*RestorePos\*](#)

**Example (Delphi)**

```
RvNDRWriter1.SavePos(1);
```

**Example (C++Builder)**

```
RvNDRWriter1->SavePos(1);
```

## 5.146 SaveRaveBlob

**Declaration**

```
function SaveRaveBlob(Stream: TStream);
```

**Category**

[\*Rave\*](#)

**Description**

This method will save the currently loaded report project from the application form to Stream. You should not need to call this function since the normal method of saving the loaded report project is through the `TRvProject.StoreRAV` property editor.

**See also**

[\*TRvProject Class\*](#), [\*ClearRaveBlob\*](#), [\*LoadRaveBlob\*](#), [\*RaveBlobDateTime\*](#), [\*StoreRAV\*](#)

**Example (Delphi)**

```
RvProject1.SaveRaveBlob( MyStream );
```

**Example (C++Builder)**

```
RvProject1->SaveRaveBlob( MyStream );
```

## 5.147 SaveState

### Declaration

```
procedure SaveState;
```

### Category

[Memo](#)

### Description

This method saves the current cursor position, Pos, and other state information. You can restore the memo buffer state back by calling RestoreState.

### See also

[TMemoBuf Class](#), [Pos](#), [RestoreState](#), [SaveBuffer](#)

## 5.148 SaveTabs

### Declaration

```
function SaveTabs(Index: integer): Boolean;
```

### Category

[Tabs](#)

### Description

This method will save the current tab settings using a value of Index from 1 to 10. These settings can later be restored with a call to RestoreTabs. The result of this function will be true if the call was successful.

### See also

[TBaseReport Class](#), [RestoreTabs](#), [SetTab](#)

### Example (Delphi)

```
// Save the current tab settings in position 5  
SaveTabs(5);
```

### Example (C++Builder)

```
SaveTabs(5);
```

## 5.149 SaveToFile

### Declaration

```
function SaveToFile(FileName: String);
```

### Category

[Rave](#)

### Description

This method will save the report project to the file specified by FileName.

### See also

[TRvProject Class](#), [LoadFromStream](#), [Save](#), [SaveToStream](#)

### Example (Delphi)

```
RvProject1.SaveToFile('Project1.Rav');
```

### Example (C++Builder)

```
RvProject1->SaveToFile("Project1.Rav");
```

## 5.150 SaveToStream (TMemoBuf)

### Declaration

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



**Category**[Memo](#)**Description**

This method will save the memo buffer to the stream.

**See also**[TMemoBuf Class](#), [LoadFromStream](#)**Example (Delphi)**

```
MemoBuf1.SaveToStream( MyStream );
```

**Example (C++Builder)**

```
MemoBuf1->SaveToStream( MyStream );
```

## 5.151 SaveToStream (TRvProject)

**Declaration**

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

**Category**[Rave](#)**Description**

This method will save the report project to Stream.

**See also**[TRvProject Class](#), [LoadFromFile](#), [LoadFromStream](#), [Save](#), [SaveToFile](#)**Example (Delphi)**

```
RvProject1.SaveToStream(RaveStream);
```

**Example (C++Builder)**

```
RvProject1->SaveToStream(RaveStream);
```

## 5.152 SearchFirst

**Declaration**

```
function SearchFirst(SearchText: string; CaseMatters: Boolean): Boolean;
```

**Category**[Memo](#)**Description**

This method will start a search process, looking for SearchText from the beginning of the buffer. If CaseMatters is true then the case of the characters must match; otherwise, case will not be a factor for the match. This function will return true if it finds a match and false if it doesn't. Use SearchNext to continue the search after the first occurrence.

**See also**[TMemoBuf Class](#), [Pos](#), [SearchNext](#)**Example (Delphi)**

```
// Store the number of occurrences of 'APPLE' in apples
Apples := 0;
Found := MemoBuf.SearchFirst('APPLE', false);
while Found do begin
  Inc(Apples);
  Found := MemoBuf.SearchNext;
end; { while }
```

**Example (C++Builder)**

```
Apples := 0;
Found := MemoBuf->SearchFirst("APPLE", false);
while (Found == true) {
    Apples++;
    Found = MemoBuf->SearchNext();
}/ while
```

## 5.153 SearchNext

**Declaration**

```
function SearchNext: Boolean;
```

**Category**

[Memo](#)

**Description**

This method will continue a search initiated by SearchFirst. This function will return true if it finds a match and false if it doesn't.

**See also**

[TMemoBuf Class](#), [Pos](#), [SearchFirst](#)

**Example**

See [SearchFirst](#)

## 5.154 SelectBin

**Declaration**

```
function SelectBin(BinName: string): Boolean;
```

**Category**

[Printer](#)

**Description**

This method will select a bin containing BinName in its description and return a Boolean value of whether it was successful or not.

**NOTE:**

This method must be called before any calls to the OnNewPage event.

**See also**

[TBaseReport Class](#), [Bins](#), [OnNewPage](#), [SupportBin](#)

**Example (Delphi)**

```
SelectBin('UPPER');
```

**Example (C++Builder)**

```
SelectBin("UPPER");
```

## 5.155 SelectPaper

**Declaration**

```
function SelectPaper(PaperName: string): Boolean;
```

**Category**

[Printer](#)

**Description**

This method will select a paper size containing PaperName in its description and return a Boolean value of whether it was successful or not.

See also

[TBaseReport Class](#), [Papers](#), [SupportPaper](#)

**Example (Delphi)**

```
SelectPaper('LEGAL');
```

**Example (C++Builder)**

```
SelectPaper("LEGAL");
```

## 5.156 SelectPrinter

**Declaration**

```
function SelectPrinter(SubStr: string; ExactMatch: Boolean): Boolean;
```

**Category**

[Printer](#)

**Description**

This method will set the current printer to the first printer in Printers that contains the substring SubStr in its name. ExactMatch determines whether you need an exact match or not on the printer name. If no printer is found then the current printer is not changed and a false value is returned.

See also

[TBaseReport Class](#), [PrinterIndex](#)

**Example (Delphi)**

```
SelectPrinter('Laser', false);
```

**Example (C++Builder)**

```
SelectPrinter("Laser", false);
```

## 5.157 SelectReport

**Declaration**

```
function SelectReport(ReportName: string; FullName: Boolean): Boolean;
```

**Category**

[Rave](#)

**Description**

This method will select the report specified by ReportName. If FullName is true, the function will search the report whose full name matches, otherwise it will search the short names. The result of the function is whether the selection of the report, ReportName, was successful or not.

See also

[TRvProject Class](#), [GetReportList](#), [ReportFullName](#), [ReportName](#)

## 5.158 SetBrush

**Declaration**

```
procedure SetBrush(NewColor: TColor; NewStyle: TBrushStyle; NewBitmap: TBitmap);
```

**Category**

[Graphics](#)

**Description**

This method will set the current brush for the given parameters. If a bitmap is not desired, pass in the value of nil.

See also

[TBaseReport Class](#), [CreateBrush](#), [TBrushStyle](#), [TColor](#)

**Example (Delphi)**

```
RvNDRWriter1.SetBrush(clBlack, bsClear, nil);
```

**Example (C++Builder)**

```
RvNDRWriter1->SetBrush(clBlack, bsClear, NULL);
```

## 5.159 SetColumns

**Declaration**

```
procedure SetColumns(NewColumns: integer; Between: double);
```

**Category**

[Column](#)

**Description**

This method sets up a specific number of columns, NewColumns, with a separation, Between, between each column. The column width is calculated to fit within the current SectionLeft and SectionRight.

**See also**

[TBaseReport Class](#), [ColumnWidth](#), [SectionLeft](#), [SectionRight](#), [SetColumnWidth](#)

**Example (Delphi)**

```
// This code shows how to create 4 columns and send output to them. Also see PrintMemo. { with 0.5"
between each }
SetColumns(4,0.5);
while ColumnLinesLeft > 0 do begin
    PrintLn(IntToStr(LinesLeft) + '/' +
            IntToStr(ColumnLinesLeft) + '/' +
            IntToStr(LineNum)          + '/' +
            IntToStr(ColumnNum));
end; { while }
```

**Example (C++Builder)**

```
rpl->SetColumns(4,0.5);
while (rpl->ColumnLinesLeft() > 0) {
    rpl->PrintLn( IntToStr(rpl->LinesLeft())    + "/" +
                  IntToStr(rpl->ColumnLinesLeft()) + "/" +
                  IntToStr(rpl->LineNum)        + "/" +
                  IntToStr(rpl->ColumnNum));
}/ while
```

## 5.160 SetColumnWidth

**Declaration**

```
procedure SetColumnWidth(Width: double; Between: double);
```

**Category**

[Column](#)

**Description**

This method sets the columns to a specific width, Width, with a separation, Between, between each column. The number of columns is calculated to fit within the current SectionLeft and SectionRight.

**See also**

[TBaseReport Class](#), [Columns](#), [SectionLeft](#), [SectionRight](#), [SetColumns](#)

**Example (Delphi)**

```
// Create columns 2 inches wide and a half of an inch apart
RvNDRWriter1.SetColumnWidth( 2.0, 0.5 );
```

**Example (C++Builder)**

```
RvNDRWriter1->SetColumnWidth( 2.0, 0.5 );
```

## 5.161 SetData

**Declaration**

```
procedure SetData(var Buffer; BufSize: longint);
```

**Category**

[Memo](#)

**Description**

This method will assign the data in Buffer (for BufSize bytes) to the memo buffer. This can be useful for long strings that are more than 255 characters.

**See also**

[TMemoBuf Class](#), [Text](#)

**Example (Delphi)**

```
// Assign a PChar to a memo buffer  
MemoBuf.SetData(PCharVar^, StrLen(PCharVar));
```

**Example (C++Builder)**

## 5.162 SetFont

**Declaration**

```
procedure SetFont(NewName: string; NewSize: integer);
```

**Category**

[Font](#)

**Description**

This method will set the current font for the given parameters. NewSize is the point size of the font (1/72nds of an inch).

**NOTE:**

If you are using a symbol set, be sure to use FontCharSet after the SetFont method.

**See also**

[TBaseReport Class](#), [AssignFont](#), [CreateFont](#), [FontCharSet](#)

**Example (Delphi)**

```
RvNDRWriter1.SetFont( 'Arial', 10 );
```

**Example (C++Builder)**

```
RvNDRWriter1->SetFont( "Arial", 10 );
```

## 5.163 SetPaperSize

**Declaration**

```
procedure SetPaperSize(Size: integer; Width: double; Height: double);
```

**Category**

[Printer](#)

**Description**

This method will set the current paper size for the selected printer to the settings of either the Windows API constant, Size (see TDevMode.dmPaperSize) or if Width and Height are non-zero then it will attempt to set a custom paper size.

**NOTE:**

Not all printer drivers support custom page sizes and most have minimum and maximum acceptable values.

**See also**

[TBaseReport Class](#)

**Example (Delphi)**

```
// Set papersize to 10" wide by 12" high then set papersize to 8.5 wide by 14" high
RvNDRWriter1.SetPaperSize(0,10,12);
RvNDRWriter1.SetPaperSize(DMPAPER_LEGAL,0,0);
```

**Example (C++Builder)**

```
RvNDRWriter1->SetPaperSize(0,10,12);
RvNDRWriter1->SetPaperSize(DMPAPER_LEGAL,0,0);
```

## 5.164 SetParam

**Declaration**

```
procedure SetParam(ParamName: string; ParamValue: string);
```

**Category**

[Rave](#)

**Description**

SetParam allows the application to pass project parameters to the currently loaded Rave project. These parameters can be used to control dynamic layouts, SQL parameters or other items to print in a visually designed report.

**See also**

[TRvProject Class](#), [GetParam](#)

**Example (Delphi)**

```
RvProject1.SetParam('UserName',UserName);
```

**Example (C++Builder)**

```
RvProject1->SetParam("UserName",UserName);
```

**Example (in Visual Designer Event)**

```
RaveProject.SetParam('UserName',UserName);
```

## 5.165 SetPen

**Declaration**

```
procedure SetPen(NewColor: TColor; NewStyle: TPenStyle; NewWidth: integer;
NewMode: TPenMode);
```

**Category**

[Graphics](#)

**Description**

This method will set the current pen for the given parameters. The NewWidth parameter, if positive, is the width of the pen in printer units (dots) and if negative, is the width on the pen in 1/100ths of an inch.

**See also**

[TBaseReport Class](#), [CreatePen](#), [TColor](#), [TPenMode](#), [TPenStyle](#)

**Example (Delphi)**

```
RvNDRWriter1.SetPen(clBlack,psSolid,-2,pmCopy);
```

**Example (C++Builder)**

```
RvNDRWriter1->SetPen(clBlack,psSolid,-2,pmCopy);
```

**5.166 SetPIVar****Declaration**

```
procedure SetPIVar(PIVarName: string; PIVarValue: string);
```

**Category**

[Printing](#)

**Description**

This method allows you to initialize the value of a PIVar (Post Initialize Variable). Any PIVars of the same name that were previously printed will show this value. A common use for PIVars is to print a total in a header band that would be initialized later in the footer band. This works even across multiple pages. TRvSystem.SystemOptions.soUserFiler must be true if you are using PIVars in your report.

**See also**

[TBaseReport Class](#), [PIVar](#)

**Example**

see [PIVar](#)

**5.167 SetRTF****Declaration**

```
procedure SetRTF(var Buffer; BufSize: longint);
```

**Category**

[Memo](#), [RTF](#)

**Components**

[TRvRenderRTF](#)

**Description**

Works exactly like SetData, except the data stored in Buffer is RTF text.

**See also**

[RTFText](#), [SetData](#)

**5.168 SetTab****Declaration**

```
procedure SetTab(NewPos: double; NewJustify: TPrintJustify; NewWidth: double;
  NewMargin: double; NewLines: byte; NewShade: byte);
```

**Category**

[Tabs](#)

**Description**

This method adds a tab setting.

<i>NewPos</i>	defines the starting position of the tab. If NewPos is set to the constant, NA, then the tab will start immediately after the previous tab box
<i>NewJustify</i>	defines whether the tab is left (pjLeft), right (pjRight) or center (pjCenter) justified. If a non-zero width is given, then a tab box is defined and the text will be justified within the tab box rather than justified at the tab position
<i>NewMargin</i>	defines the distance between the tab box side and the text in 1/100ths of an inch
<i>NewLines</i>	uses the BoxLineXxxx constants to define where lines are to be drawn around the tab box
<i>NewShade</i>	defines the percent of background shading to use for this tab box

**See also**

[TBaseReport Class](#), [ClearTabs](#), [ResetTabs](#)

**Example (Delphi)**

```

ClearTabs;
SetPen(clBlack, psSolid,1, pmCopy);
SetTab(0.5,pjCenter,3.5,0, BOXLINEALL,0);
SetTab(NA, pjCenter,1.0,0, BOXLINEALL,0);
SetTab(NA, pjCenter,1.5,0, BOXLINEALL,0);
SetTab(NA, pjCenter,1.5,0, BOXLINEALL,0);
Bold := true;
Tab(-2,NA,-2,-2,NA);
Print('Name');
Tab(NA,NA,-2,-2,NA);
Print('Number');
Tab(NA,NA,-2,-2,NA);
Print('Amount 1');
Tab(NA,-2,-2,-2,NA);
PrintLn('Amount 2');
Bold := false;

```

**Example (C++Builder)**

```

rpl->ClearTabs();
rpl->SetPen(clBlack, psSolid,1, pmCopy);
rpl->SetTab(0.5,pjCenter,3.5,0, BOXLINEALL,0);
rpl->SetTab(NA, pjCenter,1.0,0, BOXLINEALL,0);
rpl->SetTab(NA, pjCenter,1.5,0, BOXLINEALL,0);
rpl->SetTab(NA, pjCenter,1.5,0, BOXLINEALL,0);
rpl->Bold = true;
rpl->Tab(-2,NA,-2,-2,NA);
rpl->Print("Name");
rpl->Tab(NA,NA,-2,-2,NA);
rpl->Print("Number");
rpl->Tab(NA,NA,-2,-2,NA);
rpl->Print("Amount 1");
rpl->Tab(NA,-2,-2,-2,NA);
rpl->PrintLn("Amount 2");
rpl->Bold = false;

```

## 5.169 SetTopOfPage

**Declaration**

```
procedure SetTopOfPage;
```

**Category**

[Position](#)

**Description**

This method will set SectionTop to the bottom of the current line.

**See also**

[TBaseReport Class](#), [MarginTop](#), [SectionTop](#)

**Example (Delphi)**

```
RvNDRWriter1.SetTopOfPage;
```

**Example (C++Builder)**

```
RvNDRWriter1->SetTopOfPage();
```



## 5.170 ShadeToColor

### Declaration

```
function ShadeToColor(ShadeColor: TColor; ShadePercent: byte): TColor;
```

### Category

[Graphics](#)

### Description

This function will create a color that only has ShadePercent amount of Shadecolor.

### See also

[TBaseReport Class](#), [SetBrush](#), [TColor](#)

## 5.171 ShowPrintDialog

### Declaration

```
function ShowPrintDialog: Boolean;
```

### Category

[Printer](#)

### Description

Brings up the standard Windows PrintDialog. Use this function instead of Delphi's TPrintDialog component.

### See also

[TBaseReport Class](#), [ShowPrinterSetupDialog](#)

### Example (Delphi)

```
if RvNDRWriter1.ShowPrintDialog then begin  
  RvNDRWriter1.Execute;  
end; { if }
```

### Example (C++Builder)

```
if (RvNDRWriter1->ShowPrintDialog()) {  
  RvNDRWriter1->Execute();  
}/ if
```

## 5.172 ShowPrinterSetupDialog

### Declaration

```
function ShowPrinterSetupDialog: Boolean;
```

### Category

[Printer](#)

### Description

Brings up the standard Windows PrinterSetupDialog. Use this function instead of Delphi's TPrinterSetupDialog component.

### See also

[TBaseReport Class](#), [ShowPrintDialog](#)

### Example (Delphi)

```
if RvNDRWriter1.ShowPrinterSetupDialog then begin  
  RvNDRWriter1.Execute;  
end; { if }
```

### Example (C++Builder)

```
if (RvNDRWriter1->ShowPrinterSetupDialog()) {
```

```
RvNDRWriter1->Execute();  
}/ if
```

### 5.173 SoftLine

**Declaration**

procedure SoftLine;

**Category**

[RTF](#)

**Components**

[TRvRenderRTF](#)

**Description**

This method should be called to go to the next line in an RTF exported document without inserting a hard carriage return. For printer based output (TRvRenderPrinter, TRvNDRWriter) this method performs the same as NewLine.

**See also**

[NewLine](#), [NewPara](#)

### 5.174 Start

**Declaration**

procedure Start;

**Category**

[Control](#)

**Description**

For TRvRenderPreview, this method starts a preview session and draws the first page to the preview screen. Use the methods, PrevPage, NextPage, PrintPage, ZoomIn and ZoomOut to interact with the user of the preview screen after Start has been called. For TRvNDRWriter, these methods start a printing job that should be terminated later with a call to Finish. All event handlers are active except for OnPrint and OnPrintPage which are used only with Execute.

**See also**

[TBaseReport Class](#), [Execute](#), [Finish](#)

**Example (Delphi)**

```
RvRenderPreview1.Start;
```

**Example (C++Builder)**

```
RvRenderPreview1->Start();
```

### 5.175 StretchDraw

**Declaration**

procedure StretchDraw(const Rect: TRect; Graphic: TGraphic);

**Category**

[Graphics](#)

**Description**

This method draws the graphic object, Graphic, to the printer canvas stretched or shrunken to fit within the rectangle, Rect.

**NOTE:**

Do not use StretchDraw for bitmaps, instead use PrintBitmap or PrintBitmapRect.

See also

[TBaseReport Class](#), [CreateRect](#), [Draw](#), [PrintBitmap](#), [PrintBitmapRect](#), *TGraphic*, *TRect*

## 5.176 SupportBin

### Declaration

```
function SupportBin(BinNum: integer): Boolean;
```

### Category

[Printer](#)

### Description

This method will return true if the bin number (see *TDevMode.dmDefaultSource* in the Windows API help) specified by *BinNum* is supported by the printer, otherwise it will return false.

See also

[TBaseReport Class](#), [SelectBin](#), *other Support methods*, *TDevMode* in Windows API help

## 5.177 SupportCollate

### Declaration

```
function SupportCollate: Boolean;
```

### Category

[Printer](#)

### Description

This method will return true if the printer supports collation, otherwise it will return false.

See also

[TBaseReport Class](#), *Other Support methods*

## 5.178 SupportDuplex

### Declaration

```
function SupportDuplex: Boolean;
```

### Category

[Printer](#)

### Description

This method will return true if the current printer supports duplex (double sided) printing.

See also

[TBaseReport Class](#), [Duplex](#), *Other Support methods*

## 5.179 SupportOrientation

### Declaration

```
function SupportOrientation: Boolean;
```

### Category

[Printer](#)

### Description

This method will return true if the current printer supports orientation changes.

See also

[TBaseReport Class](#), *Other Support methods*

## 5.180 SupportPaper

### Declaration

```
function SupportPaper(PaperNum: integer): Boolean;
```

### Category

[Printer](#)

### Description

This method will return true if the paper number (see TDevMode.dmPaperSize in the Windows API help) specified by PaperNum is supported by the printer, otherwise it will return false.

### See also

[TBaseReport Class](#), [SelectPaper](#), [SupportPaper](#), *Other Support methods, TDevMode in Windows API help*

## 5.181 Tab

### Declaration

```
procedure Tab(LeftWidth: integer; RightWidth: integer; TopWidth: integer;  
BottomWidth: integer; ShadeOverride: integer);
```

### Category

[Tabs](#)

### Description

This method sets the current tab settings to the next available tab. If the next tab is a tab box, then the lines for that tab are drawn at this time as well as any shading that might apply. The *LeftWidth*, *RightWidth*, *TopWidth* and *BottomWidth* are overrides for the width of the side of the tab box in 1/100ths of an inch, but should be passed as the constant, NA, for the default pen width. If the *LeftWidth*, *RightWidth*, *TopWidth* or *BottomWidth* parameter(s) are positive, then it is the width of the pen in printer units (dots) and if negative, it is the width on the pen in 1/100ths of an inch. *ShadeOverride* is a percent of shading to draw the background of the tab box in and will override TabShade or the original setting of the tab box shading.

### See also

[TBaseReport Class](#), [SetTab](#), [TabShade](#)

### Example (Delphi)

```
with RvNDRWriter1 do begin  
  Tab(-2,NA,-2,-2,NA);  
  Print('First tab');  
  Tab(NA,NA,-2,-2,NA);  
  Print('Second tab');  
end; { with }
```

### Example (C++Builder)

```
rp1->Tab(-2,NA,-2,-2,NA);  
rp1->Print("First tab");  
rp1->Tab(NA,NA,-2,-2,NA);  
rp1->Print("Second tab");
```

## 5.182 TabEnd

### Declaration

```
function TabEnd(Index: integer): double;
```

### Category

[Tabs](#)

**Description**

This method will return the horizontal ending position of the tab box specified by Index. If Index is 0 then the result will be for the current tab and if Index is greater than the number of defined tabs then a value of 0.0 will be returned.

**See also**

[TBaseReport Class](#), [GetTab](#), [TabStart](#), [TabWidth](#)

**Example (Delphi)**

```
// End of current tab region  
CurrEnd := RvNDRWriter1.TabEnd( 0 );
```

**Example (C++Builder)**

```
CurrEnd = RvNDRWriter1->TabEnd( 0 );
```

## 5.183 TabStart

**Declaration**

```
function TabStart(Index: integer): double;
```

**Category**

[Tabs](#)

**Description**

This method will return the horizontal starting position of the tab box specified by Index. If Index is 0 then the result will be for the current tab and if Index is greater than the number of defined tabs then a value of 0.0 will be returned.

**See also**

[TBaseReport Class](#), [GetTab](#), [TabEnd](#), [TabWidth](#)

**Example (Delphi)**

```
// Start of current tab region  
CurrStart := RvNDRWriter1.TabStart( 0 );
```

**Example (C++Builder)**

```
CurrStart = RvNDRWriter1->TabStart( 0 );
```

## 5.184 TabWidth

**Declaration**

```
function TabWidth(Index: integer): double;
```

**Category**

[Tabs](#)

**Description**

This method will return the width of the tab box specified by Index. If Index is 0 then the result will be for the current tab and if Index is greater than the number of defined tabs then a value of 0.0 will be returned.

**See also**

[TBaseReport Class](#), [TabEnd](#), [TabStart](#)

**Example (Delphi)**

```
// Width of current tab region  
CurrWidth := RvNDRWriter1.TabWidth( 0 );
```

**Example (C++Builder)**

```
CurrWidth = RvNDRWriter1->TabWidth( 0 );
```

## 5.185 TextRect

### Declaration

```
procedure TextRect( Rect: TRect; X,Y: double; const Text: string);
```

### Category

[Graphics](#)

### Description

This method will draw *Text* clipped within the rectangle defined by *Rect*. The point (X,Y) defines the starting point of the text. Use *CreateRect* to initialize Rect.

### See also

[TBaseReport Class](#), [CreateRect](#), *All print methods*, *TRect*

### Example (Delphi)

```
var    TxtRect: TRect;  
       TxtXPos: double;  
       TxtYPos: double;  
       Txt: string;  
  
begin  
    TxtRect := CreateRect(1.00,1.00,3.00,3.00);  
    TxtXPos := 0.95;  
    TxtYPos := 0.95;  
    Txt := 'Text is clipped off!';  
    TextRect(TxtRect, TxtXPos, TxtYPos, Txt);  
end;
```

### Example (C++Builder)

```
TRect TxtRect;  
double TxtXPos;  
double TxtYPos;  
AnsiString Txt;  
TxtRect = rpl->CreateRect(1.00,1.00,3.00,3.00);  
TxtXPos = 0.95;  
TxtYPos = 0.95;  
Txt = "Text is clipped off!";  
rpl->TextRect(TxtRect, TxtXPos, TxtYPos, Txt);
```

## 5.186 TextWidth

### Declaration

```
function TextWidth(Text: string): double;
```

### Category

[Position](#)

### Description

This method will return the length of the string, *Text*.

### See also

[TBaseReport Class](#)

### Example (Delphi)

```
var    TxtLen: double;  
begin  
    TxtLen := TextWidth( "How long am I?" );  
end;
```

### Example (C++Builder)

```
double TxtLen = rpl->TextWidth("How long am I?");
```

## 5.187 UnregisterGraphic

### Declaration

```
procedure UnregisterGraphic( index: integer );
```

### Category

[Graphics](#)

### Description

This method will help manage repeating, large bitmaps in a print job. This method is used to insure that the index used by *RegisterGraphic* is clear. You must call this method if you have previously registered a graphic in that index. However, it is safe and **recommended** to always call *UnregisterGraphic* before using these graphic index methods.

### See also

[TBaseReport Class](#), [RegisterGraphic](#), [ReuseGraphic](#)

### Example

See [RegisterGraphic](#)

## 5.188 UpdateStatus

### Declaration

```
procedure UpdateStatus;
```

### Category

[Misc](#)

### Description

This method will update the label defined by *StatusLabel* with the current information defined by the report status or the items contained in *StatusText*.

### See also

[TBaseReport Class](#), [StatusLabel](#), [StatusText](#)

### Example (Delphi)

// After report execution, depending on whether the user aborted the report's creation or not, the status bar is updated with the appropriate message.

```
if Aborted then begin
    StatusFormat := #13'Report Canceled!';
    UpdateStatus;
end else begin
    StatusFormat := #13'Report Completed!';
    UpdateStatus;
end; { else }
```

### Example (C++Builder)

```
if (rpl->Aborted) {
    rpl->StatusFormat = "\nReport Canceled!";
    rpl->UpdateStatus();
}
else {
    rpl->StatusFormat = "\nReport Completed!";
    rpl->UpdateStatus();
} // else
```

## 5.189 WriteBCDDData

### Declaration

```
function WriteBCDDData(FormatData: String; NativeData: Currency): String;
```

**Category**[Rave](#)**Description**

This method writes the contents of a custom BCD field (of type dtBCD) inside of the OnGetRow event of a data connection component. The data for custom fields must be written in the same order as the fields were defined in the OnGetCols event. The FormatData parameter defines the formatted value of the field, but can be blank if no pre-formatted output is needed. The NativeData parameter should contain the unmodified contents of the field.

**See also**

[TRvCustomConnection Class](#), [OnGetCols](#), [OnGetRow](#), other *WriteXxxxData* methods

**Example (Delphi)**

```
Connection.WriteBCDDData( ' ',InvoiceAmount );
```

**Example (C++Builder)**

```
Connection->WriteBCDDData( " ",InvoiceAmount );
```

## 5.190 WriteBlobData

**Declaration**

```
function WriteBlobData(var: Buffer; Len: Longint): String;
```

**Category**[Rave](#)**Description**

This method writes the contents of a custom blob field (of type dtBlob / dtGraphic / dtMemo ) inside of the OnGetRow event of a data connection component. The data for custom fields must be written in the same order as the fields were defined in the OnGetCols event.

**See also**

[TRvCustomConnection Class](#), [OnGetCols](#), [OnGetRow](#), other *WriteXxxxData* methods

**Example (Delphi)**

```
Connection.WriteBlobData( '',CustomerPict );
```

**Example (C++Builder)**

```
Connection->WriteBlobData( "",CustomerPict );
```

## 5.191 WriteBoolData

**Declaration**

```
function WriteBoolData(FormatData: String; NativeData: Boolean): String;
```

**Category**[Rave](#)**Description**

This method writes the contents of a custom Boolean field (of type dtBoolean) inside of the OnGetRow event of a data connection component. The data for custom fields must be written in the same order as the fields were defined in the OnGetCols event. The FormatData parameter defines the formatted value of the field, but can be blank if no pre-formatted output is needed. The NativeData parameter should contain the unmodified contents of the field.

**See also**

[TRvCustomConnection Class](#), [OnGetCols](#), [OnGetRow](#), other *WriteXxxxData* methods



**Example (Delphi)**

```
Connection.WriteBoolData( '',CustomerActive );
```

**Example (C++Builder)**

```
Connection->WriteBoolData( "",CustomerActive );
```

## 5.192 WriteCurrData

**Declaration**

```
function WriteCurrData(FormatData: String; NativeData: Currency): String;
```

**Category**

[Rave](#)

**Description**

This method writes the contents of a custom Currency field (of type dtFloat) inside of the OnGetRow event of a data connection component. The data for custom fields must be written in the same order as the fields were defined in the OnGetCols event. FormatData parameter defines the formatted value of the field, but can be blank if no pre-formatted output is needed. NativeData parameter should contain the unmodified contents of the field

**See also**

[TRvCustomConnection Class](#), [OnGetCols](#), [OnGetRow](#), other *WriteXxxxData* methods

**Example (Delphi)**

```
Connection.WriteCurrData( '',InvoiceAmount );
```

**Example (C++Builder)**

```
Connection->WriteCurrData( "",InvoiceAmount );
```

## 5.193 WriteDateTime

**Declaration**

```
function WriteDateTime(FormatData: String; NativeData: TDateTime);
```

**Category**

[Rave](#)

**Description**

This method writes the contents of a custom DateTime field (of type dtDate / dtTime / dtDateTime) inside of the OnGetRow event of a data connection component. The data for custom fields must be written in the same order as the fields were defined in the OnGetCols event. FormatData parameter defines the formatted value of the field, but can be blank if no pre-formatted output is needed. NativeData parameter should contain the unmodified contents of the field

**See also**

[TRvCustomConnection Class](#), [OnGetCols](#), [OnGetRow](#), other *WriteXxxxData* methods

**Example (Delphi)**

```
Connection.WriteDateTime( '',Now );
```

**Example (C++Builder)**

```
Connection->WriteDateTime( "",Now );
```

## 5.194 WriteFloatData

**Declaration**

```
function WriteFloatData(FormatData: String; NativeData: Extended): String;
```

**Category**

[Rave](#)

**Description**

This method writes the contents of a custom BCD field (of type dtFloat) inside of the OnGetRow event of a data connection component. The data for custom fields must be written in the same order as the fields were defined in the OnGetCols event. FormatData parameter defines the formatted value of the field, but can be blank if no pre-formatted output is needed. NativeData parameter should contain the unmodified contents of the field

**See also**

[TRvCustomConnection Class](#), [OnGetCols](#), [OnGetRow](#), other *WriteXxxxData* methods

**Example (Delphi)**

```
Connection.WriteFloatData( '',CustomerBudget );
```

**Example (C++Builder)**

```
Connection->WriteFloatData( "",CustomerBudget );
```

## 5.195 WriteIntData

**Declaration**

```
function WriteIntData(FormatData: String; NativeData: Integer): String;
```

**Category**

[Rave](#)

**Description**

This method writes the contents of a custom integer field (of type dtInteger) inside of the OnGetRow event of a data connection component. The data for custom fields must be written in the same order as the fields were defined in the OnGetCols event. FormatData parameter defines the formatted value of the field, but can be blank if no pre-formatted output is needed. NativeData parameter should contain the unmodified contents of the field

**See also**

[TRvCustomConnection Class](#), [OnGetCols](#), [OnGetRow](#), other *WriteXxxxData* methods

**Example (Delphi)**

```
Connection.WriteIntData( '',CustomerCount );
```

**Example (C++Builder)**

```
Connection->WriteIntData( "",CustomerCount );
```

## 5.196 WriteNullData

**Declaration**

```
function WriteNullData( no parameters );
```

**Category**

[Rave](#)

**Description**

This method writes a null inside of the OnGetRow event of a data connection component. The data for custom fields must be written in the same order as the fields were defined in the OnGetCols event.

**See also**

[TRvCustomConnection Class](#), [OnGetCols](#), [OnGetRow](#), other *WriteXxxxData* methods

**Example (Delphi)**

```
Connection.WriteNullData( );
```

**Example (C++Builder)**

```
Connection->WriteNullData( );
```

## 5.197 WriteStrData

### Declaration

```
function WriteStrData(FormatData: String; NativeData: String): String;
```

### Category

[Rave](#)

### Description

This method writes the contents of a custom String field (of type dtString) inside of the OnGetRow event of a data connection component. The data for custom fields must be written in the same order as the fields were defined in the OnGetCols event. FormatData parameter defines the formatted value of the field, but can be blank if no pre-formatted output is needed. NativeData parameter should contain the unmodified contents of the field.

Please see [WriteBlobData](#) for type dtMemo data fields.

### See also

[TRvCustomConnection Class](#), [OnGetCols](#), [OnGetRow](#), other *WriteXxxxData* methods

### Example (Delphi)

```
Connection.WriteStrData( '',CustomerName );
```

### Example (C++Builder)

```
Connection->WriteStrData( "",CustomerName );
```

## 5.198 XD2I

### Declaration

```
function XD2I(Pos: longint): double;
```

### Category

[Units](#)

### Description

This method will convert horizontal printer canvas measurements (dots) to inch measurements.

### See also

[TRvRenderPreview Class](#), All other units conversion functions

### Example (Delphi)

```
// With Units currently set to unInch  
XPos := RvNDRWriter1.XD2I( LastXDots );
```

### Example (C++Builder)

```
XPos = RvNDRWriter1->XD2I( LastXDots );
```

## 5.199 XD2U

### Declaration

```
function XD2U(Pos: longint): double;
```

### Category

[Units](#)

### Description

This method will convert horizontal printer canvas measurements (dots) to unit measurements (defined by *Units* and *UnitsFactor*).

See also

[TBaseReport Class](#), [Units](#), [UnitsFactor](#), *All other units conversion functions*

**Example (Delphi)**

```
XPos := RvNDRWriter1.XD2U( LastXDots );
```

**Example (C++Builder)**

```
XPos = RvNDRWriter1->XD2U( LastXDots );
```

## 5.200 XI2D

**Declaration**

```
function XI2D(Pos: double): longint;
```

**Category**

[Units](#)

**Description**

This method will convert horizontal inch measurements to printer canvas measurements (dots).

See also

[TBaseReport Class](#), *All other units conversion functions*

**Example (Delphi)**

```
// With Units currently set to unInch  
CurrXDots := RvNDRWriter1.XI2D( RvNDRWriter1.XPos );
```

**Example (C++Builder)**

```
CurrXDots = RvNDRWriter1->XI2D( RvNDRWriter1->XPos );
```

## 5.201 XI2U

**Declaration**

```
function XI2U(Pos: double): double;
```

**Category**

[Units](#)

**Description**

This method will convert horizontal inch measurements to unit measurements (defined by *Units* and *UnitsFactor*).

See also

[TBaseReport Class](#), [Units](#), [UnitsFactor](#), *All other units conversion functions*

**Example (Delphi)**

```
XPos := RvNDRWriter1.XI2U( LastXInch );
```

**Example (C++Builder)**

```
XPos = RvNDRWriter1->XI2U( LastXInch );
```

## 5.202 XU2D

**Declaration**

```
function XU2D(Pos: double): longint;
```

**Category**

[Units](#)

**Description**

This method will convert horizontal unit measurements (defined by *Units* and *UnitsFactor*) to printer canvas measurements (dots).

See also

[TBaseReport Class](#), [Units](#), [UnitsFactor](#), *All other units conversion functions*

**Example (Delphi)**

```
CurrXDots := RvNDRWriter1.XU2D( RvNDRWriter1.XPos );
```

**Example (C++Builder)**

```
CurrXDots = RvNDRWriter1->XU2D(RvNDRWriter1->XPos );
```

## 5.203 XU2I

**Declaration**

```
function XU2I(Pos: double): double;
```

**Category**

[Units](#)

**Description**

This method will convert horizontal unit measurements (defined by *Units* and *UnitsFactor*) to inch measurements.

See also

[TBaseReport Class](#), [Units](#), [UnitsFactor](#), *All other units conversion functions*

**Example (Delphi)**

```
// With units set to unCM
```

```
CurrXInch := RvNDRWriter1.XU2I( RvNDRWriter1.XPos );
```

**Example (C++Builder)**

```
CurrXInch = RvNDRWriter1->XU2I( RvNDRWriter1->XPos );
```

## 5.204 YD2I

**Declaration**

```
function YD2I(Pos: longint): double;
```

**Category**

[Units](#)

**Description**

This method will convert vertical printer canvas measurements (dots) to inch measurements

See also

[TBaseReport Class](#), *All other units conversion functions*

**Example (Delphi)**

```
// With Units currently set to unInch
```

```
YPos := RvNDRWriter1.YD2I( LastYDots );
```

**Example (C++Builder)**

```
YPos = RvNDRWriter1->YD2I( LastYDots );
```

## 5.205 YD2U

**Declaration**

```
function YD2U(Pos: longint): double;
```

**Category**

[Units](#)

**Description**

This method will convert vertical printer canvas measurements (dots) to unit measurements (defined by *Units* and *UnitsFactor*).

**See also**

[TBaseReport Class](#), [Units](#), [UnitsFactor](#), *All other units conversion functions*

**Example (Delphi)**

```
RvNDRWriter1.YPos = RvNDRWriter1.YD2U( LastYDots );
```

**Example (C++Builder)**

```
RvNDRWriter1->YPos = RvNDRWriter1->YD2U( LastYDots );
```

## 5.206 YI2D

**Declaration**

```
function YI2D(Pos: double): longint;
```

**Category**

[Units](#)

**Description**

This method will convert vertical inch measurements to printer canvas measurements (dots).

**See also**

[TBaseReport Class](#), *All other units conversion functions*

**Example (Delphi)**

```
// With Units currently set to unInch  
CurrYDots := RvNDRWriter1.YI2D( YPos );
```

**Example (C++Builder)**

```
CurrYDots = RvNDRWriter1->YI2D( RvNDRWriter1->YPos );
```

## 5.207 YI2U

**Declaration**

```
function YI2U(Pos: double): double;
```

**Category**

[Units](#)

**Description**

This method will convert vertical inch measurements to unit measurements (defined by *Units* and *UnitsFactor*).

**See also**

[TBaseReport Class](#), [Units](#), [UnitsFactor](#), *All other units conversion functions*

**Example (Delphi)**

```
RvNDRWriter1.YPos := RvNDRWriter1.YI2U( LastYInch );
```

**Example (C++Builder)**

```
RvNDRWriter1->YPos = RvNDRWriter1->YI2U( LastYInch );
```

## 5.208 YU2D

**Declaration**

```
function YU2D(Pos: double): longint;
```

**Category**[Units](#)**Description**

This method will convert vertical unit measurements (defined by *Units* and *UnitsFactor*) to printer canvas measurements (dots).

**See also**

[TBaseReport Class](#), [Units](#), [UnitsFactor](#), *All other units conversion functions*

**Example (Delphi)**

```
CurrYDots := RvNDRWriter1.YU2D( RvNDRWriter1.YPos );
```

**Example (C++Builder)**

```
CurrYDots = RvNDRWriter1->YU2D( RvNDRWriter1->YPos );
```

## 5.209 YU2I

**Declaration**

```
function YU2I(Pos: double): double;
```

**Category**[Units](#)**Description**

This method will convert vertical unit measurements (defined by *Units* and *UnitsFactor*) to inch measurements.

**See also**

[TBaseReport Class](#), [Units](#), [UnitsFactor](#), *All other units conversion functions*

**Example (Delphi)**

```
// With units set to unCM  
CurrYInch := RvNDRWriter1.YU2I( RvNDRWriter1.YPos );
```

**Example (C++Builder)**

```
CurrYInch = RvNDRWriter1->YU2I( RvNDRWriter1->YPos );
```

## 5.210 ZoomIn

**Declaration**

```
procedure ZoomIn;
```

**Category**[Preview](#)**Description**

This method will add *ZoomInc* to the current *ZoomFactor* and will make the image larger on the screen. If an *OnZoomChange* event handler is defined, then that event handler will be called and is responsible for redrawing the page otherwise the page is redrawn.

**See also**

[TRvRenderPreview Class](#), [ZoomOut](#), [ZoomInc](#), [ZoomFactor](#), [OnZoomChange](#)

**Example (Delphi)**

```
// This code causes the ZoomFactor to be incremented by ZoomInc percent.  
RvRenderPreview1.ZoomIn;
```

**Example (C++Builder)**

```
RvRenderPreview1->ZoomIn( );
```

## 5.211 ZoomOut

### Declaration

```
procedure ZoomOut;
```

### Category

[Preview](#)

### Description

This method will subtract *ZoomInc* from the current *ZoomFactor* and will make the image smaller on the screen. If an *OnZoomChange* event handler is defined, then that event handler will be called and is responsible for redrawing the page, otherwise the page is redrawn.

### See also

[TRvRenderPreview Class](#), [ZoomIn](#), [ZoomInc](#), [ZoomFactor](#), [OnZoomChange](#)

### Example (Delphi)

```
RvRenderPreview1.ZoomOut;
```

### Example (C++Builder)

```
RvRenderPreview1->ZoomOut();
```



# Properties

Chapter



## 6 Properties

A property defines an attribute of an object. But a property associates specific actions with reading or modifying its data. Properties provide control over access to an object's attributes, and they allow attributes to be computed.

### 6.1 Aborted

#### Declaration

```
property Aborted: Boolean;
```

#### Category

[Control](#)

#### Description

This property will be set to true after a call to [Abort](#) has been made.

#### See also

[TBaseReport Class](#), [Abort](#)

#### Example (Delphi)

```
RvNDRWriter1.Execute;  
if RvNDRWriter1.Aborted then begin  
    StatusFormat := #13 + 'Report Canceled!';  
end else begin  
    StatusFormat := #13 + 'Report Completed!';  
end; { else }  
UpdateStatus;
```

#### Example (C++Builder)

```
rp1->Execute();  
if (rp1->Aborted) {  
    rp1->StatusFormat = "\nReport Canceled!";  
} else {  
    rp1->StatusFormat = "\nReport Completed!";  
}  
rp1->UpdateStatus();
```

### 6.2 AccuracyMethod

#### Declaration

```
property AccuracyMethod: TAccuracyMethod;
```

#### Default

```
amAppearance {TRvNDRWriter}  
amPositioning {TRvSystem}
```

#### Category

[Control](#)

#### Description

This property controls how text is written to the report file. If *AccuracyMethod* is equal to *amPositioning* then the text is written out in a manner that will be reproduced as accurately as possible on the screen or any printers. If it is equal to *amAppearance* then the text string is written out as a complete string in the normal fashion. The problem with *amAppearance* is that screen fonts often do not size the same as printer fonts. Therefore, text strings may appear shorter or longer on the preview screen than they do on the printer.

See also

[TBaseReport Class](#)

**Example (Delphi)**

```
RvNDRWriter1.AccuracyMethod := amAppearance;
```

**Example (C++Builder)**

```
RvNDRWriter1->AccuracyMethod = amAppearance;
```

## 6.3 Active (TRpRender)

**Declaration**

```
property Active: Boolean read FActive write FActive
```

**Default**

true

**Category**

[Render](#)

**Description**

From the Print Setup dialog box, select the option to print to file. File types may then be selected from the combobox. Setting the active property to true, which is the default, will cause the component to be listed as one of the file formats to print to.

See also

[TRpRender Class](#), [DisplayName](#)

## 6.4 Active (TRvProject)

**Declaration**

```
property Active: Boolean;
```

**Default**

false

**Category**

[Rave](#)

**Description**

You can change or retrieve the active state of a report project with this property. Setting Active to true is the same as calling the Open method while setting Active to false is the same as calling the Close method.

See also

[TRvProject Class](#), [Close](#), [OnAfterClose](#), [OnAfterOpen](#), [OnBeforeClose](#), [OnBeforeOpen](#), [Open](#)

**Example (Delphi)**

```
// Same as RaveProject1.Open;  
RvProject1.Active := True; { Same as RvProject1.Open; }
```

**Example (C++Builder)**

```
RvProject1->Active = true;
```

## 6.5 AscentHeight

**Declaration**

```
property AscentHeight: double;
```

**Category**

[Position](#)

**Description**

Returns the height of the line font above the baseline.

**NOTE:**

This applies to the line font only and not to the current text font.

**See also**

[TBaseReport Class](#), [DescentHeight](#), [FontHeight](#), [LineHeight](#)

## 6.6 BarBottom

**Declaration**

```
property BarBottom: double;
```

**Default**

pjLeft

**Category**

[BarCode](#)

**Description**

Sets or returns the location of the bottom of the bar portion of the bar code. The location of the readable text is controlled by PrintReadable and PrintTop properties.

**See also**

[TRpBarsBase Class](#), [BarTop](#), [Bottom](#), [PrintReadable](#), [PrintTop](#)

**Example**

See [Create](#) { bar code }

## 6.7 BarCodeJustify

**Declaration**

```
property BarCodeJustify: TPrintJustify
```

**Default**

pjLeft

**Category**

[BarCode](#)

**Description**

This determines where the bar code is printed relative to the Position property.

<i>pjLeft</i>	Print the bar code left justified at Position
<i>pjCenter</i>	Print the bar code centered at Position
<i>pjRight</i>	Print the bar code right justified at Position

**See also**

[TRpBarsBase Class](#), [Center](#), [Left](#), [Position](#), [Right](#)

**Example (Delphi)**

```
// equivalent to Center := 2.5;
Position := 2.5;
BarCodeJustify := pjCenter;
```

**Example (C++Builder)**

```
rp1->Position = 2.5;
rp1->BarCodeJustify = pjCenter;
```

## 6.8 BarCodeRotation

### Declaration

```
property BarCodeRotation: TBarCodeRotation
```

### Default

Rot0

### Category

[BarCode](#)

### Description

This property allows the bar code to be rotated to 4 different orientations. The pivot point for rotation is the top left corner of the bar code.

<i>Rot0</i>	no rotation
<i>Rot90</i>	rotate 90 degrees relative to page
<i>Rot180</i>	rotate 180 degrees relative to page
<i>Rot270</i>	rotate 270 degrees relative to page

### See also

[TRpBarsBase Class](#), [Left](#), [Top](#)

### Example (Delphi)

```
// print Bar Code upside down  
BarCodeRotation := Rot180;
```

### Example (C++Builder)

```
rp1->BarCodeRotation = Rot180;
```

## 6.9 BarHeight

### Declaration

```
property BarHeight: double;
```

### Default

0.5 ( PostNet 0.125 )

### Category

[BarCode](#)

### Description

Sets or returns the value for the tallest bar.

### See also

[TRpBarsBase Class](#), [BarWidth](#)

### Example (Delphi)

```
// Bars will be 3/10 inch tall  
BarHeight := 0.3;
```

### Example (C++Builder)

```
rp1->BarHeight = 0.3;
```

## 6.10 BarTop

### Declaration

```
property BarTop: double;
```

### Default

0

**Category**[BarCode](#)**Description**

Sets or returns the location of the top of the bar code. The location of the readable text is controlled by `PrintReadable` and `PrintTop` properties

**See also**[TRpBarsBase Class](#), [BarBottom](#), [PrintReadable](#), [PrintTop](#), [Top](#)**Example (Delphi)**

```
BarCode1.BarTop := 0.5;
```

**Example (C++Builder)**

```
BarCode1->BarTop = 0.5;
```

## 6.11 BarWidth

**Declaration**

```
property BarWidth: double
```

**Default**

0.01 (PostNet 0.020)

**Category**[BarCode](#)**Description**

Sets or returns the value of the narrow bar width.

**See also**[TRpBarsBase Class](#), [BarHeight](#), [Width](#)**Example (Delphi)**

```
// set narrow bar width to 2/100 ths  
BarWidth := 0.02;
```

**Example (C++Builder)**

```
rpl->BarWidth = 0.02;
```

## 6.12 BaseReport (TMemoBuf)

**Declaration**

```
property BaseReport: TBaseReport
```

**Default**

nil

**Category**[Memo](#)**Description**

Sets or returns the reporting object that the memo will be printed through. There are certain methods that require this property to be initialized before the will print

**See also**[TMemoBuf Class](#), [MemoHeightLeft](#), [MemoLinesLeft](#), [PrintHeight](#), [PrintLines](#)**Example (Delphi)**

```
MemoBuf.BaseReport := Sender as TBaseReport;
```

**Example (C++Builder)**

```
MemoBuf->BaseReport = dynamic_cast<TBaseReport*>(Sender);
```

**6.13 BaseReport (TRpBarsBase)****Declaration**

```
property BaseReport: TBaseReport
```

**Default**

```
nil
```

**Category**

[BarCode](#)

**Description**

Sets or returns the reporting object that the bar code will be printed through. This property is normally set through the constructor, Create.

**See also**

[TRpBarsBase Class](#), [Create](#)

**Example (Delphi)**

```
Barcode1.BaseReport := ( Sender as TBaseReport );
```

**Example (C++Builder)**

```
Barcode1->BaseReport = dynamic_cast<TBaseReport*>(Sender);
```

**6.14 BaseReport (TRvSystem)****Declaration**

```
property BaseReport: TBaseReport
```

**Default**

```
nil
```

**Category**

[Control](#)

**Description**

Provides access to the TBaseReport object that is created by RvSystem, the base class of all output classes. This property will be nil until the Execute method is called. It is normally not necessary to access this property since the TBaseReport object is passed as the Sender parameter for all printing events.

**See also**

[TRvSystem Class](#), [Execute](#)

**Example (Delphi)**

```
RvSystem1.BaseReport.Print('This is a test');
or
with Sender as TBaseReport do begin
  Print('This is a test'); { Equivalent code inside OnPrint event }
end; { with }
```

**Example (C++Builder)**

```
rp1->BaseReport->Print("This is a test");
```

**6.15 Bins****Declaration**

```
property Bins: TStrings;
```

**Default**

(the list of bins for the default printer)

**Category**

[Printer](#)

**Description**

This property will return a TStringList containing all of the valid printer bins for the current printer.

**See also**

[TBaseReport Class](#), [SelectBin](#), [SupportBin](#), TStrings

**Example (Delphi)**

```
// Display the printer bins in a list box  
ListBox1.Items := RvNDRWriter1.Bins;
```

**Example (C++Builder)**

```
ListBox1->Items = RvNDRWriter1->Bins;
```

## 6.16 BKColor

**Declaration**

```
property BKColor: TColor;
```

**Default**

clWhite

**Category**

[Graphics](#)

**Description**

This property returns or sets the current background color for text output.

**See also**

[TBaseReport Class](#), TColor, [TextBKMode](#)

**Example (Delphi)**

```
RvNDRWriter1.BKColor := clWhite;
```

**Example (C++Builder)**

```
RvNDRWriter1->BKColor = clWhite;
```

## 6.17 Bold

**Declaration**

```
property Bold: Boolean;
```

**Default**

false

**Category**

[Font](#)

**Description**

This property returns or sets the bold attribute for the current font

**See also**

[TBaseReport Class](#), [Italic](#), [Strikeout](#), [Underline](#)



**Example (Delphi)**

```
with RvNDRWriter1 do begin
  Bold := true;
  Print( 'Bold Text' );
  Bold := false;
end; { with }
```

**Example (C++Builder)**

```
rpl->Bold = true;
rpl->Print( "Bold Text" );
rpl->Bold = false;
```

## 6.18 Bottom

**Declaration**

```
property Bottom: double;
```

**Category**

[BarCode](#)

**Description**

Sets or returns the position for the bottom of the bar code. The value for this property includes the readable text if it is printed.

**See also**

[TRpBarsBase Class](#), [BarBottom](#), [PrintReadable](#), [PrintTop](#)

## 6.19 BottomWaste

**Declaration**

```
property BottomWaste: double;
```

**Category**

[Printer](#)

**Description**

This property returns the waste area on the bottom side of the page that the printer cannot print into. It is a good idea to make sure that the report's margins are greater than or equal to its waste areas.

**See also**

[TBaseReport Class](#), [LeftWaste](#), [MarginBottom](#), [RightWaste](#), [TopWaste](#)

**Example**

See [LeftWaste](#)

## 6.20 BoxLineColor

**Declaration**

```
property BoxLineColor: TColor;
```

**Default**

clBlack

**Category**

[Tabs](#)

**Description**

This property will define the color used to draw the sides of tab boxes defined with SetTab.

**See also**

[TBaseReport Class](#), [SetTab](#), [Tab](#), [TabColor](#), TColor

**Example (Delphi)**

```
RvNDRWriter1.BoxLineColor := clGreen;
```

**Example (C++Builder)**

```
RvNDRWriter1->BoxLineColor = clGreen;
```

## 6.21 BoxLineXxxx constants

**Declaration**

```
const BoxLineXxxx
```

**Category**

[Tabs](#)

**Description**

BOXLINENONE:	No lines drawn.
BOXLINELEFT:	Line drawn on left only.
BOXLINERIGHT:	Line drawn on right only.
BOXLINETOP:	Line drawn on top only.
BOXLINEBOTTOM:	Line drawn on bottom only.
BOXLINEALL:	Lines drawn on all sides.
BOXLINELEFTRIGHT:	Lines drawn on left and right.
BOXLINETOPBOTTOM:	Lines drawn on top and bottom.
BOXLINENOTOP:	All lines except indicated are drawn.
BOXLINENOBOTTOM	
BOXLINENOLEFT	
BOXLINENORIGHT	

**See also**

[TBaseReport Class](#), [SetTab](#)

**Example**

see [SetTab](#)

## 6.22 Buffer

**Declaration**

```
property Buffer: ^Array[ 0..MaxBufSize ] of Char;
```

**Category**

[Memo](#)

**Description**

This property is a pointer to memory buffer used by TMemoBuf.

**NOTE:**

Not normally necessary to access this property.

**See also**

[TMemoBuf Class](#), [LoadFromFile](#), [SetData](#), [Text](#)

## 6.23 BufferInc

**Declaration**

```
property BufferInc: longint;
```

**Default**

256

**Category**

[Memo](#)

**Description**

This property controls the granularity of the memo buffer when its size changes. Setting this property to 1 will keep the buffer size exactly equal to the size of the text but will be inefficient when the buffer grows or shrinks. Setting this property to a larger value will make editing the memo buffer more efficient.

**See also**

[TMemoBuf Class](#), [MaxSize](#)

**Example (Delphi)**

```
MemoBuf.BufferInc := 128;
```

**Example (C++Builder)**

```
MemoBuf->BufferInc = 128;
```

## 6.24 CacheDir

**Declaration**

```
property CacheDir: String read FCacheDir write FCacheDir
```

**Category**

[Render](#) HTML PDF

**Description**

If you are running the HTML component from a server, setting the CacheDir will allow you to specify where the temporary image files will be stored.

**See also**

[TRpRender Class](#), [ServerMode](#)

## 6.25 Canvas

**Declaration**

```
property Canvas: TCanvas;
```

**Category**

[Printer](#)

**Description**

This method returns the TCanvas object that is being printed on.

**NOTE:**

Direct manipulation of the canvas is not supported or captured by TRvNDRWriter (and thus TRvRenderPrinter and TRvRenderPreview).

**See also**

[TBaseReport Class](#), RpDev, TCanvas

**Example (Delphi)**

```
// Save the current canvas  
RvNDRWriter1.Canvas.Pen := SavePen;
```

**Example (C++Builder)**

```
RvNDRWriter1->Canvas->Pen = SavePen;
```

## 6.26 Center

**Declaration**

```
property Center: double;
```

**Default**

relative to Left and Right properties

**Category**[BarCode](#)**Description**

Sets or returns the position for the horizontal center of the bar code. When a value is assigned to Center the *BarCodeJustify* property is set to *pjCenter* as well.

**See also**

[TRpBarsBase Class](#), [BarCodeJustify](#), [Left](#), [Position](#), [Right](#)

**Example (Delphi)**

```
Barcode1.Center := (SectionLeft + SectionRight) / 2.0;
```

**Example (C++Builder)**

```
Barcode1->Center = (rpl->SectionLeft + rpl->SectionRight)/2.0;
```

## 6.27 CheckSum

**Declaration**

```
property CheckSum: Boolean;
```

**Category**[BarCode](#)**Description**

This property returns the checksum character(s) that is/are calculated using the current value of the Text property. If UseChecksum is true, this value will be automatically included in the bar code.

**See also**

[TRpBarsBase Class](#), [UseChecksum](#)

## 6.28 CodePage

**Declaration**

```
property CodePage: TCodePage128;
```

**Default**

```
cpCodeA
```

**Category**[BarCode](#)**Description**

Specifies whether Code A, Code B or Code C is being used.

<i>cpCodeA</i>	sets 128 output to Code A
<i>cpCodeB</i>	sets 128 output to Code B
<i>cpCodeC</i>	sets 128 output to Code C

**See also**

[TRpBarsBase Class](#)

**Example (Delphi)**

```
// set 128 code output to C
CodePage := cpCodeC;
Text := '125692';
```

**Example (C++Builder)**

```
Barcode1->CodePage = cpCodeC;
Barcode1->Text = "125692";
```

## 6.29 Collate

### Declaration

```
property Collate: Boolean
```

### Default

(will be equal to the collation setting for the default printer)

### Category

[Printer](#)

### Description

This property will enable or disable collation.

### NOTE:

This property is only supported in Delphi 2.0 and will always return false in Delphi 1.0. Not all printer drivers support collation, use *SupportCollate* to determine availability.

### See also

[TBaseReport Class](#), [SupportCollate](#)

### Example (Delphi)

```
if SupportCollate then begin
  Collate := true;
end; { if }
```

### Example (C++Builder)

```
if (rpl->SupportCollate()) {
  rpl->Collate = true;
}
```

## 6.30 ColumnEnd

### Declaration

```
property ColumnEnd: double;
```

### Category

[Column](#)

### Description

This property will return the horizontal ending position of the current column. This can be useful for printing memo buffers inside of a column.

### See also

[TBaseReport Class](#), [ColumnNum](#), [SetColumns](#), [SetColumnWidth](#)

### Example (Delphi)

```
// Print memo buffer
SetColumns(3,0.25);
MemoBuf.PrintStart := ColumnStart;
MemoBuf.PrintEnd   := ColumnEnd;
PrintMemo(MemoBuf, ColumnLinesLeft, false);
```

### Example (C++Builder)

```
rpl->SetColumns(3,0.25);
MemoBuf->PrintStart = rpl->ColumnStart;
MemoBuf->PrintEnd   = rpl->ColumnEnd;
rpl->PrintMemo(MemoBuf, rpl->ColumnLinesLeft(), false);
```

## 6.31 ColumnLinesLeft

### Declaration

```
function ColumnLinesLeft: integer;
```

### Category

[Column](#)

### Description

This method returns the number of lines that can be printed above the current *SectionBottom* for the current column plus all lines that are in remaining columns. This count includes the current line.

### See also

[TBaseReport Class](#), all column methods, [LinesLeft](#), [SectionBottom](#)

### Example (Delphi)

```
SetColumns(4, 0.5);
while ColumnLinesLeft > 0 do begin
    PrintLn(IntToStr( LinesLeft)  + '/' +
            IntToStr(ColumnLinesLeft)  + '/' +
            IntToStr(LineNum)          + '/' +
            IntToStr(ColumnNum) );
end; { while }
```

### Example (C++Builder)

```
rpl->SetColumns(4, 0.5);
while (rpl->ColumnLinesLeft() > 0) {
    rpl->PrintLn(IntToStr(rpl->LinesLeft()) + AnsiString("/") +
                IntToStr( rpl->ColumnLinesLeft()) +
                AnsiString("/") +
                IntToStr( rpl->LineNum) + AnsiString("/") +
                IntToStr( rpl->ColumnNum) );
} // while
```

## 6.32 ColumnNum

### Declaration

```
property ColumnNum: integer;
```

### Default

1

### Category

[Column](#)

### Description

This property will return or set the current column number that the text cursor is on.

### See also

[TBaseReport Class](#), [Columns](#), [SetColumns](#), [SetColumnWidth](#)

### Example (Delphi)

```
CurrColNum := RvNDRWriter1.ColumnNum;
```

### Example (C++Builder)

```
CurrColNum = RvNDRWriter1->ColumnNum;
```

## 6.33 Columns

### Declaration

```
property Columns: integer;
```

**Category**[Column](#)**Description**

This property returns the number of columns that are available from the last call to *SetColumns* or *SetColumnWidth*.

**See also**[TBaseReport Class](#), [ColumnNum](#), [SetColumns](#), [SetColumnWidth](#)**Example (Delphi)**

```
CurrColumns := RvNDRWriter1.Columns;
```

**Example (C++Builder)**

```
CurrColumns = RvNDRWriter1->Columns;
```

## 6.34 ColumnStart

**Declaration**

```
property ColumnStart: double;
```

**Category**[Column](#)**Description**

This property will return the horizontal starting position of the current column. This can be useful for printing memo buffers inside of a column.

**See also**[TBaseReport Class](#), [ColumnNum](#), [SetColumns](#), [SetColumnWidth](#)**Example (Delphi)**

```
CurrColStart := RvNDRWriter1.ColumnStart;
```

**Example (C++Builder)**

```
CurrColStart := RvNDRWriter1->ColumnStart;
```

## 6.35 ColumnWidth

**Declaration**

```
property ColumnWidth: double;
```

**Category**[Column](#)**Description**

This property returns the width of the current column.

**See also**[TBaseReport Class](#), [SetColumns](#), [SetColumnWidth](#)**Example (Delphi)**

```
CurrColWidth := RvNDRWriter1.ColumnWidth;
```

**Example (C++Builder)**

```
CurrColWidth := RvNDRWriter1->ColumnWidth;
```

## 6.36 Copies

**Declaration**

```
property Copies: integer;
```

**Default**

1

**Category**[Printer](#)**Description**

This property returns or sets the current number of copies of the report that will be printed by the printer.

**NOTE:**

Not all printers support this function, especially non-laserjet printers. Use *MaxCopies* to determine availability. For these printers, just call the report multiple times or use *TRvNDRWriter* and *TRvRenderPrinter* to speed up report generation. Use a value of 0 to retain the setting defined by *TPrinterSetupDialog*.

**See also**[TBaseReport Class](#), [MaxCopies](#)**Example (Delphi)**

```
// Print three copies
RvNDRWriter1.Copies := 3;
```

**Example (C++Builder)**

```
RvNDRWriter1->Copies = 3;
```

## 6.37 CPI

**Declaration**

```
property CPI: double;
```

**Default**

10

**Category**[Misc](#), [Render](#)**Components**[TRvRenderText](#)**Description**

Sets the Characters Per Inch for translation from horizontal units to text columns.

**See also**[LeftBorder](#), [LPI](#), [NewPage](#)**Example (Delphi)**

```
WITH RvRenderText1 do begin
  CPI := 16;
  LPI := 8;
  PrintLn('This text is 16 characters per inch');
  PrintLn('With 8 Lines per inch');
end; { with }
```

**Example (C++Builder)**

```
RvRenderText1->CPI = 16;
RvRenderText1->LPI = 8;
RvRenderText1->PrintLn("This text is 16 characters per inch");
RvRenderText1->PrintLn("With 8 Lines per inch");
```



## 6.38 CurrentPage

### Declaration

```
property CurrentPage: integer;
```

### Category

[Control](#)

### Description

This property returns the current page number.

### See also

[TBaseReport Class](#)

### Example (Delphi)

```
with RvRenderPreview1 do begin
  PageEdit.Text := IntToStr(CurrentPage);
  PageLabel.Caption := 'Page ' +
    IntToStr(CurrentPage-FirstPage+1) +
    ' of ' + IntToStr(Pages);
end; { with }
```

### Example (C++Builder)

```
PageEdit->Text = IntToStr( RvRenderPreview1->CurrentPage);
PageLabel->Caption = AnsiString("Page ") +
  IntToStr(RvRenderPreview1->CurrentPage -
    RvRenderPreview1->FirstPage+1) +
  AnsiString(" of ") +
  IntToStr( RvRenderPreview1->Pages);
```

## 6.39 CurrentPass

### Declaration

```
property CurrentPass: Integer;
```

### Category

[Misc](#)

### Description

This is the value that will be returned when a %c is encountered in a StatusFormat string. Normally set by Rave and used when printing multiple copies on a printer that does not support that option.

### See also

[TBaseReport Class](#), [StatusFormat](#), [StatusLabel](#), [StatusText](#), [TotalPasses](#), [UpdateStatus](#)

### Example (Delphi)

```
RvNDRWriter1.StatusFormat := 'Printing page (Pass of )';
```

### Example (C++Builder)

```
RvNDRWriter1->StatusFormat = "Printing page (Pass of )";
```

## 6.40 CursorXPos

### Declaration

```
property CursorXPos: longint;
```

### Category

[Position](#)

### Description

This property returns the horizontal text cursor position in printer units (dots).

See also

[TBaseReport Class](#), [CursorYPos](#), [XPos](#), [YPos](#)

**Example (Delphi)**

```
CurrentXDots := RvNDRWriter1.CursorXPos;
```

**Example (C++Builder)**

```
CurrentXDots = RvNDRWriter1->CursorXPos;
```

## 6.41 CursorYPos

**Declaration**

```
property CursorYPos: longint;
```

**Category**

[Position](#)

**Description**

This property returns the vertical text cursor position in printer units (dots).

See also

[TBaseReport Class](#), [CursorXPos](#), [XPos](#), [YPos](#)

**Example (Delphi)**

```
CurrentYDots := RvNDRWriter1.CursorYPos;
```

**Example (C++Builder)**

```
CurrentYDots = RvNDRWriter1->CursorYPos;
```

## 6.42 DataSet

**Declaration**

```
property DataSet: TDataSet;
```

**Default**

nil

**Category**

[Rave](#)

**Description**

Specifies the *dataset* to use with the current TRvDataSetConnection component.

See also

[TRvDataSetConnection Class](#)

**Example (Delphi)**

```
CustomerCXN.DataSet := CustomerTable;
```

**Example (C++Builder)**

```
CustomerCXN->DataSet = CustomerTable;
```

## 6.43 DefaultDest

**Declaration**

```
property DefaultDest: TReportDest;
```

**Default**

rdPreview

**Category**[ReportSystem](#)**Description**

This property will determine the default report destination that appears in the setup dialog. If the setup dialog is disabled then *DefaultDest* will determine where the report is sent. Valid values are *rdFile*, *rdPreview* and *rdPrinter*.

**See also**[TRvSystem Class](#), [ReportDest](#), [TReportDest](#)**Example (Delphi)**

```
RvSystem1.DefaultDest := rdPrinter;
```

**Example (C++Builder)**

```
RvSystem1->DefaultDest = rdPrinter;
```

## 6.44 DescentHeight

**Declaration**

```
property DescentHeight: double;
```

**Category**[Position](#)**Description**

Returns the height of the line font below the baseline.

**NOTE:**

This applies to the line font only and not to the current text font.

**See also**[TBaseReport Class](#), [AscentHeight](#), [FontHeight](#), [LineHeight](#)

## 6.45 DeviceName

**Declaration**

```
property DeviceName: string;
```

**Category**[Printer](#)**Description**

This property will return the device name for the currently selected printer.

**See also**[TBaseReport Class](#), [PrinterIndex](#)**Example (Delphi)**

```
// Save current device name  
CurrDeviceName := RvNDRWriter1.DeviceName;
```

**Example (C++Builder)**

```
CurrDeviceName = RvNDRWriter1->DeviceName;
```

## 6.46 DevMode

**Declaration**

```
property DevMode: PDevMode;
```

**Category**[Printer](#)**Description**

This property provides access to the *TDevMode* structure for the current printer. After any changes to *DevMode* are made, *ResetPrinter* should be called.

**See also**

[TBaseReport Class](#), TDevMode structure in Windows API help.

**Example (Delphi)**

```
// Save current printer device mode and set the print resolution to low
CurrDevMode := RvNDRWriter1.DevMode;
RvNDRWriter1.DevMode^.dmPrintQuality := DMRES_LOW;
```

**Example (C++Builder)**

```
PDevMode CurrDevMode = RvNDRWriter1->DevMode;
RvNDRWriter1->DevMode->dmPrintQuality = DMRES_LOW;
```

## 6.47 DisplayName

**Declaration**

```
property DisplayName: string read FDisplayName write SetDisplayName;
```

**Category**[Render](#)**Description**

When the Active property is set to true on a TRender component, the component will be listed in the Print to File format options. The text that will show in the drop-down list that allows you to select the component will be the same as that listed in the DisplayName property.

**See also**

[TRpRender Class](#), [Active](#)

## 6.48 DLLFile

**Declaration**

```
property DLLFile: string;
```

**Default**

'' (empty)

**Category**[Rave](#)**Description**

This property sets the filename that will be used if the LoadDesigner property is True. The end user files are either RavePack or RaveSolo DLL depending upon whether or not you are using packages. The end user DLL file can be renamed to better "fit" your project naming conventions.

**NOTE:**

This feature is only available with a Rave EUDL license. See the Nevrona website at <http://www.nevrona.com> for more information on obtaining an EUDL license.

**See also**

[TRvProject Class](#), [LoadDesigner](#)

**Example (Delphi)**

```
RvProject.DLLFile := 'MyName.DLL';
```

**Example (C++Builder)**

```
RvProject->DLLFile = "MyName.DLL";
```

**6.49 DriverName****Declaration**

```
property DriverName: string;
```

**Category**

[Printer](#)

**Description**

This property will return the driver name for the currently selected printer.

**See also**

[TBaseReport Class](#)

**Example (Delphi)**

```
// Save current driver name
CurrPrintDriver := RvNDRWriter1.DriverName;
```

**Example (C++Builder)**

```
CurrPrintDriver = RvNDRWriter1->DriverName;
```

**6.50 Duplex****Declaration**

```
property Duplex: TDuplex;
```

**Default**

(will be equal to the duplex setting for the default printer)

**Category**

[Printer](#)

**Description**

This property will set the duplex mode for the current printer. Not all printers or drivers support duplex printing, use *SupportDuplex* to determine availability.

<i>dupSimplex</i>	Simplex mode (Duplex mode NOT initialized)
<i>dupHorizontal</i>	Duplex mode initialized - print Head to Toe
<i>dupVertical</i>	Duplex mode initialized - print Head to Head

**See also**

[TBaseReport Class](#), [SupportDuplex](#)

**Example (Delphi)**

```
if SupportDuplex then begin
  Duplex := dupVertical;
end; { if }
```

**Example (C++Builder)**

```
if (rpl->SupportDuplex()) {
  rpl->Duplex = dupVertical;
}/ if
```

**6.51 Engine****Declaration**

```
property Engine: TRpComponent;
```

**Default**  
nil

**Category**  
[Rave](#)

**Description**

This property allows you to define a reporting engine to be used when printing Rave reports through the TRvProject component. If this property is not defined, a default TRvSystem component will be used. TRvNDRWriter and TRvSystem are all valid component classes that can be assigned to this property.

**See also**  
[TRvProject Class](#), [Execute](#), [ExecuteReport](#)

**Example (Delphi)**  
`RvProject1.Engine := RvSystem1;`

**Example (C++Builder)**  
`RvProject1->Engine = RvSystem1;`

## 6.52 Extended

**Declaration**  
`property Extended: Boolean;`

**Default**  
false

**Category**  
[BarCode](#)

**Description**  
If this property is true then it will output Extended Code 39 format.

**See also**  
[TRpBarsBase Class](#), [ExtendedText](#)

**Example (Delphi)**  
`Extended := True;  
Text := 'Test Data';`

**Example (C++Builder)**  
`Extended = true;  
Text = "Test Data";`

## 6.53 ExtendedText

**Declaration**  
`property ExtendedText: string;`

**Category**  
[BarCode](#)

**Description**  
When Extended is true, this property will contain the converted Code39 text that will be printed in the bar code.

**See also**  
[TRpBarsBase Class](#), [Extended](#), [Text](#)

**Example (Delphi)**

```
ShowMessage('The raw data of this Code 39 BarCode is ' +  
Code39Bar.ExtendedText);
```

**Example (C++Builder)**

```
ShowMessage("The raw data of this Code 39 BarCode is " +  
Code39Bar->ExtendedText);
```

## 6.54 Field

**Declaration**

```
property Field: TMemoField;
```

**Category**

[Memo](#)

**Description**

This property will assign the contents of a *TMemoField* component to the memo buffer.

**See also**

[TMemoBuf Class](#), [Pos](#), [Size](#), [TMemoField](#)

**Example (Delphi)**

```
MemoBuf1.Field := MyMemoField;
```

**Example (C++Builder)**

```
MemoBuf->Field = MyMemoField;
```

## 6.55 FieldAliasList

**Declaration**

```
property FieldAliasList: TStrings;
```

**Default**

(blank)

**Category**

[Rave](#)

**Description**

With this property you can provide aliases or remove fields entirely in your application as far as the Rave designer is concerned. This can be used to provide easier to understand field names, remove unnecessary fields or to remove the need to read large blob fields out of reports that don't use them. The property is a simple string list and each line takes the form of "FieldName=FieldAlias". To remove a field from the list of fields that are sent to Rave, leave the FieldAlias blank. Fields that are not listed in the FieldAliasList will be passed to Rave as is (the default behavior). Field aliases can include blanks or other non-alphanumeric characters, but by doing so, the characters < and > will be automatically added around the field names for all field name references within Rave.

**See also**

[TRvCustomConnection Class](#)

## 6.56 FileName

**Declaration**

```
property FileName: String;
```

**Default**

'' (empty)

**Category**[Control](#)**Description**

Specifies the file name to create when the execute method is called. For the RenderText component, if you want to go directly out to a printer in text mode (much faster for dot-matrix printers than going through the Windows printer driver), then define FileName as PRN, LPT1 or LPT2.

**See also**[TBaseReport Class](#)**Example (Delphi)**

```
RvNDRWriter1.FileName := 'DOC1.DOC';
```

**Example (C++Builder)**

```
RvNDRWriter1->FileName = "DOC1.DOC";
```

## 6.57 FirstPage

**Declaration**

```
property FirstPage: integer;
```

**Default**

1

**Category**[Control](#)**Description**

This property defines the first page of a range of pages to send to the printer. If the current page is outside this range, the property *PageInvalid* will be true.

**See also**[TBaseReport Class](#), [PageInvalid](#)**Example (Delphi)**

```
// print only pages 3 through 5
RvNDRWriter1.FirstPage := 3;
RvNDRWriter1.LastPage := 5;
```

**Example (C++Builder)**

```
RvNDRWriter1->FirstPage = 3;
RvNDRWriter1->LastPage = 5;
```

## 6.58 FontAlign

**Declaration**

```
property FontAlign: TFontAlign;
```

**Category**[Font](#)**Description**

Returns or sets the current font alignment.

<i>faTop</i>	will align text at the top of the font located at FontTop
<i>faBaseline</i>	will align text at the baseline of the font located at FontBaseline
<i>faBottom</i>	will align text at the bottom of the font located at FontBottom

**See also**

[TBaseReport Class](#), Other FontXxxx properties, [FontBaseline](#), [FontBottom](#), [FontTop](#), [SetFont](#), [ResetLineHeight](#)



**Example (Delphi)**

```
FontAlign := faTop;  
Print('This text is aligned at the top');  
FontAlign := faBaseline;
```

**Example (C++Builder)**

```
rp1->FontAlign = faTop;  
rp1->Print("This text is aligned at the top");  
rp1->FontAlign = faBaseline;
```

## 6.59 FontBaseline

**Declaration**

```
property FontBaseline: double;
```

**Default**

see [ResetLineHeight](#)

**Category**

[Position](#)

**Description**

Returns or sets the baseline of the line font

**See also**

[TBaseReport Class](#), [FontBottom](#), [FontTop](#), [LineBottom](#), [LineMiddle](#), [LineTop](#)

**Example (Delphi)**

```
FontBaseline := 1.8;
```

**Example (C++Builder)**

```
rp1->FontBaseline = 1.8;
```

## 6.60 FontBottom

**Declaration**

```
property FontBottom: double;
```

**Default**

see [ResetLineHeight](#)

**Category**

[Position](#)

**Description**

Returns or sets the bottom of the line font

**See also**

[TBaseReport Class](#), [FontBaseline](#), [FontTop](#), [LineBottom](#), [LineMiddle](#), [LineTop](#)

**Example (Delphi)**

```
FontBottom := 2.0;
```

**Example (C++Builder)**

```
rp1->FontBottom = 2.0;
```

## 6.61 FontCharset

**Declaration**

```
property FontCharset: byte;
```

**Default**`DEFAULT_CHARSET`**Category**[Font](#)**Description**

Allows you to change the character set of the current font. Other values can be found in the Windows API help under LOGFONT

**See also**[TBaseReport Class](#)**Example (Delphi)**

```
SetFont( 'Wingdings', 10 );  
FontCharSet := SYMBOL_CHARSET;
```

**Example (C++Builder)**

```
rpl->SetFont( "Wingdings", 10 );  
rpl->FontCharSet = SYMBOL_CHARSET;
```

## 6.62 FontColor

**Declaration**`property FontColor: TColor;`**Default**`clBlack`**Category**[Font](#)**Description**

Returns or sets the font color.

**See also**[TBaseReport Class](#), Other FontXxxx properties, [SetFont](#), TColor**Example (Delphi)**

```
FontColor := clRed;  
Print('This text is in red.');
```

**Example (C++Builder)**

```
rpl->FontColor = clRed;  
rpl->Print("This text is in red.");
```

## 6.63 FontHandle

**Declaration**`property FontHandle: HFont;`**Category**[Font](#)**Description**

This property will return the windows handle for the current printer font. This property will not normally be used but is provided for situations that require access to the printer font.

**NOTE:**

Canvas.Font.Handle will not equal *FontHandle*.

See also

[TBaseReport Class](#)

## 6.64 FontHeight

### Declaration

```
property FontHeight: double;
```

### Default

see [ResetLineHeight](#)

### Category

[Font](#)

### Description

Returns or sets the height of the line font.

### NOTE:

This applies to the line font only and not the current text font.

See also

[TBaseReport Class](#), Other FontXxxx properties, [AscentHeight](#), [DescentHeight](#), [LineHeight](#)

### Example (Delphi)

```
FontHeight := 0.25;
```

### Example (C++Builder)

```
rp1->FontHeight = 0.25;
```

## 6.65 FontName

### Declaration

```
property FontName: string;
```

### Default

'System'

### Category

[Font](#)

### Description

Returns or sets the current font name.

See also

[TBaseReport Class](#), Other FontXxxx properties, [SetFont](#)

### Example (Delphi)

```
FontName := 'Times New Roman';
```

### Example (C++Builder)

```
rp1->FontName = "Times New Roman";
```

## 6.66 FontPitch

### Declaration

```
property FontPitch: TFontPitch;
```

**Default**

fpDefault

**Category**

[Font](#)

**Description**

Returns or sets the pitch setting for the current font. The normal setting of *fpDefault* will use the font's normal pitch. *fpFixed* will attempt to convert the font to a fixed-width font and *fpVariable* will attempt to convert the font to a variable-width font. Setting a font to a pitch other than what it was designed for may have no effect or may cause another font to be substituted in its place.

**See also**

[TBaseReport Class](#), Other FontXxxx properties, [SetFont](#)

**Example (Delphi)**

```
FontPitch := fpVariable;
```

**Example (C++Builder)**

```
rpl->FontPitch = fpVariable;
```

## 6.67 FontRotation

**Declaration**

```
property FontRotation: integer;
```

**Default**

0

**Category**

[Font](#)

**Description**

Returns or sets the font rotation in degrees from 0 to 359. 0 is for normal text and the angles increase counter-clockwise. The text cursor will be updated according to the FontRotation

**See also**

[TBaseReport Class](#), Other FontXxxx properties

**Example (Delphi)**

```
FontRotation := 45;  
Print('This text is at 45 degrees');  
FontRotation := 0;  
Print('This is normal text');
```

**Example (C++Builder)**

```
rpl->FontRotation = 45;  
rpl->Print("This text is at 45 degrees");  
rpl->FontRotation = 0;  
rpl->Print("This is normal text");
```

## 6.68 Fonts

**Declaration**

```
property Fonts: TStrings;
```

**Default**

(list of fonts supported by the default printer)

**Category**[Printer](#)**Description**

This property will return a TStringList containing all of the fonts supported by the current printer.

**See also**[TBaseReport Class](#), [FontName](#), [SetFont](#), TStrings**Example (Delphi)**

```
// Display the supported fonts in a TComboBox  
Combobox1.Items := RvNDRWriter1.Fonts;
```

**Example (C++Builder)**

```
ComboBox1->Items = RvNDRWriter1->Fonts;
```

## 6.69 FontSize

**Declaration**

```
property FontSize: double;
```

**Default**

10

**Category**[Font](#)**Description**

Returns or sets the point size of the current font.

**See also**[TBaseReport Class](#), Other FontXxxx properties, [SetFont](#)**Example (Delphi)**

```
FontSize := 8;  
Print('Small');  
FontSize := 36;  
Print('Large');
```

**Example (C++Builder)**

```
rpl->FontSize = 8;  
rpl->Print("Small");  
rpl->FontSize = 36;  
rpl->Print("Large");
```

## 6.70 FontTop

**Declaration**

```
property FontTop: double;
```

**Default**

see [ResetLineHeight](#)

**Category**[Position](#)**Description**

Returns or sets the top of the line font

**See also**[TBaseReport Class](#), Other FontXxxx properties, [LineBottom](#), [LineMiddle](#), [LineTop](#)

**Example (Delphi)**

```
// Place the top of the text at 2.25"  
FontTop := 2.25;
```

**Example (C++Builder)**

```
rpl->FontTop = 2.25;
```

## 6.71 FontWidth

**Declaration**

```
property FontWidth: double;
```

**Default**

0

**Category**

[Font](#)

**Description**

This is used to override the average character width for a font in units. To use normal character sizes, specify a value of 0.

**See also**

[TBaseReport Class](#), [FontSize](#)

**Example (Delphi)**

```
// set average character width to 1/4 inch  
FontWidth := 0.25;
```

**Example (C++Builder)**

```
rpl->FontWidth = 0.25;
```

## 6.72 FrameMode

**Declaration**

```
property FrameMode: TFrameMode;
```

**Default**

fmlInside

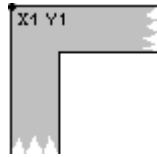
**Category**

[Graphics](#)

**Description**

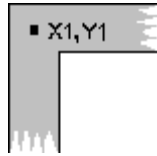
This property determines the technique used to draw the frames (borders) around graphical shapes such as rectangles and ellipses. This property will only have a noticeable effect with large pen widths.

fmInside



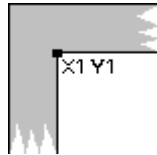
The frame will be drawn inside the dimensions of the shape

fmSplit



The frame will be drawn centered over the dimensions of the shape

fmOutside



The frame will be drawn outside the dimensions of the shape

**NOTE:**

If you are converting a report from ReportPrinter 2.0 or earlier that uses thick pens, you should set the frame mode to fmSplit which was the mode used by those older versions.

**See also**

[TBaseReport Class](#), [Ellipse](#), [Rectangle](#)

**Example (Delphi)**

```
FrameMode := fmOutside;
```

**Example (C++Builder)**

```
rpl->FrameMode = fmOutside;
```

## 6.73 GridHoriz

**Declaration**

```
property GridHoriz: double;
```

**Default**

```
0.0
```

**Category**

[Preview](#)

**Description**

This property will define the horizontal spacing, in units for a grid that will appear on the preview screen. A value of 0.0 will turn off the horizontal grid.

**See also**

[TRvSystem Class](#), [GridPen](#), [GridVert](#)

**Example (Delphi)**

```
GridHoriz := 0.25;
```

**Example (C++Builder)**

```
GridHoriz = 0.25;
```

## 6.74 GridPen

**Declaration**

```
property GridPen: TPen;
```

**Default**

(Standard Pen)

**Category**

[Preview](#)

**Description**

This property defines the pen used to draw the grid defined by *GridVert* and *GridHoriz*.

**See also**

[TRvSystem Class](#), [GridHoriz](#), [GridVert](#), [RulerType](#), TPen

**Example (Delphi)**

```
GridPen.Color := clAqua;
```

**Example (C++Builder)**

```
GridPen->Color = clAqua;
```

## 6.75 GridVert

**Declaration**

```
property GridVert: double;
```

**Default**

0.0

**Category**

[Preview](#)

**Description**

This property will define the vertical spacing, in units for a grid that will appear on the preview screen. A value of 0.0 will turn off the vertical grid.

**See also**

[TBaseReport Class](#), [GridHoriz](#), [GridPen](#)

**Example (Delphi)**

```
GridVert := 0.5;
```

**Example (C++Builder)**

```
GridVert = 0.5;
```

## 6.76 Height

**Declaration**

```
property Height: double;
```

**Category**

[BarCode](#)

**Description**

This is a read only property which contains the height of the entire bar code. If the *PrintReadable* property is set to true, then the *Height* property contains the bar code height plus the line height of the current font.

**See also**

[TRpBarsBase Class](#), [BarHeight](#), [PrintReadable](#)



**Example (Delphi)**

```
TotalBarHeight := Height;
if TotalBarHeight > 1.0 then begin
    BarHeight := 1.0; {set total height to 1.0 inches}
end; { if }
```

**Example (C++Builder)**

```
TotalBarHeight = rpl->Height;
if (TotalBarHeight > 1.0) {
    BarHeight = 1.0; / set total height to 1.0 inches
}/ if
```

## 6.77 IgnoreFileSettings

**Declaration**

```
property IgnoreFileSettings: Boolean
```

**Default**

```
false
```

**Category**

[Printer](#)

**Description**

When this is set to true it will ignore the printer setup values (Paper Bin, Duplex, Collate, Copies) stored in the report file and will use whatever is currently set by the user. This allows a PrinterSetupDialog to be called before the Execute method.

**See also**

[TRvRenderPrinter Class](#), [ShowPrintDialog](#), [ShowPrinterSetupDialog](#)

**Example (Delphi)**

```
if RvRenderPrinter1.ShowPrinterSetupDialog then begin
    RvRenderPrinter1.IgnoreFileSettings := True;
    RvRenderPrinter1.Execute;
end; {if }
```

**Example (C++Builder)**

```
if (RvRenderPrinter1->ShowPrinterSetupDialog()) {
    RvRenderPrinter1->IgnoreFileSettings = true;
    RvRenderPrinter1->Execute();
}/ if
```

## 6.78 ImageQuality

**Declaration**

```
property ImageQuality: TImageQualityRange read FImageQuality write
FImageQuality
```

**Default**

```
JPG'S image quality set to 90
```

**Category**

[Render](#) PDF

**Description**

When sending images out to PDF, the bitmaps, metafiles, etc., are converted to JPG's in order to allow PDF to print them. By default the image quality for JPG's is set to 90. If you need to change the image quality, you can do this by setting the ImageQuality property. Valid values are 1 to 100 with 100 being the absolute best quality available.

See also

[TRpRender Class](#), [BufferDocument](#), [MetafileDPI](#)

## 6.79 Italic

### Declaration

```
property Italic: Boolean;
```

### Default

false

### Category

[Font](#)

### Description

This property returns or sets the italic attribute for the current font.

See also

[TBaseReport Class](#), [Bold](#), [Strikeout](#), [Underline](#)

### Example (Delphi)

```
Italic := true;  
Print('Italic Text');  
Italic := false;
```

### Example (C++Builder)

```
rpl->Italic = true;  
rpl->Print("Italic Text");  
rpl->Italic = false;
```

## 6.80 Justify

### Declaration

```
property Justify: TPrintJustify;
```

### Default

pjLeft

### Category

[Memo](#)

### Description

This property sets the justification that [PrintMemo](#) will use when printing the memo buffer. Valid values are

*pjBlock*  
*pjCenter*  
*pjLeft*  
*pjRight*

See also

[TMemoBuf Class](#), [PrintMemo](#)

### Example (Delphi)

```
MemoBuf.Justify := pjBlock; { Set block justification }
```

### Example (C++Builder)

```
MemoBuf->Justify = pjBlock; / Set block justification
```

## 6.81 LastPage

### Declaration

```
property LastPage: integer;
```

**Default**

9999

**Category**[Control](#)**Description**

This property defines the last page for a range of pages to send to the printer. If the current page is outside of this range, the property *PageInvalid* will be true.

**See also**[TBaseReport Class](#), [PageInvalid](#)**Example (Delphi)**

```
// Print only pages 3 through 5
RvNDRWriter1.FirstPage := 3;
RvNDRWriter1.LastPage := 5;
```

**Example (C++Builder)**

```
RvNDRWriter1->FirstPage = 3;
RvNDRWriter1->LastPage = 5;
```

## 6.82 Left

**Declaration**

```
property Left: double;
```

**Default**

XPos

**Category**[BarCode](#)**Description**

Sets or returns the position for the left edge of the bar code. When a value is assigned to Left, the BarCodeJustify property is set to pjLeft as well.

**See also**[TRpBarsBase Class](#), [BarCodeJustify](#), [Center](#), [Position](#), [Right](#)**Example (Delphi)**

```
// start at 4.5 inches from left side
Left := 4.5;
```

**Example (C++Builder)**

```
Left = 4.5;
```

## 6.83 LeftWaste

**Declaration**

```
property LeftWaste: double;
```

**Category**[Printer](#)**Description**

This property returns the waste area on the left side of the page that the printer cannot print into. It is a good idea to make sure that the report's margins are greater than or equal to its waste areas.

**See also**[TBaseReport Class](#), [BottomWaste](#), [MarginLeft](#), [RightWaste](#), [TopWaste](#)

**Example (Delphi)**

```
// Don't output in the printer waste regions
if MarginLeft < LeftWaste then begin
    MarginLeft := LeftWaste;
end; { if }
if MarginRight < RightWaste then begin
    MarginRight := RightWaste;
end; { if }
if MarginTop < TopWaste then begin
    MarginTop := TopWaste;
end; { if }
if MarginBottom < BottomWaste then begin
    MarginBottom := BottomWaste;
end; { if }
```

**Example (C++Builder)**

```
if (rpl->MarginLeft < rpl->LeftWaste) {
    rpl->MarginLeft = rpl->LeftWaste;
}/ if
if (rpl->MarginRight < rpl->RightWaste) {
    rpl->MarginRight = rpl->RightWaste;
}/ if
if (rpl->MarginTop < rpl->TopWaste) {
    rpl->MarginTop = rpl->TopWaste;
}/ if
if (rpl->MarginBottom < rpl->BottomWaste) {
    rpl->MarginBottom = rpl->BottomWaste;
}/ if
```

## 6.84 LineBottom

**Declaration**

```
property LineBottom: double;
```

**Default**

(Bottom of the current line)

**Category**

[Position](#)

**Description**

Returns or sets the bottom of the text line.

**See also**

[TBaseReport Class](#), [FontBaseline](#), [FontBottom](#), [FontTop](#), [LineMiddle](#), [LineTop](#)

**Example (Delphi)**

```
// Place the text right on the bottom of the section
LineBottom := SectionBottom;
```

**Example (C++Builder)**

```
rpl->LineBottom = rpl->SectionBottom;
```

## 6.85 LineHeight

**Declaration**

```
property LineHeight: double;
```

**Category**

[Position](#)

**Description**

This property returns or sets the current height of a line. If a value is assigned to [LineHeight](#) then [LineHeightMethod](#) will be set to *lhmUser*.

**See also**

[TBaseReport Class](#), [LineHeightMethod](#)

**Example (Delphi)**

```
// Save current line height to a temporary variable  
CurrHeight := RvNDRWriter1.LineHeight
```

**Example (C++Builder)**

```
CurrHeight = RvNDRWriter1->LineHeight
```

## 6.86 LineHeightMethod

**Declaration**

```
property LineHeightMethod: TLineHeightMethod;
```

**Default**

*lhmLinesPerInch*, *lhmFont* for TRvSystem

**Category**

[Position](#)

**Description**

This property returns or sets the current method for calculating line heights. If equal to *lhmLinesPerInch*, then the *LinesPerInch* property determines the line height. If equal to *lhmFont*, then the current font determines the line height when a new line is generated. If equal to *lhmUser* the line height will not change unless the user changes *LineHeight* directly.

**See also**

[TBaseReport Class](#), [LinesPerInch](#)

**Example (Delphi)**

```
RvNDRWriter1.LineHeightMethod := lhmFont;
```

**Example (C++Builder)**

```
RvNDRWriter1->LineHeightMethod = lhmFont;
```

## 6.87 LineMiddle

**Declaration**

```
property LineMiddle: double;
```

**Default**

(Middle of current line)

**Category**

[Position](#)

**Description**

This property returns or sets the middle of the current text line. It is useful for aligning the middle of the current line with graphics that might be placed around the text (e.g., bullets, etc.)

**See also**

[TBaseReport Class](#), [FontBaseline](#), [FontBottom](#), [FontTop](#), [LineBottom](#), [LineTop](#)

**Example (Delphi)**

```
LineMiddle := 2.0;
```

**Example (C++Builder)**

```
rp1->LineMiddle = 2.0;
```

**6.88 LineNum****Declaration**

```
property LineNum: integer;
```

**Default**

```
1
```

**Category**

[Position](#)

**Description**

This property returns or sets the current line number. This property is highly dependent upon the current [LineHeightMethod](#) as well as the size of the current font if [LineHeightMethod](#) is equal to *lhmFont*. [LineNum](#) may not represent the actual line number if the report is jumping around the page instead of calling *Prints* and *PrintLns*.

**See also**

[TBaseReport Class](#), [LineHeight](#), [LineHeightMethod](#)

**Example (Delphi)**

```
with RvNDRWriter1 do
  if Odd(LineNum) then begin
    TabShade := 0;
  end else begin
    TabShade := 15;
  end; { if }
end; { with }
```

**Example (C++Builder)**

```
if ((rp1->LineNum 2) == 1) {
  rp1->TabShade = 0;
}
else {
  rp1->TabShade = 15;
}/ else
```

**6.89 LinesPerInch****Declaration**

```
property LinesPerInch: integer;
```

**Default**

```
6
```

**Category**

[Position](#)

**Description**

This property will return or set the number of lines per inch if the [LineHeightMethod](#) property is equal to *lhmLinesPerInch*.

**See also**

[TBaseReport Class](#), [LineHeightMethod](#)

**Example (Delphi)**

```
RvNDRWriter1.LineHeightMethod := lhmLinesPerInch;
```

**Example (C++Builder)**

```
RvNDRWriter1->LineHeightMethod = lhmLinesPerInch;
```

## 6.90 LineTop

**Declaration**

```
property LineTop: double;
```

**Default**

(Top of the current line)

**Category**

[Position](#)

**Description**

Returns or sets the top of the text line

**See also**

[TBaseReport Class](#), [FontBaseline](#), [FontTop](#), [LineBottom](#), [LineMiddle](#)

**Example (Delphi)**

```
// Place the top of the line at 4.0"
LineTop := 4.0;
```

**Example (C++Builder)**

```
LineTop = 4.0;
```

## 6.91 LoadDesigner

**Declaration**

```
property LoadDesigner: Boolean;
```

**Default**

false

**Category**

[Rave](#)

**Description**

This property determines if the end user designer will be loaded or not. If the LoadDesigner property is True then the filename in the DLLFile property will be loaded. The end user files are either RavePack or RaveSolo DLL depending upon whether you are using packages or not.

**NOTE:**

This feature is only available with a Rave BEX with EUDL license. See the Nevrona website at <http://www.nevrona.com> for more information on obtaining an EUDL license.

**See also**

[TRvProject Class](#), [DLLFile](#), [Open](#)

## 6.92 LocalFilter

**Declaration**

```
property LocalFilter: Boolean;
```

**Default**

False TRvQueryConnection and TRvTableConnection

**Category**

[Rave](#)

**Description**

This property will determine whether filtering is done locally inside of the data connection component or whether it will rely on the filtering capabilities of the database. Local is provided to support filtering on fields that do not allow exact representation in string form (floating point / date-time fields).

**See also**

[TRvCustomConnection Class](#)

**Example (Delphi)**

```
RvCustomConnection1.LocalFilter := True;
```

**Example (C++Builder)**

```
RvCustomConnection1->LocalFilter + True;
```

## 6.93 LPI

**Declaration**

```
property LPI: double;
```

**Default**

6

**Category**

[Misc](#)

**Components**

TRvRenderTEXT

**Description**

Sets the Lines Per Inch for translation from vertical units to text lines.

**See also**

[CPI](#), [NewLine](#), [TopBorder](#)

**Example (Delphi)**

```
WITH RvRenderText1 do begin
  CPI := 16;
  LPI := 8;
  PrintLn('This text is 16 characters per inch');
  PrintLn('With 8 Lines per inch');
end; { with }
```

**Example (C++Builder)**

```
RvRenderText1->CPI = 16;
RvRenderText1->LPI = 8;
RvRenderText1->PrintLn("This text is 16 characters per inch");
RvRenderText1->PrintLn("With 8 Lines per inch");
```

## 6.94 MacroData

**Declaration**

```
property MacroData: TStrings;
```

**Default**

empty list

**Category**

[Printing](#)

**Description**

This property sets or returns the user-defined macro string in a list of strings for midUser01 to midUser20



**See also**

[TBaseReport Class](#), [Macro](#), [TMacroID](#), TStrings

**Example (Delphi)**

```
// Add current user name for Macro(midUser01)
MacroData.Add(Username);
RvRenderPrinter1.Execute;
```

**Example (C++Builder)**

```
rpl->MacroData->Add(Username);
RvRenderPrinter1->Execute();
```

## 6.95 MarginBottom

**Declaration**

```
property MarginBottom: double;
```

**Default**

```
0.0
```

**Category**

[Position](#)

**Description**

These properties return or set the current margin settings. Margins have no direct effect on printing other than providing values to reset the current section when a new page is generated or when *ResetSection* is called. Changing a margin setting will change the same section setting to the same measurement.

**See also**

[TBaseReport Class](#), [MarginLeft](#), [MarginRight](#), [MarginTop](#), section properties, [ResetSection](#)

**Example (Delphi)**

```
// This code shows how to set these properties. Also see PrintFooter
MarginLeft := 0.5;
MarginRight := 0.5;
MarginTop := 0.5;
MarginBottom := 1.0;
```

**Example (C++Builder)**

```
rpl->MarginLeft := 0.5;
rpl->MarginRight := 0.5;
rpl->MarginTop := 0.5;
rpl->MarginBottom := 1.0;
```

## 6.96 MarginLeft

**Declaration**

```
property MarginLeft: double;
```

**Default**

```
0.0
```

**Category**

[Position](#)

**Description**

These properties return or set the current margin settings. Margins have no direct effect on printing other than providing values to reset the current section when a new page is generated or when *ResetSection* is called. Changing a margin setting will change the same section setting to the same measurement.

**See also**

[TBaseReport Class](#), [MarginBottom](#), section properties, [ResetSection](#)

**Example (Delphi)**

```
// This code shows how to set these properties. Also see PrintFooter  
MarginLeft := 0.5;
```

**Example (C++Builder)**

```
rpl->MarginLeft := 0.5;
```

## 6.97 MarginMethod

**Declaration**

```
property MarginMethod: TMarginMethod;
```

**Default**

```
mmFixed
```

**Category**

[Preview](#)

**Description**

This property returns or sets the method used to draw the blank margin around the preview page. The setting *mmFixed* will keep the border the same size no matter what the value of *ZoomFactor*. The setting *mmScaled* will grow and shrink the border so that it maintains the same ratio as the rest of the page.

**See also**

[TRvRenderPreview Class](#), [MarginPercent](#)

**Example (Delphi)**

```
RvRenderPreview1.MarginMethod := mmScaled;
```

**Example (C++Builder)**

```
RvRenderPreview1->MarginMethod = mmScaled;
```

## 6.98 MarginPercent

**Declaration**

```
property MarginPercent: double;
```

**Default**

```
0.0
```

**Category**

[Preview](#)

**Description**

This property defines the percent of the page width that will appear as blank space around the preview page. A value of 0.0 would have no border. A value of 2.5 would create a border that is equal to 2.5% of the page width.

**See also**

[TRvRenderPreview Class](#), [MarginMethod](#)

**Example (Delphi)**

```
// Set a 1 percent border  
RvRenderPreview1.MarginPercent := 1.0;
```

**Example (C++Builder)**

```
RvRenderPreview1->MarginPercent = 1.0;
```

## 6.99 MarginRight

### Declaration

```
property MarginRight: double;
```

### Default

0.0

### Category

[Position](#)

### Description

These properties return or set the current margin settings. Margins have no direct effect on printing other than providing values to reset the current section when a new page is generated or when *ResetSection* is called. Changing a margin setting will change the same section setting to the same measurement.

### See also

[TBaseReport Class](#), [MarginBottom](#), [MarginLeft](#), [MarginTop](#), section properties, [ResetSection](#)

### Example (Delphi)

```
MarginRight := 0.5;
```

### Example (C++Builder)

```
rpl->MarginRight := 0.5;
```

## 6.100 MarginTop

### Declaration

```
property MarginTop: double;
```

### Category

[Position](#)

### Description

These properties return or set the current margin settings. Margins have no direct effect on printing other than providing values to reset the current section when a new page is generated or when *ResetSection* is called. Changing a margin setting will change the same section setting to the same measurement.

### See also

[TBaseReport Class](#), [MarginBottom](#), [MarginLeft](#), [MarginRight](#), section properties, [ResetSection](#)

### Example (Delphi)

```
MarginTop := 0.5;
```

### Example (C++Builder)

```
rpl->MarginTop := 0.5;
```

## 6.101 MaxCopies

### Declaration

```
property MaxCopies: longint;
```

### Default

(maximum number of copies supported by the default printer)

### Category

[Printer](#)

### Description

This property returns the maximum number of copies supported by the current printer.

**See also**[TBaseReport Class](#), [Copies](#)**Example (Delphi)**

```
if MaxCopies = 1 then begin
  Copies := 1;
end; { if }
```

**Example (C++Builder)**

```
if (rpl->MaxCopies == 1) {
  rpl->Copies = 1;
}/ if
```

## 6.102 MaxSize

**Declaration**

```
property MaxSize: longint;
```

**Default**

```
0
```

**Category**[Memo](#)**Description**

This property returns or sets the current size of the memo buffer. This is the size of available space and not the size of valid data (see *Size*). If a new value is assigned to *MaxSize*, the buffer will be adjusted to the smallest multiple of *BufferInc* that is greater than or equal to the desired new size.

**See also**[TMemoBuf Class](#), [BufferInc](#), [Size](#)**Example (Delphi)**

```
// Allocate at least 1000 characters
MemoBuf.MaxSize := 1000;
```

**Example (C++Builder)**

```
MemoBuf->Memo = 1000;
```

## 6.103 Memo

**Declaration**

```
property Memo: TMemo;
```

**Category**[Memo](#)**Description**

This property will assign the contents of a TMemo component to a memo buffer.

**See also**[TMemoBuf Class](#), [Field](#), [Text](#), TMemo component in Delphi help**Example (Delphi)**

```
// Copy Memo1 into MemoBuf
MemoBuf. Memo := Memo1;
```

**Example (C++Builder)**

```
MemoBuf->Memo = Memo1;
```

## 6.104 MetafileDPI

### Declaration

```
property MetafileDPI: Boolean; read FMetafileDPI write FMetafileDPI
```

### Default

300

### Category

[Render](#) PDF

### Description

The MetafileDPI property can be used to increase or decrease the dots per inch used when saving the images in the PDF file. The higher the dots per inch the better quality the image will appear to have. The down side to a higher dots per inch is that the file size of the PDF will increase.

### See also

[TRpRender Class](#), [ImageQuality](#)

## 6.105 Monochrome

### Declaration

```
property Monochrome: Boolean;
```

### Default

false

### Category

[Preview](#)

### Description

This property defines whether the preview page is drawn in color or monochrome. A setting of true can drastically save memory, especially if the system is running in 8-bit or 24-bit color. Shadows will be disabled if *Monochrome* is true.

### See also

[TRvRenderPreview Class](#), [ShadowDepth](#)

### Example (Delphi)

```
RvRenderPreview1.Monochrome := true;
```

### Example (C++Builder)

```
RvRenderPreview1->Monochrome = true;
```

## 6.106 NoBufferLine

### Declaration

```
property NoBufferLine: Boolean;
```

### Default

false

### Category

[Graphics](#)

### Description

By default Rave buffers lines until the end of each page so that it can optimize the output for faster printing. Turn this option off if you need to have lines printed before other objects on a page.

**See also**

[TBaseReport Class](#), [LineTo](#), [MoveTo](#)

**Example (Delphi)**

```
// turn off line buffering
RvNDRWriter1.NoBufferLine := true;
```

**Example (C++Builder)**

```
RvNDRWriter1->NoBufferLine = true;
```

## 6.107 NoCRLF

**Declaration**

```
property NoCRLF: Boolean;
```

**Default**

false

**Category**

[Memo](#)

**Description**

This property will control whether *PrintMemo* finishes with a carriage-return linefeed (if false) or not (if true).

**See also**

[TMemoBuf Class](#), [PrintMemo](#)

**Example (Delphi)**

```
// Don't do a NewLine after PrintMemo()
MemoBuf.NoCRLF := true;
```

**Example (C++Builder)**

```
MemoBuf->NoCRLF = true;
```

## 6.108 NoNewLine

**Declaration**

```
property NoNewLine: Boolean;
```

**Default**

false

**Category**

[Memo](#)

**Description**

Prevents the writing of an extra new line after the memo has been printed.

**See also**

[TMemoBuf Class](#), [PrintMemo](#)

**Example (Delphi)**

```
MemoBuf.NowNewLine := true;
```

**Example (C++Builder)**

```
MemoBuf->NowNewLine = true;
```

## 6.109 NoNTColorFix

### Declaration

```
property NoNTColorFix: Boolean;
```

### Default

```
false
```

### Category

[Printer](#)

### Description

Monochrome printers in Windows NT cannot print colors as shades of gray. Instead, any color other than black is printed as if it was white. Since this behaviour is often not desired when printing text, Rave will convert all text colors, except white, as black if the output is being sent to a monochrome printer on Windows NT. The NoNTColorFix property, if set to true, allows you to disable this color conversion but is generally not needed.

### See also

[TBaseReport Class](#), [FontColor](#)

### Example (Delphi)

```
// Disable NT color conversion  
NoNTColorFix := true;
```

### Example (C++Builder)

```
NoNTColorFix = true;
```

## 6.110 NoPrinterPageHeight

### Declaration

```
property NoPrinterPageHeight: double;
```

### Default

```
11.0
```

### Category

[Printer](#)

### Description

These properties define the page width and height for the print preview screen if no printers are defined for the current Windows system.

### See also

[TBaseReport Class](#), [NoPrinters](#)

### Example

See [NoPrinters](#)

## 6.111 NoPrinterPageWidth

### Declaration

```
property NoPrinterPageWidth: double;
```

### Default

```
8.5
```

### Category

[Printer](#)

**Description**

These properties define the page width and height for the print preview screen if no printers are defined for the current Windows system.

**See also**

[TBaseReport Class](#), [NoPrinters](#)

**Example**

See [NoPrinters](#)

## 6.112 OnCompress

**Declaration**

```
property OnCompress: TCompressEvent;
```

**Default**

```
'' empty
```

**Category**

[Render](#) PDF

**Description**

This property that can be assigned to an event. The event must be defined if you want to compress the page stream in the PDF file. You will also need to set the Use Compression property to true if you want the page stream compressed.

**See also**

[TRpRender Class](#), [UseCompression](#)

**Example (Delphi)**

```
// Typically, the code defined inside the OnCompress event will be something similar to this:
with TCompressionStream.Create(clMax, OutStream) do try
  CopyFrom(InStream, InStream.Size);
finally
  Free
end; { with }
```

## 6.113 Orientation

**Declaration**

```
property Orientation: TOrientation;
```

**Default**

```
poPortrait
```

**Category**

[Printer](#)

**Description**

This property will return or set the current page orientation to either *poPortrait* or *poLandscape*. Use *poDefault* to retain the setting defined by *TPrinterSetupDialog*.

**See also**

[TBaseReport Class](#)

**Example (Delphi)**

```
RvNDRWriter1.Orientation := poLandscape;
```

**Example (C++Builder)**

```
RvNDRWriter1->Orientation = poLandscape;
```



## 6.114 OriginX

### Declaration

```
property OriginX: double;
```

### Default

```
0.0
```

### Category

[Position](#)

### Description

These properties return or set the currently defined origin. Origins can be very useful for printing similar items that are at different locations of the page (Example (Delphi) labels).

### See also

[TBaseReport Class](#), [OriginY](#)

### Example (Delphi)

```
RvNDRWriter1.OriginX := 2.0;
```

### Example (C++Builder)

```
RvNDRWriter1->OriginX = 2.0;
```

## 6.115 OriginY

### Declaration

```
property OriginY: double;
```

### Default

```
0.0
```

### Category

[Position](#)

### Description

These properties return or set the currently defined origin. Origins can be very useful for printing similar items that are at different locations of the page (Example (Delphi) labels).

### See also

[TBaseReport Class](#), [OriginX](#)

### Example (Delphi)

```
RvNDRWriter1.OriginY := 2.0;
```

### Example (C++Builder)

```
RvNDRWriter1->OriginY = 2.0;
```

## 6.116 OutputFileName

### Declaration

```
property OutputFileName: TFileName;
```

### Default

```
'' (empty)
```

### Category

[Printer](#)

**Description**

Specifies the file name that the report output should be sent to. This is a file with printer commands that can be later printed using a command from the DOS prompt like: "COPY /b TEST.DAT PRN"

**See also**

[TRvSystem Class](#), [OutputName](#)

**Example (Delphi)**

```
RvSystem1.OutputFileName := 'TEST.DAT';
```

**Example (C++Builder)**

```
RvSystem1->OutputFileName = "TEST.DAT";
```

## 6.117 OutputInvalid

**Declaration**

```
property OutputInvalid: Boolean;
```

**Default**

true

**Category**

[Control](#)

**Description**

Returns true if the current report destination is invalid. Will also return true if the report has been aborted or is finished executing. This can occur if the user has selected a page range that does not include the current page or the report has been aborted.

**See also**

[TBaseReport Class](#), [Abort](#), [FirstPage](#), [LastPage](#), [Selection](#)

## 6.118 OutputName

**Declaration**

```
property OutputName: string;
```

**Default**

'' (empty)

**Category**

[Printer](#)

**Description**

This property defines an alternate output device for the current printer. The output device can be another port, 'LPT3:', or a file on the disk, 'C:\APP\PRINTER.DMP'. The contents of the file that is created will contain actual printer commands and can be copied to a printer at a later time with a DOS command. This can be useful for sending output to printers that are not hooked up to the current computer. To do this create the file, copy it to a computer hooked up to the printer and then use the copy command to send it to the printer port.

**See also**

[TBaseReport Class](#), [Port](#)

**Example (Delphi)**

```
// COPY PRINTER.DMP LPT1 /B  
RvNDRWriter1.OutputName := 'C:\APP\PRINTER.DMP';
```

**Example (C++Builder)**

```
RvNDRWriter1->OutputName = "C:\APP\PRINTER.DMP";
```

## 6.119 PageHeight

### Declaration

```
property PageHeight: double;
```

### Category

[Printer](#)

### Description

This property returns the height of the currently selected paper size.

### See also

[TBaseReport Class](#), [PageWidth](#)

### Example (Delphi)

```
// Save current page height  
CurrPageHeight := RvNDRWriter1.PageHeight;
```

### Example (C++Builder)

```
CurrPageHeight = RvNDRWriter1->PageHeight;
```

## 6.120 PageInc

### Declaration

```
property PageInc: integer;
```

### Default

1

### Category

[Preview](#)

### Description

This property will set or return the number of pages that the preview screen will be incremented or decremented by when *NextPage* or *PrevPage* is called.

### See also

[TRvRenderPreview Class](#), [NextPage](#), [PrevPage](#)

### Example (Delphi)

```
PageInc := 4;
```

### Example (C++Builder)

```
PageInc = 4;
```

## 6.121 PageInvalid

### Declaration

```
property PageInvalid: Boolean;
```

### Category

[Control](#)

### Description

This property will return whether the current page is valid for printing or not. Typically this property will be true if the current page is outside the range for *FirstPage* to *LastPage*.

### See also

[TBaseReport Class](#), [FirstPage](#), [LastPage](#)

**Example (Delphi)**

```
if RvNDRWriter1.PageInvalid then begin
  { code to respond to an invalid page }
end; { if }
```

**Example (C++Builder)**

```
if (RvNDRWriter1.PageInvalid) {
  / code to respond to an invalid page
}/ if
```

## 6.122 Pages

**Declaration**

```
property Pages: integer;
```

**Category**

[Preview](#)

**Description**

This property returns the total number of pages that exist inside the report file for a preview screen.

**See also**

[TRvRenderPreview Class](#), [Macro](#)

**Example (Delphi)**

```
Edit1.Text := IntToStr(RvRenderPreview1.Pages);
Form1.Invalidate;
```

**Example (C++Builder)**

```
Edit1->Text = IntToStr(RvRenderPreview1->Pages);
Form1->Invalidate();
```

## 6.123 PageWidth

**Declaration**

```
property PageWidth: double;
```

**Category**

[Printer](#)

**Description**

This property returns the width of the currently selected paper size.

**See also**

[TBaseReport Class](#), [PageHeight](#)

**Example (Delphi)**

```
// Save current page width
CurrPageWidth := RvNDRWriter1.PageWidth;
```

**Example (C++Builder)**

```
CurrPageWidth = RvNDRWriter1->PageWidth;
```

## 6.124 Papers

**Declaration**

```
property Papers: TStrings;
```

**Default**

(list of paper sizes supported by the default printer)

**Category**[Printer](#)**Description**

This property will return a TStringList of paper sizes that are supported by the current printer.

**See also**[TBaseReport Class](#), [SelectPaper](#), [SupportPaper](#), TStrings**Example (Delphi)**

```
ListBox2.Items := RvNDRWriter1.Papers;
```

**Example (C++Builder)**

```
ListBox2->Items = RvNDRWriter1->Papers;
```

## 6.125 ParaJustify

**Declaration**

```
property ParaJustify: TTabJustify;
```

**Default**

tjNone

**Category**[RTF](#)**Description**

This property allows you to set the justification used for the current paragraph. Usually the justification is set by the first print command on a new paragraph (i.e. PrintCenter would set the paragraph to be center justified). Setting ParaJustify for other output components such as TRvNDRWriter or TRvRenderPrinter will have no effect.

**See also**[TBaseReport Class](#), [NewPara](#)**Example (Delphi)**

```
With Sender as TBaseReport do begin
  ParaJustify := tjCenter;
  Print('This text is centered');
end; {with}
```

**Example (C++Builder)**

```
rpl->ParaJustify = tjCenter;
rpl->Print("This text is centered");
```

## 6.126 PIVar

**Declaration**

```
function PIVar(PIVarName: String): String;
```

**Category**[Printing](#)**Description**

This method allows you to initialize the value of a PIVar (Post Initialize Variable). Any PIVars of the same name that were previously printed will show this value. PIVars will use the value that is set after it is printed. A common use for PIVars is to print a total in a header band that would be initialized later in the footer band. This works even across multiple pages. TRvSystem.SystemOptions.soUseFiler must be true if you are using PIVars in your report.

**See also**[TBaseReport Class](#), [SetPIVar](#)**Example (Delphi)**

```
with Sender as TBaseReport do begin
  Print('SubTotal:' + PIVar('SubTotal'));
  // Other print statements including new pages
  SetPIVar('SubTotal',FormatFloat(SubTotal));
end; {with}
```

**Example (C++Builder)**

```
rp1->Print("SubTotal:" + PIVar("SubTotal"));
// Other print statements including new pages
rp1->SetPIVar("SubTotal",FormatFloat(SubTotal));
```

## 6.127 Port

**Declaration**

```
property Port: string;
```

**Category**[Printer](#)**Description**

This property will return the port name for the currently selected printer.

**See also**[TBaseReport Class](#), [PrinterIndex](#), [OutputName](#)**Example (Delphi)**

```
Edit1.Text := RvNDRWriter1.Port;
Form1.Invalidate;
```

**Example (C++Builder)**

```
Edit1->Text = RvNDRWriter1->Port;
Form1->Invalidate();
```

## 6.128 Pos

**Declaration**

```
property Pos: longint;
```

**Default**

0

**Category**[Memo](#)**Description**

This property will return or set the current position marker for the memo buffer. The first position is at index 0.

**See also**[TMemoBuf Class](#), [Reset](#)**Example (Delphi)**

```
// Save current memo buffer position
CurrMemoPos := MemoBuf1.Pos;
```

**Example (C++Builder)**

```
CurrMemoPos = MemoBuf1->Pos;
```

## 6.129 Position

### Declaration

```
property Position: double;
```

### Category

[BarCode](#)

### Description

This property sets or returns the positions of the bar code that is used in relation to the state of the BarCodeJustify property. This property along with BarCodeJustify is changed whenever the Left, Right or Center properties are changed.

### See also

[TRpBarsBase Class](#), [BarCodeJustify](#), [BarTop](#), [Center](#), [Left](#), [Right](#)

### Example (Delphi)

```
// Bar Code will be centered at the SectionLeft + 3.0 point
BarCodeJustify := pjCenter;
Position := SectionLeft + 3.0;
```

### Example (C++Builder)

```
BarCodeJustify = pjCenter;
Position = SectionLeft + 3.0;
```

## 6.130 PrintChecksum

### Declaration

```
property PrintChecksum: Boolean
```

### Default

false

### Category

[BarCode](#)

### Description

This property determines if the readable text includes the checksum character.

### NOTE:

It is possible that the checksum character may not be a printable character with some of the bar code types.

### See also

[TRpBarsBase Class](#), [BarTop](#), [UseChecksum](#)

## 6.131 PrintEnd

### Declaration

```
property PrintEnd: double;
```

### Default

0.0

### Category

[Memo](#)

### Description

This property will return or set the rightmost position that the memo field will print in.

**See also**[TMemoBuf Class](#), [PrintStart](#)**Example (Delphi)**

```
// Leave 1.5 inches for left margin
MemoBuf1.PrintEnd := 6.5;
```

**Example (C++Builder)**

```
MemoBuf1->PrintEnd = 6.5;
```

## 6.132 PrinterIndex

**Declaration**

```
property PrinterIndex: integer;
```

**Default**

-1

**Category**[Printer](#)**Description**

This property will return or set the currently selected printer as defined in the *Printer.Printers* string list. Set *PrinterIndex* to -1 to use the default printer.

**See also**[TBaseReport Class](#), [SelectPrinter](#)**Example (Delphi)**

```
// Save current printer index
CurrIndex := RvNDRWriter1.PrinterIndex;
```

**Example (C++Builder)**

```
CurrIndex = RvNDRWriter1->PrinterIndex;
```

## 6.133 Printers

**Declaration**

```
property Printers: TStrings;
```

**Default**

(list of printers currently installed on the system)

**Category**[Printer](#)**Description**

This property will return a TStringList of printers that are currently installed on the user's computer.

**See also**[TBaseReport Class](#), [SelectPrinter](#), TStrings**Example (Delphi)**

```
ComboBox2.Items := Printers;
```

**Example (C++Builder)**

```
ComboBox2->Items := rpl->Printers;
```



## 6.134 Printing

### Declaration

```
property Printing: Boolean;
```

### Category

[Control](#)

### Description

This property will be set to true after a call to *Execute* has been made and will remain true until the report has finished.

### See also

[TBaseReport Class](#), [Execute](#)

### Example (Delphi)

```
if RvNDRWriter1.Printing then RvNDRWriter1.Abort;
```

### Example (C++Builder)

```
if (RvNDRWriter1->Printing) RvNDRWriter1->Abort();
```

## 6.135 PrintReadable

### Declaration

```
property PrintReadable: Boolean;
```

### Default

true

### Category

[BarCode](#)

### Description

Set this property to false if you do not want readable text to be printed along with the bar code.

### NOTE:

For UPC bar codes, text is always printed.

### See also

[TRpBarsBase Class](#), [PrintTop](#), [TextJustify](#)

## 6.136 PrintStart

### Declaration

```
property PrintStart: double;
```

### Default

0.0

### Category

[Memo](#)

### Description

This property will return or set the leftmost position that the memo buffer will print in.

### See also

[TMemoBuf Class](#), [PrintEnd](#)

**Example (Delphi)**

```
// Leave 1.5 inches for right margin  
MemoBuf1.PrintStart := 1.5;
```

**Example (C++Builder)**

```
MemoBuf1->PrintStart = 1.5;
```

## 6.137 PrintTop

**Declaration**

```
property PrintTop: Boolean;
```

**Default**

```
false
```

**Category**

[BarCode](#)

**Description**

Set this property to true if you want the readable text to be printed on top of the bar code. A false value means that the readable text will be printed below the bar code. This property has no effect when printing UPC codes, since the UPC text is always printed at the bottom of the bar code.

**See also**

[TRpBarsBase Class](#), [PrintReadable](#), [TextJustify](#)

**Example (Delphi)**

```
Code39.PrintTop := True;  
Code39.Print;
```

**Example (C++Builder)**

```
Code39->PrintTop = true;  
Code39->Print();
```

## 6.138 ProjectFile

**Declaration**

```
property ProjectFile: string;
```

**Default**

```
'' (empty)
```

**Category**

[Rave](#)

**Description**

This property defines the filename of the report project that will be loaded when the TRvProject component is opened. This parameter should point to a valid .RAV file.

**See also**

[TRvProject Class](#), [Active](#), [Close](#), [Open](#)

## 6.139 Query

**Declaration**

```
property Query: TQuery;
```

**Category**

[Rave](#)

**Description**

Specifies the TQuery component that is connected to the TRvQueryConnection component.

**See also**

[TRvQueryConnection Class](#)

**Example (Delphi)**

```
CustOrdCXN.Query := CustOrdQuery;
```

**Example (C++Builder)**

```
CustOrdCXN->Query = CustOrdQuery;
```

## 6.140 RaveBlobDateTime

**Declaration**

```
property RaveBlobDateTime: TDateTime;
```

**Category**

[Rave](#)

**Description**

Returns the date and time that a report project was last loaded into the application form. This is not the date and time of the file that was loaded, but rather the date and time that the loading action was performed. If no report project is loaded, the value will be equal to 0.0.

**See also**

[TRvProject Class](#), [ClearRaveBlob](#), [LoadRaveBlob](#), [SaveRaveBlob](#)

**Example (Delphi)**

```
Label1.Caption := DateTimeToStr(RvProject1.RaveBlobDateTime);
```

**Example (C++Builder)**

```
Label1->Caption = DateTimeToStr(RvProject1->RaveBlobDateTime);
```

## 6.141 ReadableHeight

**Declaration**

```
property ReadableHeight: double;
```

**Category**

[BarCode](#)

**Description**

Returns the height that the readable text adds to the bar code.

**See also**

[TRpBarsBase Class](#), [BarHeight](#), [Height](#)

## 6.142 ReportDateTime

**Declaration**

```
property ReportDateTime: TDateTime;
```

**Default**

(Date and time Execute or Start was called)

**Category**

[Printing](#)

**Description**

This property will set or return the date and time the report was started.

**See also**[TBaseReport Class](#), [Macro](#)**Example (Delphi)**

```
Edit1.Text := DateTimeToStr(ReportDateTime);
```

**Example (C++Builder)**

```
Edit1->Text = DateTimeToStr(rpl->ReportDateTime);
```

## 6.143 ReportDesc

**Declaration**

```
property ReportDesc: string;
```

**Category**[Rave](#)**Description**

A Rave report is defined by 3 items. The name property is the standard type name with no spaces or special characters. The full name is like a short title that can be more descriptive of the reports purpose. The description is more like a memo that would be the complete description about a report that could be displayed in a memobuf area for the user to select. This property will return the description of the currently selected report.

**See also**[TRvProject Class](#), [ReportFullName](#), [ReportDescToMemo](#), [ReportName](#), [SelectReport](#)

## 6.144 ReportDest

**Declaration**

```
property ReportDest: TReportDest;
```

**Category**[ReportSystem](#)**Description**

This property will be set to the actual destination of the report after the setup form has been exited. This can be useful for determining which selection the user has chosen (printer/preview/file) and assign that to other RvSystem components (in the DefaultDest property).

**See also**[TRvSystem Class](#), [DefaultDest](#)

## 6.145 ReportFullName

**Declaration**

```
property ReportFullName: string;
```

**Category**[Rave](#)**Description**

A Rave report is defined by 3 items. The name property is the standard type name with no spaces or special characters. The full name is like a short title that can be more descriptive of the reports purpose. The description is more like a memo that would be the complete description about a report that could be displayed in a memobuf area for the user to select. This property will return the full name of the currently selected report.

**See also**[TRvProject Class](#), [ReportDesc](#), [ReportName](#), [SelectReport](#)

## 6.146 ReportName

### Declaration

```
property ReportName: string;
```

### Category

[Rave](#)

### Description

A Rave report is defined by 3 items. The name property is the standard type name with no spaces or special characters. The full name is like a short title that can be more descriptive of the reports purpose. The description is more like a memo that would be the complete description about a report that could be displayed in a memobuf area for the user to select. This property will return the name of the currently selected report.

### See also

[TRvProject Class](#), [ReportDesc](#), [ReportFullName](#), [SelectReport](#)

## 6.147 RichEdit

### Declaration

```
property RichEdit: string
```

### Category

[Memo](#)

### Description

Imports the RTF contents stored in a TRichEdit component into a memo buffer.

### NOTE:

This property does not exist in Delphi 1.0.

### See also

[TMemoBuf Class](#), [RTFLoadFromStream](#), [RTFText](#)

### Example (Delphi)

```
MemoBuf1.RichEdit := RichEdit1;
```

### Example (C++Builder)

```
MemoBuf1->RichEdit = RichEdit1;
```

## 6.148 Right

### Declaration

```
property Right: double;
```

### Category

[BarCode](#)

### Description

Sets or returns the position for the right edge of the bar code. When a value is assigned to Right, the BarCodeJustify property is set to *piRight* as well.

### See also

[TRpBarsBase Class](#), [BarCodeJustify](#), [Center](#), [Left](#), [Position](#)

### Example (Delphi)

```
BarCode1.Right := SectionRight;
```

### Example (C++Builder)

```
BarCode1->Right = rp1->SectionRight;
```

## 6.149 RightWaste

### Declaration

```
property RightWaste: double;
```

### Category

[Printer](#)

### Description

This property returns the waste area on the right side of the page that the printer cannot print into. It is a good idea to make sure that the report's margins are greater than or equal to its waste areas.

### See also

[TBaseReport Class](#), [BottomWaste](#), [LeftWaste](#), [MarginRight](#), [TopWaste](#)

### Example

See [LeftWaste](#)

## 6.150 RTFField

### Declaration

```
property RTFField: TMemoField
```

### Category

[Memo](#)

### Description

Imports a RTF string stored in a TMemoField component into a memo buffer.

### See also

[TMemoBuf Class](#), [Field](#), [RTFText](#)

## 6.151 RTFText

### Declaration

```
property RTFText: string
```

### Category

[Memo](#)

### Description

Imports an RTF string stored in a text variable into the memo buffer.

### See also

[TMemoBuf Class](#), [RTFField](#)

## 6.152 RulerType

### Declaration

```
property RulerType: TRulerType;
```

### Default

rtNone

### Category

[Preview](#)

**Description**

This will create a ruler around the preview screen that can be used to measure items during report development.

<i>rtNone</i>	NO rulers will be visible
<i>rtHorizCm</i>	A ruler in centimeters will be on the top of the page
<i>rtVertCm</i>	A ruler in centimeters will be on the left side of the page
<i>rtBothCm</i>	Rulers in centimeters will be on the top and left side of the page
<i>rtHorizIn</i>	A ruler in inches will be on the top of the page
<i>rtVertIn</i>	A ruler in inches will be on the left side of the page
<i>rtBothIn</i>	Rulers in inches will be on the top and left side of the page

**See also**

[TRvSystem Class](#), [GridHoriz](#), [GridPen](#), [GridVert](#)

## 6.153 RuntimeVisibility

**Declaration**

```
property RuntimeVisibility: Boolean;
```

**Category**

[Rave](#)

**Description**

This property determines the visibility of the data connection to an End User designer.

<i>rtNone</i>	invisible to external programs at runtime
<i>rtDeveloper</i>	visible only to developer version of Rave at runtime
<i>rtEndUser</i>	visible to any version of Rave

**NOTE:**

If you are NOT distributing the end user report designer and are concerned about the visibility of your data to external application, you should set the *RuntimeVisibility* to *rtNone* before distributing your application.

**See also**

[TRvCustomConnection Class](#), DevLock property on Rave Components

**Example (Delphi)**

```
RvCustomConnection1.RuntimeVisibility := rtNone;
```

**Example (C++Builder)**

```
RvCustomConnection1->RuntimeVisibility = rtNone;
```

## 6.154 ScaleX

**Declaration**

```
property ScaleX: double;
```

**Default**

100

**Category**

[Control](#)

**Description**

These properties return or set the current scaling percent to apply. A value of 100.0 results in normal size, while 200.0 will double the print size and 50.0 will half the print size. This can be used with *OriginX* and *OriginY* to print multiple pages per piece of paper.

**See also**

[TBaseReport Class](#), [OriginX](#), [OriginY](#), [ScaleY](#)

**Example (Delphi)**

```
// Scale to fit 4 pages on one sheet of paper
RvNDRWriter1.ScaleX := 50.0;
RvNDRWriter1.ScaleY := 50.0;
```

**Example (C++Builder)**

```
RvNDRWriter1->ScaleX = 50.0;
RvNDRWriter1->ScaleY = 50.0;
```

## 6.155 ScaleY

**Declaration**

```
property ScaleY: double;
```

**Default**

```
100
```

**Category**

[Control](#)

**Description**

These properties return or set the current scaling percent to apply. A value of 100.0 results in normal size, while 200.0 will double the print size and 50.0 will half the print size. This can be used with OriginX and OriginY to print multiple pages per piece of paper.

**See also**

[TBaseReport Class](#), [OriginX](#), [OriginY](#), [ScaleX](#)

**Example (Delphi)**

```
// Scale to fit 4 pages on one sheet of paper
RvNDRWriter1.ScaleX := 50.0;
RvNDRWriter1.ScaleY := 50.0;
```

**Example (C++Builder)**

```
RvNDRWriter1->ScaleX = 50.0;
RvNDRWriter1->ScaleY = 50.0;
```

## 6.156 ScrollBox

**Declaration**

```
property ScrollBox: TScrollBox;
```

**Default**

```
nil
```

**Category**

[Preview](#)

**Description**

This property defines the scroll box on the preview form that the report will be drawn in.

**See also**

[TRvRenderPreview Class](#)

**Example (Delphi)**

```
RvRenderPreview1.ScrollBox := Form1.ScrollBox1;
```

**Example (C++Builder)**

```
RvRenderPreview1->ScrollBox = Form1->ScrollBox1;
```



## 6.157 SectionBottom

### Declaration

```
property SectionBottom: double;
```

### Default

MarginBottom

### Category

[Position](#)

### Description

These properties return or set the current section of the paper to be printed on. Items that rely upon the current section settings are line starting points (Example (Delphi) after a CR call), setting columns, LinesLeft and ColumnLinesLeft. The section settings are reset to the margin values after each new page is generated. Changing a margin setting will change its corresponding section setting to the same measurement.

### NOTE:

Section settings are different from margin setting in that the section values are always measurements from the upper or left side of the page while margins are measurements from the closest side of the page. ( Example (Delphi) SectionRight := 8.0 would be the same as MarginRight := 0.5 for 8.5 inch wide paper.)

### See also

[TBaseReport Class](#), Margin properties, [ResetSection](#), [SectionLeft](#), [SectionRight](#), [SectionTop](#)

### Example (Delphi)

```
with RvNDRWriter1 do begin
  SectionLeft := 1.0;
  SectionRight := 7.5;
  SectionTop := 1.5;
  SectionBottom := 1.0;
end; { with }
```

### Example (C++Builder)

```
rpl->SectionLeft = 1.0;
rpl->SectionRight = 7.5;
rpl->SectionTop = 1.5;
rpl->SectionBottom = 1.0;
```

## 6.158 SectionLeft

### Declaration

```
property SectionLeft: double;
```

### Default

MarginLeft

### Category

[Position](#)

### Description

These properties return or set the current section of the paper to be printed on. Items that rely upon the current section settings are line starting points (Example (Delphi) after a CR call), setting columns, LinesLeft and ColumnLinesLeft. The section settings are reset to the margin values after each new page is generated. Changing a margin setting will change its corresponding section setting to the same measurement.

**NOTE:**

Section settings are different from margin setting in that the section values are always measurements from the upper or left side of the page while margins are measurements from the closest side of the page. ( Example (Delphi) SectionRight := 8.0 would be the same as MarginRight := 0.5 for 8.5 inch wide paper.)

**See also**

[TBaseReport Class](#), Margin properties, [ResetSection](#), [SectionBottom](#), [SectionRight](#), [SectionTop](#)

**Example**

see [SectionBottom](#)

## 6.159 SectionRight

**Declaration**

```
property SectionRight: double;
```

**Default**

MarginRight

**Category**

[Position](#)

**Description**

These properties return or set the current section of the paper to be printed on. Items that rely upon the current section settings are line starting points (Example (Delphi) after a CR call), setting columns, LinesLeft and ColumnLinesLeft. The section settings are reset to the margin values after each new page is generated. Changing a margin setting will change its corresponding section setting to the same measurement.

**NOTE:**

Section settings are different from margin setting in that the section values are always measurements from the upper or left side of the page while margins are measurements from the closest side of the page. ( Example (Delphi) SectionRight := 8.0 would be the same as MarginRight := 0.5 for 8.5 inch wide paper.)

**See also**

[TBaseReport Class](#), Margin properties, [ResetSection](#), [SectionBottom](#), [SectionLeft](#), [SectionTop](#)

**Example**

see [SectionBottom](#)

## 6.160 SectionTop

**Declaration**

```
property SectionTop: double;
```

**Default**

MarginTop

**Category**

[Position](#)

**Description**

These properties return or set the current section of the paper to be printed on. Items that rely upon the current section settings are line starting points (Example (Delphi) after a CR call), setting columns, LinesLeft and ColumnLinesLeft. The section settings are reset to the margin values after each new page is generated. Changing a margin setting will change its corresponding section setting to the same measurement.

**NOTE:**

Section settings are different from margin setting in that the section values are always measurements from the upper or left side of the page while margins are measurements from the closest side of the page. ( Example (Delphi) SectionRight := 8.0 would be the same as MarginRight := 0.5 for 8.5 inch wide paper.)

**See also**

[TBaseReport Class](#), Margin properties, [ResetSection](#), [SectionBottom](#), [SectionLeft](#), [SectionRight](#)

**Example**

see [SectionBottom](#)

## 6.161 Selection

**Declaration**

```
property Selection: string;
```

**Default**

'' (empty)

**Category**

[Control](#)

**Description**

This property will override FirstPage and LastPage if not blank. Selection defines the valid pages in a print job and can contain separate page ranges, separated by commas or with ranges defined as First-Last. You also are allowed to select even, odd or reverse order page output by including one of the following.

- "e" or "even" pages
- "o" or "odd" pages
- "r" "reverse order" pages
- "a" or "all"

**See also**

[TBaseReport Class](#), [FirstPage](#), [LastPage](#), [SystemOptions](#)

**Example (Delphi)**

```
Selection := '1-11';      {Print pages 1 through 11}
Selection := '5-8,25';    {Print pages 5 through 8 and page 25}
Selection := '1,3,6-';    {Print pages 1,3 and 6 to end of job}
Selection := '1,e,9-11';  {Print all even pages and page 1, 9 through 11}
Selection := 'o';         {Print all odd pages}
```

**Example (C++Builder)**

```
Selection = "1-11";      / Print pages 1 through 11
Selection = "5-8,25";    / Print pages 5 through 8 and page 25
Selection = "1,3,6-";    / Print pages 1,3 and 6 to end of job
Selection = "1,e,9-11";  / Print all even pages and page 1, 9 through
11
Selection := "o";        / Print all odd pages
```

## 6.162 ServerMode

**Declaration**

```
property ServerMode: Boolean read FServerMode write FServerMode
```

**Default**

false

**Category**

[Render](#)

**Description**

This property specifies whether the HTML is being generated dynamically from the report server or is being run locally. This affects things like whether the image files will be given a .tmp file type, which is the case for servermode, or whether they are given the .jpg file type needed when running locally, which enables the browser to deter the file type and display the image correctly.

**See also**

[TRpRender Class](#), [CacheDir](#)

## 6.163 ShadowDepth

**Declaration**

```
property ShadowDepth: integer;
```

**Default**

0

**Category**

[Preview](#)

**Description**

This property will define the shadow depth of the preview page in pixels.

**NOTE:**

Shadows will not be drawn while the Monochrome property is true.

**See also**

[TBaseReport Class](#), [Monochrome](#)

**Example (Delphi)**

```
ShadowDepth := 5;
```

**Example (C++Builder)**

```
ShadowDepth = 5;
```

## 6.164 Size

**Declaration**

```
property Size: longint;
```

**Category**

[Memo](#)

**Description**

This property will return the current size of the text in the memo buffer in bytes.

**See also**

[TMemoBuf Class](#), [MaxSize](#), [Pos](#)

**Example (Delphi)**

```
MemoBytes := MemoBuf1.Size;
```

**Example (C++Builder)**

```
MemoBytes = MemoBuf1->Size;
```

## 6.165 StatusFormat

**Declaration**

```
property StatusFormat: string;
```

**Default**

'Printing page '

**Category**

[Misc](#)

**Description**

This property defines the format for the text printed to StatusLabel during an UpdateStatus call. There are several special formatting character pairs that can be used within the string:

%c	current printing pass
%p	Current Page
%f	First Page
%l	Last Page
%d	Printer Device Name
%n	force a carriage return
%r	Printer Driver Name
%s	Total number of passes
%t	Printer Port
%0 through %9	Status Text Line (see StatusText)
%%	% character

**See also**

[TBaseReport Class](#), [CurrentPass](#), [StatusLabel](#), [StatusText](#), [TotalPasses](#), [UpdateStatus](#)

**Example (Delphi)**

```
RvNDRWriter1.StatusFormat := 'Generating page ';  
RvNDRWriter1.StatusFormat := 'Printing page (Pass of )';
```

**Example (C++Builder)**

```
RvNDRWriter1->StatusFormat = "Generating page ";  
RvNDRWriter1->StatusFormat = "Printing page (Pass of )";
```

## 6.166 StatusLabel

**Declaration**

```
property StatusLabel: TLabel;
```

**Default**

nil

**Category**

[Misc](#)

**Description**

This property defines the TLabel component that UpdateStatus will put the status text, StatusFormat, into.

**See also**

[TBaseReport Class](#), [StatusFormat](#), [StatusText](#), [UpdateStatus](#)

**Example (Delphi)**

```
RvNDRWriter1.StatusLabel := StatusForm.Label1;
```

**Example (C++Builder)**

```
RvNDRWriter1->StatusLabel = StatusForm->Label1;
```

## 6.167 StatusText

**Declaration**

```
property StatusText: TStrings;
```

**Default**

(empty)

**Category**

[Misc](#)

**Description**

This property defines a string list of at most 10 strings that can replace the special formatting characters (%0 to %9) in StatusFormat.

**See also**

[TBaseReport Class](#), [StatusFormat](#), TStrings

**Example (Delphi)**

```
StatusText[1] := 'Inform user of report status';
UpdateStatus;
```

**Example (C++Builder)**

```
rpl->StatusText->Strings[1] = "Inform user of report status";
rpl->UpdateStatus();
```

## 6.168 StoreRAV

**Declaration**

```
property StoreRAV: Boolean;
```

**Default**

false

**Category**

[Rave](#)

**Description**

This property will return whether a report project (RAV file) is stored in the executable or not. At design-time, editing this property will bring up a dialog allowing you to load, save or remove a report project from your application. The date and time that a report project was last loaded into is displayed in the Object Inspector.

**NOTE:**

This is not the date and time of the file on disk, but the date and time that the load action was performed. A warning will be displayed if a file, defined by ProjectFile, exists that is of a later date and time and you will be prompted to use the version on the disk instead.

**See also**

[TRvProject Class](#), [ClearRaveBlob](#), [LoadRaveBlob](#), [ProjectFile](#), [RaveBlobDateTime](#), [SaveRaveBlob](#)

## 6.169 Stream

**Declaration**

```
property Stream: TStream;
```

**Default**

nil

**Category**

[Control](#)

**Description**

This property returns or sets the stream used to either write to or read from the report file. A user created stream can be assigned when StreamMode is equal to smUser but otherwise this property should not be modified.

**See also**

[TBaseReport Class](#), [FileName](#), [StreamMode](#)

**Example (Delphi)**

```
var ReportStream: TMemoryStream;
begin
  ReportStream := TMemoryStream.Create;
  try
    with RvNDRWriter1 do begin
      StreamMode := smUser;
      Stream      := ReportStream;
      Execute;
    end; { with }
  finally
    ReportStream.Free;
  end; { tryf }
end;
```

**Example (C++Builder)**

```
TMemoryStream* ReportStream = new TMemoryStream();
try {
  rpl->StreamMode = smUser;
  rpl->Stream = ReportStream;
  rpl->Execute();
}
finally {
  delete ReportStream;
}/ tryf
```

## 6.170 StreamMode

**Declaration**

```
property StreamMode: TStreamMode;
```

**Default**

smMemory

**Category**

[Control](#)

**Description**

This property defines how the stream for the report file is maintained.

*smFile* This setting uses a TFileStream to store the report file and is very good for large reports, but may run a little slower.

*smTempFile* This will send the output to a temporary file in the \Windows\Temp directory. This filename used by smTempFile is created by the system and will be deleted when you exit the reporting system.

*smMemory* This setting uses a TMemoryStream and is good for small reports to run faster, but do not use this option for reports that may be large.

*smUser* This does not create a stream, but uses the stream that has been assigned to the Stream property before the report was started. The programmer is responsible for creating and freeing the stream if smUser is used.

**See also**

[TBaseReport Class](#), [FileName](#), [Stream](#)

**Example (Delphi)**

```
RvNDRWriter1.StreamMode := smMemory;
RvNDRWriter2.FileName   := 'TEMP.RpT';
RvNDRWriter2.StreamMode := smFile;
```

**Example (C++Builder)**

```
RvNDRWriter1->StreamMode = smMemory;  
RvNDRWriter2->FileName   = "TEMP.RPT";  
RvNDRWriter2->StreamMode = smFile;
```

## 6.171 Strikeout

**Declaration**

```
property Strikeout: Boolean;
```

**Default**

```
false
```

**Category**

[Font](#)

**Description**

This property returns or sets the strikeout attribute for the current font.

**See also**

[TBaseReport Class](#), [Bold](#), [Italic](#), [Underline](#)

**Example (Delphi)**

```
with RvNDRWriter1 do begin  
  Strikeout := true;  
  Print( 'Deleted Text' );  
  Strikeout := false;  
end; { with }
```

**Example (C++Builder)**

```
rp1->Strikeout = true;  
rp1->Print( "Deleted Text" );  
rp1->Strikeout = false;
```

## 6.172 Subscript

**Declaration**

```
property Subscript: Boolean;
```

**Default**

```
false
```

**Category**

[Font](#)

**Description**

Returns or sets the subscript setting for the current text font.

**See also**

[TBaseReport Class](#), [Superscript](#)

**Example (Delphi)**

```
// Print a formula  
Print('Y = Pi * X');  
Subscript := true;  
Print('a');  
Subscript := false;
```



**Example (C++Builder)**

```
rp1->Print("Y = Pi * X");  
rp1->Subscript = true;  
rp1->Print("a");  
rp1->Subscript = false;
```

## 6.173 Superscript

**Declaration**

```
property Superscript: Boolean;
```

**Default**

false

**Category**

[Font](#)

**Description**

Returns or sets the superscript setting for the current text font.

**See also**

[TBaseReport Class](#), [Subscript](#)

**Example (Delphi)**

```
// Print a formula  
Print('E = MC');  
Superscript := true;  
Print('2');  
Superscript := false;
```

**Example (C++Builder)**

```
rp1->Print("E = MC");  
rp1->Superscript = true;  
rp1->Print("2");  
rp1->Superscript = false;
```

## 6.174 SystemFiler

**Declaration**

```
property SystemFiler: TSystemFiler;
```

**Category**

[ReportSystem](#)

**Description**

All SystemFiler options operate in the same manner as the other components except for the stream mode of smMemory which does not require a filename and will use a TMemoryStream to contain a report.

**See also**

[TRvSystem Class](#), Other System options

**Example (Delphi)**

```
RvSystem1.SystemFiler.AccuracyMethod := amAppearance;
```

**Example (C++Builder)**

```
RvSystem1->SystemFiler->AccuracyMethod = amAppearance;
```

## 6.175 SystemOptions

**Declaration**

```
property SystemOptions: TSystemOptions;
```

**Category**[ReportSystem](#)**Description**

The SystemOptions properties control the configuration of the TRvSystem component:

- soUseFiler* will always send the report to a report file. This can be very useful if the Macro method has been used in the report
- soWaitForOK* determines whether the user has to press the OK button once the report has been generated for output
- soShowStatus* determines whether or not the status screen is displayed when the report is being generated
- soAllowPrintFromPreview* determines whether the user can print from the preview screen
- mPreview*
- soAllowSaveFromPreview* determines whether the user can save from the preview screen
- mPreview*
- soPreviewModal* determines if the preview screen will be modal
- l*
- soNoGenerate* will cause the RvSystem component to skip over the generation phase of the report and proceed straight to screen or the printer. This option should only be used with a StreamMode of smFile where the report file has been previously generated and needs only to be viewed or printed

**See also**

[TRvSystem Class](#), Other SystemXxxx options

**Example (Delphi)**

```
// Disable the status screen
RvSystem1.SystemOptions := RvSystem1.SystemOptions - (soShowStatus);
```

**Example (C++Builder)**

```
RvSystem1->SystemOptions = RvSystem1->SystemOptions >> soShowStatus;
```

## 6.176 SystemPreview

**Declaration**

```
property SystemPreview: TSystemPreview;
```

**Category**[ReportSystem](#)**Description**

SystemPreview displays all the preview type options displayed in TRvRenderPreview. Following are the additional properties:

- FormHeight* defines the height of the RvSystem report preview form
- FormState* defines the initial window status (normal, minimized or maximized) of the RvSystem report preview form
- FormWidth* defines the width of the RvSystem report preview form

**See also**

[TRvSystem Class](#), Other SystemXxxx options

**Example (Delphi)**

```
RvSystem1.SystemPreview.FormState := wsMaximized;
```

**Example (C++Builder)**

```
RvSystem1->SystemPreview->FormState = wsMaximized;
```

## 6.177 SystemPrinter

### Declaration

```
property SystemPrinter: TSystemPrinter;
```

### Category

[ReportSystem](#)

### Description

SystemPrinter displays all the printer type options displayed in TRvRenderPrinter.

### See also

[TRvSystem Class](#), Other SystemXxxx options

### Example (Delphi)

```
RvSystem1.SystemPrinter.MarginLeft := 0.5;
```

### Example (C++Builder)

```
RvSystem1->SystemPrinter->MarginLeft = 0.5;
```

## 6.178 SystemSetups

### Declaration

```
property SystemSetups: TSystemSetups;
```

### Default

```
[ssAllowSetup, ssAllowCopies, ssAllowCollate, ssAllowDuplex, ssAllowDestPreview, ssAllowDestPrinter, ssAllowDestFile, ssAllowPrinterSetup]
```

### Category

[ReportSystem](#)

### Description

This property contains settings that define the behavior of the Printer Setup Dialog that TRvSystem uses. To see a description of each option see TSystemSetup.

### See also

[TRvSystem Class](#), [TSystemSetup](#)

### Example (Delphi)

```
// Disable the setup screen  
RvSystem1.SystemSetups := RvSystem1.SystemSetups - [ssAllowSetup];
```

### Example (C++Builder)

```
RvSystem1->SystemSetups = RvSystem1->SystemSetups >> ssAllowSetup;
```

## 6.179 TabColor

### Declaration

```
property TabColor: TColor;
```

### Default

```
clBlack
```

### Category

[Tabs](#)

### Description

This property defines the color that will be used to shade tab boxes created with SetTab. TabShade will define what percentage of TabColor is used.

See also

[TBaseReport Class](#), [SetTab](#), [TabShade](#), TColor

## 6.180 TabJustify

**Declaration**

```
property TabJustify: TTabJustify;
```

**Default**

tjNone

**Category**

[Tabs](#)

**Description**

This property will override any tab justification that was defined with SetTab(). This can be useful for column headings that are normally centered while the remaining data is justified according to the type of data. *tjNone* will disable this feature while *tjLeft*, *tjCenter*, *tjRight* and *tjBlock* will set the justification respectively.

See also

[TBaseReport Class](#)

**Example (Delphi)**

```
TabJustify := tjCenter;  
PrintLn(#9'Name'#9'Number');  
TabJustify := tjNone;
```

**Example (C++Builder)**

```
rp1->TabJustify = tjCenter;  
rp1->PrintLn("\tName\tNumber");  
rp1->TabJustify = tjNone;
```

## 6.181 Table

**Declaration**

```
property Table(MyPrinter: TTrave);
```

**Default**

nil

**Category**

[Rave](#)

**Description**

Specifies the TTable component that is connected to the TRvTableConnection component.

See also

[TRvTableConnection Class](#)

**Example (Delphi)**

```
CustomerCXN.Table := CustomerQuery;
```

**Example (C++Builder)**

```
CustomerCXN->Table = CustomerQuery;
```

## 6.182 TabShade

**Declaration**

```
property TabShade: integer;
```

**Default**

0

**Category**[Tabs](#)**Description**

This property defines a default tab shading that will override the tab shading defined with `SetTab` but not override the setting of the `ShadeOverride` parameter of the `Tab` method. `TabShade` can be useful for printing barred rows of alternating shades by setting `TabShade` before each line is printed.

**See also**[TBaseReport Class](#), [SetTab](#), [Tab](#)**Example (Delphi)**

```
// alternate tab shading by even / odd line status
if Odd(LineNum) then begin
    TabShade := 0;
end else begin
    TabShade := 15;
end; { else }
```

**Example (C++Builder)**

```
if ((rpl->LineNum 2) == 1) {
    TabShade = 0;
}
else {
    TabShade = 15;
}/ else
```

## 6.183 Text (TMemoBuf)

**Declaration**

```
property Text: string;
```

**Default**

" (empty)

**Category**[Memo](#)**Description**

This property will set the memo buffer to a string assigned to it. If this property is referenced, the first 255 characters (unless Delphi 2.0 is being used) of the memo buffer (or the size of the memo buffer, whichever is less) will be returned.

**See also**[TMemoBuf Class](#), [SetData](#)**Example (Delphi)**

```
MemoBuf1.Text := 'New text assigned into MemoBuf1';
```

**Example (C++Builder)**

```
MemoBuf1->Text = "New text assigned into MemoBuf1";
```

## 6.184 Text (TRpBarsBase)

**Declaration**

```
property Text: string;
```

**Category**[BarCode](#)**Description**

The text to be printed as a bar code.

**NOTE:**

Do not include the check character. The check character will be automatically calculated and printed according to the state of the `UseChecksum` property.

**NOTE:**

Any characters that are invalid for the bar code type will be deleted from the text property upon assignment.

**See also**

[TRpBarsBase Class](#), [Print](#), [PrintXY](#), [TextJustify](#), [UseChecksum](#)

**Example (Delphi)**

```
// example of -- since "-" is not valid it will be stripped out
PostNetBC1.Text := '85283-3558';
```

**Example (C++Builder)**

```
PostNetBC1->Text = "85283-3558";
```

## 6.185 TextBKMode

**Declaration**

```
property TextBKMode: TBKMode;
```

**Default**

`bkTransparent`

**Category**[Graphics](#)**Description**

This property will define the current text background mode as either *bkTransparent*, where text will print on top of graphics without erasing the background, or as *bkOpaque*, where text will print on top of graphics after the background is cleared.

**NOTE:**

Not all printer drivers support opaque text, especially PCL5 laserjet drivers. For these printers try setting graphics mode to Raster instead of HP/GL2 inside the printer setup window and opaque text printing may work.

**See also**

[TBaseReport Class](#), [BKColor](#)

**Example (Delphi)**

```
RvNDRWriter1.TextBKMode := bkOpaque;
```

**Example (C++Builder)**

```
RvNDRWriter1->TextBKMode = bkOpaque;
```

## 6.186 TextJustify

**Declaration**

```
property TextJustify: TPrintJustify
```

**Default**

pjCenter

**Category**[BarCode](#)**Description**

Determines how the readable text is justified in relation to the bar code.

pjLeft	Left justify the text portion
pjCenter	Center justify the text portion
pjRight	Right justify the text portion

**See also**[TRpBarsBase Class](#), [PrintReadable](#), [PrintTop](#), [Text](#)

## 6.187 Title

**Declaration**

```
property Title: string;
```

**Default**

'Rave Report'

**Category**[Misc](#)**Description**

This property defines the title for the current print job that will be displayed in the Windows Print Manager. (16 bit is limited to 31 characters).

**See also**[TBaseReport Class](#)**Example (Delphi)**

```
// This code causes the text "Sales Report" to show as the print job name in the print manager.  
RvNDRWriter1.Title := 'Sales Report';
```

**Example (C++Builder)**

```
RvNDRWriter1->Title = "Sales Report";
```

## 6.188 TitlePreview

**Declaration**

```
property TitlePreview: TFormatString;
```

**Default**

'Report Preview'

**Category**[ReportSystem](#)**Description**

This property defines the caption that will be used for the RvSystem report preview form.

**See also**[TRvSystem Class](#), [TitleSetup](#), [TitleStatus](#)

## 6.189 TitleSetup

**Declaration**

```
property TitleSetup: TFormatString;
```

**Default**

'Report Setup'

**Category**

[ReportSystem](#)

**Description**

This property defines the caption that will be used for the RvSystem report setup form.

**See also**

[TRvSystem Class](#), [TitlePreview](#), [TitleStatus](#)

## 6.190 TitleStatus

**Declaration**

```
property TitleStatus: TFormatString;
```

**Default**

'Report Status'

**Category**

[ReportSystem](#)

**Description**

This property defines the caption that will be used for the RvSystem report status form.

**See also**

[TRvSystem Class](#), [TitlePreview](#), [TitleSetup](#)

## 6.191 Top

**Declaration**

```
property Top: double;
```

**Category**

[BarCode](#)

**Description**

Sets or returns the position for the top edge of the bar code. The value for this property includes the readable text, if it is printed.

**See also**

[TRpBarsBase Class](#), [BarTop](#), [PrintReadable](#), [PrintTop](#)

**Example (Delphi)**

```
// Print the bar code so the top is 3.5 inches down  
BarCode1.Top := 3.5;
```

**Example (C++Builder)**

```
BarCode1->Top = 3.5;
```

## 6.192 TopWaste

**Declaration**

```
property TopWaste: double;
```

**Category**

[Printer](#)



**Description**

This property returns the waste area on the top side of the page that the printer cannot print into. It is a good idea to make sure that the report's margins are greater than or equal to its waste areas.

**See also**

[TBaseReport Class](#), [BottomWaste](#), [LeftWaste](#), [MarginTop](#), [RightWaste](#)

**Example**

See [LeftWaste](#)

## 6.193 TotalPasses

**Declaration**

```
property TotalPasses: Integer;
```

**Category**

[Misc](#)

**Description**

This is the value that will be returned when a %s is encountered in a StatusFormat string.

**See also**

[TBaseReport Class](#), [CurrentPass](#), [StatusFormat](#), [StatusLabel](#), [StatusText](#), [UpdateStatus](#)

**Example (Delphi)**

```
RvNDRWriter1.StatusFormat := 'Printing page (Pass of )';
```

**Example (C++Builder)**

```
RvNDRWriter1->StatusFormat = "Printing page (Pass of )";
```

## 6.194 TransparentBitmaps

**Declaration**

```
property TransparentBitmaps: Boolean;
```

**Default**

false

**Category**

[Graphics](#)

**Description**

This property will control the mode that *PrintBitmap* and *PrintBitmapRect* use to draw bitmaps. A value of true will cause bitmaps to be combined (using the AND operator) with the current page contents while a value of false will replace the page contents with the bitmap.

**See also**

[TBaseReport Class](#), [PrintBitmap](#), [PrintBitmapRect](#)

**Example (Delphi)**

```
TransparentBitmaps := true;
```

**Example (C++Builder)**

```
TransparentBitmaps = true;
```

## 6.195 TruncateText

**Declaration**

```
function TruncateText(Value: String; Width: Double): String;
```

**Category**[Printing](#)**Description**

This property calculates the width of the string "Value" using the current font. If the text is wider than the Width parameter then it will be truncated by characters to fit.

**See also**[TBaseReport Class](#), [PrintTab](#), [SetFont](#)**Example (Delphi)**

```
RvNDRWriter1.SetFont( 'Arial', 14 );  
TruncateText('This text is too long to fit within 2 inches', 2.0);
```

**Example (C++Builder)**

```
RvNDRWriter1->SetFont( "Arial", 14 );  
TruncateText("This text is too long to fit within 2 inches", 2.0);
```

## 6.196 Underline

**Declaration**

```
property Underline: Boolean;
```

**Default**

```
false
```

**Category**[Font](#)**Description**

This property returns or sets the underline attribute for the current font.

**See also**[TBaseReport Class](#), [Bold](#), [Italic](#), [Strikeout](#)**Example (Delphi)**

```
with RvNDRWriter1 do begin  
  Underline := true;  
  Print( 'Underlined text' );  
  Underline := false;  
end; { with }
```

**Example (C++Builder)**

```
rp1->Underline = true;  
rp1->Print( "Underlined text" );  
rp1->Underline = false;
```

## 6.197 Units

**Declaration**

```
property Units: TPrintUnits;
```

**Default**

```
unInch
```

**Category**[Units](#)**Description**

This property sets the current units mode to one of the following values: *unInch*, *unMM*, *unCM*, *unPoint* and *unUser*. If the setting is *unUser* then the units factor is determined by the value in *UnitsFactor*.

See also

[TBaseReport Class](#), [UnitsFactor](#)

**Example (Delphi)**

```
RvNDRWriter1.Units := unInch;
```

**Example (C++Builder)**

```
RvNDRWriter1->Units = unInch;
```

## 6.198 UnitsFactor

**Declaration**

```
property UnitsFactor: double;
```

**Default**

1.0

**Category**

[Units](#)

**Description**

This property returns or sets the current conversion factor necessary to convert units to inches. Its value should equal the number of units that equal an inch. (*unCM* = 2.54 since 2.54 centimeters equal an inch)

See also

[TBaseReport Class](#)

**Example (Delphi)**

```
// 300 DPI conversion
RvNDRWriter1.Units := unUser;
RvNDRWriter1.UnitsFactor := 300;
RvNDRWriter1.PrintXY( 300, 600, 'Text at 1", 2"' );
```

**Example (C++Builder)**

```
RvNDRWriter1->Units = unUser;
RvNDRWriter1->UnitsFactor = 300;
RvNDRWriter1->PrintXY( 300, 600, "Text at 1\"", 2\"" );
```

## 6.199 UseBreakingSpaces

**Declaration**

```
property UseBreakingSpaces: Boolean read FUseBreakingSpaces write
FUseBreakingSpaces
```

**Default**

false

**Category**

[Render](#)

**Description**

This property specifies whether the HTML output will allow text spaces to be written out as plain text or with &nbsp;

See also

[TRpRender Class](#)

## 6.200 UseChecksum

**Declaration**

```
property UseChecksum: Boolean
```

**Default**

false (Code128 := true)

**Category**

[BarCode](#)

**Description**

Specifies whether a checksum character should be included in the bar code.

**See also**

[TRpBarsBase Class](#), [BarHeight](#), [BarWidth](#), [PrintReadable](#), [Text](#), [Width](#)

## 6.201 UseCompression

**Declaration**

```
property UseCompression: Boolean read FCompression write FCompression
```

**Default**

false

**Category**

[Render](#) PDF

**Description**

This property determines whether you want to compress the page stream when sending the report out to PDF. The code that actually provides the compression must be defined in the OnCompress event.

**See also**

[TRpRender Class](#), [OnCompress](#)

## 6.202 UseSetRange

**Declaration**

```
property UseSetRange: Boolean;
```

**Default**

false

**Category**

[Rave](#)

**Description**

This property will determine whether filters are handled by the TTable.Filter property or the TTable.SetRange method.

**See also**

[TRvTableConnection Class](#)

## 6.203 Version

**Declaration**

```
property Version: String;
```

**Category**

[Misc](#)

**Description**

Returns the current release version of Rave.

**See also**

[TRpComponent Class](#)

## 6.204 WideFactor

**Declaration**

```
property WideFactor: double
```

**Default**

```
3.0
```

**Category**

[BarCode](#)

**Description**

The wide factor is the ratio of the wide bar to the narrow bar width.

**See also**

[TRpBarsBase Class](#), [BarHeight](#), [BarWidth](#), [Width](#)

**Example (Delphi)**

```
// set wide to narrow bar ratio to be 2.5  
WideFactor := 2.5;
```

**Example (C++Builder)**

```
WideFactor = 2.5;
```

## 6.205 Width

**Declaration**

```
property Width: double;
```

**Category**

[BarCode](#)

**Description**

This property will return the calculated width of the entire bar code for the current value of Text.

**See also**

[TRpBarsBase Class](#), [BarWidth](#), [Text](#), [WideFactor](#)

**Example (Delphi)**

```
// get width of bar code for ABC123  
var BarCodeWidth: double;  
  BarCode1.Text := 'ABC123';  
  BarCodeWidth := BarCode1.Width;
```

**Example (C++Builder)**

```
double BarCodeWidth;  
BarCode1->Text = "ABC123";  
BarCodeWidth = BarCode1->Width;
```

## 6.206 XDPI

**Declaration**

```
property XDPI: integer;
```

**Category**

[Printer](#)

**Description**

This property returns the horizontal dots per inch for the current printer.

**See also**[TBaseReport Class](#)**Example (Delphi)**

```
CurrXDPI := RvNDRWriter1.XDPI;
```

**Example (C++Builder)**

```
CurrXDPI = RvNDRWriter1->XDPI;
```

## 6.207 XPos

**Declaration**

```
property XPos: double;
```

**Default**

```
0.0
```

**Category**[Position](#)**Description**

This property sets or returns the horizontal text cursor position.

**See also**[TBaseReport Class](#), [CursorXPos](#), [CursorYPos](#), [YPos](#)**Example (Delphi)**

```
XPos := 0.45;  
YPos := 0.95;  
Print('Text at ( 0.45, 0.95 )');
```

**Example (C++Builder)**

```
rp1->XPos = 0.45;  
rp1->YPos = 0.95;  
rp1->Print("Text at ( 0.45, 0.95 )");
```

## 6.208 YDPI

**Declaration**

```
property YDPI: integer;
```

**Category**[Printer](#)**Description**

This property returns the vertical dots per inch for the current printer.

**See also**[TBaseReport Class](#), All other units conversion functions**Example (Delphi)**

```
CurrYDPI := RvNDRWriter1.YDPI;
```

**Example (C++Builder)**

```
CurrYDPI = RvNDRWriter1->YDPI;
```

## 6.209 YPos

**Declaration**

```
property YPos: double;
```

**Default**

0.0

**Category**[Position](#)**Description**

This property sets or returns the vertical text cursor position.

**See also**[TBaseReport Class](#), [CursorXPos](#), [CursorYPos](#), [XPos](#)**Example (Delphi)**

```
XPos := 0.45;  
YPos := 0.95;  
Print('Text at ( 0.45, 0.95 )');
```

**Example (C++Builder)**

```
rpl->XPos = 0.45;  
rpl->YPos = 0.95;  
rpl->Print("Text at ( 0.45, 0.95 )");
```

## 6.210 ZoomFactor

**Declaration**

```
property ZoomFactor: double;
```

**Default**

100.0

**Category**[Preview](#)**Description**

This property defines the current zoom percent. A value of 100.0 is normal size, 200.0 is double normal size and 50.0 is half size.

**See also**[TRvRenderPreview Class](#), [ZoomIn](#), [ZoomOut](#)**Example**

This code updates the text in a field where the ZoomFactor can be edited by the user. It would be important to keep these well synchronized if more than one event can change this property.

**Example (Delphi)**

```
var S1: string[10];  
begin  
  Str(RvRenderPreview1.ZoomFactor:1:1,S1);  
  ZoomEdit.Text := S1;  
  RvRenderPreview1.RedrawPage;  
end;
```

**Example (C++Builder)**

```
AnsiString S1;  
S1 = FloatToStrF(RvRenderPreview1->ZoomFactor, ffGeneral,1,1);  
ZoomEdit->Text = S1;  
RvRenderPreview1->RedrawPage();
```

## 6.211 ZoomInc

### Declaration

```
property ZoomInc: integer;
```

### Default

10

### Category

[Preview](#)

### Description

This property defines the amount that *ZoomIn* and *ZoomOut* modifies *ZoomFactor*.

### See also

[TRvRenderPreview Class](#), [ZoomFactor](#), [ZoomIn](#), [ZoomOut](#)

### Example (Delphi)

```
// This code causes the ZoomFactor property to be incremented by 10 when ZoomIn and ZoomOut are called.  
RvRenderPreview1.ZoomInc := 10;
```

### Example (C++Builder)

```
RvRenderPreview1->ZoomInc = 10;
```

## 6.212 ZoomPageFactor

### Declaration

```
property ZoomPageFactor: double;
```

### Category

[Preview](#)

### Description

This property will return the zoom factor that will zoom the current page so that the entire page is visible. This value can then be assigned to *ZoomFactor*. You should consider the extra width used by a shadow if you have assigned a value to the *ShadowDepth* preview property.

### See also

[TRvRenderPreview Class](#), [ShadowDepth](#), [ZoomFactor](#), [ZoomPageWidthFactor](#)

### Example (Delphi)

```
// use an OnPreviewShow event with the following  
with Sender As TRvRenderPreview do begin  
    ZoomFactor := ZoomPageFactor - (ShadowDepth + 5) / 10;  
end; { with }
```

### Example (C++Builder)

```
TRvRenderPreview* fp = dynamic_cast<TRvRenderPreview*>(Sender);  
fp->ZoomFactor = fp->ZoomPageFactor - (fp->ShadowDepth + 5) / 10;
```

## 6.213 ZoomPageWidthFactor

### Declaration

```
property ZoomPageWidthFactor: double;
```

### Category

[Preview](#)



**Description**

This property will return the zoom factor that will zoom the current page so that the entire page width is visible. This value can then be assigned to *ZoomFactor*. You should consider the extra width used by a shadow if you have assigned a value to the *ShadowDepth* preview property.

**See also**

[TRvRenderPreview Class](#), [ShadowDepth](#), [ZoomFactor](#), [ZoomPageFactor](#)

**Example (Delphi)**

```
// use an OnPreviewShow event with the following
with Sender As TRvRenderPreview do begin
  ZoomFactor := ZoomPageWidthFactor - (ShadowDepth + 3) / 10;
end; { with }
```

**Example (C++Builder)**

```
TRvRenderPreview* fp = dynamic_cast<TRvRenderPreview*>(Sender);
fp->ZoomFactor = fp->ZoomPageWidthFactor - (fp->ShadowDepth + 3) / 10;
```



# Types

## Chapter



## 7 Types

Typed constants, unlike true constants, can hold values of array, record, procedural, and pointer types. Typed constants cannot occur in constant expressions.

### 7.1 TAccuracyMethod

**Declaration**

```
TAccuracyMethod = (amPositioning, amAppearance);
```

**Category**

[Control](#)

**Description**

<i>amPositioning</i>	This setting will cause the string to be written one character at a time
<i>amAppearance</i>	This setting will cause the whole string to be written at one time

**See also**

[TBaseReport Class](#), [AccuracyMethod](#)

**Example**

see [AccuracyMethod](#)

### 7.2 TBKMode

**Declaration**

```
TBKMode = (bkTransparent, bkOpaque);
```

**Category**

[Graphics](#)

**Description**

<i>bkTransparent</i>	This setting will write the text without erasing the background
<i>bkOpaque</i>	This setting will write the text after the background has been cleared

**See also**

[TBaseReport Class](#), [TextBKMode](#)

**Example**

See [TextBKMode](#)

### 7.3 TFontAlign

**Declaration**

```
TFontAlign = (faBaseline, faTop, faBottom);
```

**Category**

[Font](#)

**Description**

<i>faBaseline</i>	This setting will align the font at the baseline of the font
<i>faTop</i>	This setting will align the font at the top of the line
<i>faBottom</i>	This setting will align the font at the bottom of the line

**See also**

[TBaseReport Class](#), [FontAlign](#)

**Example**

see [FontAlign](#)

## 7.4 TLineHeightMethod

### Declaration

```
TLineHeightMethod = (lhmLinesPerInch, lhmFont);
```

### Category

[Position](#)

### Description

<i>lhmLinesPerInch</i>	This setting will cause the number of lines to be fit per inch
<i>lhmFont</i>	This setting will cause the line to adjust to the font size
<i>lhmUser</i>	This setting will allow the user to define <i>LineHeight</i> directly

### See also

[TBaseReport Class](#), [LineHeightMethod](#), [LineHeight](#)

### Example

See [LineHeightMethod](#)

## 7.5 TMacroID

### Declaration

```
TMacroID = (midCurrDateShort, midCurrDateLong, midCurrDateUS,  
midCurrDateInter, midCurrTimeShort, midCurrTimeLong, midCurrTimeAMPM,  
midCurrTime24, midFirstPage, midLastPage, midTotalPages, midCurrentPage,  
midPrinterName, midDriverName, midPortName, midUser01..midUser20);
```

### Category

[Printing](#)

### Description

<i>midCurrDateShort</i>	Returns the short date format
<i>midCurrDateLong</i>	Returns the long date format
<i>midCurrDateUS</i>	Returns the date as MM/DD/YY
<i>midCurrDateInter</i>	Returns the date as DD/MM/YY
<i>midCurrTimeShort</i>	Returns the short time format
<i>midCurrTimeLong</i>	Returns the long time format
<i>midCurrTimeAMPM</i>	Returns the time in am/pm format
<i>midCurrTime24</i>	Returns the time in 24 hour format
<i>midFirstPage</i>	Returns the first page number
<i>midLastPage</i>	Returns the last page number
<i>midTotalPages</i>	Returns the total number of pages
<i>midCurrentPage</i>	Returns the current page number
<i>midPrinterName</i>	Returns the printer name
<i>midDriverName</i>	Returns the driver name
<i>midPortName</i>	Returns the port name
<i>midUser01</i> through <i>midUser20</i>	Returns the n'th entry from MacroData

### See also

[TBaseReport Class](#), [Macro](#), [MacroData](#)

### Example

See [Macro](#)

## 7.6 TMarginMethod

### Declaration

```
TMarginMethod = (mmScaled, mmFixed);
```

**Category**[Preview](#)**Description**

*mmScaled* This setting will cause the margin on the preview screen to be scaled according to MarginPercent

*mmFixed* Margins will not change in the preview screen

**See also**[TRvRenderPreview Class](#), [MarginMethod](#), [MarginPercent](#)**Example**see [MarginMethod](#)

## 7.7 TOrientation

**Declaration**

```
TOrientation = (poPortrait, poLandscape, poDefault);
```

**Category**[Control](#)**Description**

*poPortrait* Portrait mode

*poLandscape* Landscape mode

*poDefault* Default mode on the current printer

**See also**[TBaseReport Class](#), [Orientation](#)**Example**see [Orientation](#) example

## 7.8 TPrintJustify

**Declaration**

```
TPrintJustify = (pjCenter, pjLeft, pjRight, pjBlock);
```

**Category**[Printing](#)**Description**

*pjCenter* Center justify

*pjLeft* Justify to the left

*pjRight* Justify to the right

*pjBlock* Block (full) justify

**See also**[TBaseReport Class](#), [Justify](#), [PrintFooter](#), [PrintHeader](#), [SetTab](#)**Example**See [SetTab](#)

## 7.9 TPrintUnits

**Declaration**

```
TPrintUnits = (unInch, unMM, unCM, unPoint, unUser);
```

**Category**[Units](#)

**Description**

<i>unInch</i>	This setting will set the units to inches
<i>unMM</i>	This setting will set the units to millimeters
<i>unCM</i>	This setting will set the units to centimeters
<i>unPoint</i>	This setting will set the units to pixels
<i>unUser</i>	This setting will set the units to a scale provided by the user

**See also**

[TBaseReport Class](#), [Units](#)

**Example**

see [Units](#)

## 7.10 TReportDest

**Declaration**

```
TReportDest = (rdPreview, rdPrinter, rdFile);
```

**Category**

[ReportSystem](#)

**Description**

<i>rdPreview</i>	This setting will send the report to the preview screen
<i>rdPrinter</i>	This setting will send the report to the printer
<i>rdFile</i>	This setting will send the report to a file

**See also**

[TRvSystem Class](#), [DefaultDest](#)

**Example**

see [DefaultDest](#)

## 7.11 TStreamMode

**Declaration**

```
TStreamMode = (smMemory, smTempFile, smFile, smUser);
```

**Category**

[Control](#)

**Description**

<i>smMemo</i>	This setting will use a memory stream for input and output
<i>ry</i>	
<i>smFile</i>	This setting will use a file for input and output
<i>smTemp</i>	will send the output to a temporary file in the \Windows\Temp directory. This filename used
<i>File</i>	by <i>smTempFile</i> is created by the TRvSystem component and will be deleted when it is finished. If this stream mode is used with a custom preview system utilizing TRvNDRWriter, TRvRenderPrinter and TRvRenderPreview components, the generated FileName property from the TRvNDRWriter component must be transferred to the TRvRenderPrinter and TRvRenderPreview components output
<i>smUser</i>	This setting will use stream defined by user for input and output

**See also**

[TBaseReport Class](#), [Stream](#), [StreamMode](#)

**Example**

See [StreamMode](#)

## 7.12 TSystemOption

**Declaration**

```
TSystemOption = (soUseFiler, soWaitForOK, soShowStatus,
```

```
soAllowPrintFromPreview, soPreviewModal);
```

**Category**

[ReportSystem](#)

**Description**

see [SystemOptions](#)

**See also**

[TRvSystem Class](#), [SystemOptions](#)

**Example**

see [SystemOptions](#)

## 7.13 TSystemOptions

**Declaration**

```
TSystemOptions = Set of TSystemOption;
```

**Category**

[ReportSystem](#)

**Description**

see [SystemOptions](#)

**See also**

[TRvSystem Class](#), [SystemOptions](#)

**Example**

see [SystemOptions](#)

## 7.14 TSystemSetup

**Declaration**

```
TSystemSetup = (ssAllowSetup, ssAllowCopies, ssAllowCollate, ssAllowDuplex,  
ssAllowDestPreview, ssAllowDestPrinter, ssAllowDestFile, ssAllowPrinterSetup);
```

**Category**

[ReportSystem](#)

**Description**

<i>ssAllowSetup</i>	If false, the setup screen will not be displayed
<i>ssAllowCopies</i>	If false, the user will not be able to change the copies
<i>ssAllowCollate</i>	If false, the user will not be able to change the collation mode
<i>ssAllowDuplex</i>	If false, the user will not be able to change the duplex mode
<i>ssAllowDestPreview</i>	If false, the user will not be able to select the preview screen as the report destination
<i>ssAllowDestPrinter</i>	If false, the user will not be able to select the printer as the report destination
<i>ssAllowDestFile</i>	If false, the user will not be able to select a disk file as the report destination
<i>ssAllowPrinterSetup</i>	If false, the user will not be able to select the printer setup dialog

**See also**

[TRvSystem Class](#), [SystemSetups](#)

**Example**

see [SystemSetups](#)

## 7.15 TSystemSetups

**Declaration**

```
TSystemSetups = Set of TSystemSetup;
```



**Category**[ReportSystem](#)**Description**see [TSystemSetup](#)**See also**[TRvSystem Class](#), [SystemSetups](#), [TSystemSetup](#)**Example**see [SystemSetups](#)

## 7.16 TTabJustify

**Declaration**

```
TTabJustify = (tjCenter, tjLeft, tjRight, tjBlock, tjNone);
```

**Category**[Tabs](#)**Description**

<i>tjCenter</i>	This setting will center justify tabs
<i>tjLeft</i>	This setting will left justify tabs
<i>tjRight</i>	This setting will right justify tabs
<i>tjBlock</i>	This setting will block justify tabs
<i>tjNone</i>	This setting will disable justification override

**See also**[TBaseReport Class](#), [TabJustify](#)**Example**see [TabJustify](#)



# Archived

## Chapter

---



## 8 Archived

The following components have been archived and are no longer being actively developed or supported on new platforms such as CLX, Linux or .NET. They will remain part of the BEX windows version of Rave for backwards compatibility. However, their functionality is better supported by other areas in Rave and are not recommended for use in new reporting projects. These archived components will NOT be recognized by the BE versions of Rave Reports (bundled with a Borland product).

- \* TFilePreview - Superseded by TRvRenderPreview
- \* TFilePrinter - Superseded by TRvRenderPrinter
- \* TReportPrinter - Superseded by TRvRenderPrinter
- \* TRpHTMLFiler - Superseded by TRvRenderHTML
- \* TRTFFiler - Superseded by TRvRenderRTF
- \* TTextFiler - Superseded by TRvRenderText

The following components are also being archived and are superseded by the visual reporting components for table style reports. **These archived components should not be used in new reporting projects.**

- \* TDetailShell - Superceeded by visual reporting components (Region/Bands)
- \* TLabelShell - Superceeded by visual reporting components (Region/Bands using settings of Region.Columns and Region.ColumnWidth)
- \* TMasterShell - Superceeded by visual reporting components (Region/Bands)
- \* TReportShell - Superceeded by visual reporting components (Region/Bands)
- \* TDbTablePrinter - Superceeded by visual reporting components (Region/Bands)
- \* TTablePrinter - Superceeded by visual reporting components (Region/Bands using custom data connection for non-database data)

The archived events, methods and properties are listed following this section.

## 8.1 Components

This will be a list of all archived components (those only available in the BEX version).

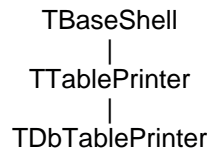
### 8.1.1 TDbTablePrinter

Unit



RpDbTabl

Hierarchy



#### Description

This component has the capability to generate table style listings with little to no code required. You can even link multiple table printers together for master-detail relationships to multiple levels. The table printers get their flexibility from two other components, *TDbTableColumn* and *TTableSection*. *TDbTableColumns* are responsible for all the properties and events for a single column of data while the *TTableSections* are responsible for all headers and footers.

#### TDbTablePrinter Events

OnGetNextRow, OnInitMaster, OnInitTable, OnValidateRow

#### TDbTablePrinter Methods

Create, Default, *Execute*

#### TDbTablePrinter Properties

[DataSet](#), DetailKey, DetailTablePrinter, Engine, Font, MasterKey, MasterTablePrinter, Pen, ReprintHeader, StartPos, TableColumn, TableColumns, TableSection, [TextBKMode](#)

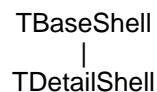
### 8.1.2 TDetailShell

Unit



RpShell

Hierarchy



#### Description

This component is the simplest of the framework components, so we will start with that. *TDetailShell* is good for table listing style reports where you still want to code the report, but in a more structured and easier to maintain format. There are 2 main parts to the shell components, the sections and the events.

#### TDetailShell Events

[OnBodyAfter](#), [OnBodyBefore](#), [OnBodyFooter](#), [OnBodyHeader](#), [OnRowAfter](#), [OnRowBefore](#), [OnRowPrint](#)

#### TDetailShell Methods

Execute, [PrintBodyFooter](#), [PrintBodyHeader](#), [PrintRow](#)

#### TDetailShell Properties

[Engine](#), [IsNewPage](#), [IsReprint](#), [SectionBodyFooter](#), [SectionBodyHeader](#), [SectionRow](#), [StartNewPage](#)

### 8.1.3 TLabelShell

#### Unit



RpLabel

#### Hierarchy

```

TBaseShell
|
TLabelShell

```

#### Description

This shell component is a specialized one that will help with label style reports. There are many predefined formats or you can create a completely custom one. TLabelShell gets its power from [OriginX](#) and [OriginY](#). Using these properties to change the upper left hand corner of the page to the upper left hand corner of each label, your reporting code will use the exact same positions for each label on the page.

#### TLabelShell Events

[OnLabelAfter](#), [OnLabelBefore](#), [OnLabelPrint](#), [OnPageAfter](#), [OnPageBefore](#), [OnReportAfter](#), [OnReportBefore](#)

#### TLabelShell Methods

[Execute](#)

#### TLabelShell Properties

[Border](#), [Col](#), [DrawExtents](#), [DrawPen](#), [DrawPreviewOnly](#), [LabelBrand](#), [LabelHeight](#), [LabelShape](#), [LabelWidth](#), [NumAcross](#), [NumDown](#), [PrintByRow](#), [Row](#), [SpacingHeight](#), [SpacingLeft](#), [SpacingTop](#), [SpacingWidth](#)

### 8.1.4 TMasterShell

#### Unit



RpShell

#### Hierarchy

```

TBaseShell
|
TDetailShell
|
TMasterShell

```

#### Description

This component is the next shell component in Rave we'll discuss and provides a good balance between simplicity and functionality. It adds the concept of groups and detail sections to the structure that was presented for *TDetailShell*.

#### TMasterShell Events

[OnBodyAfter](#), [OnBodyBefore](#), [OnBodyFooter](#), [OnBodyHeader](#), [OnDetailAfter](#), [OnDetailBefore](#), [OnGroupAfter](#), [OnGroupAfterLast](#), [OnGroupBefore](#), [OnGroupBeforeFirst](#), [OnGroupFooter](#), [OnGroupHeader](#), [OnRowAfter](#), [OnRowBefore](#), [OnRowPrint](#)

#### TMasterShell Methods

[Execute](#), [PrintBodyFooter](#), [PrintBodyHeader](#), [PrintDetail](#), [PrintGroupFooter](#), [PrintGroupHeader](#), [PrintRow](#)

#### TMasterShell Properties

[DetailReport](#), [Engine](#), [IsNewPage](#), [IsReprint](#), [Reprint](#), [SectionBodyFooter](#), [SectionBodyHeader](#), [SectionGroupFooter](#), [SectionGroupHeader](#), [SectionRow](#), [StartNewPage](#)

## 8.1.5 TReportShell

### Unit



RpShell

### Hierarchy

```

TBaseShell
|
TDetailShell
|
TMasterShell
|
TReportShell
    
```

### Description

This shell component is very similar to a TMasterShell component, but adds report and page headers and footers.

### TReportShell Events

[OnBodyAfter](#), [OnBodyBefore](#), [OnBodyFooter](#), [OnBodyHeader](#), [OnDetailAfter](#), [OnDetailBefore](#), [OnGroupAfter](#), [OnGroupAfterLast](#), [OnGroupBefore](#), [OnGroupBeforeFirst](#), [OnGroupFooter](#), [OnGroupHeader](#), [OnPageAfter](#), [OnPageBefore](#), [OnPageFooter](#), [OnPageHeader](#), [OnReportAfter](#), [OnReportBefore](#), [OnReportFooter](#), [OnReportHeader](#), [OnRowAfter](#), [OnRowBefore](#), [OnRowPrint](#)

### TReportShell Methods

Execute, [PrintBodyFooter](#), [PrintBodyHeader](#), [PrintDetail](#), [PrintGroupFooter](#), [PrintGroupHeader](#), [PrintPageFooter](#), [PrintPageHeader](#), [PrintReportFooter](#), [PrintReportHeader](#), [PrintRow](#)

### TReportShell Properties

[DetailReport](#), [Engine](#), [IsNewPage](#), [IsReprint](#), [Reprint](#), [SectionBodyFooter](#), [SectionBodyHeader](#), [SectionGroupFooter](#), [SectionGroupHeader](#), [SectionPageFooter](#), [SectionPageHeader](#), [SectionReportFooter](#), [SectionReportHeader](#), [SectionRow](#), [StartNewPage](#)

## 8.1.6 TTablePrinter

### Unit



RpTable

### Hierarchy

```

TBaseShell
|
TTablePrinter
    
```

**Description**

TTablePrinter and TTableColumn are the non-database counterparts to TDbTablePrinter and TDbTableColumn. One difference between the two sets of components is the obvious lack of database type properties in TTablePrinter and TTableColumn. The other difference is that the event handlers will be used quite a bit more extensively to provide the data to the table printer component from whatever data source it is coming from. The most common event handlers that will be overridden for TTablePrinter are OnInitTable and OnGetNextRow, and for TTableColumn they are OnAddTotal, OnRowSetup and OnRowHeight. For more information, look at the demo projects included with Rave for a more detailed example of how to use TTablePrinter..

**TTablePrinter Events**

OnGetNextRow, OnInitMaster, OnInitTable, OnValidateRow

**TTablePrinter Methods**

[Default](#), Execute

**TTablePrinter Properties**

[DetailTablePrinter](#), [Engine](#), [Font](#), MasterTablePrinter, Pen, ReprintHeader, StartPos, TableColumn, TableColumns, TableSection, [TextBKMode](#)





## 8.2 Events

This will be a list of all archived events (those only available in the BEX version).

### 8.2.1 OnAddTotal event

#### Declaration

```
procedure OnAddTotal(TTableColumn: TTableColumn);
```

#### Category

[TablePrinter](#)

#### Components

TDbTableColumn, TTableColumn

#### Description

This event is called to update the totals, GrandTotal, PageTotal and SubTotal for a table column.

#### See also

GrandTotal, PageTotal, SubTotal

### 8.2.2 OnBodyAfter

#### Declaration

```
procedure OnBodyAfter(ReportPrinter: TBaseReport;  
                      ReportShell: TDetailShell);
```

#### Category

[Shell](#)

#### Components

[TDetailShell](#), [TMasterShell](#), [TReportShell](#)

#### Description

This is where you de-initialize resources for use in the body of the report.

#### See also

[OnBodyBefore](#), [OnBodyFooter](#), [OnBodyHeader](#)

### 8.2.3 OnBodyBefore

#### Declaration

```
procedure OnBodyBefore(ReportPrinter: TBaseReport;  
                      ReportShell: TDetailShell);
```

#### Category

[Shell](#)

#### Components

[TDetailShell](#), [TMasterShell](#), [TReportShell](#)

#### Description

This is where you initialize resources for use in the body of the report.

#### See also

[OnBodyAfter](#), [OnBodyFooter](#), [OnBodyHeader](#)

### 8.2.4 OnBodyFooter

#### Declaration

```
procedure OnBodyFooter(ReportPrinter: TBaseReport;  
                      ReportShell: TDetailShell);
```

**Default**  
nil

**Category**  
[Shell](#)

**Components**  
[TDetailShell](#), [TMasterShell](#), [TReportShell](#)

**Description**  
This event is called to print the body footer for a shell report.

**See also**  
[PrintBodyFooter](#), [PrintBodyHeader](#), [SectionBodyFooter](#), [SectionBodyHeader](#)

## 8.2.5 OnBodyHeader

**Declaration**  

```
procedure OnBodyHeader(ReportPrinter: TBaseReport;  
                      ReportShell: TDetailShell);
```

**Default**  
nil

**Category**  
[Shell](#)

**Components**  
[TDetailShell](#), [TMasterShell](#), [TReportShell](#)

**Description**  
This event is called to print the body header for a shell report.

**See also**  
[PrintBodyFooter](#), [PrintBodyHeader](#), [SectionBodyFooter](#), [SectionBodyHeader](#)

## 8.2.6 OnDetailAfter

**Declaration**  

```
procedure OnDetailAfter(ReportPrinter: TBaseReport;  
                      ReportShell: TDetailShell);
```

**Default**  
nil

**Category**  
[Shell](#)

**Components**  
[TDetailShell](#), [TMasterShell](#), [TReportShell](#)

**Description**  
This event is called after the detail section of a shell report is printed.

**See also**  
[DetailReport](#), [PrintDetail](#)

## 8.2.7 OnDetailBefore

**Declaration**  

```
procedure OnDetailBefore(ReportPrinter: TBaseReport;  
                      ReportShell: TDetailShell);
```

**Default**  
nil

**Category**  
[Shell](#)

**Components**  
[TDetailShell](#), [TMasterShell](#), [TReportShell](#)

**Description**  
This event is called before the detail section of a shell report is printed.

**See also**  
[DetailReport](#), [PrintDetail](#)

### 8.2.8 OnEndOfSection

**Declaration**  

```
procedure OnEndOfSection(Sender: TObject);
```

**Category**  
[Shell](#)

**Components**  
[TDetailShell](#), [TMasterShell](#), [TReportShell](#)

**Description**  
This event is called after the detail section of a shell report is printed.

**See also**  
[DetailReport](#), [PrintDetail](#)

### 8.2.9 OnGroupAfter

**Declaration**  

```
procedure OnGroupAfter(ReportPrinter: TBaseReport;  
                      ReportShell: TDetailShell);
```

**Default**  
nil

**Category**  
[Shell](#)

**Components**  
[TMasterShell](#), [TReportShell](#)

**Description**  
This is where you de-initialize resources used in the group.

**See also**  
[OnGroupAfterLast](#), [OnGroupBeforeFirst](#)

### 8.2.10 OnGroupAfterLast

**Declaration**  

```
procedure OnGroupAfterLast(ReportPrinter: TBaseReport;  
                          ReportShell: TDetailShell);
```

**Default**  
nil

## Category

[Shell](#)

## Components

[TMasterShell](#), [TReportShell](#)

## Description

This event is called after the last group.

## See also

[OnGroupAfter](#), [OnGroupBefore](#)

### 8.2.11 OnGroupBefore

#### Declaration

```
procedure OnGroupBefore(ReportPrinter: TBaseReport;
                        ReportShell: TDetailShell);
```

#### Default

nil

## Category

[Shell](#)

## Components

[TMasterShell](#), [TReportShell](#)

## Description

This is where you initialize resources for use in the group.

## See also

[OnGroupAfterLast](#), [OnGroupBeforeFirst](#)

### 8.2.12 OnGroupBeforeFirst

#### Declaration

```
procedure OnGroupBeforeFirst(ReportPrinter: TBaseReport;
                             ReportShell: TDetailShell);
```

#### Default

nil

## Category

[Shell](#)

## Components

[TMasterShell](#), [TReportShell](#)

## Description

This event is called before the first group.

## See also

[OnGroupAfter](#), [OnGroupBefore](#)

### 8.2.13 OnGroupFooter

#### Declaration

```
procedure OnGroupFooter(ReportPrinter: TBaseReport;
                        ReportShell: TDetailShell);
```

#### Default

nil

**Category**[Shell](#)**Components**[TMasterShell](#), [TReportShell](#)**Description**

This event is called to print the group footer for a shell report.

**See also**[PrintBodyFooter](#), [PrintBodyHeader](#), [SectionGroupFooter](#), [SectionGroupHeader](#)

## 8.2.14 OnGroupHeader

**Declaration**

```
procedure OnGroupHeader(ReportPrinter: TBaseReport;  
                        ReportShell: TDetailShell);
```

**Default**

nil

**Category**[Shell](#)**Components**[TMasterShell](#), [TReportShell](#)**Description**

This event is called to print the group header for a shell report.

**See also**[PrintBodyFooter](#), [PrintBodyHeader](#), [SectionGroupFooter](#), [SectionGroupHeader](#)

## 8.2.15 OnLabelAfter event

**Declaration**

```
procedure OnLabelAfter(ReportPrinter: TBaseReport;  
                      LabelShell: TLabelShell;  
                      var Valid: Boolean);
```

**Category**[Label](#)**Components**[TLabelShell](#)**Description**

This event is where you would de-initialize any resources for a label.

**See also**[OnLabelBefore](#), [OnLabelPrint](#)

## 8.2.16 OnLabelBefore

**Declaration**

```
procedure OnLabelBefore(ReportPrinter: TBaseReport;  
                       LabelShell: TLabelShell;  
                       var Valid: Boolean);
```

**Category**[Label](#)

## Components

[TLabelShell](#)

## Description

This event is where you would initialize any resources for a label.

## See also

[OnLabelAfter](#), [OnLabelPrint](#)

## 8.2.17 OnLabelPrint event

### Declaration

```
procedure OnLabelPrint(ReportPrinter: TBaseReport;  
    LabelShell: TLabelShell;  
    var Valid: Boolean);
```

## Category

[Label](#)

## Components

[TLabelShell](#)

## Description

This event is called to print the contents of each label.

## See also

[Col](#), [Row](#), [TextWidth](#)

## 8.2.18 OnOverflow event

### Declaration

```
procedure OnOverflow(TTableColumn: TTableColumn);
```

## Category

[TablePrinter](#)

## Components

TDbTableColumn, TTableColumn

## Description

This event is called if text is too wide to print in the current column and OverflowMethod for the TTableColumn component is set to omUser. This allows you to modify the text however you wish so that it will fit.

## See also

*OverflowMethod*

## 8.2.19 OnPageAfter

### Declaration

```
procedure OnPageAfter(ReportPrinter: TBaseReport;  
    LabelShell: TLabelShell);
```

## Default

nil

## Category

[Shell](#)

## Components

[TLabelShell](#), [TReportShell](#)

**Description**

This event is called after each page of a shell report.

**8.2.20 OnPageBefore****Declaration**

```
procedure OnPageBefore(ReportPrinter: TBaseReport;  
    LabelShell: TLabelShell);
```

**Default**

nil

**Category**

[Shell](#)

**Components**

[TLabelShell](#), [TReportShell](#)

**Description**

This event is called before each page of a shell report.

**8.2.21 OnPageFooter****Declaration**

```
procedure OnPageFooter(ReportPrinter: TBaseReport;  
    ReportShell: TDetailShell);
```

**Default**

nil

**Category**

[Shell](#)

**Components**

[TReportShell](#)

**Description**

This event is called to print the page footer for a shell report.

**See also**

[PrintPageFooter](#), [PrintPageHeader](#), [SectionPageFooter](#), [SectionPageHeader](#)

**8.2.22 OnPageHeader****Declaration**

```
procedure OnPageHeader(ReportPrinter: TBaseReport;  
    ReportShell: TDetailShell);
```

**Default**

nil

**Category**

[Shell](#)

**Components**

[TReportShell](#)

**Description**

This event is called to print the page header for a shell report.

**See also**

[PrintPageFooter](#), [PrintPageHeader](#), [SectionPageFooter](#), [SectionPageHeader](#)



### 8.2.23 OnReportAfter

#### Declaration

```
procedure OnReportAfter: TReportEvent;
```

#### Default

nil

#### Category

[Shell](#)

#### Components

[TLabelShell](#), [TReportShell](#)

#### Description

This event is called after a shell report.

### 8.2.24 OnReportBefore

#### Declaration

```
procedure OnReportBefore: TReportEvent;
```

#### Default

nil

#### Category

[Shell](#)

#### Components

[TLabelShell](#), [TReportShell](#)

#### Description

This event is called before a shell report.

### 8.2.25 OnReportFooter

#### Declaration

```
procedure OnReportFooter: TReportEvent;
```

#### Default

nil

#### Category

[Shell](#)

#### Components

[TReportShell](#)

#### Description

This is where you put the output that goes into the report footer.

#### See also

[PrintReportFooter](#), [PrintReportHeader](#), [SectionReportFooter](#), [SectionReportHeader](#)

### 8.2.26 OnReportHeader

#### Declaration

```
procedure OnReportHeader: TReportEvent;
```

#### Default

nil

**Category**[Shell](#)**Components**[TReportShell](#)**Description**

This is where you put the output that goes into the report header.

**See also**[PrintReportFooter](#), [PrintReportHeader](#), [SectionReportFooter](#), [SectionReportHeader](#)**8.2.27 OnRowAfter****Declaration**

```
procedure OnRowAfter: TReportValidEvent;
```

**Default**

nil

**Category**[Shell](#)**Components**[TDetailShell](#), [TMasterShell](#), [TReportShell](#)**Description**

This event is where you de-initialize output that goes into a row. A value of false for Valid results in no more rows being assumed.

**See also**[PrintRow](#), [SectionRow](#)**8.2.28 OnRowBefore****Declaration**

```
procedure OnRowBefore: TReportValidEvent;
```

**Default**

nil

**Category**[Shell](#)**Components**[TDetailShell](#), [TMasterShell](#), [TReportShell](#)**Description**

This event is where you initialize output that goes into a row. A value of false for Valid results in no more rows being assumed.

**See also**[PrintRow](#), [SectionRow](#)**8.2.29 OnRowPrint****Declaration**

```
procedure OnRowPrint: TReportValidEvent;
```

**Default**

nil

**Category**[Shell](#)**Components**[TDetailShell](#), [TMasterShell](#), [TReportShell](#)**Description**

This event is where you put the output that goes into a row. A value of false for Valid results in no more rows being assumed.

**See also**[PrintRow](#), [SectionRow](#)



## 8.3 Methods

This will be a list of all archived methods (those only available in the BEX version).

### 8.3.1 Default

#### Declaration

```
procedure Default(var Valid: Boolean);
```

#### Category

[TablePrinter](#)

#### Components

TTablePrinter, TDbTablePrinter

#### Description

This method will call the original code that would have executed if the *OnGetNextRow*, *OnInitMaster*, *OnInitTable* and *OnValidateRow* events are not overridden.

#### See also

*OnGetNextRow*, *OnInitMaster*, *OnInitTable*, [OnValidateRow](#)

### 8.3.2 PrintBodyFooter

#### Declaration

```
procedure PrintBodyFooter;
```

#### Category

[Shell](#)

#### Components

[TDetailShell](#), [TMasterShell](#), [TReportShell](#)

#### Description

This method will reprint the body footer by calling [OnBodyFooter](#) events with [IsReprint](#) set to true.

#### See also

[OnBodyFooter](#), [OnBodyHeader](#)

#### Example (Delphi)

```
MasterShell1.PrintBodyFooter;
```

#### Example (C++ Builder)

```
MasterShell1->PrintBodyFooter();
```

### 8.3.3 PrintBodyHeader

#### Declaration

```
procedure PrintBodyHeader;
```

#### Category

[Shell](#)

#### Components

[TDetailShell](#), [TMasterShell](#), [TReportShell](#)

#### Description

This method will reprint the body header by calling [OnBodyHeader](#) events with [IsReprint](#) set to true.

#### See also

[OnBodyFooter](#), [OnBodyHeader](#)

**Example (Delphi)**

```
MasterShell1.PrintBodyHeader;
```

**Example (C++ Builder)**

```
MasterShell1->PrintBodyHeader();
```

### 8.3.4 PrintDetail

**Declaration**

```
procedure PrintDetail;
```

**Category**

[Shell](#)

**Components**

[TMasterShell](#), [TReportShell](#)

**Description**

This method will reprint the detail section of the group by calling [OnDetailBefore](#), DetailReport.Execute and then [OnDetailAfter](#) with [IsReprint](#) set to true.

**See also**

[DetailReport](#), [OnDetailAfter](#), [OnDetailBefore](#)

**Example (Delphi)**

```
ReportShell1.PrintDetail;
```

**Example (C++ Builder)**

```
ReportShell1->PrintDetail();
```

### 8.3.5 PrintGroupFooter

**Declaration**

```
procedure PrintGroupFooter;
```

**Category**

[Shell](#)

**Components**

[TMasterShell](#), [TReportShell](#)

**Description**

This method will reprint the group footer by calling the [OnGroupFooter](#) events with [IsReprint](#) set to true.

**See also**

[OnGroupFooter](#), [OnGroupHeader](#)

**Example (Delphi)**

```
MasterShell1.PrintGroupFooter;
```

**Example (C++ Builder)**

```
MasterShell1->PrintGroupFooter();
```

### 8.3.6 PrintGroupHeader

**Declaration**

```
procedure PrintGroupHeader;
```

**Category**

[Shell](#)

**Components**

[TMasterShell](#), [TReportShell](#)

### Description

This method will reprint the group header by calling the [OnGroupHeader](#) event with [IsReprint](#) set to true.

### See also

[OnGroupFooter](#), [OnGroupHeader](#)

### Example (Delphi)

```
MasterShell1.PrintGroupHeader;
```

### Example (C++ Builder)

```
MasterShell1->PrintGroupHeader();
```

## 8.3.7 PrintPageFooter

### Declaration

```
procedure PrintPageFooter;
```

### Category

[Shell](#)

### Components

[TReportShell](#)

### Description

This method will reprint the page footer by calling the [OnPageFooter](#) event with [IsReprint](#) set to true..

### See also

[OnPageFooter](#), [OnPageHeader](#)

### Example (Delphi)

```
ReportShell1.PrintPageFooter;
```

### Example (C++ Builder)

```
ReportShell1->PrintPageFooter();
```

## 8.3.8 PrintPageHeader

### Declaration

```
procedure PrintPageHeader;
```

### Category

[Shell](#)

### Components

[TReportShell](#)

### Description

This method will reprint the page header by calling the [OnPageHeader](#) event with [IsReprint](#) set to true..

### See also

[OnPageFooter](#), [OnPageHeader](#)

### Example (Delphi)

```
ReportShell1.PrintPageHeader;
```

### Example (C++ Builder)

```
ReportShell1->PrintPageHeader();
```

## 8.3.9 PrintReportFooter

### Declaration

```
procedure PrintReportFooter;
```

**Category**[Shell](#)**Components**[TReportShell](#)**Description**

This method will reprint the report footer by calling the [OnReportFooter](#) event with [IsReprint](#) set to true..

**See also**[OnReportFooter](#), [OnReportHeader](#)**Example (Delphi)**

```
ReportShell1.PrintReportFooter;
```

**Example (C++ Builder)**

```
ReportShell1->PrintReportFooter();
```

### 8.3.10 PrintReportHeader

**Declaration**

```
procedure PrintReportHeader;
```

**Category**[Shell](#)**Components**[TReportShell](#)**Description**

This method will reprint the report header by calling the [OnReportHeader](#) event with [IsReprint](#) set to true..

**See also**[OnReportFooter](#), [OnReportHeader](#)**Example (Delphi)**

```
ReportShell1.PrintReportHeader;
```

**Example (C++ Builder)**

```
ReportShell1->PrintReportHeader();
```

### 8.3.11 PrintRow

**Declaration**

```
procedure PrintRow;
```

**Category**[Shell](#)**Components**[TDetailShell](#), [TMasterShell](#), [TReportShell](#)**Description**

This method will reprint the row section of the group by calling [OnRowBefore](#) and [OnRowPrint](#).

**See also**[OnRowAfter](#), [OnRowBefore](#), [OnRowPrint](#)**Example (Delphi)**

```
DetailShell1.PrintRow;
```



#### Example (C++ Builder)

```
DetailShell1->PrintRow();
```

### 8.3.12 SetupSection

#### Declaration

```
function SetupSection(BaseReport: TBaseReport): Boolean;
```

#### Category

[ReportSection](#)

#### Components

TReportSection

#### Description

This method will adjust the section to match the settings defined. If there is not enough height available for the section then a new page will be generated. The tabs and font will also be initialized if TabIndex or FontIndex are non-zero. This method is called automatically by the shell and table printer components.

#### See also

[Enabled](#)

#### Example (Delphi)

```
ReportSection.SetupSection(Sender as TBaseReport);
```

#### Example (C++ Builder)

```
ReportSection->SetupSection( dynamic_cast<TBaseReport*>(Sender));
```

## 8.4 Properties

This will be a list of all archived properties (those only available in the BEX version).

### 8.4.1 AsFloat

#### Declaration

```
property AsFloat: Double;
```

#### Default

0.0

#### Category

[TablePrinter](#)

#### Components

TDbTableColumn, TTableColumn

#### Description

Returns or sets the current contents of a table column as a floating point value. If the contents can not be converted to a floating point value, 0.0 will be returned.

#### See also

[AsInteger](#)

#### Example (Delphi)

```
WITH TableColumn do begin
  PageTotal := PageTotal + AsFloat;
end; { with }
```

#### Example (C++Builder)

```
TableColumn->PageTotal := TableColumn->PageTotal + TableColumn->AsFloat;
```

### 8.4.2 AsInteger

**Declaration**

```
property AsInteger: Integer;
```

**Default**

0

**Category**

[TablePrinter](#)

**Components**

TDbTableColumn, TTableColumn

**Description**

Returns or sets the current contents of a table column as an integer value. If the contents can not be converted to an integer value, 0 will be returned.

**See also**

[AsFloat](#)

**Example (Delphi)**

```
WITH TableColumn do begin
  GrandTotal := GrandTotal + AsInteger;
end; { with }
```

**Example (C++Builder)**

```
TableColumn->GrandTotal := TableColumn->GrandTotal + TableColumn->AsInteger;
```

### 8.4.3 Border

**Declaration**

```
property Border: Double;
```

**Default**

0.0

**Category**

[Label](#)

**Components**

[TLabelShell](#)

**Description**

This property defines the border, in units, around the edges of each label that the section will be initialized to before entering the OnLabelPrint event.

**See also**

[SectionBottom](#), [SectionLeft](#), [SectionRight](#), [SectionTop](#)

**Example (Delphi)**

```
// Make sure there is a 0.1" border around the label
LabelShell1.Border := 0.1;
```

**Example (C++Builder)**

```
LabelShell1->Border = 0.1;
```

### 8.4.4 Bottom

**Declaration**

```
property Bottom: double;
```

## Default

0.0

## Category

[ReportSection](#)

## Description

This property defines the placement for the bottom of the section. All values are in units and are relative to a specific position on the page, such as the page or margin edge, which is defined by the relative *XxxxMethod* property (such as *LeftMethod*).

## See also

[Left](#), [Right](#), [Top](#), [BottomMethod](#)

## Example (Delphi)

```
ReportSection.Bottom := 0.5;
```

## Example (C++Builder)

```
ReportSection->Bottom := 0.5;
```

## 8.4.5 BottomMethod

### Declaration

property BottomMethod: TDistanceMethod;

### Default

dmMargin (except TopMethod is dmSpecial)

### Category

[ReportSection](#)

### Description

These properties will define where each side of the section will be measured.

<i>dmPage</i>	will measure from the closest page edge
<i>dmMargin</i>	will measure from the closest margin edge
<i>dmSpecial</i>	for the <i>SectionTop</i> will measure from the current cursor position
<i>dmSpecial</i>	for <i>SectionRight</i> and <i>SectionBottom</i> will measure from the left and top section positions respectively.

### See also

[Left](#), [LeftMethod](#), [RightMethod](#), [TopMethod](#)

### Example (Delphi)

```
ReportSection.LeftMethod := pjMargin;
```

### Example (C++Builder)

```
ReportSection->LeftMethod = pjMargin;
```

## 8.4.6 BoxLines

### Declaration

property BoxLines: TBoxLines;

### Default

blAll

### Category

[TablePrinter](#)

### Components

TDbTableColumn, TTableColumn, TTableSection

**Description**

This property returns or sets the row box settings for each table column or table section component. These constants are listed below

blAll	Lines drawn on all sides
blNone	No lines drawn
blBottom	Line drawn on bottom only
blLeft	Line drawn on left side only
blLeftBottom	and bottom
blLeftRight	and right
blLeftTop	and top
blRight	Line drawn on right side only
blRightBottom	and bottom
blRightTop	and top
blTop	Line drawn on top only
blTopBottom	Lines drawn on top and bottom
blNoTop	All lines except indicated are drawn
blNoBottom	
blNoLeft	
blNoRight	

**See also**

[TBoxLines](#)

**Example (Delphi)**

```
With TableColumn do begin
  BoxLines := blNoLeft;
end; { with }
```

**Example (C++Builder)**

```
TableColumn->BoxLines = blNoLeft;
```

**8.4.7 Col****Declaration**

```
property Col: integer;
```

**Default**

none

**Category**

[Label](#)

**Components**

[TLabelShell](#)

**Description**

This property will return the current label column that is being printed. This property will only return valid values while the TLabelShell component is executing..

**See also**

[Row](#)

**Example (Delphi)**

```
Print('On Column ' + IntToStr(Col));
```

**Example (C++Builder)**

```
rp1->Print("On Column " + IntToStr(Col));
```

**8.4.8 Description****Declaration**

```
property Description: TComponentName;
```

#### Default

none

#### Category

[TablePrinter](#)

#### Components

TDbTableColumn, TTableColumn, TTableSection

#### Description

This property returns or sets the description of a table section or table column component. This property is normally only used at design time to identify an item.

#### See also

[PrintDetail](#)

#### Example (Delphi)

```
Description := 'Customer Name';
```

#### Example (C++Builder)

```
Description = 'Customer Name';
```

### 8.4.9 DetailReport

#### Declaration

```
property DetailReport: TDetailShell;
```

#### Default

nil

#### Category

[Shell](#)

#### Components

[TMasterShell](#), [TReportShell](#)

#### Description

This property defines the shell component that will be called to print the detail section of the report. *TReportShell* components cannot be used as a detail report of another shell component. The *Execute* method of *DetailReport* will be called between the *OnDetailBefore* and *OnDetailAfter* events.

#### See also

[PrintDetail](#)

#### Example (Delphi)

```
MasterShell1.DetailReport := DetailShell1;
```

#### Example (C++Builder)

```
MasterShell1->DetailReport = DetailShell1;
```

### 8.4.10 DetailTablePrinter

#### Declaration

```
property DetailTablePrinter: TBaseShell;
```

#### Default

nil

#### Category

[TablePrinter](#)

**Components**

TDbTablePrinter, TTablePrinter

**Description**

This property defines the table printer component that will be called to print the detail section.

**See also**

[PrintDetail](#)

**Example (Delphi)**

```
DBTablePrinter1.DetailTablePrinter := DBTablePrinter2;
```

**Example (C++Builder)**

```
DBTablePrinter1->DetailTablePrinter = DBTablePrinter2;
```

## 8.4.11 DisplayFormat

**Declaration**

```
property DisplayFormat: string;
```

**Default**

(empty)

**Category**

[TablePrinter](#)

**Components**

TDbTableColumn, TTableColumn

**Description**

This property defines the formatting string that will be used when converting numeric or date/time data to text. If this property is blank then default formatting will occur.

**See also**

*FormatFloat, FormatDateTime*

## 8.4.12 DrawExtents

**Declaration**

```
property DrawExtents: Boolean;
```

**Default**

false

**Category**

[Label](#)

**Components**

[TLabelShell](#)

**Description**

This property determines whether the sides of the label are drawn. This can be useful for determining the placement of text without having to actually print on labels.

**See also**

[DrawPen](#), [DrawPreviewOnly](#)

**Example (Delphi)**

```
LabelShell1.DrawExtents := true;
```

#### Example (C++Builder)

```
LabelShell1->DrawExtents = true;
```

### 8.4.13 DrawPen

#### Declaration

```
property DrawPen: TPen;
```

#### Default

stock pen

#### Category

[Label](#)

#### Components

[TLabelShell](#)

#### Description

This property defines the pen used to draw the sides of the label.

#### See also

[DrawExtents](#), [DrawPreviewOnly](#), [TPen](#)

#### Example (Delphi)

```
LabelShell1.DrawPen.Color := clBlue;
```

#### Example (C++Builder)

```
LabelShell1->DrawPen->Color = clBlue;
```

### 8.4.14 DrawPreviewOnly

#### Declaration

```
property DrawPreviewOnly: Boolean;
```

#### Default

true

#### Category

[Label](#)

#### Components

[TLabelShell](#)

#### Description

This property will determine whether the label sides drawn by *DrawPen* appear in the print preview screen only or on both the printer and preview screen.

#### See also

[DrawExtents](#), [DrawPen](#)

#### Example (Delphi)

```
LabelShell1.DrawPreviewOnly := false;
```

#### Example (C++Builder)

```
LabelShell1->DrawPreviewOnly = false;
```

### 8.4.15 Enabled

#### Declaration

```
property Enabled: Boolean;
```

#### Default

true

**Category**[ReportSection](#)**Components**

TReportSection

**Description**

This property will enable or disable the section settings during a call to SetupSection. If this property is set to false then no settings for the section will be used.

**See also**[SetupSection](#)**Example (Delphi)**

```
ReportSection.Enabled := false;
```

**Example (C++Builder)**

```
ReportSection->Enabled = false;
```

### 8.4.16 Font

**Declaration**

```
property Font: TFont;
```

**Default**

System font

**Category**[TablePrinter](#)**Components**

TDbTableColumn, TTableColumn, TTablePrinter, TTableSection

**Description**

This property defines or returns the font that will be used to draw the contents of a table section or table column.

**See also***Other FontXxxx properties***Example (Delphi)**

```
TableColumn.Font.Color := clRed;
```

**Example (C++Builder)**

```
TableColumn->Font->Color = clRed;
```

### 8.4.17 FontIndex

**Declaration**

```
property FontIndex: integer;
```

**Default**

0

**Category**[ReportSection](#)**Components**

TReportSection



### Description

This property defines the saved font position that will be initialized during a call to SetupSection. A value of 0 will not cause any font settings to be changed.

### See also

*SaveFont*

### Example (Delphi)

```
// Use the font settings save in position 1
FontIndex := 1;
```

### Example (C++Builder)

```
ReportShell1->SectionGroupFooter->FontIndex = 1;
```

## 8.4.18 Height

### Declaration

```
property Height: double;
```

### Default

0.0

### Category

[ReportSection](#)

### Components

TReportSection

### Description

This property defines the minimum height for a section. If the value is 0 then no minimum height will be required. If the value is greater than zero and there is not enough room in the section a new page will be generated.

### See also

[HeightMethod](#), [Reprint](#)

### Example (Delphi)

```
ReportSection.HeightMethod := hmUnits;
ReportSection.Height := 0.5;
```

### Example (C++Builder)

```
ReportSection->HeightMethod = hmUnits;
ReportSection->Height = 0.5;
```

## 8.4.19 HeightMethod

### Declaration

```
property HeightMethod: THeightMethod;
```

### Default

hmLines

### Category

[ReportSection](#)

### Components

TReportSection

### Description

This property defines the units that Height is measured in. hmUnits will define the height in terms of units while hmLines will define the height in terms of a number of lines (defined by LineHeight).

**See also**[Height](#)**Example**see [Height](#) (ReportSection)**8.4.20 IsNewPage****Declaration**

```
property IsNewPage: Boolean;
```

**Category**[Shell](#)**Components**[TDetailShell](#), [TMasterShell](#), [TReportShell](#)**Description**

This property will be true immediately after a new page is generated and will remain true until after the first row is printed. This can be useful for determining if a title bar for a table needs to be printed.

**See also**[PrintDetail](#)**Example (Delphi)**

```
IF IsNewPage then begin
    ReprintTitleBar;
end; { if }
PrintNormalData;
```

**Example (C++Builder)**

```
if (ReportShell->IsNewPage) {
    ReprintTitleBar();
} // if
PrintNormalData();
```

**8.4.21 IsReprint****Declaration**

```
property IsReprint: Boolean;
```

**Category**[Shell](#)**Components**[TDetailShell](#), [TMasterShell](#), [TReportShell](#)**Description**

This property will be true inside the printing events if they were called to print again. This can happen as a result of the Reprint property or by a call to any of the Shell PrintXxxx methods (such as PrintBodyHeader).

**See also**[Reprint](#), *all Shell PrintXxxx methods***Example (Delphi)**

```
RvRenderPrinter.Print('Normal Data');
IF IsReprint then begin
    ReportPrinter.Print(' - continued...');
end; { if }
ReportPrinter.NewLine;
```

#### **Example (C++Builder)**

```
RvRenderPrinter->Print("Normal Data");
if (ReportShell->IsReprint) {
    RvRenderPrinter->Print(" - continued...");
} // if
RvRenderPrinter->NewLine();
```

### **8.4.22 LabelBrand**

#### **Declaration**

```
property LabelBrand: TLabelBrand;
```

#### **Default**

```
lbAV5160
```

#### **Category**

[Label](#)

#### **Components**

[TLabelShell](#)

#### **Description**

This property can be used to define the brand of labels that you are using. There are many model numbers for the Avery© label line already supported or you can type in your own selections using the lbCustom value.

#### **See also**

[CPI](#), [NewLine](#)

#### **Example (Delphi)**

```
LabelShell1.LabelBrand := lbAV5267;
```

#### **Example (C++Builder)**

```
LabelShell1->LabelBrand = lbAV5267;
```

### **8.4.23 LabelHeight**

#### **Declaration**

```
property LabelHeight: double;
```

#### **Default**

```
1.0
```

#### **Category**

[Label](#)

#### **Components**

[TLabelShell](#)

#### **Description**

This property defines the height of the label in units.

#### **See also**

[LabelWidth](#), [NumAcross](#), [NumDown](#)

#### **Example (Delphi)**

```
LabelShell1.LabelHeight := 0.75;
```

#### **Example (C++Builder)**

```
LabelShell1->LabelHeight = 0.75;
```

### 8.4.24 LabelShape

**Declaration**

```
property LabelShape: TLabelShape;
```

**Default**

IsRoundRect

**Category**

[Label](#)

**Components**

[TLabelShell](#)

**Description**

Specifies the shape of the label that appears in the preview screen.

IsRect                represents a rectangle with square corners

IsRound              represents an elliptical or circular shape

IsRoundRect         represents a rectangle with the corners rounder off

### 8.4.25 LabelWidth

**Declaration**

```
property LabelWidth: double;
```

**Default**

2.63

**Category**

[Label](#)

**Components**

[TLabelShell](#)

**Description**

This property defines the width of the label in units.

**See also**

[LabelHeight](#), [NumAcross](#), [NumDown](#)

**Example (Delphi)**

```
LabelShell1.LabelWidth := 2.5;
```

**Example (C++Builder)**

```
LabelShell1->LabelWidth = 2.5;
```

### 8.4.26 Left

**Declaration**

```
property Left: double;
```

**Default**

0.0

**Category**

[ReportSection](#)

**Components**

TReportSection

### Description

These properties define the placement for each side of the section. All values are in units and are relative to a specific position on the page, such as the page or margin edge, which is defined by the relative `XxxxxMethod` property (such as `LeftMethod`).

### See also

[BottomMethod](#), [LeftMethod](#), [RightMethod](#), [TopMethod](#)

### Example (Delphi)

```
ReportSection.Bottom := 0.5;
```

### Example (C++Builder)

```
ReportSection->Bottom = 0.5;
```

## 8.4.27 LeftMethod

### Declaration

```
property LeftMethod: TDistanceMethod;
```

### Default

`dmMargin` (except `TopMethod` is `dmSpecial`)

### Category

[ReportSection](#)

### Description

This property defines where the left side of the section will be measured.

<i>dmPage</i>	will measure from the closest page edge
<i>dmMargin</i>	will measure from the closest margin edge
<i>dmSpecial</i>	for the <i>SectionTop</i> will measure from the current cursor position
<i>dmSpecial</i>	for <i>SectionRight</i> and <i>SectionBottom</i> will measure from the left and top section positions respectively.

### See also

[BottomMethod](#), [Left](#), [RightMethod](#), [TopMethod](#)

### Example (Delphi)

```
ReportSection.LeftMethod := pjMargin;
```

### Example (C++Builder)

```
ReportSection->LeftMethod = pjMargin;
```

## 8.4.28 MinHeight

### Declaration

```
property MinHeight: double;
```

### Default

0.0

### Category

[ReportSection](#)

### Components

`TReportSection`

### Description

This property defines the minimum height for a section. If the value is 0 then no minimum height will be required. If the value is greater than zero and there is not enough room in the section a new page will be generated.

**See also**[HeightMethod](#), [Reprint](#)**Example (Delphi)**

```
ReportSection.HeightMethod := hmUnits;  
ReportSection.MinHeight := 0.5;
```

**Example (C++Builder)**

```
ReportSection->HeightMethod = hmUnits;  
ReportSection->MinHeight = 0.5;
```

## 8.4.29 NumAcross

**Declaration**

```
property NumAcross: integer;
```

**Default**

3

**Category**[Label](#)**Components**[TLabelShell](#)**Description**

This property defines the number of labels across each page.

**See also**[LabelHeight](#), [LabelWidth](#), [NumDown](#)**Example (Delphi)**

```
LabelShell1.NumAcross := 2;
```

**Example (C++Builder)**

```
LabelShell1->NumAcross = 2;
```

## 8.4.30 NumDown

**Declaration**

```
property NumDown: integer;
```

**Default**

10

**Category**[Label](#)**Components**[TLabelShell](#)**Description**

This property defines the number of labels down each page.

**See also**[LabelHeight](#), [LabelWidth](#), [NumAcross](#)**Example (Delphi)**

```
LabelShell1.NumDown := 7;
```

**Example (C++Builder)**

```
LabelShell1->NumDown = 7;
```

### 8.4.31 PrintByRow

#### Declaration

```
property PrintByRow: Boolean;
```

#### Default

true

#### Category

[Label](#)

#### Components

[TLabelShell](#)

#### Description

This property determines whether the TLabelShell component processes the labels of the page by rows or columns. If PrintByRow is true then all labels on the top row would be printed first. If PrintByRow is false then all labels on the left column would be printed first.

#### See also

[Col](#), [Row](#)

#### Example (Delphi)

```
LabelShell1.PrintByRow := false;
```

#### Example (C++Builder)

```
LabelShell1->PrintByRow = false;
```

### 8.4.32 Reprint

#### Declaration

```
property Reprint: Boolean;
```

#### Default

false

#### Category

[Shell](#)

#### Components

[TMasterShell](#), [TReportShell](#)

#### Description

This property defines whether the current row will be called to reprint if the detail section wraps to a second page. This can be useful to reprint the master record for detail records on another page.

#### See also

[IsReprint](#)

#### Example (Delphi)

```
MasterShell1.Reprint := true;
```

#### Example (C++Builder)

```
MasterShell1->Reprint = true;
```

### 8.4.33 Right

#### Declaration

```
property Right: double;
```

#### Default

0.0

**Category**[ReportSection](#)**Components**

TReportSection

**Description**

These properties define the placement for each side of the section. All values are in units and are relative to a specific position on the page, such as the page or margin edge, which is defined by the relative *XxxxxMethod* property (such as *LeftMethod*).

**See also**[BottomMethod](#), [LeftMethod](#), [RightMethod](#), [TopMethod](#)**Example (Delphi)**

```
ReportSection.Bottom := 0.5;
```

**Example (C++Builder)**

```
ReportSection->Bottom = 0.5;
```

**8.4.34 RightMethod****Declaration**

```
property RightMethod: TDistanceMethod;
```

**Default**dmMargin (except *TopMethod* is *dmSpecial*)**Category**[ReportSection](#)**Description**

This property defines where the left side of the section will be measured.

<i>dmPage</i>	will measure from the closest page edge
<i>dmMargin</i>	will measure from the closest margin edge
<i>dmSpecial</i>	for the <i>SectionTop</i> will measure from the current cursor position
<i>dmSpecial</i>	for <i>SectionRight</i> and <i>SectionBottom</i> will measure from the left and top section positions respectively.

**See also**[BottomMethod](#), [Left](#), [LeftMethod](#), [TopMethod](#)**Example (Delphi)**

```
ReportSection.LeftMethod := pjMargin;
```

**Example (C++Builder)**

```
ReportSection->LeftMethod = pjMargin;
```

**8.4.35 Row****Declaration**

```
property Row: Boolean;
```

**Default**

(current row of the label being printed)

**Category**[Label](#)**Components**[TLabelShell](#)



#### Description

This property will return the current row of the label being printed.

#### See also

[Col](#)

### 8.4.36 SectionBodyFooter

#### Declaration

```
property SectionBodyFooter: TReportSection;
```

#### Default

Standard section values

#### Category

[Shell](#)

#### Components

[TMasterShell](#), [TReportShell](#)

#### Description

Brings up the section editor, which you can use to define the section settings for the body footer.

#### See also

[OnBodyFooter](#), [OnBodyHeader](#)

#### Example (Delphi)

```
SectionBodyFooter.Lines := 1;
```

#### Example (C++Builder)

```
SectionBodyFooter->Lines = 1;
```

### 8.4.37 SectionBodyHeader

#### Declaration

```
property SectionBodyHeader: TReportSection;
```

#### Default

Standard section values

#### Category

[Shell](#)

#### Components

[TMasterShell](#), [TReportShell](#)

#### Description

Brings up the section editor, which you can use to define the section settings for the body header.

#### See also

[OnBodyFooter](#), [OnBodyHeader](#)

#### Example (Delphi)

```
SectionBodyHeader.Lines := 1;
```

#### Example (C++Builder)

```
SectionBodyHeader->Lines = 1;
```

### 8.4.38 SectionGroupFooter

#### Declaration

```
property SectionGroupFooter: TReportSection;
```

**Default**

Standard section values

**Category**

[Shell](#)

**Components**

[TMasterShell](#), [TReportShell](#)

**Description**

Brings up the section editor, which you can use to define the section settings for the group footer.

**See also**

[OnGroupFooter](#), [OnGroupHeader](#)

**Example (Delphi)**

```
SectionGroupFooter.FontIndex := 4;
```

**Example (C++Builder)**

```
SectionGroupFooter->FontIndex = 4;
```

### 8.4.39 SectionGroupHeader

**Declaration**

```
property SectionGroupHeader: TReportSection;
```

**Default**

Standard section values

**Category**

[Shell](#)

**Components**

[TMasterShell](#), [TReportShell](#)

**Description**

Brings up the section editor, which you can use to define the section settings for the group header.

**See also**

[OnGroupFooter](#), [OnGroupHeader](#)

**Example (Delphi)**

```
SectionGroupHeader.FontIndex := 5;
```

**Example (C++Builder)**

```
SectionGroupHeader->FontIndex = 5;
```

### 8.4.40 SectionPageFooter

**Declaration**

```
property SectionPageFooter: TReportSection;
```

**Default**

Standard section values

**Category**

[Shell](#)

**Components**

[TReportShell](#)

### Description

Brings up the section editor, which you can use to define the section settings for the page footer.

### See also

[OnPageFooter](#), [OnPageHeader](#)

### Example (Delphi)

```
SectionPageFooter.BottomMethod := dmPage;
SectionPageFooter.Bottom := 0.25;
```

### Example (C++Builder)

```
SectionPageFooter->BottomMethod = dmPage;
SectionPageFooter->Bottom = 0.25;
```

## 8.4.41 SectionPageHeader

### Declaration

```
property SectionPageHeader: TReportSection;
```

### Default

Standard section values

### Category

[Shell](#)

### Components

[TReportShell](#)

### Description

Brings up the section editor, which you can use to define the section settings for the page header.

### See also

[OnPageFooter](#), [OnPageHeader](#)

### Example (Delphi)

```
SectionPageHeader.TopMethod := dmPage;
SectionPageHeader.Top := 0.25;
```

### Example (C++Builder)

```
SectionPageHeader->TopMethod = dmPage;
SectionPageHeader->Top = 0.25;
```

## 8.4.42 SectionReportFooter

### Declaration

```
property SectionReportFooter: TReportSection;
```

### Default

Standard section values

### Category

[Shell](#)

### Components

[TReportShell](#)

### Description

Brings up the section editor, which you can use to define the section settings for the report footer.

### See also

[OnReportFooter](#), [OnReportHeader](#)

**Example (Delphi)**

```
SectionReportHeader.TopMethod := dmMargin;  
SectionReportHeader.Top := 0.25;
```

**Example (C++Builder)**

```
SectionReportHeader->TopMethod = dmMargin;  
SectionReportHeader->Top = 0.25;
```

### 8.4.43 SectionReportHeader

**Declaration**

```
property SectionReportHeader: TReportSection;
```

**Default**

Standard section values

**Category**

[Shell](#)

**Components**

[TReportShell](#)

**Description**

Brings up the section editor, which you can use to define the section settings for the report header.

**See also**

[OnReportFooter](#), [OnReportHeader](#)

**Example (Delphi)**

```
SectionReportHeader.TopMethod := dmMargin;  
SectionReportHeader.Top := 0.25;
```

**Example (C++Builder)**

```
SectionReportHeader->TopMethod = dmMargin;  
SectionReportHeader->Top = 0.25;
```

### 8.4.44 SectionRow

**Declaration**

```
property SectionRow: TReportSection;
```

**Default**

Standard section values

**Category**

[Shell](#)

**Components**

[TDetailShell](#), [TMasterShell](#), [TReportShell](#)

**Description**

Brings up the section editor, which you can use to define the section settings for each row.

**See also**

[OnRowPrint](#)

**Example (Delphi)**

```
SectionRow.TabIndex := 2;
```

**Example (C++Builder)**

```
SectionRow->TabIndex = 2;
```

### 8.4.45 SkipNum

**Declaration**

```
property SkipNum: integer;
```

**Default**

0

**Category**

[Label](#)

**Components**

[TLabelShell](#)

**Description**

When SkipNum is set to a non-zero value, then TLabelShell will skip that many labels before it start printing. This can be useful if you want to prompt your users for the number of labels that have already been printed on the first sheet. This will automatically be reset to 0 after the label report has been executed.

**See also**

[StartCol](#), [StartRow](#)

**Example (Delphi)**

```
DbTablePrinter2.SkipNum := 7;
```

**Example (C++ Builder)**

```
DbTablePrinter2->SkipNum = 7;
```

### 8.4.46 SpacingHeight

**Declaration**

```
property SpacingHeight: double;
```

**Default**

1.0

**Category**

[Label](#)

**Components**

[TLabelShell](#)

**Description**

This property returns or sets the label height plus the vertical spacing between two adjacent labels.

**See also**

[SpacingLeft](#), [SpacingTop](#), [SpacingWidth](#)

**Example (Delphi)**

```
LabelShell11.SpacingHeight := 1.2;
```

**Example (C++Builder)**

```
LabelShell11->SpacingHeight = 1.2;
```

### 8.4.47 SpacingLeft

**Declaration**

```
property SpacingLeft: double;
```

**Default**

0.19

**Category**[Label](#)**Components**[TLabelShell](#)**Description**

This property returns or sets the spacing between the left side of the label and the left margin.

**See also**[SpacingHeight](#), [SpacingTop](#), [SpacingWidth](#)**Example (Delphi)**

```
LabelShell1.SpacingLeft := 0.21;
```

**Example (C++Builder)**

```
LabelShell1->SpacingLeft = 0.21;
```

## 8.4.48 SpacingTop

**Declaration**

```
property SpacingTop: double;
```

**Default**

0.5

**Category**[Label](#)**Components**[TLabelShell](#)**Description**

This property returns or sets the spacing between the top of the label and the top margin.

**See also**[SpacingHeight](#), [SpacingLeft](#), [SpacingWidth](#)**Example (Delphi)**

```
LabelShell1.SpacingTop := 0.75;
```

**Example (C++Builder)**

```
LabelShell1->SpacingTop = 0.75;
```

## 8.4.49 SpacingWidth

**Declaration**

```
property SpacingWidth: double;
```

**Default**

2.75

**Category**[Label](#)**Components**[TLabelShell](#)

### Description

This property returns or sets the label width plus the horizontal spacing between two adjacent labels.

### See also

[SpacingHeight](#), [SpacingLeft](#), [SpacingTop](#), [TextWidth](#)

### Example (Delphi)

```
LabelShell1.SpacingWidth := 3.00;
```

### Example (C++Builder)

```
LabelShell1->SpacingWidth = 3.00;
```

## 8.4.50 StartCol

### Declaration

```
property StartCol: integer;
```

### Default

0

### Category

[Label](#)

### Components

[TLabelShell](#)

### Description

Use both StartCol and StartRow to instruct TLabelShell to start printing at a particular row and column. This will automatically be reset to 0 after the label report has been executed.

### See also

[SkipNum](#), [StartRow](#)

### Example (Delphi)

```
DbTablePrinter2.StartCol := 1;
DbTablePrinter2.StartRow := 2;
```

### Example (C++Builder)

```
DbTablePrinter2->StartCol = 1;
DbTablePrinter2->StartRow = 2;
```

## 8.4.51 StartNewPage

### Declaration

```
property StartNewPage: Boolean;
```

### Default

false

### Category

[Shell](#)

### Components

[TDetailShell](#), [TMasterShell](#), [TReportShell](#)

### Description

This property, if true, will force a page break before each new group prints. This can be useful for forms that contain one record per page.

### See also

[NewPage](#)

**Example (Delphi)**

```
ReportShell1.StartNewPage := true;
```

**Example (C++Builder)**

```
ReportShell1->StartNewPage = true;
```

## 8.4.52 StartRow

**Declaration**

```
property StartRow: integer;
```

**Default**

0

**Category**

[Label](#)

**Components**

[TLabelShell](#)

**Description**

Use both StartCol and StartRow to instruct TLabelShell to start printing at a particular row and column. This will automatically be reset to 0 after the label report has been executed.

**See also**

[SkipNum](#), [StartCol](#)

**Example (Delphi)**

```
DbTablePrinter2.StartCol := 1;  
DbTablePrinter2.StartRow := 2;
```

**Example (C++Builder)**

```
DbTablePrinter2->StartCol = 1;  
DbTablePrinter2->StartRow = 2;
```

## 8.4.53 TabIndex

**Declaration**

```
property TabIndex: integer;
```

**Default**

0

**Category**

[ReportSection](#)

**Components**

TReportSection

**Description**

These properties defines the saved tabs position that will be initialized during a call to [SetupSection](#). A value of 0 will not cause any tab settings to be changed.

**See also**

*SaveTabs*

**Example (Delphi)**

```
TabIndex := 4; { Use the tab settings save in position 4 }
```

**Example (C++Builder)**

```
TabIndex = 4; // Use the tab settings save in position 4
```



## 8.4.54 Top

### Declaration

```
property Top: double;
```

### Default

```
0.0
```

### Category

[ReportSection](#)

### Components

TReportSection

### Description

These properties define the placement for each side of the section. All values are in units and are relative to a specific position on the page, such as the page or margin edge, which is defined by the relative *XxxxMethod* property (such as *LeftMethod*).

### See also

[BottomMethod](#), [LeftMethod](#), [RightMethod](#), [TopMethod](#)

### Example (Delphi)

```
ReportSection.Bottom := 0.5;
```

### Example (C++Builder)

```
ReportSection->Bottom = 0.5;
```

## 8.4.55 TopMethod

### Declaration

```
property TopMethod: TDistanceMethod;
```

### Default

```
dmSpecial
```

### Category

[ReportSection](#)

### Description

This property defines where the left side of the section will be measured.

<i>dmPage</i>	will measure from the closest page edge
<i>dmMargin</i>	will measure from the closest margin edge
<i>dmSpecial</i>	for the <i>SectionTop</i> will measure from the current cursor position
<i>dmSpecial</i>	for <i>SectionRight</i> and <i>SectionBottom</i> will measure from the left and top section positions respectively.

### See also

[BottomMethod](#), [Left](#), [LeftMethod](#), [RightMethod](#)

### Example (Delphi)

```
ReportSection.LeftMethod := pjMargin;
```

### Example (C++Builder)

```
ReportSection->LeftMethod = pjMargin;
```

## 8.4.56 Width

### Declaration

```
property Width: Double;
```

**Default**

1.0

**Category**[TablePrinter](#)**Components**

TDbTableColumn, TTableColumn, TTableSection

**Description**

This property defines the width, in units, of the table section or table column.

**See also***StartPos***Example (Delphi)**

```
TableColumn.Width := 2.5;
```

**Example (C++Builder)**

```
TableColumn->Width := 2.5;
```



## 8.5 Types

This will be a list of all archived Types (those only available in the BEX version).

### 8.5.1 TBoxLines

#### Declaration

```
TBoxLines = (blNone, blLeft, blRight, blLeftRight, blTop, blLeftTop,
             blRightTop, blNoBottom, blBottom, blLeftBottom, blRightBottom, blNoTop,
             blTopBottom, blNoRight, blNoLeft, blAll);
```

#### Category

[TablePrinter](#)

#### Description

blAll	Lines drawn on all sides
blNone	No lines drawn
blBottom	Line drawn on bottom only
blLeft	Line drawn on left side only
blLeftBottom	and bottom
blLeftRight	and right
blLeftTop	and top
blRight	Line drawn on right side only
blRightBottom	and bottom
blRightTop	and top
blTop	Line drawn on top only
blTopBottom	Lines drawn on top and bottom
blNoTop	All lines except indicated are drawn
blNoBottom	
blNoLeft	
blNoRight	

#### See also

[BoxLines](#)

#### Example

See [BoxLines](#)

### 8.5.2 TPrintJustifyVert

#### Declaration

```
TPrintJustifyVert = (pjTop, pjMiddle, pjBottom);
```

#### Category

[Printing](#)

#### Description

<i>pjTop</i>	Justify at the top of the row box
<i>pjMiddle</i>	Justify by the middle of the row box
<i>pjBottom</i>	Justify by the bottom of the row box

#### See also

[TBaseReport Class](#), [Justify](#), [PrintFooter](#), [PrintHeader](#), [SetTab](#)

#### Example

See [SetTab](#)

## 8.6 RpDev function

### Declaration

```
function RpDev: TRpDevice;
```

### Category

[Printer](#)

### Components

RpDevice unit

### Description

This function will return the current RpDevice object that is managing printing for Rave.

### See also

RpDevice.PAS (BEX only)

# By Category

Chapter

IX

## 9 By Category

This is a list of events (54), methods (204) and properties (120) by functional areas or groups.

<a href="#">BarCode</a> 35	<a href="#">Memo</a> 46	<a href="#">ReportSection</a> BEX 14
	<a href="#">Misc</a> 15	<a href="#">ReportSystem</a> 16
<a href="#">Column</a> 12		<a href="#">RTF</a> 4
<a href="#">Control</a> 41	<a href="#">Position</a> 44	
	<a href="#">Preview</a> 27	<a href="#">Shell</a> BEX 48
<a href="#">Font</a> 24	<a href="#">Printer</a> 46	
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<a href="#">Graphics</a> 40		<a href="#">Tabs</a> 21
	<a href="#">Rave</a> 68	
<a href="#">Label</a> BEX 23	<a href="#">Render</a> 26	<a href="#">Units</a> 15

### 9.1 Category BarCode

[BarBottom](#) property (read/write) double  
[BarCodeJustify](#) property (read/write)  
[BarCodeRotation](#) property (read/write)  
[BarHeight](#) property (read/write)  
[BarTop](#) property (read/write) double  
[BarWidth](#) property (read/write) double  
[BaseReport](#) property (read/write)  
[Bottom](#) property (read/write) double  
  
[Center](#) property (read/write) double  
[Checksum](#) property (read only) Boolean  
[CodePage](#) property (read/write)  
[Create](#) method  
  
[Extended](#) property (read/write) Boolean  
[ExtendedText](#) property (read only) string  
  
[Height](#) property (read only) double  
  
[IsValidChar](#) method Boolean  
  
[Left](#) property (read/write) double

[Position](#) property (read/write) double  
[Print](#) method  
[PrintChecksum](#) property (read/write) Boolean  
[PrintFimA](#) method  
[PrintFimB](#) method  
[PrintFimC](#) method  
[PrintJustify](#) property (read/write) Boolean  
[PrintReadable](#) property (read/write) Boolean  
[PrintTop](#) property (read/write) Boolean  
[PrintXY](#) method  
  
[ReadableHeight](#) property (read only) double  
[Right](#) property (read/write) double  
  
[Text](#) property (read/write) string  
[TextJustify](#) property (read/write)  
[Top](#) property (read/write) double  
  
[UseChecksum](#) property (read/write) Boolean  
  
[WideFactor](#) property (read/write) double  
[Width](#) property (read only) double

### 9.2 Category Column

[ClearColumns](#) method  
[ColumnEnd](#) property (read only) double  
[ColumnLinesLeft](#) method  
[ColumnNum](#) property (read/write) integer  
[Columns](#) property (read only) integer  
[ColumnStart](#) property (read only) double  
[ColumnWidth](#) property (read only) double

[NewColumn](#) method  
[NewLine](#) method  
[NewPara](#) method  
  
[SetColumns](#) method  
[SetColumnWidth](#) method



## 9.3 Category Control

[Abort](#) method  
[Aborted](#) property (read only) Boolean  
[AbortPage](#) method  
[AccuracyMethod](#) property (read/write/pub)  
[AllowAll](#) method  
[AllowPreviewOnly](#) method  
[AllowPrinterOnly](#) method  
 .  
[BaseReport](#) property (read/write)  
 .  
[CurrentPage](#) property (read only) integer  
 .  
 EndLink method  
[Engine](#) property (read/write/pub)  
[Execute](#) method (2)  
[ExecuteCustom](#) method  
 .  
[FileName](#) property (read/write/pub) string  
[Finish](#) method  
[FirstPage](#) property (read/write/pub) integer  
 .  
[LastPage](#) property (read/write/pub) integer  
 .  
[MakeLink](#) method  
 .  
[NewColumn](#) method  
[NewLine](#) method  
[NewPage](#) method  
[NewPara](#) method

[OnAfterPrint](#) event (read/write/pub)  
[OnBeforePrint](#) event (read/write/pub)  
[OnNewColumn](#) event (read/write/pub)  
[OnNewPage](#) event (read/write/pub)  
[OnPrint](#) event (read/write/pub)  
 .  
[OnPrintFooter](#) event (read/write/pub)  
[OnPrintHeader](#) event (read/write/pub)  
[OnPrintPage](#) event (read/write/pub) Boolean  
[OutputInvalid](#) property (read only) Boolean  
 .  
[PageInvalid](#) property (read only) Boolean  
[Printing](#) property (read only) Boolean  
[\\*\\*\\*\\*](#)  
[Reset](#) method  
 .  
[ScaleX](#) property (read/write/pub) double  
[ScaleY](#) property (read/write/pub) double  
[Selection](#) property (read/write/pub) string  
[Start](#) method  
 StartLink method  
[Stream](#) property (read/write/pub)  
[StreamMode](#) property (read/write/pub)  
 .  
[TAccuracyMethod](#) type  
[TOrientation](#) type  
[TStreamMode](#) type

## 9.4 Category Font

[AssignFont](#) method  
 .  
[Bold](#) property (read/write) Boolean  
 .  
[CreateFont](#) method  
 .  
[FontAlign](#) property (read/write)  
[FontCharset](#) property (read/write) byte  
[FontColor](#) property (read/write)  
[FontHandle](#) property (read only)  
[FontHeight](#) property (read/write)  
[FontName](#) property (read/write) string  
[FontPitch](#) property (read/write)  
[FontRotation](#) property (read/write) integer  
[FontSize](#) property (read/write) double  
[FontWidth](#) property (read/write) double

[Italic](#) property (read/write) Boolean  
 .  
[PopFont](#) method Boolean  
[PushFont](#) method Boolean  
 .  
[RestoreFont](#) method Boolean  
 .  
[SaveFont](#) method Boolean  
[SetFont](#) method  
[Strikeout](#) property (read/write) Boolean  
[Subscript](#) property (read/write) Boolean  
[Superscript](#) property (read/write) Boolean  
 .  
[TFontAlign](#) type  
 .  
[UnderLine](#) property (read/write) Boolean

## 9.5 Category Graphics

[Arc](#) method

[BKColor](#) property (read/write)

[BrushCopy](#) method

[CalcGraphicHeight](#) method double

[CalcGraphicWidth](#) method double

[Chord](#) method

[CopyRect](#) method

[CreateBrush](#) method

[CreatePen](#) method

[CreatePoint](#) method

[CreateRect](#) method

[Draw](#) method

[DrawFocusRect](#) method

[Ellipse](#) method

[FillRect](#) method

[FloodFill](#) method

[FrameMode](#) property (read/write)

[FrameRect](#) method

[GraphicFieldToBitmap](#) method

[LineTo](#) method

[MoveTo](#) method

[NoBufferLine](#) property (read/write) Boolean

[Pie](#) method

[Polygon](#) method

[Polyline](#) method

[PrintBitmap](#) method

[PrintBitmapRect](#) method

[PrintImageRect](#) method

[Rectangle](#) method

[RegisterGraphic](#) method

[ReuseGraphic](#) method

[RoundRect](#) method

[SetBrush](#) method

[SetPen](#) method

[ShadeToColor](#) method

[StretchDraw](#) method

[TextBKMode](#) property (read/write/pub)

[TextRect](#) method

[TBKMode](#) type

[UnregisterGraphic](#) method

## 9.6 Category Label

[Border](#) property (read/write/pub) double

[Col](#) property (read only) integer

[DrawExtents](#) property (read/write/pub) Boolean

[DrawPen](#) property (read/write/pub)

[DrawPreviewOnly](#) property (read/write/pub) Boolean

[LabelBrand](#) property (read/write/pub)

[LabelHeight](#) property (read/write/pub) double

[LabelShape](#) property (read/write/pub)

[LabelWidth](#) property (read/write/pub) double

[NumAcross](#) property (read/write/pub) integer

[NumDown](#) property (read/write/pub) integer

[OnLabelAfter](#) event (read/write/pub)

[OnLabelBefore](#) event (read/write/pub)

[OnLabelPrint](#) event (read/write/pub)

[PrintByRow](#) property (read/write/pub) Boolean

[Row](#) property (read only) integer

[SkipNum](#) property (read/write/pub) integer

[SpacingHeight](#) property (read/write/pub) double

[SpacingLeft](#) property (read/write/pub) double

[SpacingTop](#) property (read/write/pub) double

[SpacingWidth](#) property (read/write/pub) double

[StartCol](#) property (read/write/pub) integer

[StartRow](#) property (read/write/pub) integer

## 9.7 Category Memo

[Append](#) method  
[AppendMemoBuf](#) method

[Buffer](#) property (read only)  
[BufferInc](#) property (read/write) longint

[ConstraintHeightLeft](#) method double

[Delete](#) method

[Empty](#) method Boolean

[Field](#) property (write only)  
[FreeSaved](#) method

[GetMemoLine](#) method string  
[GetNextLine](#) method

[Insert](#) method  
[InsertMemoBuf](#) method

[Justify](#) property (read/write)

[LoadFromStream](#) method

[MaxSize](#) property (read/write) longint  
[Memo](#) property (read/write)  
[MemoHeightLeft](#) method double  
[MemoLines](#) method longint  
[MemoLinesLeft](#) method longint

[NoCRLF](#) property (read/write) Boolean  
[NoNewLine](#) property (read/write) Boolean

[Pos](#) property (read/write) longint  
[PrintEnd](#) property (read/write) double  
[PrintHeight](#) method  
[PrintLines](#) method  
[PrintMemo](#) method  
[PrintStart](#) property (read/write) double

[ReplaceAll](#) method  
[Reset](#) method  
[RestoreBuffer](#) method  
[RestoreState](#) method  
[RichEdit](#) property (write only) string  
[RTFField](#) property (write only)  
[RTFLoadFromFile](#) method  
[RTFLoadFromStream](#) method  
[RTFText](#) property (write only) string

[SaveBuffer](#) method  
[SaveState](#) method  
[SaveToStream](#) method  
[SearchFirst](#) method Boolean  
[SearchNext](#) method Boolean  
[SetData](#) method  
[SetRTF](#) method (archived)  
[Size](#) property (read only) longint

[Text](#) property Memo (read/write) string

## 9.8 Category Misc -

[CPI](#) property (read/write/pub) double (Archived)  
[Create](#) method  
[CurrentPass](#) property (read/write/pub) integer

[Destroy](#) method

[LPI](#) property (read/write) double (Archived)

[Macro](#) method

RestoreDataSet property (read/write/pub) 5.1.1

[StatusFormat](#) property (read/write/pub) string  
[StatusLabel](#) property (read/write/pub)  
[StatusText](#) property (read/write/pub)

[Title](#) property (read/write/pub) string  
[TotalPasses](#) property (read/write)

[UpdateStatus](#) method

[Version](#) property  
 Visible property (read/write/pub) 5.1.1

## 9.9 Category Position

[AdjustLine](#) method  
[AscentHeight](#) property (read only) double  
  
[CR](#) method  
[CursorXPos](#) property (read only) longint  
[CursorYPos](#) property (read only) longint  
  
[DescentHeight](#) property (read only) double  
  
[FontBaseline](#) property (read/write) double  
[FontBottom](#) property (read/write) double  
[FontHeight](#) property (read/write) double  
[FontTop](#) property (read/write) double  
  
[GotoFooter](#) method  
[GotoHeader](#) method  
[GotoXY](#) method  
  
[Home](#) method  
  
[LF](#) method  
[LineBottom](#) property (read/write) double  
[LineHeight](#) property (read only) double  
[LineHeightMethod](#) property (read/write/pub)  
[LineMiddle](#) property (read/write) double  
[LineNum](#) property (read/write) integer  
[LinesLeft](#) method integer  
[LinesPerInch](#) property (read/write/pub) integer  
[LineTop](#) property (read/write) double

[MarginBottom](#) property (read/write/pub) double  
[MarginLeft](#) property (read/write/pub) double  
[MarginRight](#) property (read/write/pub) double  
[MarginTop](#) property (read/write/pub) double  
  
[NewLine](#) method  
  
[OriginX](#) property (read/write) double  
[OriginY](#) property (read/write) double  
  
[PopPos](#) method Boolean  
[PushPos](#) method Boolean  
  
[ResetLineHeight](#) method  
[ResetSection](#) method  
[RestorePos](#) method Boolean  
  
[SavePos](#) method Boolean  
[SectionBottom](#) property (read/write) double  
[SectionLeft](#) property (read/write) double  
[SectionRight](#) property (read/write) double  
[SectionTop](#) property (read/write) double  
[SetTopOfPage](#) method  
  
[TextWidth](#) method  
[TLineHeightMethod](#) type  
  
[XPos](#) property (read/write) double  
[YPos](#) property (read/write) double

## 9.10 Category Preview

[Clear](#) method  
  
[GridHoriz](#) property (read/write/pub) double  
[GridPen](#) property (read/write/pub)  
[GridVert](#) property (read/write/pub) double  
  
[MarginMethod](#) property (read/write/pub)  
[MarginPercent](#) property (read/write/pub) double  
[Monochrome](#) property (read/write/pub) Boolean  
  
[NextPage](#) method  
  
[OnPageChange](#) event (read/write/pub)  
[OnPreviewSetup](#) event (read/write/pub)  
[OnPreviewShow](#) event (read/write/pub)  
[OnZoomChange](#) event (read/write/pub)  
  
[PageInc](#) property (read/write/pub) integer

[Pages](#) property (read only) integer  
[PrevPage](#) method  
[PrintPage](#) method  
  
[RedrawPage](#) method  
[RulerType](#) property (read/write/pub)  
  
[ScrollBar](#) property (read/write/pub)  
[ShadowDepth](#) property (read/write/pub) integer  
  
[TMarginMethod](#) type  
  
[ZoomFactor](#) property (read/write/pub) double  
[ZoomIn](#) method  
[ZoomInc](#) property (read/write/pub) integer  
[ZoomOut](#) method  
[ZoomPageFactor](#) property (read only) double  
[ZoomPageWidthFactor](#) property (read only) double

## 9.11 Category Printer

[Bins](#) property (read only)  
[BottomWaste](#) property (read only) double

[Canvas](#) property (read only)  
[Collate](#) property (read/write) Boolean  
[Copies](#) property (read/write/pub) integer

[DeviceName](#) property (read only) string  
[DevMode](#) property (read/write)  
[DriverName](#) property (read only) string  
[Duplex](#) property (read/write)

[Fonts](#) property (read only)

[IgnoreFileSettings](#) property (read/write) Boolean

[LeftWaste](#) property (read only) double

[MaxCopies](#) property (read/write/pub) longint

[NoNTColorFix](#) property (read/write) Boolean  
[NoPrinterPageHeight](#) property (read/write) double  
[NoPrinterPageWidth](#) property (read/write) double  
[NoPrinters](#) method Boolean

[Orientation](#) property (read/write/pub)  
[OutputFileName](#) property (read/write)  
[OutputName](#) string property (read/write) string

[PageHeight](#) property (read only) double

[PageWidth](#) property (read only) double  
[Papers](#) property (read only)  
[Port](#) property (read only) string  
[PrintData](#) method  
[PrintDataStream](#) method  
[PrinterIndex](#) property (read/write) integer  
[Printers](#) property (read only)

[RecoverPrinter](#) method  
[ReleasePrinter](#) method  
[ResetPrinter](#) method  
[RightWaste](#) property (read only) double  
[RpDev](#) function

[SelectBin](#) method  
[SelectPaper](#) method Boolean  
[SelectPrinter](#) method Boolean  
[SetPaperSize](#) method  
[SetPrintDialog](#) method  
[SetPrintSetupDialog](#) method  
[SupportBin](#) method Boolean  
[SupportCollate](#) method Boolean  
[SupportDuplex](#) method Boolean  
[SupportOrientation](#) method Boolean  
[SupportPaper](#) method Boolean

[TopWaste](#) property (read only) double

[XDPI](#) property (read only) integer  
[YDPI](#) property (read only) integer

## 9.12 Category Printing

[Macro](#) method string  
[MacroData](#) property (read/write)  
[MakeLink](#) method

[PIVar](#) method string  
[Print](#) method  
[PrintBlock](#) method  
[PrintCenter](#) method  
[PrintCharJustify](#) method  
[PrintFooter](#) method  
[PrintHeader](#) method  
[PrintLeft](#) method  
[PrintLn](#) method

[PrintRight](#) method  
[PrintTab](#) method  
[PrintXY](#) method

[ReportDateTime](#) property (read/write)

[SetPIVar](#) method

[TMacroID](#) type  
[TPrintJustify](#) type  
[TPrintJustifyVert](#) type (archived BEX only)  
[TruncateText](#) property (read/write/pub) string

## 9.13 Category Rave -

[Active](#) property (read/write) Boolean

[ClearRaveBlob](#) method

[Close](#) method

[DataSet](#) property (read/write)

[Design](#) method

[DesignReport](#) method

[DisableDataSource](#) property (read/write/pub) 5.1.1

[DLLFile](#) property (read/write/pub)

[Engine](#) property

[Execute](#) method

[ExecuteReport](#) method

[FieldAliasList](#) property

[GetParam](#) method

[GetReportCategoryList](#) method

[GetReportList](#) method

[LoadDesigner](#) property

[LoadFromFile](#) method

[LoadFromStream](#) method

[LoadRaveBlob](#) method

[LocalFilter](#) property Boolean

[OnAfterClose](#) event (read/write/pub)

[OnAfterOpen](#) event (read/write/pub)

[OnBeforeClose](#) event (read/write/pub)

[OnBeforeOpen](#) event (read/write/pub)

[OnCreate](#) event

[OnDesignerSave](#) event (read/write/pub)

[OnDesignerSaveAs](#) event (read/write/pub)

[OnDesignerShow](#) event

[OnDestroy](#) event

[OnEOF](#) event

[OnFirst](#) event

[OnGetCols](#) event

[OnGetRow](#) event

[OnGetSorts](#) event

[OnNext](#) event

[OnOpen](#) event

[OnRestore](#) event

[OnSetFilter](#) event

[OnSetSort](#) event

[OnValidateRow](#) event

[Open](#) method

[ProjectFile](#) property (read/write/pub)

[Query](#) property (read/write/pub)

[RaveBlobDateTime](#) property (read/write/pub)

[ReportDesc](#) property

[ReportDescToMemo](#) method

[ReportFullName](#) property

[ReportName](#) property

[RestoreDataSet](#) property (read/write/pub) 5.1.1

[RuntimeVisibility](#) property

[Save](#) method

[SaveRaveBlob](#) method

[SaveToFile](#) method

[SaveToStream](#) method

[SelectReport](#) method

[SetParam](#) method

[StoreRAV](#) property (read only/special/pub)

[Table](#) property (read/write/pub)

[UseSetRange](#) property (read/write/pub)

[WriteBCDDData](#) method

[WriteBlobData](#) method

[WriteBoolData](#) method

[WriteCurrData](#) method

[WriteDateTime](#) method

[WriteFloatData](#) method

[WriteIntData](#) method

[WriteNullData](#) method

[WriteStrData](#) method

## 9.14 Category Render -

[Active](#) property (read/write) **ALL**

BufferDocument property (read/write/pub) **PDF** 6.0.2

[CacheDir](#) property (read/write/pub) **HTML PDF**

[CPI](#) property (read/write/pub) **TEXT**

[DisplayName](#) property (read/write/pub) **ALL**

DocInfo Author property (read/write/pub) **PDF** 5.1.4

DocInfo Creator property (read/write/pub) **PDF**

DocInfo Keywords property (read/write/pub) **PDF**

DocInfo Producer property (read/write/pub) **PDF**

DocInfo Subject property (read/write/pub) **PDF**

DocInfo Title property (read/write/pub) **PDF**

EmbedFonts property (read/write/pub) **PDF** 5.1.4

FileExtension property (read/write/pub) **ALL** 5.1.4

FontEncoding property (read/write/pub) **PDF** 5.1.4

FormFeed property (read/write/pub) **TEXT** 5.1.4

ImageEncoding property (read/write/pub) **RTF** 5.1.4

ImageOutput property (read/write/pub) **RTF**

[ImageQuality](#) property (read/write/pub) **PDF**

LeftBorder property (read/write/pub) **TEXT** 5.1.4

[LPI](#) property (read/write/pub) **TEXT** 5.1.4

[MetafileDPI](#) property (read/write/pub) **PDF**

[OnCompress](#) event (read/write) **PDF**

[OnDecodeImage](#) event (read/write/pub) **HTML PDF RTF**

[ServerMode](#) property (read/write/pub) **HTML PDF**

TopBorder property (read/write/pub) **TEXT** 5.1.4

[UseCompression](#) property (read/write/pub) **PDF**

## 9.15 Category ReportSection

[Bottom](#) property (read/write/pub) double

[BottomMethod](#) property (read/write/pub)

[Enabled](#) property (read/write/pub) Boolean

[FontIndex](#) property (read/write/pub) integer

[Height](#) property (read/write/pub) double

[HeightMethod](#) property (read/write/pub)

[Left](#) property (read/write/pub) double

[LeftMethod](#) property (read/write/pub)

[MinHeight](#) property (read/write/pub) double

[Right](#) property (read/write/pub) double

[RightMethod](#) property (read/write/pub)

[SetupSection](#) method

[TabIndex](#) property (read/write/pub) integer

[Top](#) property (read/write/pub) double

[TopMethod](#) property (read/write/pub)

## 9.16 Category ReportSystem

[DefaultDest](#) property (read/write/pub)

[OverridePreview](#) event (read/write)

[OverrideSetup](#) event (read/write)

[OverrideStatus](#) event (read/write)

[ReportDest](#) property (read only)

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# Format Codes

Chapter



## 10 Format Codes

The DisplayFormat property allows you to format the value given using a format string. The following format specifiers are supported in the format string:

### 10.1 Alphanumeric Items

The following is a list of the different alphanumeric format codes and what they accomplish for each output type.

#### Examples:

<u>Format String</u>	<u>123456.78</u>	<u>-123.0</u>	<u>0.5</u>	<u>0.0</u>
<u>#,##0.00</u>	123,456.78	-123.00	0.50	0.00
<u>#. #</u>	123456.8	-123	0.5	0
<u>\$,0.00</u>	\$123,456.78	\$-123.00	\$0.50	\$0.00
<u>0.00;(0.00);'-'</u>	123456.78	(123.00)	0.50	-----

<u>Specifier</u>	<u>Represents</u>
<b>0</b>	Digit place holder. If value being formatted has a digit where the '0' appears, then the digit is copied to the output string. Otherwise, a '0' is in the output string.
<b>#</b>	Digit place holder. If value being formatted has a digit where the '#' appears, then the digit is copied to the output string. Otherwise, nothing appears in that position.
<b>.</b>	Decimal point. The first '.' character in the format string determines the location of the decimal separator in the formatted value. The actual character used as a the decimal separator in the output string is determined by the Number Format of the International section in the Windows Control Panel.
<b>,</b>	Thousand separator. If format string contains a ',' characters, the output will have thousand separators inserted between each group of three digits to left of decimal point. The actual character used as a thousand separator in the output is determined by the Number Format of the International section in the Windows Control Panel.
<b>E+</b>	Scientific notation. If any of the strings 'E+', 'E-', 'e+', or 'e-' are contained in the format string, the number is formatted using scientific notation. A group of up to four '0' characters can immediately follow the 'E+', 'E-', 'e+', or 'e-' to determine the minimum number of digits in the exponent. The 'E+' and 'e+' formats cause a plus sign to be output for positive exponents and a minus sign to be output for negative exponents. The 'E-' and 'e-' formats output a sign character only for negative exponents.
<b>'xx'/'"xx"</b>	Characters enclosed in single or double quotes are output as-is, and do not affect formatting.
<b>;</b>	Separates sections for positive, negative, and zero numbers in the format string.

The locations of the leftmost '0' before the decimal point in the format string and the rightmost '0' after the decimal point in the format string determine the range of digits that are always present in the output string.

The number being formatted is always rounded to as many decimal places as there are digit place holders ('0' or '#') to the right of the decimal point. If the format string contains no decimal point, the value being formatted is rounded to the nearest whole number.

If the number being formatted has more digits to the left of the decimal separator than there are digit place holders to the left of the '.' character in the format string, the extra digits are output before the first digit placeholder.

To allow different formats for positive, negative, and zero values, the format string can contain between one and three sections separated by semicolons.

One section: The format string applies to all values.

Two sections: The first section applies to positive values and zeros, and the second section applies to negative values.

Three sections: The first section applies to positive values, the second applies to negative values, and the third applies to zeros.

If the section for negative values or the section for zero values is empty, that is if there is nothing between the semicolons that delimit the section, the section for positive values is used instead.

If the section for positive values is empty, or if the entire format string is empty, the value is formatted using general floating-point formatting with 15 significant digits.

## 10.2 Date Time Items

Items that are either a date or time field can use the following format codes. The format specifiers are not case sensitive. If the format parameter is blank then the value is formatted as if a 'c' specifier had been given. The following format specifiers are supported:

### Examples:

dddd, mmmm d, yyyy => Monday, September 21 2004  
d mmm yy => 21 Sep 04

<b><u>Specifier</u></b>	<b><u>Displays</u></b>
<b>c</b>	Displays date using format given by ShortDateFormat global variable, followed by time using format given by LongTimeFormat global variable. The time is not displayed if fractional part of the DateTime value is zero.
<b>d</b>	Displays the day as a number without a leading zero (1-31).
<b>dd</b>	Displays the day as a number with a leading zero (01-31).
<b>ddd</b>	Displays the day as an abbreviation (Sun-Sat) using the strings given by the ShortDayNames global variable.
<b>dddd</b>	Displays the day as a full name (Sunday-Saturday) using the strings given by the LongDayNames global variable.
<b>dddddd</b>	Displays date using format given by the ShortDateFormat global variable.
<b>dddddd</b>	Displays date using format given by the LongDateFormat global variable.
<b>m</b>	Displays month as number without leading zero (1-12). If m specifier immediately follows h or hh specifier, the minute rather than month is displayed.
<b>mm</b>	Displays month as number with leading zero (01-12). If mm specifier immediately follows h or hh specifier, the minute rather than month is displayed.
<b>mmm</b>	Displays the month as an abbreviation (Jan-Dec) using the strings given by the ShortMonthNames global variable.
<b>mmmm</b>	Displays the month as a full name (January-December) using the strings given by the LongMonthNames global variable.
<b>yy</b>	Displays the year as a two-digit number (00-99).
<b>yyyy</b>	Displays the year as a four-digit number (0000-9999).
<b>h</b>	Displays the hour without a leading zero (0-23).
<b>hh</b>	Displays the hour with a leading zero (00-23).
<b>n</b>	Displays the minute without a leading zero (0-59).
<b>nn</b>	Displays the minute with a leading zero (00-59).
<b>s</b>	Displays the second without a leading zero (0-59).
<b>ss</b>	Displays the second with a leading zero (00-59).
<b>t</b>	Displays time using format given by the ShortTimeFormat global variable.
<b>tt</b>	Displays time using format given by the LongTimeFormat global variable.
<b>am/pm</b>	Uses the 12-hour clock for the preceding h or hh specifier, and displays 'am' for any hour before noon, and 'pm' for any hour after noon. The am/pm specifier can use lower, upper, or mixed case, and the result is displayed accordingly.
<b>a/p</b>	Uses the 12-hour clock for the preceding h or hh specifier, and displays 'a' for any hour before noon, and 'p' for any hour after noon. The a/p specifier can use lower, upper, or mixed case, and the result is displayed accordingly.
<b>ampm</b>	Uses the 12-hour clock for the preceding h or hh specifier, and displays the contents of the TimeAMString global variable for any hour before noon, and the contents of the TimePMString global variable for any hour after noon.
<b>/</b>	Displays date separator character given by DateSeparator global variable.
<b>:</b>	Displays time separator character given by TimeSeparator global variable.
<b>'xx'/'xx'</b>	Characters enclosed in single or double quotes are displayed as-is, and do not affect formatting.

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