

Fast.
Complete.
Easy to
integrate.

List & Label[®] 22

Report Generator for Software Developers



“ Our vision for List & Label:
To be the best reporting tool in the world.
That’s what we work on everyday.

Jochen Bartlau,
Managing Director and Head of Development List & Label

Rexroth
Bosch Group

Triumph 


SwissLife

AUTOonline
The Value Experts



 **HEALTHCARE
SOLUTIONS**

PROALPHA

Tupperware®

icetea
GROUP

thomann
MUSIC IS OUR PASSION

CERM 

 **TecWare**

 **LEAR**
CORPORATION

BIZERBA
... closer to your business

maic
IT-SOLUTIONS

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Selected Customer Quotes



"We have been using List & Label both asynchronously and synchronously to create a large number of PDF documents in the course of the past 4 years. Our report generation is very stable and reliable. Simply an outstanding product!"

Mario Andenmatten,
Swiss National Science Foundation (SNF)



"List & Label is easy to program and provides all the functions you could ever want."

Bernd Bierhoff,
Bizerba



"It was extremely easy to implement List & Label into our software, and the Designer is a joy to use."

Karsten Lundsgaard,
Kamstrup



"List & Label is the perfect tool to generate high quality documents. Our software provides the data and end users can design the layout. Throughout the years we saw that List & Label continuously delivers stable new releases with outstanding help for the developer."

Peter Van Vlierberghe,
Cerm Benelux



"List & Label is very powerful, flexible and easy to use."

Klaus Mueller,
Lear Corporation



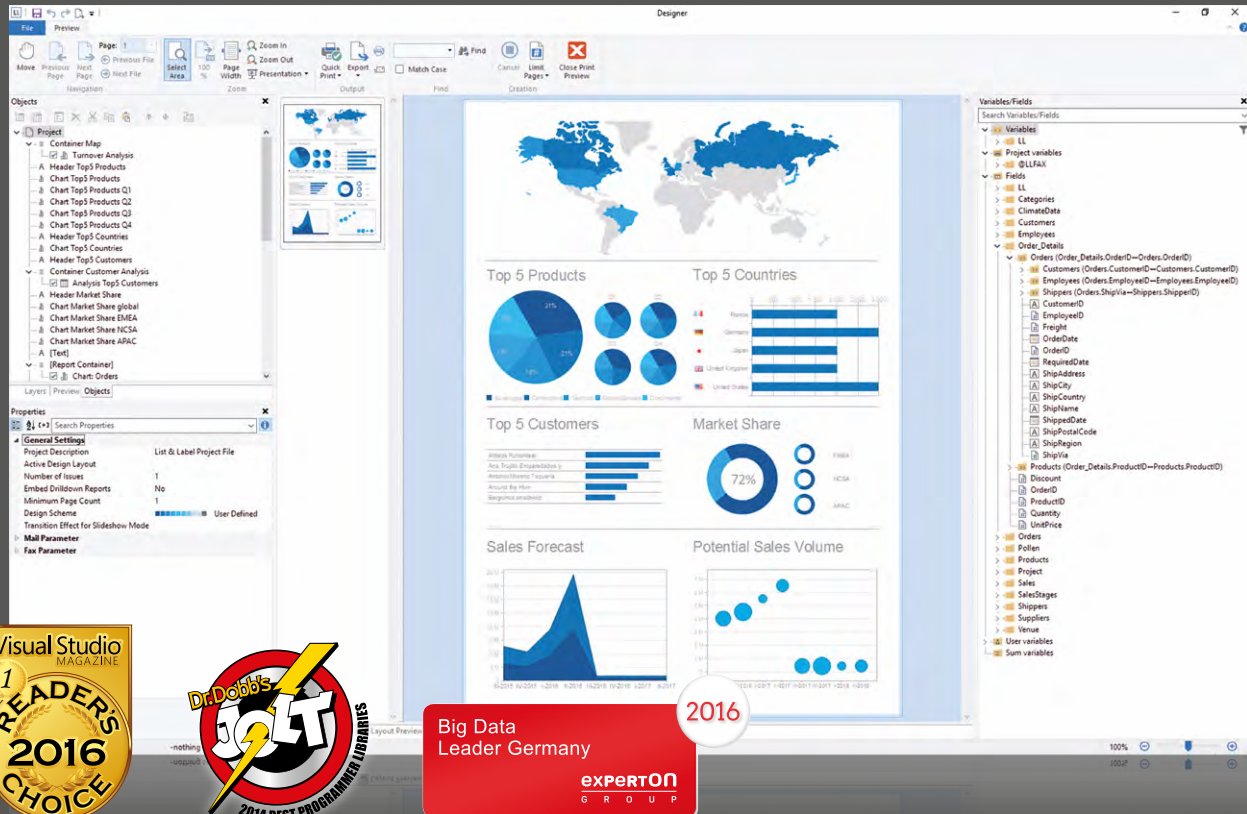
SwissLife

"combit provides terrific support! Our suggestion for a new feature was immediately included and implemented in the current version. Once again, we are completely wowed by List & Label!"

Max Gest,
Swiss Life

List & Label 22: Full-Powered Reporting Functionality

TOP: Designer for end users included

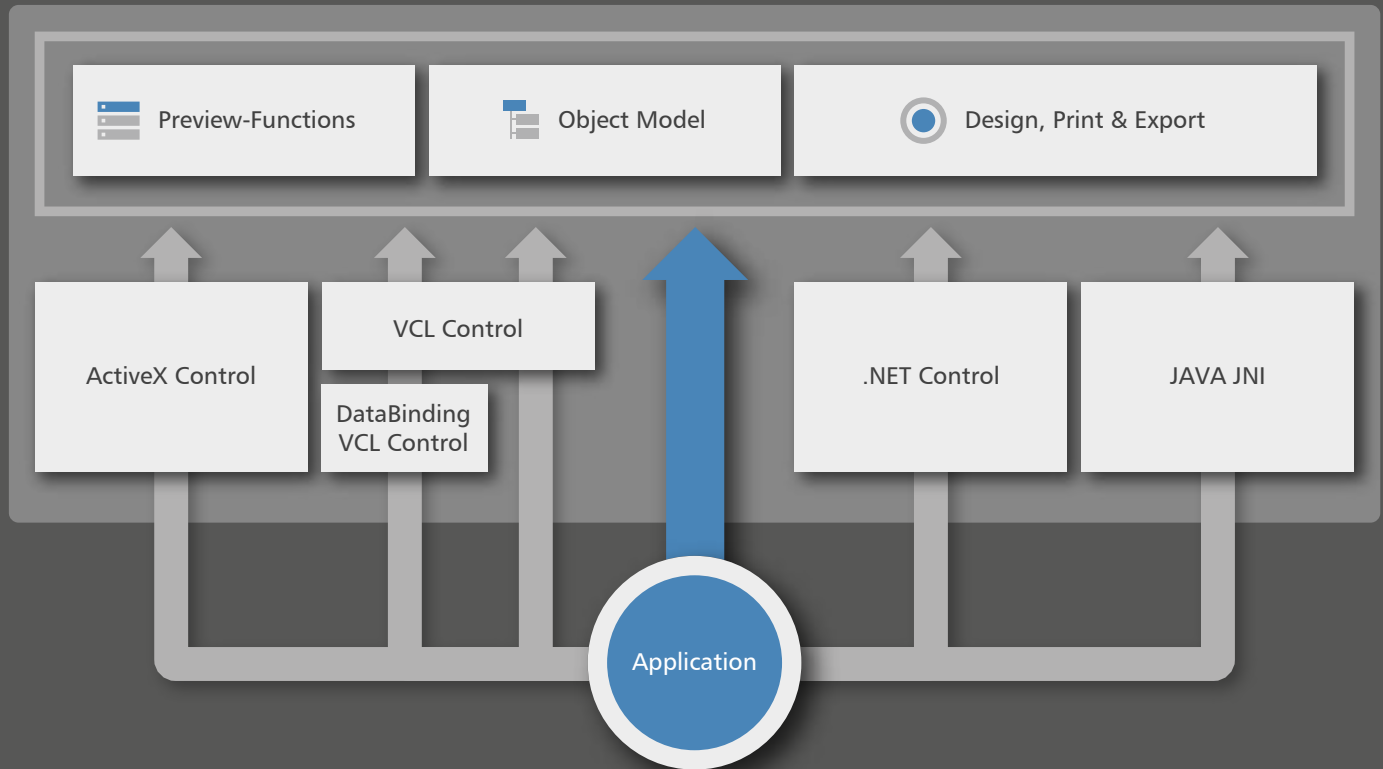


Thousands of development teams worldwide successfully use List & Label. There are many benefits for you and your customers:

- ✓ Report Designer in the Microsoft Office look & feel can be redistributed with no extra cost
- ✓ Professional reports and interactive dashboards
- ✓ Fast performance, scalability and always up to date
- ✓ For desktop, web and cloud

The List & Label Reporting Tool

Structure :: Functionality :: Introduction



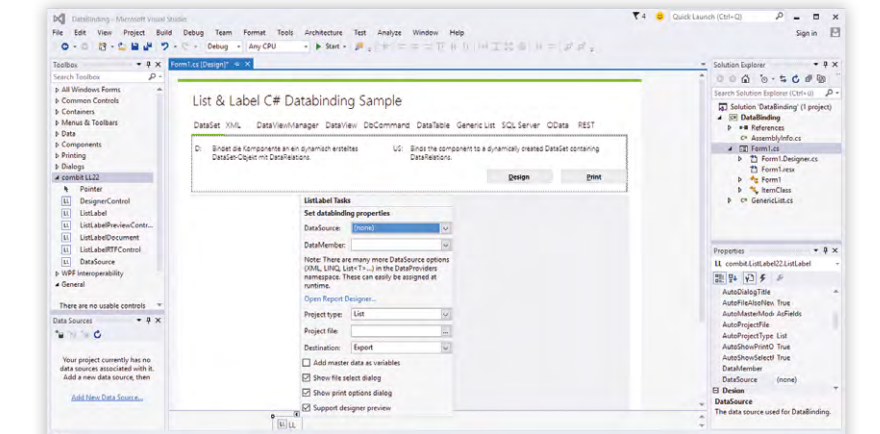
List & Label, a reporting tool for developers, is simple to implement and use in most development environments and programming languages (see page 25). It lets you add sophisticated print, export and preview functionality to your desktop, server and/or web-server applications. The integrated Designer, which has the look and feel of a Microsoft Office product, gives your customers a convenient way of creating report templates.

You are free to redistribute the Designer without paying additional license fees. The tool's full-fledged logging and analysis features integrate easily into existing applications and frameworks. We have been developing List & Label in Germany for some 25 years. The result is a proven, feature-rich, and award-winning development tool. What's more, you benefit from direct contact with our development team.

List & Label is available in three editions. The Standard edition is a cost-effective, entry-level offering. Enterprise, by contrast, is a full-powered subscription edition that gives you every option (see page 29 for a comparison of the editions).

Ready to Go in No Time with Data Binding ...

DataSource :: .NET :: VCL



List & Label within Visual Studio 2015

.NET: The DataSource component gives you direct access to a database. You can then select the data source in the LL component's SmartTag. Start the LL Designer from the development environment using the SmartTag link. It only takes a moment to incorporate the Designer into your application.

Providers pass your data directly to the Designer, including all relations. The interfaces are published and documented, so you can easily write your own provider, and link up List & Label to any content. When you begin working with List & Label using .NET, the help system and the .NET source code provided (with Enterprise Edition) give you a head start.

Special localization features assist with implementing projects in other languages (see p. 23).

The **SQL and ADO.NET** data providers and the object data provider allow CPU-intensive aggregations to be performed in the database system best suited to them – resulting in a huge improvement in the speed of report execution.

VCL: The VCL component makes it easy to bind both ADO-Recordsets and BDE TDataSource descendants. With VCL, all master-detail relationships are automatically analyzed and passed, too.

DataSource

- ▶ ODBC
- ▶ OLE DB
- ▶ Oracle
- ▶ MS SQL Server

Other providers

- ▶ ADO.NET
- ▶ Business objects
- ▶ Cassandra
- ▶ CData
- ▶ CSV
- ▶ DB2
- ▶ Mixed data sources
- ▶ Google Analytics
- ▶ Google Spreadsheets
- ▶ In-Memory
- ▶ JSON
- ▶ LINQ
- ▶ MS Access
- ▶ MS Excel
- ▶ MySQL
- ▶ No-SQL: NuoDB, CouchDB, MongoDB
- ▶ OData
- ▶ ORM/EF
- ▶ PostgreSQL
- ▶ REST
- ▶ MS SharePoint
- ▶ SQLite
- ▶ XML

“ List & Label has long been one of the most powerful report generators on the market.

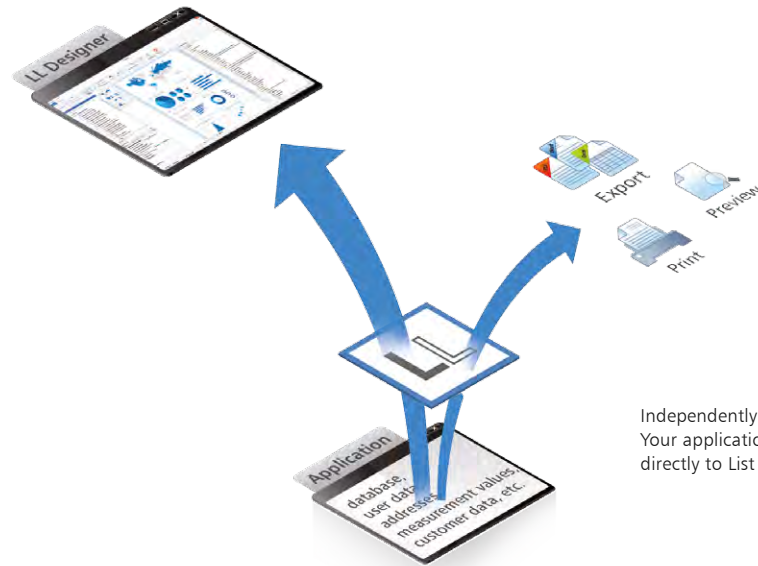
web & mobile
DEVELOPER

... or Independently of a Database

Direct data transfer

List & Label gives you every option with **unbounded data**, as well.

All fields, tables and relations you wish to make available must be transferred manually to the Designer. Users can then work with these elements there. Before printing, the application requests the sequence of objects the user has selected within the Designer, and the data is transferred in the correct order. Business objects can also be used easily and conveniently.



Independently of a database:
Your application passes data
directly to List & Label.

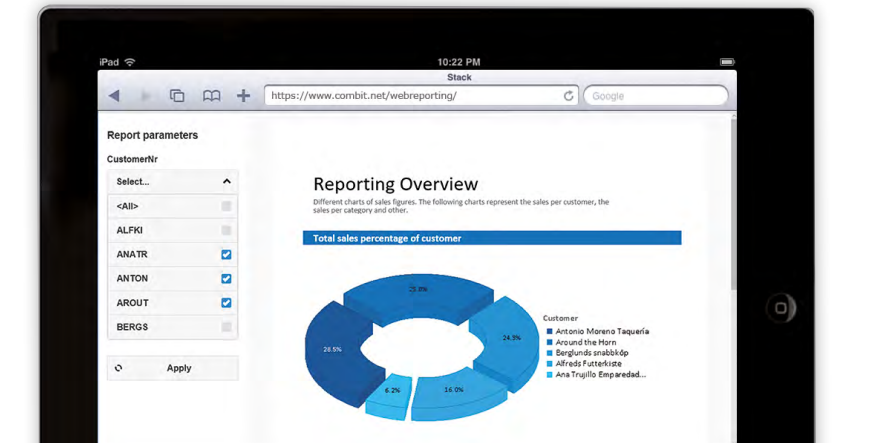
Benefits of all integration types

You are not tied to a specific database format. You manage data transfer, and are free to add further data at any time.

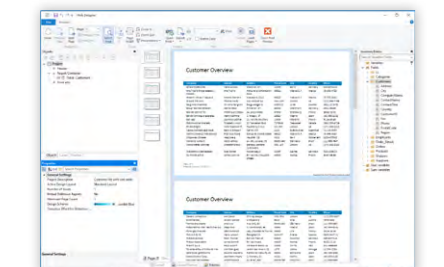
- ✓ **Stability.** Your reports continue to work correctly if a new field is added to the underlying database.
- ✓ **One report, diverse databases.** This saves time and makes your application universally deployable.
- ✓ **Straightforward.** Your application's database drivers are used, which eliminates duplicate loading and conflicts between drivers.
- ✓ **Lean redistribution.** Redistribution is simple and lean. List & Label only adds from 50 MB to your application.

Cloud

Web Reporting :: Web Designer :: Azure



HTML5 Viewer



Web Designer

Web reporting and the cloud.

Printing and exporting are possible without any user interaction. List & Label works the same in server and web server applications as it does in regular client applications. Project files can be freely exchanged between clients and servers, if they share the same data source. Code samples are provided for reporting in Windows Azure, PHP, Microsoft SharePoint, ASP.NET and ASP.NET/MVC. It is simple to install the software on a server: without registering any services, you simply copy the List & Label modules to your application's binary directory (xcopy deployment), and you're ready to go.

The Web Services Sample shows how List & Label is used with .NET Web Services and diverse data sources. Existing reports can be processed asynchronously. They are imported automatically and made available with previews.

The Web Designer works without a browser, as it is installed locally on Windows. This means that at the design stage, WYSIWYG is possible in a Web application, and real data can be previewed.

The HTML5 Viewer enables reports to be viewed in practically any browser, including on mobile devices. This means you can offer users interactive features on all operating systems. Thumbnails in the

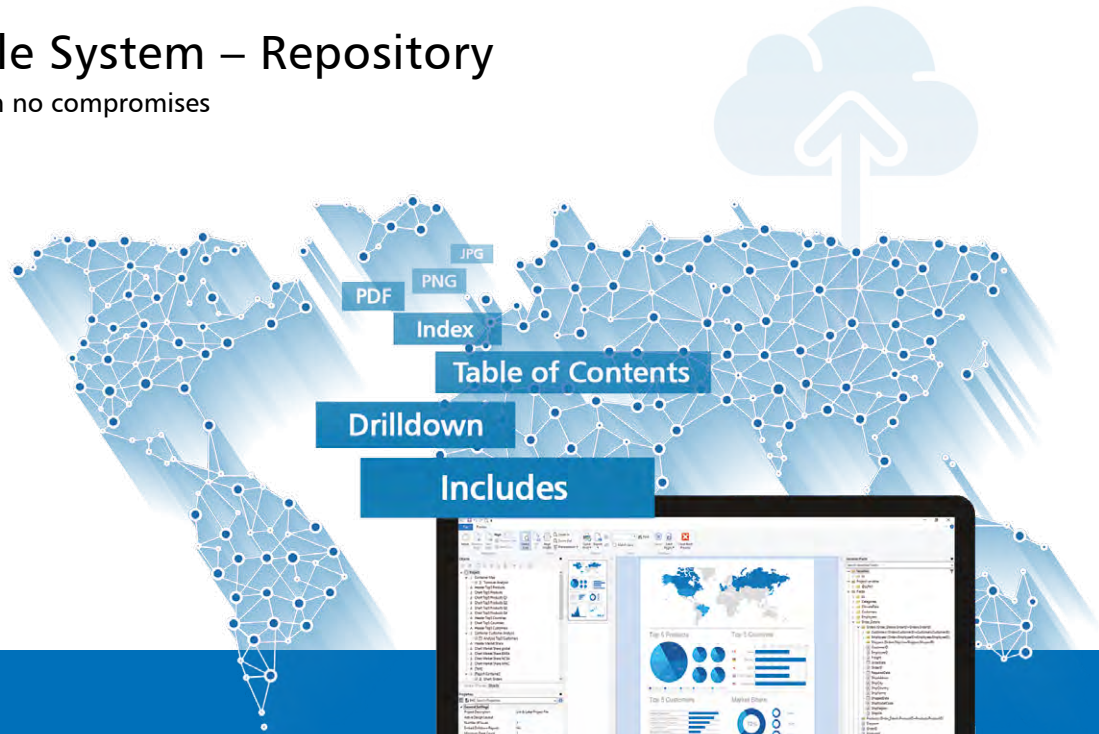
viewer provide a clear overview, simplifying navigation through multi-page reports.

“List & Label is the most important development tool made in Germany due to its excellent product support, its continuous perfective maintenance and further development.

Andreas Maslo, graduate engineer, Journalist at PC Magazine, CHIP, dotnetpro and author of technical literature for developers

Virtual File System – Repository

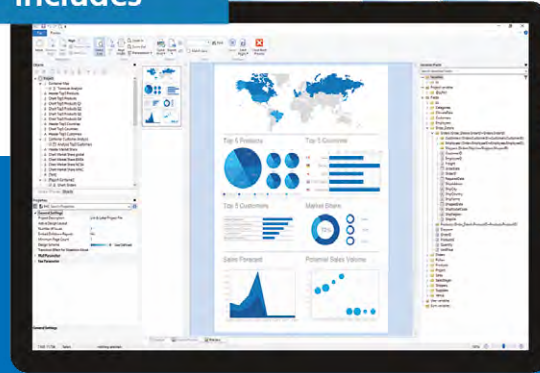
Web design with no compromises



The virtual file system

(Repository) enables the Web Designer to offer users nearly the same functional scope as the classic desktop designer. Standard desktop/server applications also benefit from the repository, as it allows all elements of a project to be streamed.

Files are supplied via the virtual file system at all key places in the Designer where they can be selected. To use this feature, you only need to implement the interface for the repository. List & Label performs all other tasks automatically. Code samples for an SQLite database are provided with the tool.



Includes



Drilldown support



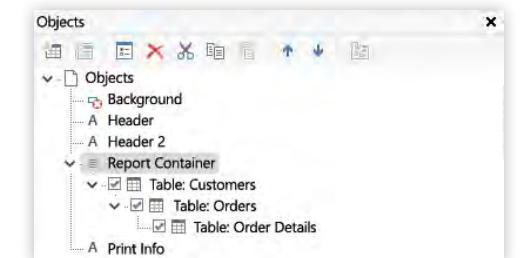
Table of contents



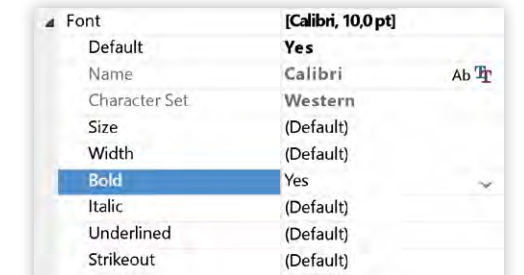
Index

Designer Features for Powerful Reports

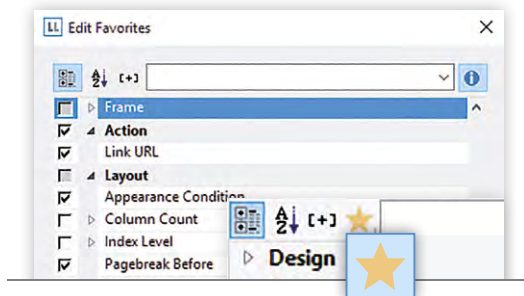
Intuitive :: Comprehensive :: Universal



Overview: Flexible report structure



Font settings



Property favorites

Even first-time users will quickly become familiar with this intuitive tool. A page is a page, not a collection of sections. A variety of aids, including rulers, guides, zoom, and grouping functions make it easier for you and your end users to design highly effective reports. All objects are shown in the object window, simplifying management of complex reports.

Real-data preview, printing and exporting are integrated into the Designer, saving time. In touch mode, the preview can be moved around intuitively, even between pages.

Tables of contents and indexes (including active links in PDF documents and previews) can be automatically generated with the help of an easy-to-use wizard.

Layout regions and issue control make it possible to mix layouts and print targets – for example, front page on printer A, subsequent pages on printer B, and last page on printer C for payment orders, and additionally, output the entire document to a PDF file for archiving. Conditional printer and layout changes are also supported.

Add custom functions, objects and actions with the corresponding components in .NET, VCL and OCX. They will appear exactly the same to users as List & Label's native functions. Sample .NET code is provided for connecting to GMap.NET (for various map service providers).

Offer a lean, simplified Designer to your end users by using favorites in property windows. All hidden properties are just one click away.

Use the formula wizard to easily create formulas to include in commercial forms, row filters in lists, etc. You can also provide your own help texts. In addition to the LL formula language, C#, VBScript, and other scripting languages are supported.

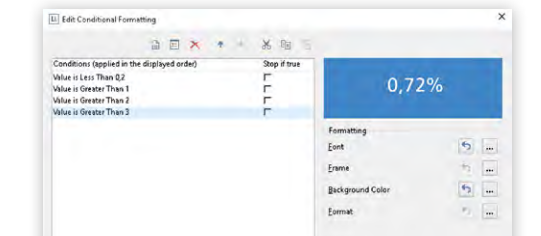
In the format editor, you can quickly format dates, times, currencies, numbers, etc. by selecting from options familiar to Microsoft Office users.

Project includes save time whenever groups of objects, such as letterheads, are used, with no modifications, in multiple projects. Subsequent design or other changes are made once, centrally, and automatically propagated to all reports.

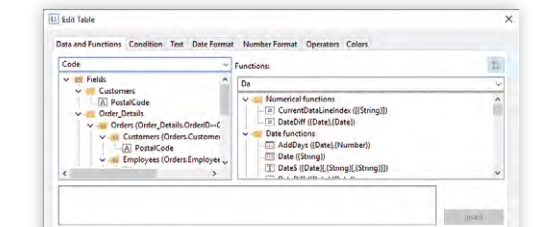
Conditional formatting: formulas can be used to define almost all of the properties supported by the Designer. For convenience, predefined conditions are provided for font properties, background colors, and borders.

Reverse-side printing makes it possible to print general terms and conditions, for example, on the reverse side of the first, last, or any other page in a project. A duplex printer is required.

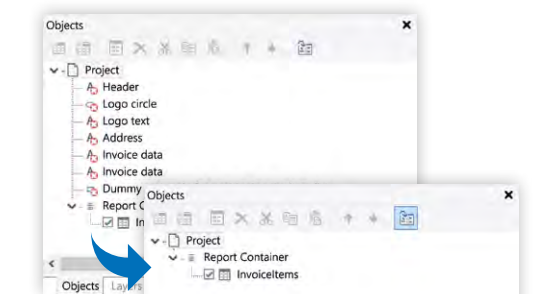
The browser-independent Web Designer enables genuine design functionality in a web application. By using the virtual file system (repository), any web application can provide almost the entire functional scope of the classic desktop Designer (see p. 8).



Conditional formatting



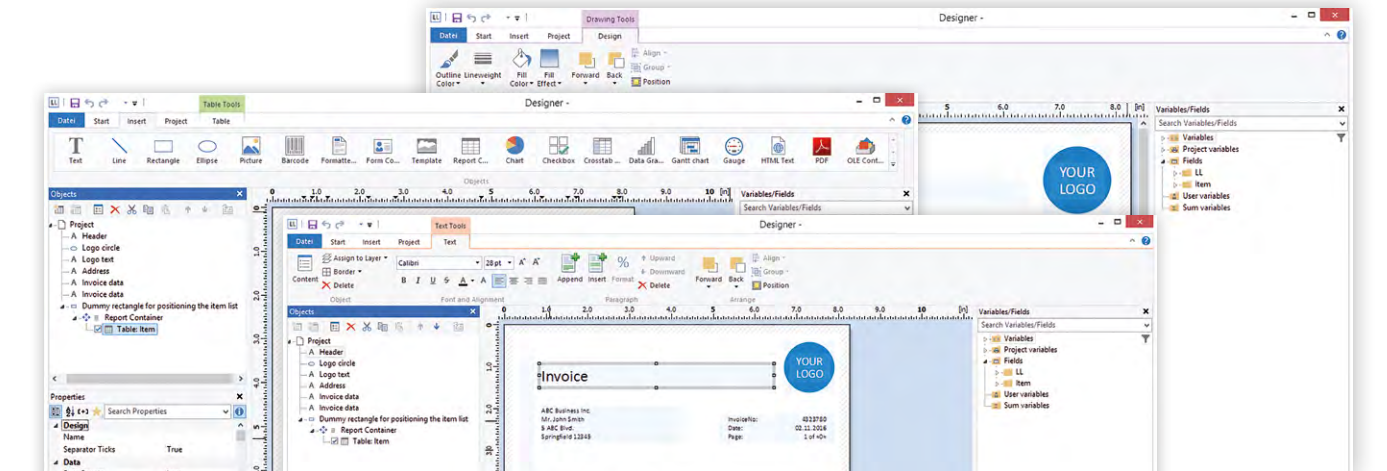
Formula wizard - even applicable aside from List & Label in the Enterprise Edition



Included projects

State-of-the-Art User Interface

Optional ribbon in the Designer



The ribbon in the Designer

Adding the sophisticated ribbon to the List & Label Designer gives users an interface they are familiar with.

Developers whose applications incorporate a ribbon can integrate the Designer in a completely seamless way. Users then find functions where they are usually located in Microsoft Office applications. The use of icons makes the functions much easier to see than on traditional menus, where it can take several clicks to reach them. A ribbon is also more suitable for touch navigation (from Windows 8, with corresponding hardware), as elements can be selected with one tap.

Developers whose applications don't yet use a ribbon shouldn't simply disable this option without considering its benefits. Quick and easy access to functions is what everybody prefers, from beginner to power user.

“List & Label is a universal tool that is very reliable and delivers high performance.

Andreas Pfitz,
solid IT

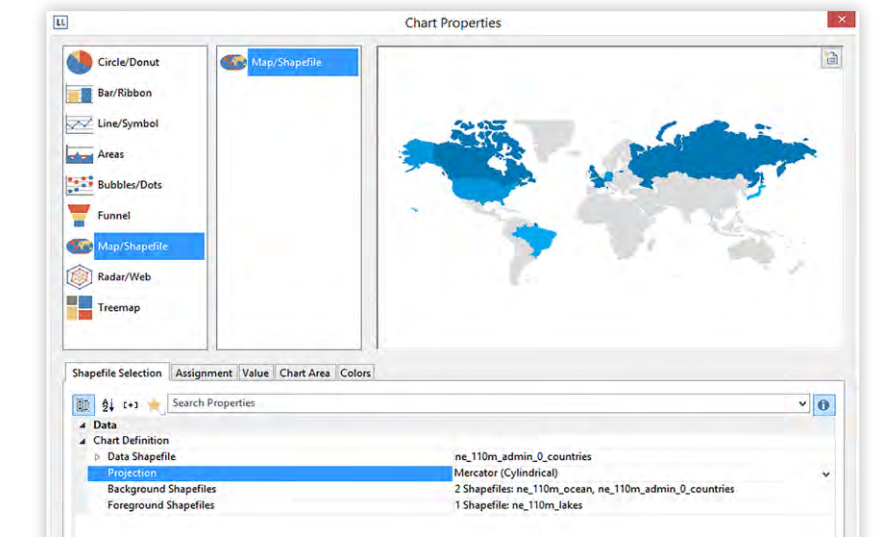


Context sensitive tabs in the ribbon expose hidden functions relevant to the current task.

The ribbon requires Windows Vista or later. A traditional user interface with menus and toolbars is provided for applications running on older versions of Windows. The List & Label Viewer has a ribbon interface.

Charts – Visualizing Data

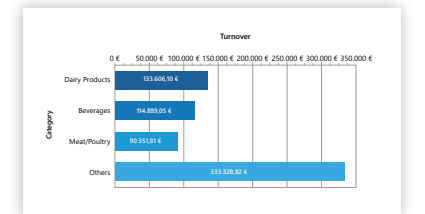
Line :: Pie :: Bubble :: Area :: Bar:: Shapefiles :: Pipeline :: Donut :: Radar :: Treemap



Varied and interesting reports with a clickable preview (a shapefile, only with Enterprise Edition).



Labels within the chart



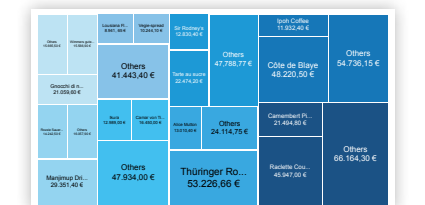
Bar chart

Charts can be rotated around either axis. Chart types include bar (vertical and horizontal), pie, donut, cone, shapefile, area, octahedron, pipeline/funnel, spider/radar, treemap, and line. They can be 2D or 3D, multi-row, clustered, simple or stacked.

Mixed charts show lines of best fit, aggregated values or moving averages superimposed on a bar chart. You can limit the data shown using Top-N, and consolidate the rest as "Other". Line types can be selected for horizontal and vertical coordinate lines, and symbols can be defined for use in charts. You can assign fixed colors, print long axis labels diagonally, create multiple y-axes, and scale axes logarithmically.

Even four-dimensional data can be visualized with bubble charts: x- and y-axis positions, and the color and size of the bubbles, are derived from the data. Geovisualization is easy to implement with shapefiles, and you can also use your own shapefiles.

Collection variables offer a simple way of categorizing data. For instance, additional properties, such as color, can be assigned. The Designer supports additional information of this kind for chart colorings, labels in crosstabs, etc.



Treemap

“ List & Label lets you create more complex and flexible reports than any other reporting tool.

Alex Singer e.K.
WebDatabases GmbH

WebDatabases

Data Analysis

Report containers :: Tables and subtables :: Drilldown :: Crosstabs :: Gantt charts

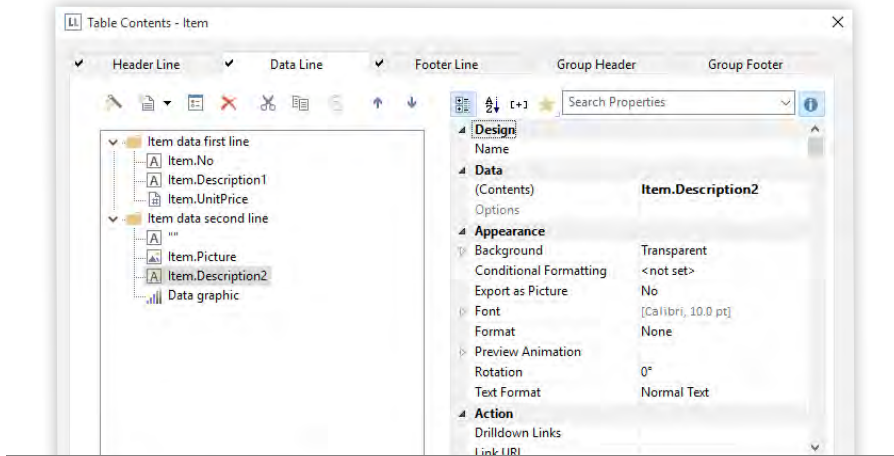
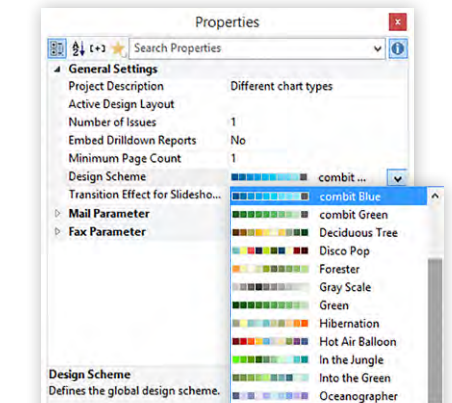


Table properties



Selecting predefined design schemes

Report containers accelerate the creation and organization of reports. Regardless of their sequence in the report, charts and tables can be populated with the same code. Use either .NET or VCL databinding or one of the provided samples to print:

- ✓ Tables and subtables
- ✓ Tables, charts and crosstabs
- ✓ Almost all Designer objects even if placed in table columns
- ✓ Free text, graphics, barcodes and variable content

With .NET and C++ (and with a data provider), you can use multiple report containers to, e.g. create side-by-side reports. You simply determine, via a data filter, what data should be used where. The Precalc function enables calculations to be performed before printing.

With drilldown reports, you can create easy-to-read reports that include hierarchical and relational data, such as customers, orders, and order details. It is simple to pass data by means of data binding in .NET or VCL. In other programming languages, special commands enable you to pass database tables to List & Label, complete with all relationships and sort orders.

End users can work with relational databases easily and intuitively in the Designer and the preview. They click through the links until they reach the required level of detail. From there, they can send the data to a printer, or output it in PDF format. Thanks to drilldown, you can be confident that all users will be able to find and use the information they are looking for –

however extensive and complex the data may be.

Design schemes offer a quick way to assign suitable color combinations to charts, crosstabs, etc. Use the color schemes provided, or define your own with the corporate colors.

Virtually every property of a table object can be individually configured: the data row area, group or table headers and footers, and the overall layout. With .NET and C++, each cell can contain further tables and subtables. You can pull columns to the required width, or enter precise dimensions in a dialog box. Titles can spread across multiple columns, and tables across multiple pages.

During the design process, you can hide

Grains/Cereals		
Product name	Quantity per unit	Unit price
Quaker's Oats	24 - 500 g pkgs.	23.00 €
Quaker's	12 - 250 g pkgs.	9.00 €
Singaporean Makkhan Fried Rice	12 - 1 kg pkgs.	14.00 €
Yoko Mee	12 - 2 kg boxes	7.00 €
Gourmet all season Rice	24 - 250 g pkgs.	38.00 €
Ravelli Angelini	24 - 250 g pkgs.	19.50 €
Vietnamese gỏi cuốn (summer roll)	10 bags x 4 pieces	18.25 €

Meat/Poultry		
Product name	Quantity per unit	Unit price
Miami Isuzu Sake	18 - 500 g pkgs.	97.00 €
Adler Nutrition	20 - 1 kg bags	36.00 €
Thompson Nutrition	50 bags x 300 packages	128.79 €
North Protein	48 pieces	32.80 €
Townline	10 bags	7.65 €
Pink chips	24 boxes x 2 pieces	24.00 €

Produce		
Product name	Quantity per unit	Unit price
Uncle Bob's Organic Dried Peas	12 - 1 lb pkgs.	20.00 €
Tofu	40 - 100 g pkgs.	23.25 €
Neon Superfruit	20 - 450 g pkgs.	45.00 €
Maryland Dried Apples	100 - 100 g pkgs.	15.00 €
Longlife Tofu	5 kg pkgs.	30.00 €

Nested table

distracting data rows. In the preview, data can be sorted interactively via the header fields (if the data source supports this), enabling one report to be used for multiple purposes.

Conditions can be used in the Designer to determine when a new group is started. Where there are multiple group or data rows, conditions can be employed to enable, disable and switch between differing row layouts. In addition, page breaks can be controlled to keep a group or subtable together.

Crosstabs display data in a multi-dimen-

	2016	2017	Total	
	Total	Total	Units	Revenue
Beverages	805	1769	2152	114889.05
Condiments	502	1335	951	60629.15
Confections	499	1723	1556	83093.37
Dairy Products	612	2328	1765	133606.10
Grains/Cereals	208	1260	860	52582.00
Meat/Poultry	273	914	758	90351.81
Produce	212	731	666	59651.30
Seafood	535	1799	1709	77373.00
Total	3646	11859	10417	672175.78

Crosstab

sional format. They can answer questions such as "How do product sales vary across several years?" and "How do product sales vary between employees?" More complex data structures can be represented by adding further levels, such as year and quarter groupings. Data can be sorted by the values in one or more results columns, which makes Top-N reports possible. Users can freely choose to show or hide levels. Missing data can be automatically filled to make comparisons easier. Moreover, a number of special features have been included to make working with crosstabs simpler. For instance, you can flip columns and rows with the pivot feature. And you

Create timelines with Gantt charts

have plenty of scope to implement your design ideas.

Gantt charts show time/activity relationships. They are highly flexible, and can be used for a range of scenarios – from project plans and vacation schedules to machine maintenance plans. Design schemes are supported and diverse properties can be defined, such as row-specific start and end points, time units, and bar types - including hotspot preview.

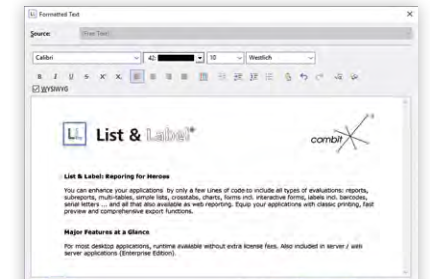


See for yourself in your trial version:

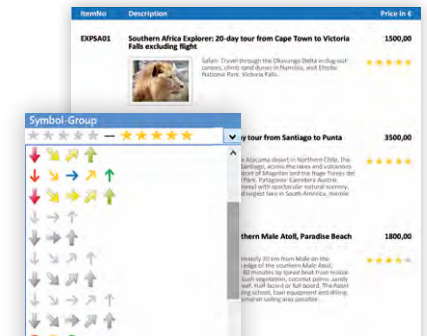
Sample application: Design > Extended Samples: From here, you can select different report types

Further Designer Objects

RTF :: PDF :: Gauges :: Data graphics :: HTML :: Text :: Graphics :: Checkboxes :: Custom objects



RTF editor



Data graphics



Gauges

The RTF object in the Designer

allows you to create mail merges and more. By linking multiple RTF objects and allowing text wrap, you can also have multiple columns, and text flow around graphics and tables. The RTF control gives end users a simple word processor – as a standalone or an in-place control. This way, you can allow text input only via the RTF control, for example.

The PDF object comes with extensive options. You simply use your PDF as background, position text-entry fields, and you're done. It is simple to reduce the size of existing PDF files and merge multiple pages into a single page. You can also create your own List & Label reports in PDF format, and embed them in other reports. PDF files (e.g. general terms and conditions) can also be used in

reverse-side printing.

Gauges and data graphics show users at a glance how a figure compares to target, minimum and maximum values. The feature-rich gauge object provides round and semicircular speedometer-like elements, vertical and horizontal scales, with a wide range of design options. Data graphics let you define bars, stars, checkmarks, etc. for a given target range as quickly and easily as with Microsoft Excel.

You can integrate **your own objects** seamlessly with List & Label's .NET, VCL and OCX components. With the .NET component, even with full property support.

More objects

- ▶ **HTML, text**
- ▶ **Line, rectangle, circle, ellipse**
- ▶ **Graphic** formats: JPEG, PNG, BMP, TIFF, GIF, EMF, ICO, WMF, PCX, PCD, DIB, RLE
- ▶ **Checkbox object**
- ▶ **Form control**, completed by the user in the print preview
- ▶ **Template**: graphic, e.g. a scanned bitmap, shown in the background as a positioning aid
- ▶ **OLE object**: container for OLE server documents for integrating Word, Excel, or Visio files, etc. (also available as 64-bit version)

A Leader in Barcodes

GS1 :: 2-of-5 :: Code 39 :: EAN :: GTIN :: DataMatrix :: QR Code :: and more

The barcode object supports more than 50 barcode formats, making List & Label the leading report generator in this respect. No barcode fonts are required. Where permitted by the barcode type, you can define both the bar width and the bar width ratio. As the barcodes are optimized for output resolution, they normally meet ISO/IEC 15416 criteria for best grade “A” quality.

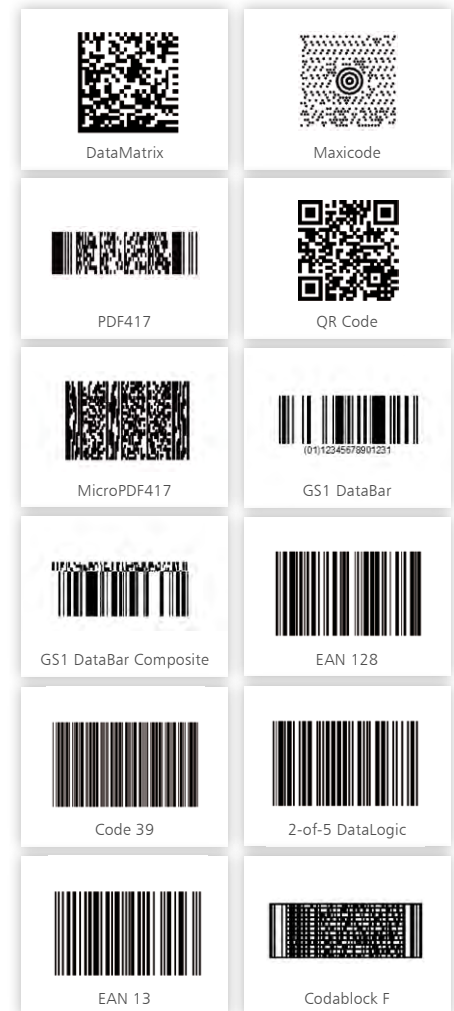
Barcode formats

- ▶ 2-of-5: DataLogic | Interleaved | Industrial | Matrix
- ▶ 3-of-9 alias Alpha 39 alias Code 39 with CRC | without CRC
- ▶ Codabar
- ▶ Codablock F
- ▶ Code 11
- ▶ Code 93 | Code 93x 0
- ▶ Code 128
- ▶ Deutsche Post Identcode
- ▶ Deutsche Post Leitcode
- ▶ GTIN 8 | EAN 8 | UCC-8 | JAN-8
- ▶ GTIN 13 | EAN 13 | UCC-13 | JAN-13
- ▶ EAN-13 P2 (ISSN) magazines
- ▶ EAN-13 P5 (Bookland, ISBN) books
- ▶ GS1 128 | EAN 128
- ▶ German Parcel
- ▶ GS1 DataBar: Simple | Expanded | Limited | Stacked | Stacked Omni | Truncated
- ▶ Intelligent Mail® (IMB)
- ▶ ISBN
- ▶ Japanese postcode
- ▶ KIX®, Dutch postcode

- ▶ MSI | MSI Plain | MSI+10+10
- ▶ MSI+10+CD | MSI+11+10
- ▶ NVE | SSCC
- ▶ PZN (Pharma Zentral Nummer)
- ▶ PZN 8
- ▶ Royal Mail
- ▶ UPC-A/E
- ▶ US-FIM
- ▶ US-Postnet

Additional 2D barcodes in the Professional and Enterprise Edition

- ▶ PDF417
- ▶ MicroPDF417
- ▶ Maxicode
- ▶ DataMatrix
- ▶ Aztec
- ▶ QR Code (configurable minimum version)
- ▶ Deutsche Post Premiumadress

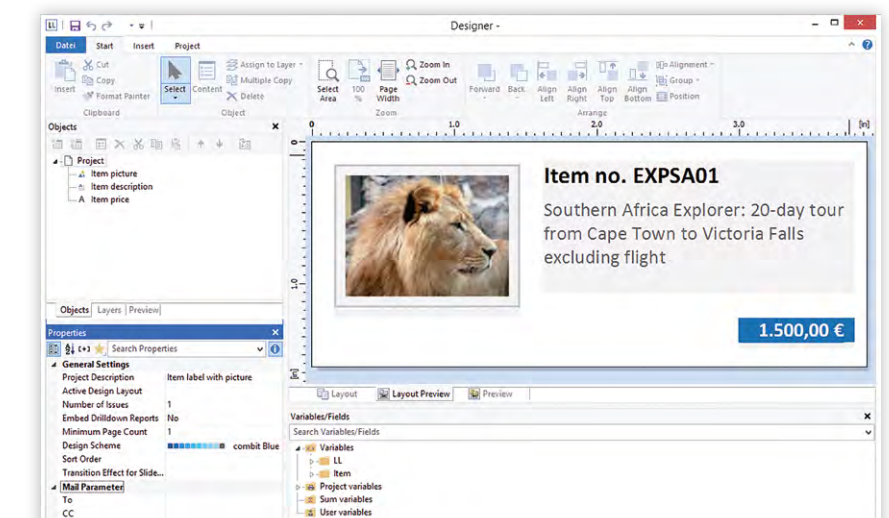


Further features in the Designer

- ▶ DTP control with 3 design modes: layout, layout preview, preview, all freely zoomable
- ▶ Precise positioning to the nearest 1/100 mm or 1/1000 inch
- ▶ Objects automatically align with each other
- ▶ Free positioning grid and snap-to-grid
- ▶ Rotation of text and barcode in 90° increments
- ▶ Quick search in the properties window
- ▶ Smart context menus
- ▶ Appearance condition of layers, single objects or multiple objects simultaneously, or combinations
- ▶ Sum variables: group, page or project totals
- ▶ User variables e.g. to store subtotal formulas or formula components
- ▶ Rapid localization of variable names via translation tables
- ▶ Over 200 functions and 20 operators for calculations, conditions and filters, plus custom functions in conjunction with one of the components

Labels & Forms

Label templates :: Complete existing forms



A label project in the Designer

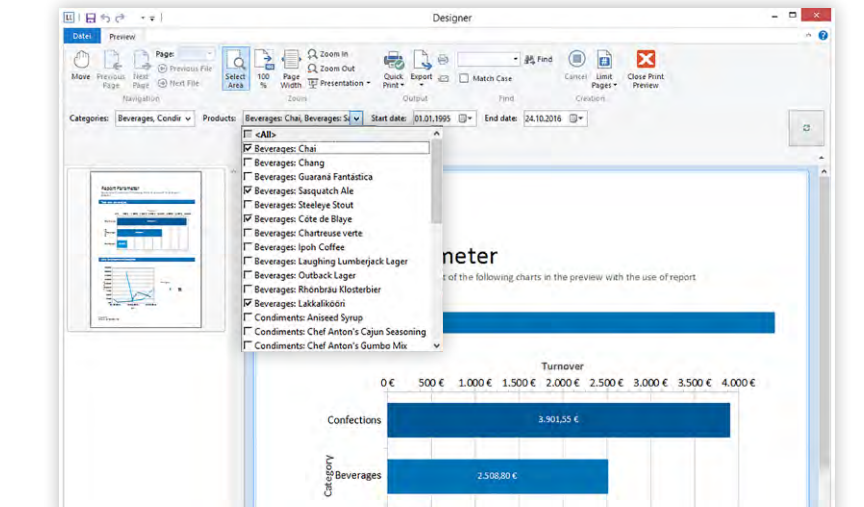
End-to-end support for labels and forms. Simply fill out one of the over 2000 standard label templates from german and international manufacturers (Avery, Boeder, Devauzet, Dymo, ERO, Herma, Leitz, May+Spiess, Seiko, Sigel). Additional formats can be defined as required. Data sorting is supported. In addition to standard features, such as font type and line spacing for each line, more sophisticated functions are available: suppression of unwanted blank lines and spaces, omit used labels from the beginning of a sheet, and define a print sequence.

When completing existing forms you can save yourself the trouble of measuring every field by displaying a scanned form in the background via a special template object. You can then position your objects to the nearest 1/1000 inch.

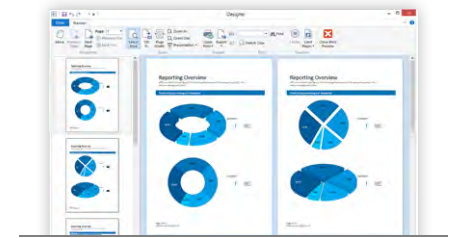
It is even simpler with a PDF object – insert the PDF (e.g. customs or tax form), position your text objects on it, and your form is ready for automatic printing.

Page Preview

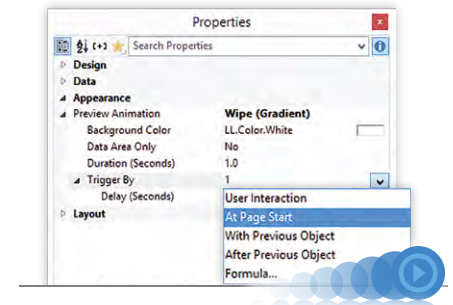
Report parameters :: Multi-page previews :: Touch mode



Report parameters in the preview



Multi-page preview



Animations in the preview

Give your customers a clearer overview. Decreasing the preview's zoom level lets them see multiple pages at once. On touchscreens, they can control the preview with gestures.

Via **report parameters**, users can interactively change what is displayed or the amount of data in a report. The parameters, shown in a separate bar, can also be set by users and employed in filters or for drilldown. The selectable values can also be populated from a database. Dependent parameters are also supported, such as products associated with product categories.

More preview features

Save the preview :: mail it, and display it with the viewer

Search :: on current or all pages

Create a table of contents :: as common in PDF documents

For your own dialogs :: use the in-place preview control provided as part of the components

The WPF Viewer :: integrates seamlessly into your Windows Presentation Foundation application

The HTML5 Viewer :: clearly displays single- and multi-page reports with thumbnails in a browser

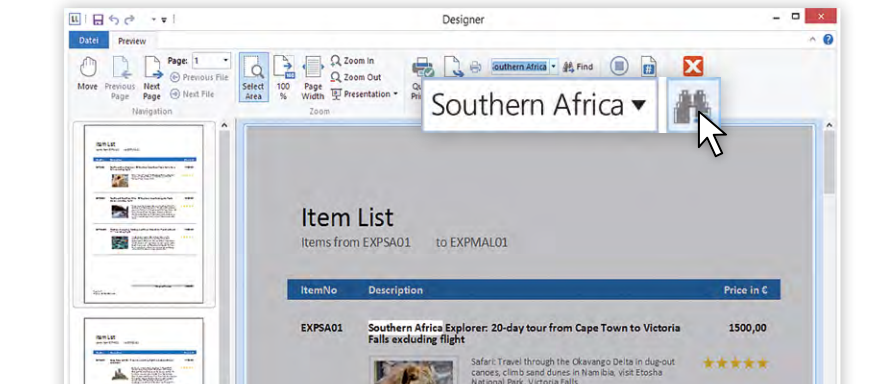
Create a presentation :: from a report, with support for full-screen mode and several of the slide transitions offered by PowerPoint

Animations :: individual objects can be animated in the preview

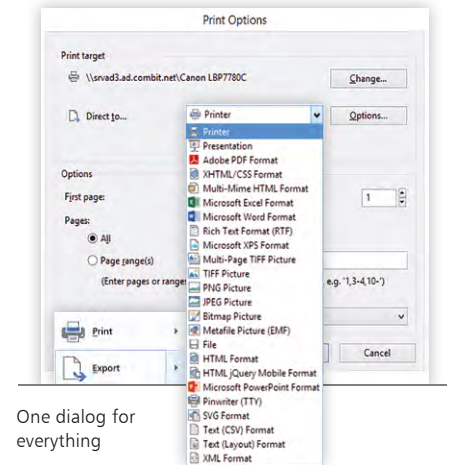
Create interactive forms :: position objects in the Designer for end users to enter data

When it Comes to Output, The Choice is Yours

Print :: Print preview :: Export



Preview with search



One dialog for everything

Output targets with List & Label are traditional printing, print preview (see page 19), and exporting (for formats, see page 22).

Just one parameter specifies the target, List & Label handles everything else. That means less work for you, and more convenience for your end users.

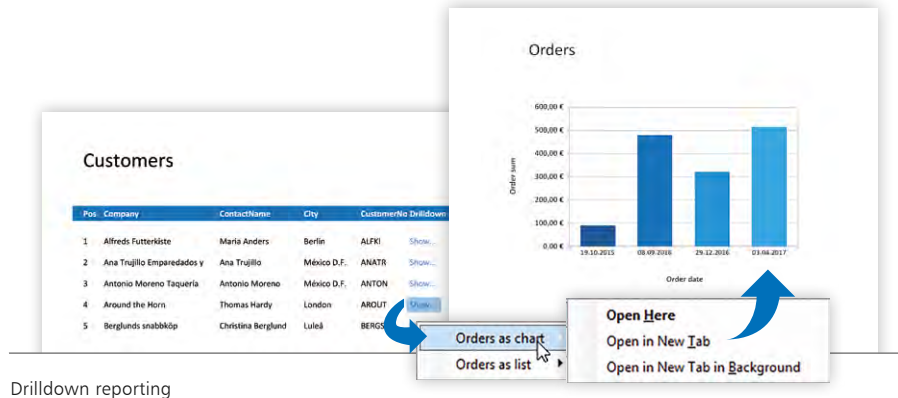
The preview is included in the Designer. You can also integrate it into your application as a control, or offer it as a standalone viewer application. The standalone viewer is ideal for users who do not have your application.

In the preview, users can continuously zoom into the report for review. Then they can initiate printing or export in PDF, text and graphics formats. XHTML,

Word and Excel formats are supported with data binding. You can view the first pages while the print job is still running in the background (see page 19 for more information on the preview).

Issue control in the Report Designer lets you specify the number of copies to print. Every copy can be printed on a different output device, and you can use conditions to select which elements to include. For example, an invoice can be printed by an office printer on regular paper, the associated delivery note printed in the shipping department, and the address used to produce shipping labels on two different media. For archiving purposes, the invoice and delivery note can be output to a PDF document and saved in a designated folder – all with a single click.





Drilldown reporting

Drilldown reporting is configured in design mode and supported by the preview and the HTML5 Viewer. Drilldown means users click through data from relational databases, or use report parameters, to reach the desired level of detail. With this feature, they can confidently navigate very complex data structures.

Expandable regions in the preview and the HTML5 Viewer also provide end users with simple yet powerful drilldown functionality.

Export and sign. Offer users digital signature functionality. PDF, text and MultiTIFF export files created with List & Label can be digitally signed using secrypt's digiSeal® office and digiSeal® server from secrypt, OpenLimit® CC Sign from OpenLimit® SignCubes, or

esiCAPI® from e.siqia technologies. PDFs can also include a signature field to initiate the signing process within the document. You can sign your documents with certificates you generated yourself, or make use of signature-card solutions from our partners. To do this, you require one of the software products listed above, plus a card reader and a corresponding card. For more information, please contact the respective software provider.

More output-related features

Emailing :: send preview and export files via MAPI, Extended MAPI or SMTP. Preview files can be compressed. The mail can be plain text with an attachment, or a pure HTML; 32- and 64-bit mail proxies are available.



Export and sign

Print-job monitoring :: after the job is passed to the spooler, one event in the .NET, VCL and OCX components, or via callbacks.

Continuous-feed labels and forms :: instead of sending text in layout, text is sent directly to the matrix printer, by-passing the printer driver; this ensures optimum results on these media.

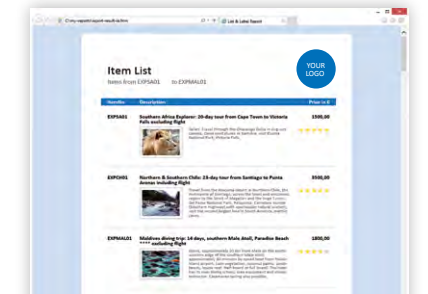
“ In the future, we will be counting on List & Label for our reporting needs.

Daniel Wagner,
schreinerservice24 GmbH

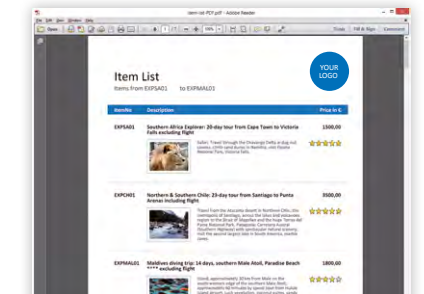


An Extensive Range of Export Formats

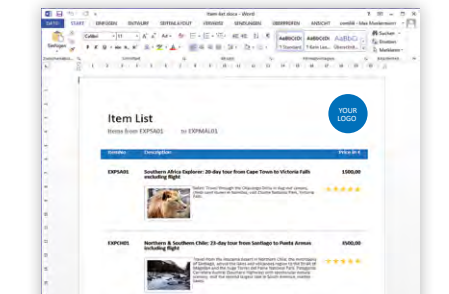
PDF :: XHTML/CSS :: Microsoft Excel :: Microsoft Word :: Text :: Graphic formats



Export to XHTML: result in Internet Explorer



Export to PDF: result in Adobe Reader



Export to DOCX: result in Microsoft Word

Export formats

PDF :: Optionally in compliance with PDF/A-1a standard. Fast export, manageable file sizes, support for CID fonts, up to 128-bit encryption, optionally restrict printing, editing and/or copying, file size optimization (embed fonts, use Type 3 fonts, hash duplicate graphics). Also: native support for the ZUGFeRD invoice format.

Microsoft Word :: with the DOCX export format, tables etc. (including multiple-page) are exported as regular, editable Word objects. Exporting to DOCX does not require installation of Microsoft Word.

Microsoft Excel :: 1. Data only: export table data to a spreadsheet and edit it like a regular Excel project, 2. Adopt the complete layout to accurately reproduce the original appearance. Neither option uses OLE, so Microsoft Excel installation is not required. You can optionally create one worksheet per page and have them automatically named sequentially.

XHTML/CSS :: Style Sheet (CSS) tags ensure accurate reproduction of the layout, including gradient fills, table borders and spacing; compact UTF-8 encoding.

MHTML :: Unlike HTML, the exported file can contain graphics and images, instead of merely links.

jQuery Mobile HTML :: Use this to produce HTML files suitable for viewing on mobile devices, including iPhone and Android.

Text :: 1. Data only: to create virtually any CSV file (data conversion), 2. With layout, e.g. for dot-matrix and continuous printers.

TIFF / Multi-TIFF :: A variety of compression types with differing quality characteristics.

Other :: XML, JPEG, BMP, SVG, EMF, TTY, ZIP, XPS, PNG, HTML, RTF, PowerPoint

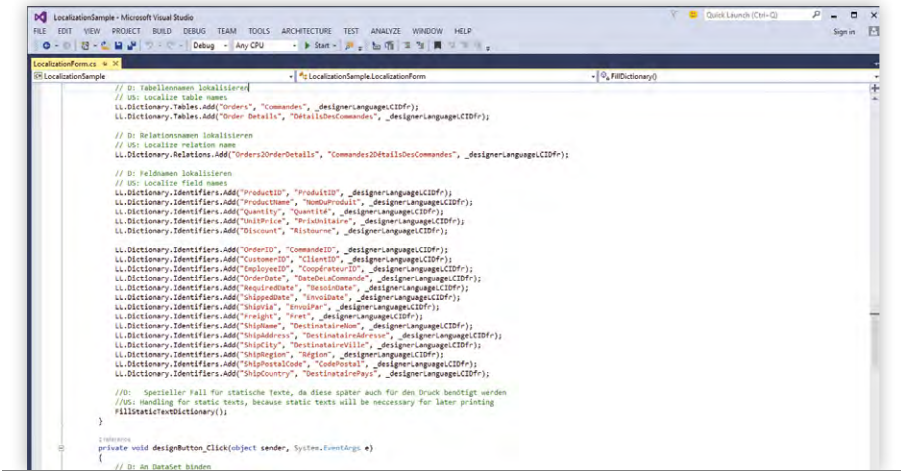


Try it out in your trial version: Sample Application: Print > Item Reports > Load project "Item report with pictures.rpt" > Choose export formats

Test it online:
www.combit.com/webreporting

International Projects

Unicode :: Designer in various languages :: Project-file localization



Localization of project files

List & Label makes it easy to expand into international markets and gain competitive advantages by providing everything you could need.

Unicode support enables you to design, output and export items containing, for example, Chinese or Russian text, or a mixture of character sets.

Designer language kits are available in many languages, and switching is easy. As a result, your application is suitable for multilingual teams and international markets. The availability of a given kit depends on the timing of the current release cycle and in some cases, on partner companies.

The following languages are currently available for Version 22: Chinese (simplified), Czech, Dutch, English, French, German, Italian, Japanese, Portuguese, Russian, Slovak and Spanish.

Information correct as of January 2017. Please contact us if the language you require is not listed.

All available language kits are included in the Enterprise Edition and can be purchased as additional language kits for the Standard and Professional Editions.

Localization of project files.

Projects are initially designed in one language, and then welcome each user in their own language. To make this possi-



Localization of data sources

ble, a dictionary is transferred via the API for each language. Alternatively, customers can activate dictionaries or translation tables that they are already using. This saves a significant amount of time.

“List & Label is a powerful and intuitive report generator and amazingly lightweight.

Mike Riley,
Jolt Awards Judge

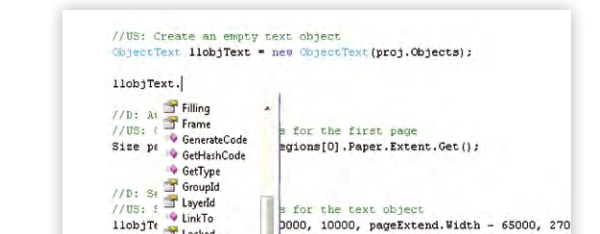


Object Model for Projects - DOM

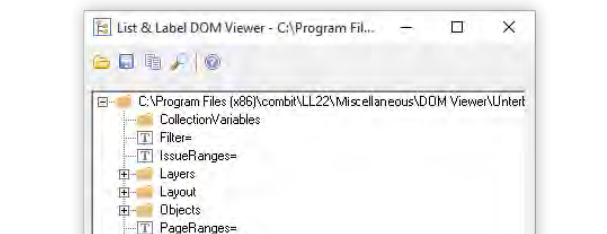
(included in the Professional and Enterprise Editions)

Control Designer properties via code:: Create DOM code from a project file

DOM enables you to dynamically generate your own projects, plus project wizards that offer users a feature-reduced Designer for the task at hand, or preconfigured fields based on data they entered. This is particularly straightforward to implement with .NET and VCL, but it also works in other programming languages. Properties, objects, and entire projects, can be generated at runtime as DOM code for .NET.



IntelliSense support for all objects



Object models in the DOM viewer

“Create a new project including a report container and table called “Item” with some table fields”, here in C#:

```
Proj.Open(@"..\item.lst", LLDomFileMode.Create,
    LLDomAccessMode.ReadWrite, true);

ObjectReportContainer container= proj.Objects.AddNewReportContainer();
container.Position.Left = "0";
container.Position.Top = "0";
container.Position.Width = "150000";
container.Position.Height = "200000";

SubItemTable table = container.SubItems.AddNewTable();
table.TableId = "Item";

TableLineData dataLineNew = table.Lines.Data.AddNew();
dataLineNew.Name = "Created dynamically";

TableFieldText textCol = dataLineNew.Fields.AddNewText();
textCol.Contents = "Item.No";

TableFieldBarcode barcodeCol = dataLineNew.Fields.AddNewBarcode();
barcodeCol.Contents = "Barcode(Item.No, 'PDF417')";

Proj.Save();
Proj.Close();
```

This is how you can output every first paragraph of a text object, here in Delphi:

```
domPrjList.Open('item.lst', fmOpenOrCreate);

for i := 0 to domPrjList.ObjectList.Count - 1 do
begin
    if domPrjList.ObjectList[i] is TL1DOMObjectText then
        ShowMessage((domPrjList.ObjectList[i] as
            TL1DOMObjectText).Paragraphs[0].Contents);
end;

domPrjList.Close;
```

“ List & Label is the perfect fit – our users love it and so do we.

Steve Williamsson

Foresight



Using the Tool

.NET :: C++ :: Delphi & Co

Programming languages and development environments

- ▶ .NET (.NET component) ¹
- ▶ Access ^{2, 4}
- ▶ AcuCobol ⁵
- ▶ Alaska Xbase++ ^{2, 4}
- ▶ Asymetrix Toolbook ⁴
- ▶ C# (specialized .NET component) ¹
- ▶ C/C++ (code examples for VC++) ^{1, 4}
- ▶ C++ Builder (VCL component) ¹
- ▶ Centura SQL ⁴
- ▶ Clarion ⁴
- ▶ Cobol ⁵
- ▶ DataFlex (DataFlex component) ³
- ▶ dBASE PLUS (dBASE PLUS component) ³
- ▶ Delphi (VCL component) ¹
- ▶ Excel (partially VB-compatible) ⁵
- ▶ Java (JNI-DLL) ²
- ▶ Lotus Script ⁴
- ▶ PHP ³
- ▶ PowerBuilder ⁴
- ▶ Progress ⁵
- ▶ Visual Basic 6 ^{1, 4}
- ▶ Visual Basic .NET (specialized .NET component) ¹
- ▶ Visual C++ ^{1, 4}
- ▶ Visual FoxPro ^{3, 4}
- ▶ Visual Objects ^{3, 4}
- ▶ Visual Studio 2008 - 2017
- ▶ Word (partially VB-compatible) ⁵

¹ 10 or more examples

² Several examples

³ One example

⁴ Declaration file

⁵ Can be integrated

Up to Date

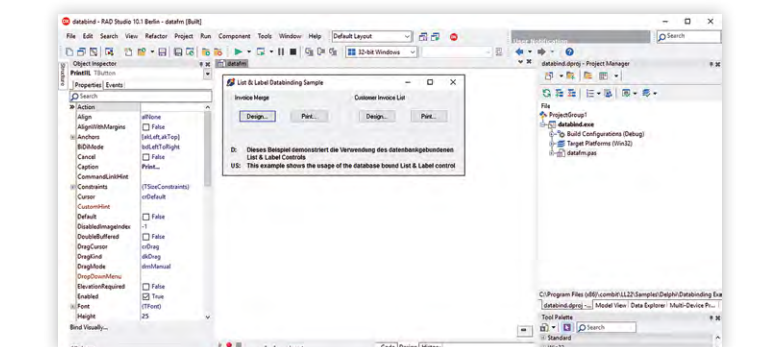
Operating systems :: Technologies

- ✓ 64-Bit *
- ✓ Visual Studio 2017 (Sim-Ship partner)
- ✓ Windows Azure VM *
- ✓ Embarcadero RAD Studio 10.1 Berlin
- ✓ Windows 10 (8.1/8, 7, Vista, XP, Server 2008 - 2012 R2)
- ✓ Amazon Web Services *
- ✓ NuGet *
- ✓ ZUGFeRD

* Professional and Enterprise Edition.
See the Programmer's Reference for restrictions.



Information correct as of January 2017. List & Label can be integrated into all languages that support DLL calls. Please contact us if you have any questions: T +49 (0) 7531 90 60 10 or service@combit.net



List & Label with RAD Studio



Code Samples: Starting the Designer

.NET :: Delphi :: C++ :: Visual Basic

.NET

```

protected void design_Click
(object sender, System.EventArgs e)
{
    try
    {
        // Link to a DataSet object
        LL.SetDataBinding(myDataSet,
            "Orders");

        // Set properties (optional)
        LL.AutoProjectFile = "subrep.lst";
        LL.AutoProjectType = LLProject.List;
        LL.AutoDialogTitle = "Example";
        LL.AutoShowSelectFile = true;

        // Start the Designer
        LL.Design();
    }
    // Catch exceptions
    catch (ListLabelException ex)
    {
        MessageBox.Show("Information: " +
            ex.Message, "Information",
            MessageBoxButtons.Information
            | MessageBoxButtons.OK);
    }
}

```

Delphi

```

procedure
 TForm1.DesignButtonClick(Sender: TObject);
begin
    // Assign data source
    LL.DataSource := dsCustomers;

    // The customer master data must be
    // registered as fields
    LL.AutoMasterMode := mmAsFields;

    // Set standard project name
    LL.AutoProjectFile := 'subrep.lst';

    // Start the Designer
    LL.AutoDesign('Invoice List');
end;

```

C++

```

// Regular text field
LlDefineFieldExt(job, "Text", "Testtext", LL_TEXT, NULL);

// Footer fields, e.g. numeric
LlDefineFieldExt(job, "Subtotal", "12.34", LL_NUMERIC | LL_TABLE_FOOTERFIELD, NULL);

// Barcode fields
LlDefineFieldExt(job, "BC_EAN_128", "123456789abcd", LL_BARCODE_EAN128, NULL);

// Variable graphics via file names
LlDefineFieldExt(job, "NormalImage", "sunny.bmp", LL_DRAWING, NULL);

// File selection dialog with sketch
LlSelectFileDlgTitleEx(job, hWnd, "File Selection", LL_PROJECT_LIST, szFile, sizeof(szFile), NULL);

// Remove a specific menu command from the Designer
LlDesignerProhibitAction(job, 211);

// Start the Designer with the above fields
LlDefineLayout(job, hWnd, "Title", LL_PROJECT_LIST, szFile);

```

Visual Basic

```

Private Sub ButtonDesign_Click()
    ' Starts the Designer with the title "Invoice" and the file "Invoice.lst"
    ListLabel1.Design(0, hWnd, "Invoice", LL_PROJECT_LIST, "Invoice.lst", 1)
End Sub

```

The Event ListLabel1_CmndDefineFields is used for the data definition (cf. print sample code).

“List & Label is a better alternative to Crystal Reports in Visual Studio. In my experience, it should be included in every tool collection.

dotnetpro



Code Samples: Start Output

.NET :: Delphi :: C++ :: Visual Basic

.NET

```
private void print_Click(object sender,
    System.EventArgs e)
{
    try
    {
        // Bind to a DataSet object
        LL.SetDataBinding(myDataSet, "Orders");

        // Set properties (optional)
        LL.AutoProjectFile = "subrep.lst";
        LL.AutoProjectType = LLProject.List;
        LL.AutoDialogTitle = "Example";
        LL.AutoShowSelectFile = true;

        // Start printing
        LL.Print();
    }
    // Catch exceptions
    catch (ListLabelException ex)
    {
        MessageBox.Show("Information: " +
            ex.Message, "Information",
            MessageBoxButtons.Information |
            MessageBoxIcon.OK);
    }
}
```

Delphi

```
procedure TForm1.PrintButtonClick(Sender:
    TObject);
begin
    // Assign data source
    LL.DataSource := dsCustomers;

    // Set standard project name
    LL.AutoProjectFile := 'subrep.lst';

    // Set print mode to PreviewControl
    LL.AutoDestination := adPreview;

    // Print
    LL.AutoPrint('Invoice List');
end;
```

C++

```
// Normal text variable
LLDefineVariableExt(job, "Text", "Testtext",
    LL_TEXT, NULL);

// Numeric variable
LLDefineVariableExt(job, "Subtotal",
    "12.34", LL_NUMERIC, NULL);

// Barcode variable
LLDefineVariableExt(job, "BC_EAN_128",
    "123456789abcd",
    LL_BARCODE_EAN128, NULL);

// Variable graphics via file names
LLDefineVariableExt(job, "NormalImage",
    "sunny.bmp", LL_DRAWING, NULL);

// Start printing
LLPrintWithBoxStart(job,
    LL_PROJECT_LABEL, szFile,
    LL_PRINT_EXPORT,
    LL_BOXTYPE_BRIDGEMETER, hWnd,
    "Printing...");

// Print label
LLPrint(job);

// End printing
LLPrintEnd(job,0);
```

Visual Basic

```
Private Sub ButtonPrint_Click()

    ' Prints the project "test.lst" on
    ' printer
    Data1.Recordset.MoveFirst
    ListLabel1.Print(0, LL_PROJECT_LIST, _
        "test.lst", True, LL_PRINT_NORMAL, _
        LL_BOXTYPE_NORMALWAIT, hWnd, _
        "Printing", True, Environ$("temp"))

End Sub

Private Sub ListLabel1_CmndDefineFields(ByVal nUserData _
    As Long, ByVal bDummy As Long, nProgressInPerc _
    As Long, pbLastRec As Long)

    ' This event is triggered by the print
    ' and design command. It is called for each
    ' data record in order to transfer fields and
    ' their content to List & Label
    ' Repeat for all fields
    ' belonging to a data record:
    For i = 0 To
        Form1.Data1.Recordset.Fields.Count - 1
        content$ = Data1.Recordset.Fields(i)
        nRet = ListLabel1.LLDefineFieldExt _
            (Data1.Recordset.Fields(i).Name, _
            content$, LL_TEXT)
    Next i
    ' Go to next data record
    Form1.Data1.Recordset.MoveNext
    ' If there are no more data records
    ' printing is ended.
    If Form1.Data1.Recordset.EOF = True Then
        pbLastRec = 1
    End If

End Sub
```

“The Designer is unbeatable.
Result: List & Label is the ideal tool for
 developers.



Licensing and Support

List & Label is available in three editions, ranging from a moderately priced entry-level version to a comprehensive, full-powered package. The subscription editions, *Professional* and *Enterprise*, offer a variety of benefits, including new releases and flat-rate support. If you choose the *Standard Edition*, you can access a knowledge base and forums, and utilize our support services for a fee based on time. And you decide, on a case-by-case basis, whether you wish to purchase upgrades.

The subscription editions, Professional and Enterprise, include all service packs, all feature upgrades and all major releases during the contract term*. Support is also included in the subscription. We are available by phone and via our support portal during our standard office hours**. From version 22 we offer long-term support (LTS) for even-numbered versions (22, 24, etc.), applicable until the next LTS version is available. For customers who purchased the *Enterprise Edition*, we guarantee to issue bug fixes within 14 days of establishing that the corresponding software errors are reproducible.

* If you purchase List & Label by download, all releases will be made available to you by download. If you choose CD, you will receive the first version on CD. Service packs, feature updates and new major releases will then be available as downloads. However, you can additionally receive major releases on CD upon request, at no extra charge.

** You can contact our Support Team from 9am to noon and from 2pm to 5pm (CET). At any other time between 8.30am and 6pm, please ask for us to call you back.

The contract term of subscriptions, including flat-rate support, is one year. If you do not cancel your subscription in writing at least 3 months before the end of the contractual year, it will be **automatically extended** by another year. If you wish to restrict your subscription to one year, you can give notice to this effect when you order List & Label. However, if you decide to renew your subscription after it has expired, you will be charged the standard rate of a first-time subscription.

Each List & Label license is valid for a single developer, for installation on a single PC (or additionally on a notebook). Every developer involved in a project or product requires a separate List & Label license, whether or not they work on the part of the application related to List & Label. Our terms and conditions are based on the number of software developers involved in creating your application, and we offer attractive volume discounts. In return, it is generally permissible to redistribute List & Label functionality integrated into your software without paying additional license fees. You are permitted to include List & Label functionality in any number of software products and to distribute the functionality integrated in your applications to any number of end users.

List & Label is employed worldwide in diverse software applications. However, a small number of scenarios are not covered by our standard licensing agreement. They include the use of List

& Label to create software products whose main purpose is also printing, exporting, software development or the generation of reports. If in doubt, please contact us. We can generally find a solution that meets your specific requirements.

Usage of List & Label on servers or web servers is subject to a license fee in the case of the *Standard* and *Professional Editions*. You must purchase the correct quantities of server/web server licenses for every installation of an application that, for example, utilizes internet protocols, or is a web server extension, or is included in ASP or PHP pages, or is an independent server application. The *Enterprise Edition*, by contrast, includes a flat-rate server/web server license applicable to an unlimited number of servers and end users.

Licensing, licensing agreement and FAQ

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Contact us for advice and assistance.

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include
flat-rate
support

List & Label Editions

Designer for developers and end users for most desktop applications (see license agreement)		•	•
Wide range of programming languages supported; code examples available		•	•
Print, preview and export in all supported formats		•	•
Programmer's Manual and Designer Manual as PDF file		•	•
Designer documentation additionally as DOC and HTML files for your own expansions		•	•
Service Packs for one year, access to knowledge base, forums and RSS feeds for Service Packs		•	•
Unicode support for international character sets		•	•
Alternated use on one notebook		•	•
Number of report parameters	1	∞	∞
Support at www.combit.com/support , or by telephone	€ ¹⁾	•	•
Multiple languages in Designer: Language kits at least in Chinese, English, French, German, Italian, Japanese, Spanish	€ ²⁾	€ ³⁾	•
Suitable for most server/web server applications, and as a service	€ ⁴⁾	€ ⁴⁾	•
One-year subscription including feature-updates; automatic renewal , termination up to 3 months before end of contractual year		•	•
Service Packs throughout subscription term, access to knowledge base, forums and RSS feeds		•	•
64-bit version		•	•
2D barcodes: PDF417, MicroPDF417, Maxicode, DataMatrix, Aztec, QR Code and Deutsche Post Premiumadress		•	•
DOM (document object model): customize/create projects without Designer		•	•
Individually adaptable SAP Crystal Reports converter and RDL (e.g. SQL Server Reporting Services) converter		•	•
Suitable for Windows Azure, Amazon Web Services, and cloud computing		€ ⁴⁾	•
Shapefiles for geovisualization and more			•
Formula wizard can be integrated into your own applications, independently of List & Label			•
Priority support with bug fixing policy ⁵⁾			•
Long term support for versions with even version numbers until release of next LTS version, typically 2 years			•
15% discount on training courses and customization services			•
.NET source code as development reference			•
Participation in beta testing for major new versions			•
¹⁾ Support services will be charged at a rate of € 3 per min (plus VAT if applicable) ²⁾ From € 119 per language kit ³⁾ 15% discount on language kits ⁴⁾ Server/Web server licenses from € 99 for 5 users, and up to € 14,999 for 1000+ users, per server ⁵⁾ We promise to fix all serious bugs within 14 days from the time we reproduce the error ⁶⁾ A discounted upgrade to the Standard Edition may only be performed from the previous two versions			
First year	€ 650	€ 1200	€ 1800
Subsequent year	-	€ 600	€ 900
Upgrade to new major version ⁶⁾	€ 390	-	-
Upgrade within the Subscription	-	incl.	incl.

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Hitachi
HRM Systems
JPMorgan Chase & Co.
Lear Corporation
MCS Software und Systeme
METTLER TOLEDO
Österreichische Post
RheinLand Versicherungen
Sage
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Siemens
Stahl

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