The Report Designer

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1. Introduction

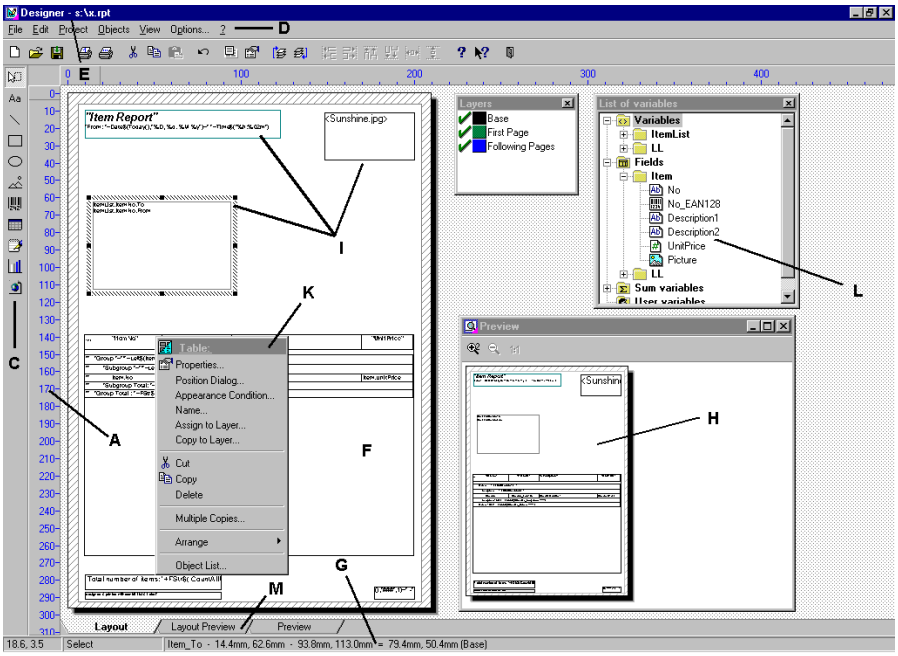
This manual is divided into three sections. The first section is devoted to introducing you to the List & Label Designer and the functions which are available to you.

The second section describes in turn the commands which are available via the menu.

In the appendix you will find a description of the functions which allow you to manipulate strings and numbers.

But, to start, let's take a look at the layout and the individual tools.

1.1. The Designer Interface



A	Rulers	G	Status Line	M	Views
B	Menubar	H	Preview Window		
C	Objectbar	I	Objects		
D	Toolbar	J	Layer Window		
E	Project Title & File Name	K	Context Menu		
F	Workspace	L	Variable List		

1.1.1. Rulers

The rulers form a frame around the workspace. The units used on the ruler automatically adapt to the respective measuring mode that you have configured in Windows. The current position of the mouse is shown as line markings on the rulers, displaying the respective coordinates at any given time. These units correspond to the default values in your Windows system control.

1.1.2. Object Bar

Some of the tools available in the Designer can be accessed via the button bar on the left-hand-side of your workspace. With a mere button click you are offered a direct short-cut option.

These buttons are self-explanatory: if you remain on the button for a while without pressing a mouse key then a short description of the button function appears in a small window. This bar can be placed/removed by choosing **Options >Workspace >Toolbar show "objects"**.

Tool	Corresponding menu items
	Objects > Select
	Objects > Insert > Text
	Objects >Insert > Line
	Objects > Insert > Rectangle
	Objects > Insert > Ellipse / Circle
	Objects > Insert > Picture
	Objects > Insert > Barcode
	Objects > Insert > Table
	Objects > Insert > Formatted Text
	Objects > Insert > Chart
	Objects > Insert > HTML Text

1.1.3. Toolbar

In the same manner, menu items, can also be directly selected via the toolbar (as a short-cut). Just click on the button you require.

Tool	Corresponding menu items
	File > New
	File > Open
	File > Save
	File > Print Sample
	Edit > Cut
	Edit > Insert

Edit > Copy

Edit > Undo

Project > Page Setup

Objects > Properties

Objects > Arrange > To Front

Objects > Arrange > To Back

Objects > Arrange > Alignment > Left

Objects > Arrange > Alignment > Right

Objects > Arrange > Alignment > Top

Objects > Arrange > Alignment > Bottom

Objects > Arrange > Alignment > Size fit horizontal

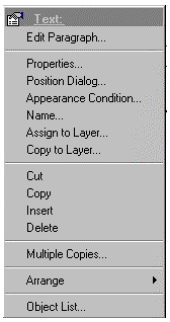
Objects > Arrange > Alignment > Size fit vertical

Help

Context Sensitive Help

File > Exit

1.1.4. Context menu



The most important used commands that concern an object can be activated via a context menu.

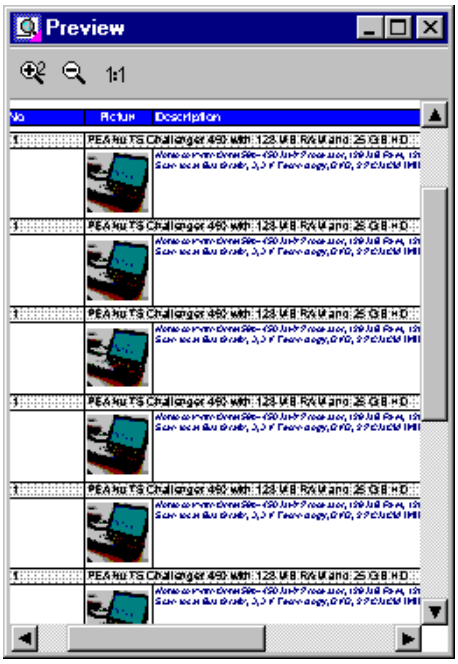
This function must be activated by choosing "**Options** > **Compatibility** > **Context menu**".

1.1.5. Workspace

The workspace is the area in which objects can be changed and defined. The shape and size of the workspace depends on the default values of the paper size and alignment (see: **Project > Page Setup**).

The entity of all objects on the workspace and its corresponding layout are called a project. List & Label distinguishes between list projects (list/table creation), card and label projects (label creation).

1.1.6. Preview



The preview window is available in order for you to check the layout of your workspace. Click in the window to change between full size and normal window size. The size of the preview window can be changed by dragging the frame. These settings are stored globally for the project type, and are therefore valid for all List & Label projects of the same type.

You can select an area to enlarge by dragging a rectangle. The zoom modes in this preview are independant of the zoom mode in the workspace.

With this button you increase the zoom factor of your current preview view by a factor of 2.

This button reverts the last zoom change and restores your previous view.

Click this button to adapt the zoom factor in order to view the whole page.

1.1.7. Status Bar

The status bar is divided into three sections:

- the left area indicates the current mouse position in millimeters or inches from the left upper workspace corner.
- the middle area indicates the current mode of operation. (for example, selection, draw rectangle, etc.)

- the right area shows the name or type, relative appearance level, as well as the size of a selected object.

1.1.8. View Modes

At the bottom of the workspace you can select the view mode:

- In Layout mode you can see the object frames and the contents of the objects as formula. This mode is ideal for exact positioning and is the fastest mode.
- Layout Preview mode shows the objects in WYSIWYG mode. If the system DLL MSIMG32.DLL is present (normally from Windows 98 or Windows 2000 upwards) objects will be painted transparently in the layer color.
- The Preview mode is identically to the separate preview window. The separate preview window is automatically closed when this mode is active. In the contrast to the separate window, you can edit all objects.

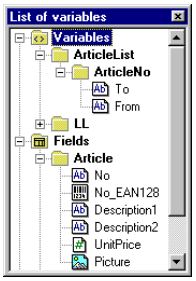
1.1.9. Layer Window

The layer window shows the various layers or levels of a project. This window can be repositioned on the workspace at your will.

You can increase the overview in complex projects by assigning objects to an individual layer. You can switch layers on and off at any time by using the layer window. You can give these layers their own appearance conditions. For example, one layer may only be valid for the first page of a multi-page project, and the second layer for the remaining pages.

More detailed information on working with layers can be found in chapter 2.6, "Working With Layers".

1.1.10. Variable List



The variable list displays all variables which are available in the current project; for list type projects, all available fields are additionally displayed.

Fields, variables, and internal List & Label variables are distinguished in the hierarchical list. Fields contain the data changing from line to line of a table object, while variables usually only change from page to page.

If you wish to assign variables or fields to existing objects, you may simply drag the variable from the list and drop it on the respective object. List & Label does the pasting for you (drag & drop).

If you drag a variable to a free area in the project workspace, a new text object is automatically generated.

1.1.11. Drag & Drop

The List & Label designer is equipped with a broad range of interesting drag & drop functions, simplifying the project design process. It is possible (see above) to add new contents to existing objects by drag & drop, or create new objects in a free area in the project workspace. This system was also integrated into many dialogs: you may add new contents to the property dialogs of text- and table objects or move existing contents easily with the mouse.

1.2. Dialogs

The dialogs of the List & Label Designer are designed with recurring functions, enabling you to quickly become familiar with the designer and work effectively. The following list describes some buttons which will simplify your work in many dialogs:

Online-Help

The designer is supplied with context sensitive online-help, which can be started from nearly all dialogs with this button. The online help describes the dialogs and functions as detailed as this manual and may even replace it.

New

This Button is used to add new contents to a dialog, a new line in a text object, for example.

Edit

This button is used to edit the contents or properties of the selected item(s).

Delete

This button deletes the selected item(s).

Cut

This button cuts the selected item(s) to the clipboard.

Copy

This button copies the selected item(s) to the clipboard.

Paste

This button pastes the item(s) from the clipboard to the current object.

Move

With these buttons, the order of the selected item(s) can be changed.

2. General Methods and Procedures

The List & Label Designer recognizes three types of projects - lists, labels, and cards (often complex label projects).

The individual elements of a project are called "objects". In this manner, a label project can, for example, consist of an object for the sender line, the address area, and the logo.

These objects contain the information required for printing such as the actual contents, fonts, alignments, word wrapping, colors, etc.

The List & Label Designer provides different types of objects which can be freely placed and changed in size on your workspace. Depending on its type, an object can display information or have various different properties.

Text
These objects can contain fixed text as well as the variable content of individual records. You can determine the fonts, object orientation, and alignment of the contents.

Rectangles
These objects are rectangular frames for which layout options such as frame width, colors, filling pattern and shading can be defined.

Circles and Ellipses
Define Circles and Ellipses. Layout options such as frame width, colors and filling pattern can be defined.

Lines
With this object type you can define lines with layout options such as line width and color.

Picture Files
These objects allow you to integrate graphics into projects. These can be either fixed graphics (ex. a company logo) or variable graphics (i.e. different for each record).

Barcodes
These objects allow you to display fixed text or variable contents as barcodes. You can define characteristics such as the type of barcode, color, text, and orientation.

Tables (Lists)
These objects allow you to display fixed text and variable contents from various records. You can define layout characteristics such as appearance, fonts, column widths and alignments, word wraps, footers, etc.

Formatted Text
With this object type you can change the format within a line.

Chart
With this object you can create diagrams.

HTML Text
With this object you can display the contents of web sites an other HTML formatted text.

You normally position the required objects in the workspace with your mouse, and then determine the corresponding contents and layout properties. Alternatively, you can just drag a variable from the variable list per drag & drop, and place it on your workspace.

In order to edit an existing object you need to select it. Just click into the required object. The object will be selected. A selected object can be identified by its frame. When a new object is created, it is automatically "selected" and can be edited or changed immediately.

The property dialog of an object can be activated with a double-click. Please be aware that the selection tool has to be activated. See Chapter 1.1.3 "Object bar."

2.1. Projects

2.1.1. Creating or Opening a Project

Use the **File** menu commands to open existing projects in the List & Label Designer or create new ones.

Create a new project


To start a new project, select **File** > **New**. If your current project has unsaved changes, you will be asked whether you would like to save them. List & Label then automatically opens the default project for the type of project you require.

Normally this is merely an empty workspace with a certain paper size and alignment. In the case of label projects you can also pre-determine a certain label format (size and the layout of individual labels on the page).

If you chose "New project assistant" in the **Options > Workspace** dialog, you will be guided through the process of creating a new project by the project wizard (see below).

Hint: A default project is a standard empty "copy" to aid in the creation of projects. It is however possible for you to change the default project to your own requirements and save it as a file called "default". The next time you call **File** > **New** your own - changed - default project will be opened.

The Project Wizard

The project wizard will help you create new projects. In label / card projects you will be first lead through the layout options. Afterwards you can choose a page title and a matrix of text objects. In list projects you can set the layout options as well as:

- page numbering
- page title (first page only or all pages)
- zebra pattern for the table
- create a summary
- choose the data for the table object

Opening an Existing Project


To open an existing project select **File** > **Open**.

If a description has been given to a project (see **File** > **Save As**) the

description will be displayed underneath the sketch field. In the "sketch" field you can see a sketch of each selected project, making it easier for you to find the project you are looking for. (The sketch is only shown if the corresponding option is set, see: **Options** > **Compatibility** > **Sketch in File Dialog**).

If you open a project that was designed with an older version of List & Label Designer List & Label will inform you. Please note that projects designed with the new Designer will not be readable or editable with an older version. We advise you to make backups of your project files before editing them with the new Designer. Please check your layout after conversion carefully, as slight changes are possible.

2.1.2. Project Import

With the command **File > Import** you can insert all objects from another project into the current project.

2.1.3. Project Types

The List & Label Designer is capable of different kinds of projects: labels, lists and cards. Please note that it is not possible to switch between the different project types in one designer session. The designer has to be closed and reopened in the new mode for this purpose.

It is however possible to design multiple projects of the same type. Simply open or create the objects in the order you want to design them. You may not open multiple projects at one time, but you can copy objects from one project to another using the clipboard.

2.2. Determining Page Setup

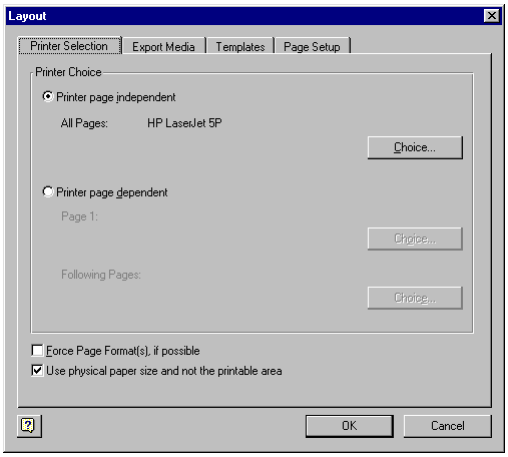
Before you start to place objects in a project, please choose your layout. With the command **Project** > **Page Setup** you can determine properties such as paper size and orientation. The layout options available depend on the type of project you are currently working with.

2.2.1. Page Setup for Labels

In the page setup for labels you can set the paper size and orientation as well as the printer via the printer setup. You can either open one of the predefined label formats or define one of your own.

Selecting Printer and Paper Format

Click the "choice" button to determine the paper size and alignment and choose the printer for the project.



You can also either open a predefined label format, or freely create your own. The paper orientation is saved with the project and does not change the Windows default printer settings.

If the project consists of only one page or one printer specification for all pages choose the "printer page independent" button.

For projects with more than one page it can be useful to choose a different printer specification or different printer. If you check the "printer page dependent" option, you can choose different printer (-options) for the first and the following pages. In this way you can take corporate letter-head paper for the first page and normal paper for the following pages.

Force Page Format(s) if possible

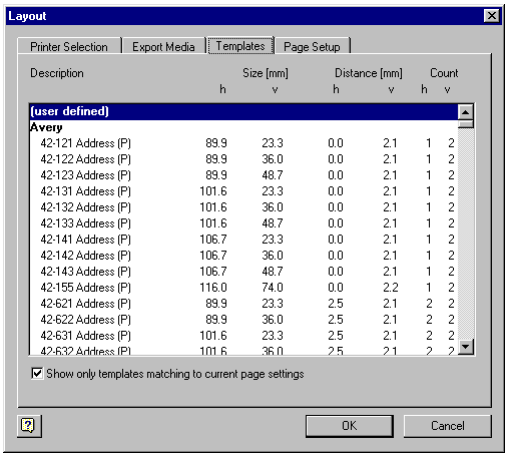
If no printer definition file exists and this option is set, the paper format selected during design will be forced during print out. Prerequisite is that the respective format or a "user defined" format is supported by the printer. Else, the next size up will be chosen.

Use physical paper size and not only the printable area

If this option is set the whole physical page is available as workspace, including non-printable margins. Some label page layouts require this, as the first label starts right at the left top edge instead of at a specific distance. The unprintable margins are shown shaded in the full-page preview.

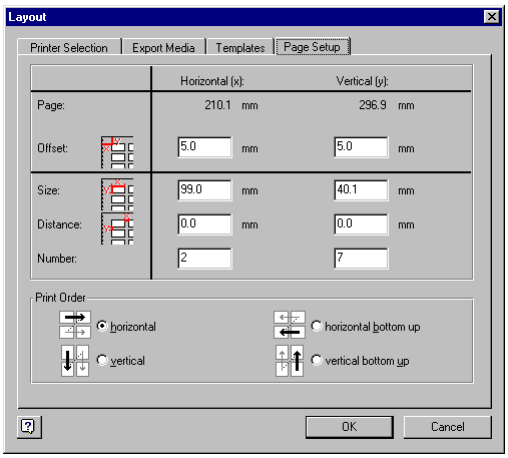
This means that objects can also be placed in the margins which will be cut off during the print. If objects are placed on page edges you still should take notice of the unprintable area.

Using Pre-Defined Label Formats



You can choose from a range of pre-defined label formats in the "templates" register in the page setup for labels. Now you won't have to find out the size of a particular label and how many labels are on one page.

Defining Your Own Label Formats



It is also possible to define your own label layout if the one you require is not available. Use the following values:

Setting the Offset

The offset provides the horizontal and/or vertical distance of the top left-hand label to the edge of the workspace (depending on the "physical page size switch, this is relative to the paper edge or the printable area edge).

Hint: the top left corner of the workspace always begins on the screen display with the coordinate 0/0, independent of the chosen page size and offset. The effects of the offset can however be seen in the full-page preview or when you print.

Setting the Size

This provides the size (horizontal = width / vertical = height) of the label in inch or mm.

Setting the Distance

This option determines the distance from one label to the next (the space between two labels). For labels with only one column, only the vertical distance needs to be given.

Setting the Number

This option determines the number of labels per page. (horizontal value = number of columns per page, vertical value = numbers of lines per page)

You can check the layout by selecting **Options > Preview > Page Preview**.

Determining Print Order

In addition to the printer and paper format, in a label project you can also determine the print order of the labels on a label sheet. Labels are standardly printed in lines from top left to bottom right. With partly used sheets of labels you may have already used the first line of labels, for example, which could cause the sheet to lose its stability at the top. Some printers have problems taking such sheets and react with a paper jam.

Here you have the option of printing sheets of labels from the bottom up. In this way the top line of labels will be printed last and the sheet remains stable, even when the critical area on the sheet is reached.

Determining Export Media

On this tab you can specify which export target (Preview, HTML, RTF, PDF, XML, Picture, available options may vary) should be used as default for the project.

2.2.2. Page Setup for Lists

You can determine the page setup for one of the printers you wish to use as well as the paper size and alignment.

You can also determine whether the workspace should be displayed as a physical page or only with the areas which are actually printed by the printer selected.

Selecting Printer and Paper Format

The remaining set up is done just as with labels.

2.3. Default Values and Options

Before you start to insert individual objects belonging to a project on your workspace, and set their properties you need to define the default values you require with the command **Project > Options**. In this way you'll save time and effort later on.

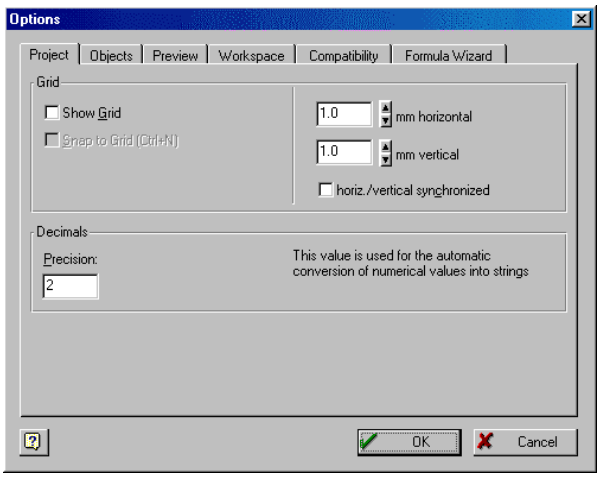
You can also call up this options dialog via the menu item **Options**.

Each option in this dialog is explained by a tooltip.

2.3.1. Options for a Project

The options set in the "Project" tab are only valid for your current project.

Defining Alignment Grid



Specify whether a grid net should be placed in the background of the workspace or not. You can set the distances of the grid lines. The option "horizontal - vertical - synchronized" enables the same grid distancing in both directions.

With the option "Snap to Grid" you ensure that objects are not freely inserted or moved on the workspace but only along the grid lines.

Precision

Here you can determine the default number of decimal places for numeric values, which will be used as long as they aren't printed with format specifiers (ex. FStr$).

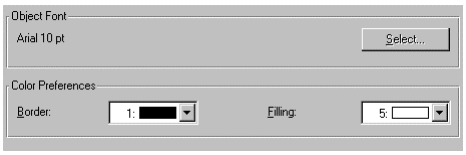
2.3.2. Options for Objects

Default values set on the tab "Objects" are valid for all new objects, until they are changed.

With the tab "Objects" you can make various settings for objects. Newly created objects have these default values to start off with. You can also change these values afterwards individually for each object. We recommend setting these values to a suitable level when beginning a new project so that the manual changes are kept later on to a minimum.

The default values are only valid for the project currently open.

Object Font



In the "Object Font" group you can determine the font for each newly inserted object, using the "Select" button.

These default values are only valid for objects which contain text, in this case

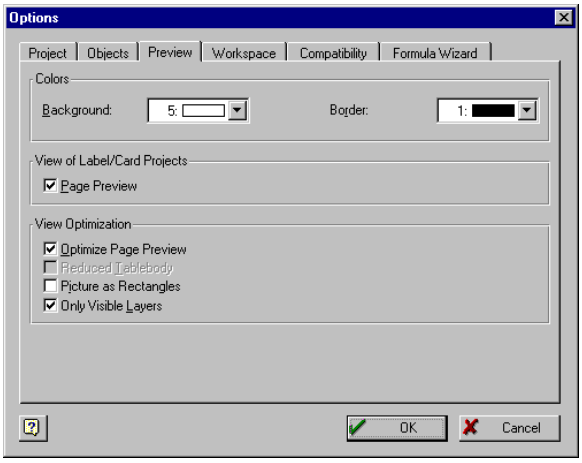
text objects and list objects. The settings also affect all objects which were not changed manually to a non default style.

Object Colors

With the comboboxes "Border" and "Filling" you can set different colors for different objects. These values are however only valid for the object types circle/ellipse, rectangle, and line.

2.3.3. Options for the Preview

On the "Preview" tab you can determine global settings for the preview.



Setting Colors for the Preview

In the "Colors" group you can determine the color for the background of the preview window using the combobox "Background". With the combobox "Border" you can select the color of the simulated paper border in the preview.

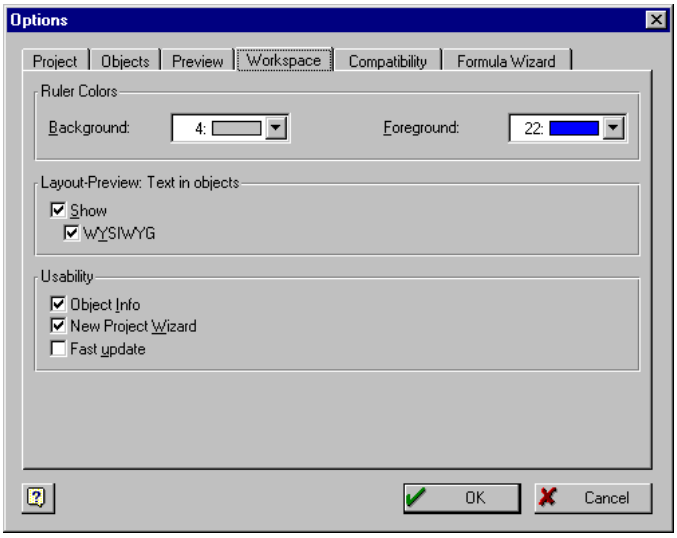
View of Label/Card Projects

Here you can choose if the preview should contain only one label or the complete page (only available for label or card projects).

Optimized View

Using the options from the "View Optimization" group you can reduce different preview details, which enables a faster preview.

2.3.4. Options for the Workspace



Setting Rulers

In the "Ruler Colors" group you can define the foreground and background colors for the rulers which form a frame around the workspace.

Displaying Objects

In the "Text in Objects" group you can determine whether the text contained in objects should be displayed or not on the workspace. The "WYSIWYG"-option displays the chosen fonts and formats the way they are printed.

Settings for Usability

The "Usability" options allow you to determine various default values for handling the List & Label Designer.

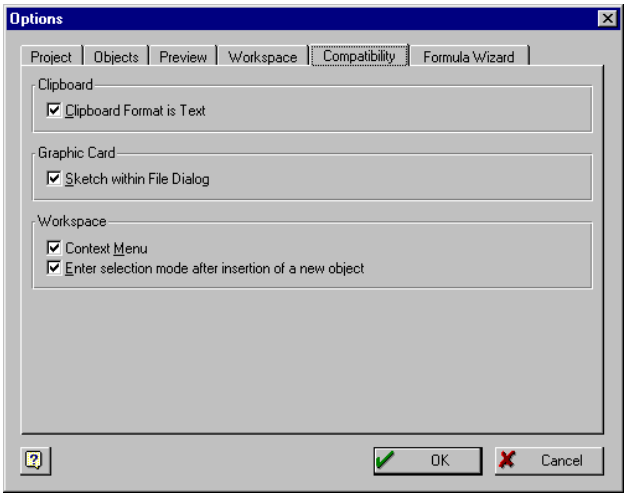
- Check the option "Object Info" to get a tooltip with the object name.
- Check the option "New Project Wizard" to receive assistance when creating new projects.
- If the option "Fast update" is checked objects will be painted faster. On some systems light flickering may occur.

Colored Table Areas

The designer can color the different areas of the selected table object for a better overview. Prerequisite is the file MSIMG32.DLL, which is usually contained in the operating system in Windows 98 and Windows 2000.

2.3.5. Compatibility Options

Here you can set various options which concern or are involved with other software programs or hardware components.



Clipboard Format is Text

This option determines the format in which objects should be copied to the clipboard in the List & Label Designer. This option only takes effect when pasting Designer objects into other applications.

When the option is set, the internal definition of the object can be inserted via the clipboard into other programs.

When the option is not set, List & Label uses its own clipboard format.

Sketch within File Dialog

This option determines whether a sketch of the currently selected project is shown in the file selection dialog. When the option is set, a sketch will be created each time you save the project. In this way it is easier to select the required project for editing or printing.

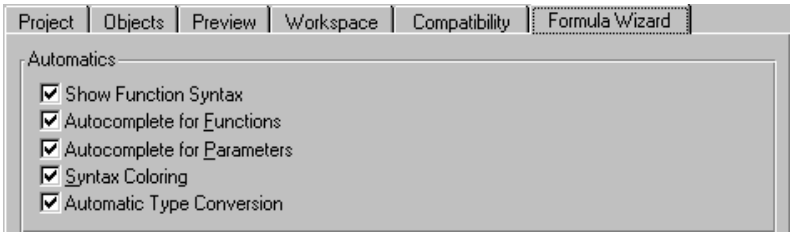
Some very old graphic card drivers unfortunately have problems in the support of this function. In this case it is helpful to switch off the option.

Compatibility with former Versions

The "Workspace" options allow to determine various default values.

- With the option "Context Menu" you can determine whether a right click on an object opens a context menu, or whether the properties dialog should be automatically opened.
- Set the "Enter selection mode after insertion of a new object" option in order to switch to the selection mode automatically after inserting an object. This prevents you ex. from inserting multiple objects accidentally.

2.3.6. Options for the Formula Wizard



The formula wizard offers many enhancements for creating formulas or functions. Here you can disable these enhancements.

- Show Function Syntax: a tooltip describing the function and parameters appears.
- Autocomplete for Functions: after entering 2 characters all functions that fit will be shown and can be selected.
- Autocomplete for Parameters: after entering 2 characters all parameters that fit will be shown and can be selected.
- Syntax Coloring: functions, parameters and operators are displaed in different colors.
- Automatic Type Conversion: variables and fields will be surrounded by conversion functions to fit the context of the function.

2.4. Inserting Objects

In List & Label objects usually have a rectangular shape and are surrounded by a frame in which their size and position can be changed. This frame indicates the area which the object occupies in the workspace and consequently the maximal scope that the contents of an object can have. Objects may, however, overlap slightly or fully whereby the overlapped object may sometimes be concealed completely.

Objects may be inserted in the project workspace in different ways: using the menu **Object > Insert**, the toolbar, shortcut keys or per drag & drop functionality of the variable list. Text objects are inserted most comfortable and efficient per drag & drop from the variable list. Simply choose the desired variable and drag it to a free area in the project workspace. All other object types are inserted most easily via the toolbar.

- Choose the desired object type from the menu **Objects > Insert**, the toolbar, or the shortcut keys.
- Select the rectangle the new object should occupy in the workspace.

You can alternatively, as described above, drap & drop the object from the variable list.

2.5. Editing Objects

Select the object you would like to edit. Then you can:

- change the size of the object and reposition it on the workspace.
- edit the contents (properties) of the object. These contents are different according to the type of object selected (text, picture, table, etc.).
- determine the exact position of an object on the workspace via the **position dialog** in 1/10 millimeter steps.
- define appearance conditions for the object. With an appearance condition you determine the condition to be met for the object to be printed. In this way you can allow a logo to appear on the first page of a project only and not on the following pages.
- name the object. Using the name you can easily find the object you are looking for.
- assign the object to a (display)-layer or copy it to a layer. Multipage and/or complex projects become clearer if objects which belong together are put on a mutual layer. So, in a multipage project all objects which belong to one page can be put on a common layer. You only need to toggle the visibility of this layer when you want to edit it.
- copy the object. If you want to place several, similar objects with the same distance on the workspace then you can use the function **Create Multiple Copies**.
- edit the object via the object list and link it with other objects. In this way you can make sure that the position or size of an object is automatically adapted if the position or size of the object it is linked to changes.

If you have selected more than one object you can combine the selected objects into a **group** (grouping), align them or adapt their size.

These editing possibilities will now be described individually in detail.

2.5.1. Selecting Objects

You must be in selection mode before you can select an object. The currently active mode is displayed in the middle area of the info bar. To change to the selection mode use one of the following methods:

- Menu: **Objects > Select > Selection Mode**
- via shortcut keys: CTRL + 1
- toolbar: arrow tool

To select an object in the selection mode just click into the object you wish to select.

Selecting a Single Object

Make sure that you are in the selection mode and use one of the following methods:

- to select an object click into the object.
- an object can also be selected by dragging a rectangle surrounding the object completely.

Selecting Multiple Objects

- to select multiple objects press the SHIFT-KEY and click with the left mouse button into the objects you wish to select.
- drag a rectangle completely surrounding the objects you wish to select. All objects which are completely enclosed by the selection frame will be selected.

2.5.2. Moving Objects

You can reposition any selected object or change its size. While in editing mode, these steps can be undone with the menu command **Edit > Undo**.

If multiple objects are selected these can be changed simultanousely, as with a single object.

Changing Size

- select the object you require.
- drag on one of the appearing size grips to adjust the object's size.
- while dragging the mouse pointer, a frame is created, which reflects the new size of the object.
- release the mouse button when the object has reached the size you require.

Repositioning an Object

- select the object you require.
- click into the object to move it.
- release the mouse button when the object has reached the position you require.

Changing Size and Position via Dialog

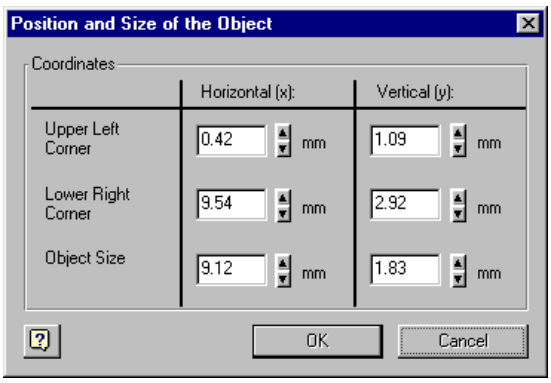
You can change the size and/or position of an object via the position dialog by giving the exact size and coordinates of an object to 1/10 of a millimeter or 1/100 of an inch respectively. This method is particularly suitable for cases in which the exact size and/or position of an object is critical, for example when forms have to be filled out.

The position dialog can be activated in three different ways:

first of all select the object which needs to have its data changed. (Hint: only a single object can be changed via dialog). Use one of the following methods to call the position dialog:

- select the command **Position Dialog** from the menu **Objects** or from the context menu
- keep the SHIFT-KEY pressed and click on the  toolbutton
- press the key combination SHIFT + ENTER

Here you can change the complete position data.



	Horizontal (x):	**vertical (y):**
Upper Left Corner	Distance from the left edge of the page in mm	distance from the top edge of the page in mm
Lower Right Corner	distance from the left side of the page in mm	Distance from the top edge of the page in mm
Object Size	horizontal size of the object in mm	Vertical size of the object in mm

- in the case of label projects "page edge" means the value set by you in the dialog **Project > Page Setup** without taking the offset into consideration.
- in the case of list projects "page edge" means the edge set for the printer.

Repositioning and Changing Size via the Keyboard

In addition to the mouse and position dialog, objects can also be repositioned on the workspace via the keyboard.

- select the object you wish to reposition.
- use the CURSOR-KEYS to move the object in the direction you require. Press the key once and the object moves 1/10 millimeter, if the SHIFT-KEY is also held, the object is moved by 1 millimeter.
- Use the CTRL and CURSOR keys for fine adaption of the object's size
- Use the SHIFT, CTRL and CURSOR keys for a quick adaption of the object's size

2.5.3. Grouping Objects

Multiple objects belonging together can be combined into a group in order to be treated like a single object. Please note that an object can only be a member of one group. It is therefore not possible to combine a group into a further sub-group.

To combine two or more objects use the following procedure:

- select the objects you require

- select the command **Group** from the **Objects** menu or from the context menu.
- To undo a grouping select the command **Ungroup** from the **Objects** menu**.**

If the **Properties** command is called on a group of objects, the property dialogs of the respective objects will be displayed one after the other.

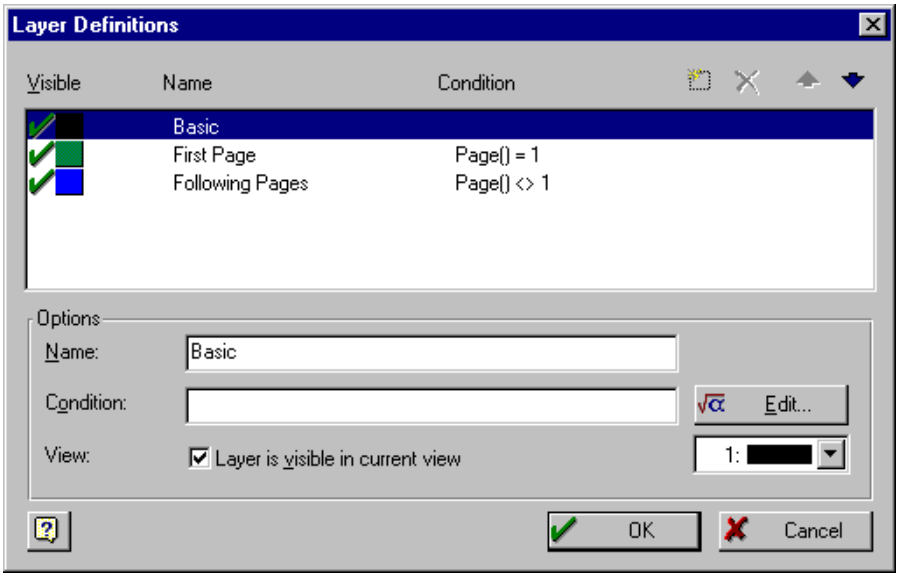
2.6. Working with Layers

Selected objects can also be given appearance conditions in the layers window. These layers are especially helpful with complex or larger projects. For larger projects it is suggested to relate the objects on each page (first page, following pages, last page) to their own layer. Because you can fade in or fade out these layers as required, every page of your project can be handled separately. Otherwise the objects of different pages would be overlapping and would make the treatment of single objects more difficult. It can also be helpful for complex projects to relate objects with the same contents to one layer. Even the most complex forms can be worked out without losing control of your project.

2.6.1. Defining Layers

Layers can be defined via the command **Project > Layer Definitions**. The defined layers apply to the current project.

With this command you open the dialog to edit and define appearance layers.



Inserting Layers

In the layers window of the List & Label Designer at least one layer is defined at any given time, which is called "Basic". When new projects are created, the layers "Basic", "First Page" and "Following Pages" are automatically defined. With the "New" button you can define as many further layers as you require.

To distinguish between the various layers on your workspace we recommend that you give the various layers different colors. All objects on one layer are then correspondingly displayed in that color. The color has of course no effect on the actual print, and is merely a display aid.

Deleting Layers

To remove layers which are no longer required select the corresponding layers in the layers list and press the "Delete" button.

If the layer you wish to delete contains objects, they are automatically moved to the basic layer. In this manner you cannot lose any objects by deleting layers.

Appearance Conditions for Layers

You can define appearance conditions for each layer. These conditions determine under which conditions the layer should be printed. These appearance conditions correspond to all objects of a particular layer.

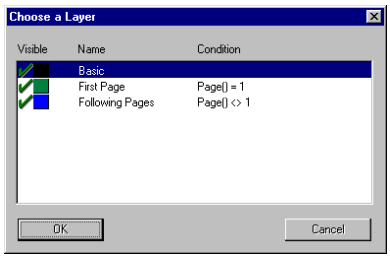
Appearance conditions for single objects are given via the command **Objects > Appearance Condition**.

The appearance condition for a layer can be entered directly in the field "Condition", as long as you are familiar with the syntax. With the "Edit" button, however, it is possible for you to open the formula wizard, in which you can combine variables, text, and functions with any expressions. Further information can be found in Chapter 2.8 "Variables, Formulas, and Expressions".

2.6.2. Assigning Layers

The currently selected objects can be assigned to the different layers on the workspace.

Select the objects which you wish to assign to a particular layer, and then select the command **Assign to Layer** from the **Objects** menu or the context menu. A list with the defined layers will appear. Choose the desired layer.



Double-click on the required layer to assign the selected objects to it. Alternatively, you can also click on the required layer and then confirm the dialog with "OK".

The assigned objects automatically appear in the color of the corresponding layer on the workspace. This however only applies to the appearance on the workspace.

2.6.3. Copying into Layers

The List & Label Designer allows you not only to assign objects to layers but also to copy existing objects into layers.

The original object stays on its layer. A copy of the object is made on the target layer.

To copy one or more selected objects into a certain appearance layer, select the command **Copy to Layer** from the **Objects** menu or from the context menu. This is handy, for example when many similar objects should be used in various layers.

Switching Layers On/Off

To improve transparency in complex projects with numerous objects you can use layers which can then be individually switched on and off. Only the objects whose layers are switched "on" will appear on your workspace.

You can switch layers on and off by double-clicking on the corresponding layer in the layers window. Layers which are "on" are displayed with a green check, ones which are "off" with a red "cross".

Depending on which option you have set on the tab "preview" (in the Options dialog via the option "Only Visible Layers"), either only those layers which are switched on will be displayed in the preview window, or all layers.

2.7. Object Properties

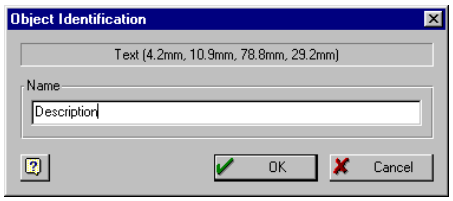
Aside from characteristics such as color, size, position and corresponding layer it is possible to assign further properties to objects.

Determining Names for Objects

When you insert a new object on the workspace, an object description appears in the right segment of the status line, naming the type of the object (e.g. "Text") and its coordinates. This is the pre-set name for this object.

If you have a larger number of similar objects in your project these descriptions may quickly become confusing. You therefore have the possibility to give objects a

descriptive name for identification purposes via the command **Name** from the **Objects** menu or the context menu. The name of each object is also displayed as title of the respective context menu. If you enabled the **Objects > Workspace > Object-Info** setting, the object name is also displayed in the small info window.



In the name dialog the pre-set name (object type and coordinates) is displayed. In the entry field underneath you can give an individual name. The name of the object will then appear in the object list and in the status line.

Appearance Conditions for Objects

You can assign appearance conditions to single or numerous selected objects, which determine under which circumstances the object should appear at print time. These object-specific appearance conditions are defined via the command **Appearance Condition** or **Common Appearance Condition** in the **Objects** menu or the context menu. An introduction to the definition of such appearance conditions can be found in the chapter 2.8, "Variables, Formulas, and Expressions".

Object Contents


Alongside layout properties and appearance conditions, we also have the actual contents of the objects, the texts, numbers, and variables which are contained in these objects. To edit the contents of objects select the object you require and then select the command **Properties** from the **Objects** menu or the context menu.

This opens the properties window of the required object. Variables and formatting, etc. are examples of object properties. The type and number of properties is different from object type to object type.

The properties of single objects are described in detail in the relevant sub-chapters of the "Properties" chapter.

2.8. Variables, Formulas and Expressions

Information can either be inserted directly into the project as **"fixed text"**, e.g. a sender line on an address label or a column heading in a list. Fixed text is printed exactly the way you have entered it into the project. Or, it can be a fixed picture, for example your logo, or a fixed barcode.

On the other hand, the information can be taken from a database which is currently open. Information of this kind is inserted into the projects as a **"variable"**. In this manner you can, for example, select the variable TELEPHONE for the contents of a list column. The various different telephone numbers of the database records will then be

printed in this column. Variables take the place of information from a database, they're placeholders. Barcode contents or picture filenames may vary accordingly.

With these two types of information attractive projects can be designed which are sufficient for many purposes. The List & Label Designer, however, offers much more. By using formulas and expressions the information contained in variables and fixed text can be linked and even edited. To help you with this there are **"formulas"** (for calculations with numbers) and **"expressions"** (for the combination of text and numeric values, and for logical conditions). In formulas and expressions you can insert fixed text and variables in **"functions"** and link them via **"operators"**.

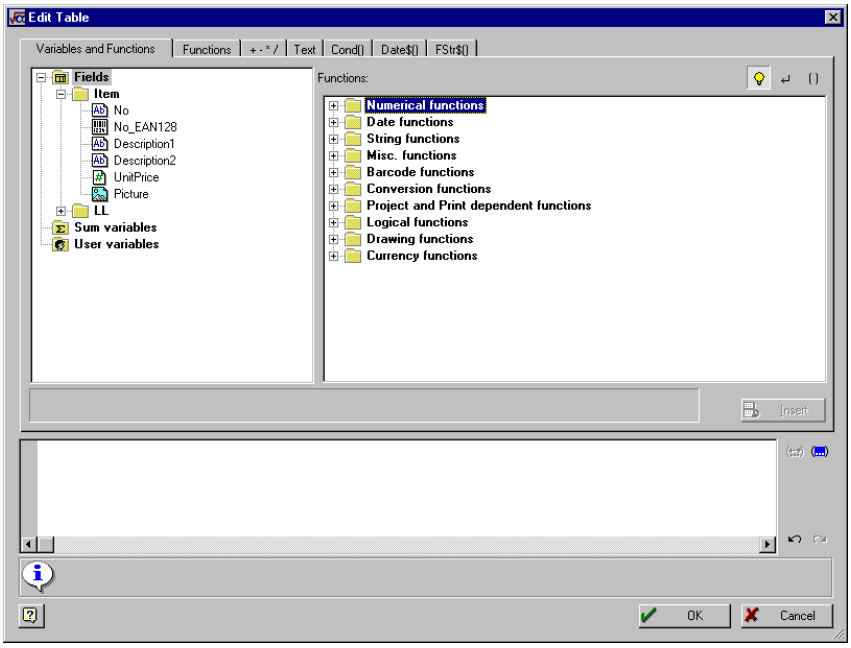
In the case of projects for printing address labels you can, for example, add the text "PO Box" automatically for a PO Box number saved in a variable POBOX by an expression. In this case (formula `"PO Box " + POBOX`) you wouldn't just have the bare PO Box number on the label but something like "PO Box 11 11 11".

Or, imagine you have the net prices of articles in a variable PRICE, but you actually wanted the gross prices incl. VAT to appear in the list print. Here you can use a formula which calculates and adds the VAT onto the net price. Of course it is the gross price which is printed.

Logical conditions are also very useful. With these you can react flexibly within a project to various different situations. It is usual, for example, in the case of foreign addresses on address labels, to include the corresponding country code in front of the postal code. On the other hand, for domestic addresses it's not necessary to include the country code. If you now merely combine the variables COUNTRY and ZIPCODE the country code would always be printed in front of the postal code. If you leave out COUNTRY then the country code will never be included in the print. The solution is a condition which checks whether the address in question is a domestic one or not. If it is, then the COUNTRY variable is left out, if not then it is printed before the postal code. On the basis to the principle of these IF-THEN-ELSE conditions you have the possibility to react to the most varied situations.

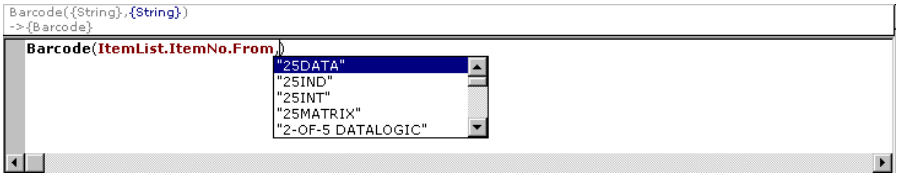
2.8.1. The Elements of an Expression

Fixed text, variables, formulas, functions, links etc. - all fall under the general name "elements of expressions" from here on. They can all be inserted and combined via the same dialog. This dialog contains an assistant who supports you in choosing the correct syntax, provides explanations, and help.



Input Enhancements of the Formula Wizard

The formula wizard supports you with various input enhancements, that can be (de)activated under Options > Formula Wizard:



- Show Function Syntax: a tooltip describing the function and parameters appears.
- Autocomplete for Functions: after entering 2 characters all functions that fit will be shown and can be selected.
- Autocomplete for Parameters: after entering 2 characters all parameters that fit will be shown and can be selected.
- Syntax Coloring: functions, parameters and operators are displaed in different colors.
- Automatic Type Conversion: variables and fields will be surrounded by conversion functions to fit the context of the function.

Expression Modes

Please note that there are two possible modes for expressions:

On one hand there is the normal expression mode, where variables and functions can be used without brackets or chevrons. Fixed text must be framed by quotation marks. Variables may be combined with the "+"-Operator.

On the other hand there is the extended mode, where fixed text may be stated as is without quotation marks. Variables are framed by "<" and ">" and functions are framed by chevrons "«" and "»". The chevrons can be inserted by clicking the button «». The combining of variables with the "+" operator is not necessary. This mode is easier to use.

Register Tabs

The dialog consists of a row of tabs, each containing different editing elements.

Card	contains the elements
Variables and Functions	the variables and functions available for this object type
Function	a list of the functions available
+ -*/	a list of the link operators available
Text	a dialog for the entry of fixed text
Cond()	a special dialog for the definition of IF-THEN-ELSE conditions
Date$()	a list of the date formats available
Fstr$()	a list of the number formats available
Tab	the setting possibilities for tabs (only available in text objects)

On each of these tabs you will find an "Insert" button with which you can insert the selected element into the editing line. Or you can double-click on the corresponding element. You may also drag & drop the required elements from the fuction or field list to the editing line.

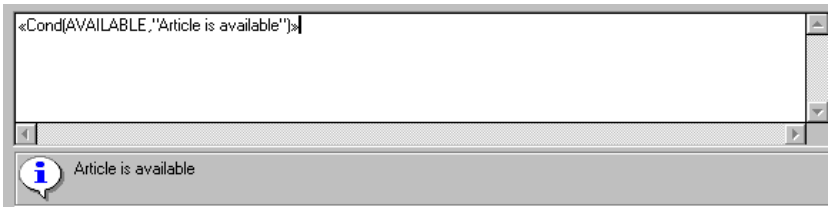
There are special rules for the syntax and linking of various individual elements of an expression (variables, text, functions, etc.). An assistant which has been integrated into the dialog helps you creating expressions. For this reason you should always insert the various elements into the editing line via the relevant tab of this dialog. In order to insert variables you should use the "Variables and Functions" card, to enter text the "Text" card, etc.

It is of course also possible for more experienced users to enter the expression directly into the editing line or to edit the expression (e.g. place brackets), but this requires knowledge of the corresponding syntax rules.

The Expression Field

The expression field contains an expression which you have entered either via the various register tabs or directly.

This expression can consist of a single variable, fixed text or any combination of variables, text, functions or operators.



The expression is constantly checked during its "creation" for correct syntax. Any syntax errors are displayed in the info field beneath the input field, along with a hint as to why there is an error. As long as the expression is incomplete the check routine displays at least one syntax error. Once the expression is complete, however, and an error is still displayed, then the expression really does contain an error which you should correct.

To simplify more complex expressions, you may divide them into multiple lines. This does not affect the result.

The three buttons next to the input field are used to

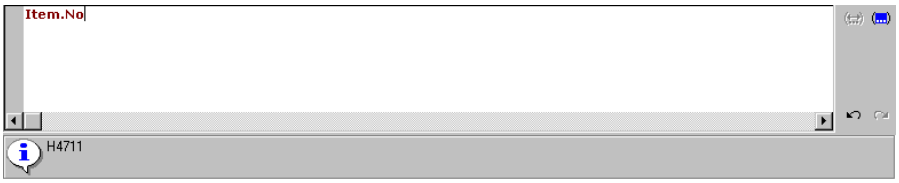
- mark the brackets belonging to the formula expression
- select the whole expression framed by a pair of brackets
- undo the last step

Inserting Variables

Variables are probably the most important elements of expressions and consequently the most important contents of objects. The variables take the place of information which will later be filled from the application when configuring projects. The value type ("String" (Text), "Number", "Date", "Boolean" (logical values), "Picture", "RTF" and "Barcode") is important as soon as you want to use variables as parameters in functions, because usually only certain value types can be used as parameters. You can, for example, only multiply a numeric value with a numeric value and not with a picture.

The "Variables and Functions" tab contains an overview of the variables which are available for the current object.

Double-click on the variable you'd like to transfer to the editing line. You can alternatively click on the variable and then insert it into the input field with the "Insert" button or drag and drop it from the variable list. You may also drag and drop the variable from the variable window into the input field.



The required variable is then transferred to the editing line with the correct syntax.

To include further variables in your expression just repeat the steps described above. If spaces should be between the individual variables, for example to separate FIRSTNAME and SURNAME, then don't forget to enter these spaces in the editing line too:

```
FIRSTNAME + " " + LASTNAME
```

You may also insert variables by dragging the required variable to the object on the workspace where it should be inserted. The variable is then added automatically to the object as a new line.

Insert fixed text

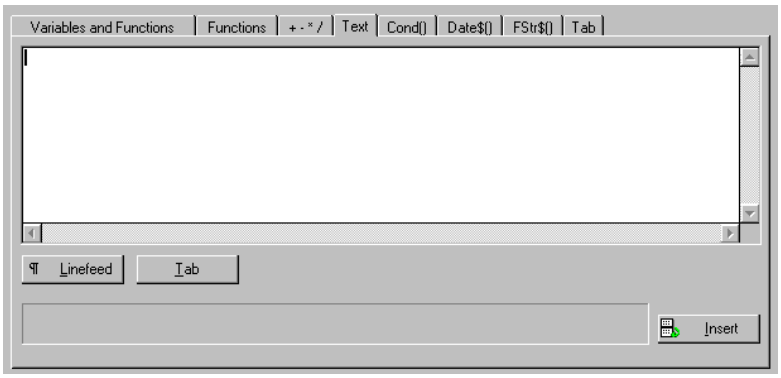
Another very important element in expressions is fixed text, for example as prefix for variables like

```
"Phone Number " + PHONE
```

which will print like

```
Phone Number 1-800-TEXT-FIX
```

The tab "Text" offers an easy way to insert text automatically.



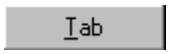
Enter the text and click on the "Insert" button to insert the text into the expression below. The assistant will try its best to insert the text in the correct syntax (with or without operator to combine it with the rest of the formula etc.).

Inserting Linefeed

To insert a line break, click the button "Linefeed". The linefeed is represented by a special character.

For text objects, the option "word wrap" must be enabled. Fields/columns of table objects must have the property "fit" set to "word wrap". Please note that if the text doesn't consist of a number of words, but of a long word it will not be wrapped, but clipped.

Inserting Tabs

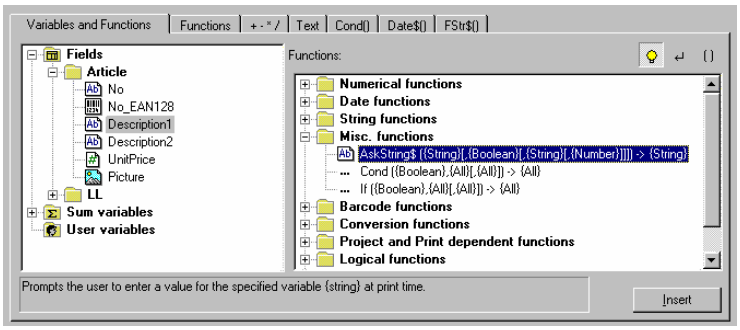


Tabs are only available in text objects, thus the button will not appear in fields of table columns.

Only one tab can be inserted for each line. Its position and alignment can be adjusted using the tab "Tab". The behaviour of tabs in the List & Label Designer isn't as you're used to from word processing environments, but is an invisible separator between the "left" part of the text and the "right" part. For more information please refer to Chapter 5.3 "Inserting Texts."

Inserting Functions

The built-in functions offer you flexibility in defining expressions. Functions allow you to change the representation of fixed or variable text or numbers, recalculate and modify values and to set a display format for these.

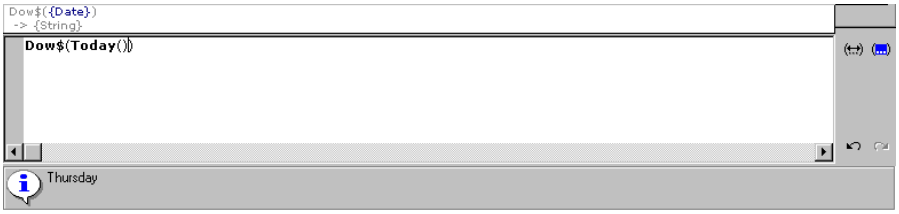


You'll find a list of available functions and their parameters on the tab "Variables & Functions." A detailed description of all functions and parameters can be found in the Appendix. The assistant tries to make life as easy as possible and displays a short description of each function that you select. For a detailed description, refer to the online help.

The functions are displayed in the chosen order. You may choose to sort them by

- function group (e.g. "Numerical Functions", ...)
- type of return value (e.g. "Numerical Value",...) or
- type of the first parameter (e.g. "String",...)

To insert a function, select it from the list of available functions and double click on it, or click on the button "Insert".



In this example, the user clicked the "Insert" button for the "dow$()" function which returns the day of the week of the date that is passed in the parameter of the function, ex. "Thursday".

The function is inserted in the correct syntax (with chevrons, etc.) into the function edit field. Also inserted are place holders for the parameters which the function expects/allows. You'll be asked to replace the place holder with a valid value. All parameters should be replaced before continuing to define your expression.

You can also use functions for some parameters. For example:

dow$(Today()))

which will print "THURSDAY". As long as you enter the functions using the "Insert" button, the assistant will attempt to help you find the problems in the expressions.

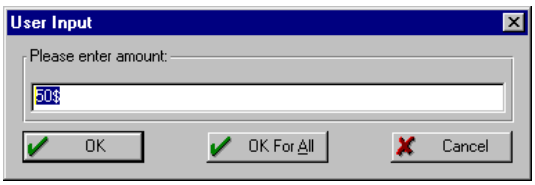
Further examples for functions and their use will be presented in the appendix.

To insert a variable and a function simultanously, drag the required variable on the required function folder (e.g. "Numerical Functions"). The folder will be opened automatically and you can choose the desired function. The list is scrolled up- and downwards if you move the mouse to the top or bottom of the list. If you drop the variable on a function, this function will be inserted into the editing line with the chosen variable as first parameter.

Print-Time User Input

A different type of function is the `AskString$({String}, {Boolean}, {String}, {Number})`. A dialog pops up, asking the user to input or modify some data to print. The dialog is of course only shown when the data shall be printed - optionally once per print job or for each data set.

For example, the data regarding a money transfer might be asked - the name and account information is given by the application while the amount to be sent is queried from the user at print time.



The following parameters define the behaviour and appearance of the dialog:

Parameter	Meaning

{String}	This parameter contains the text to be displayed in the "group box" around the input field, for example "Amount to transfer". This parameter has to be supplied.
{Boolean}	The second parameter lets you choose how often the dialog should be displayed - once per session or for each record set. .F. The dialog is only displayed once per print job .T. The dialog appears once for each record set (unless the user presses the "OK for All" button) This parameter is optional, default is.F..
{String}	This is the default value that should appear in the edit field f the dialog, for example "$50.00".
{Number}	Tells the designer the maximum size of input allowed. For example, give 8 to allow up to 8 characters.

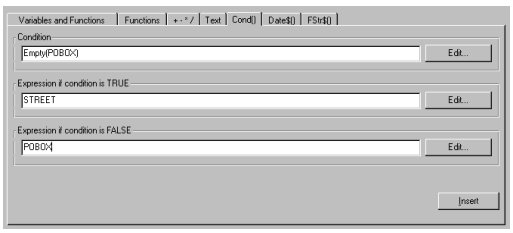
Using the "OK for All" button, the user can declare the current value to be valid for all subsequent records in the job. Now you won't be asked again.

Insert a logical condition

Another special function is the "Cond()" function. This represents an "if - then - else" decision: if the result of the expression in the first parameter is true, then the result of the second parameter will be returned, unless the result of the third parameter is used.

Assume that you have two types of currencies and you want the currency symbol to be expressed as text instead of the symbol. This can be expressed with:

Cond(CURRENCY_SYMBOL = "$", "USD", "foreign: " + CURRENCY_SYMBOL)

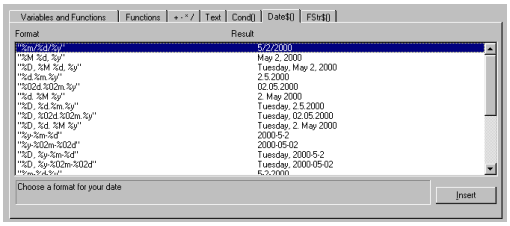


Enter a condition to be evaluated, or a boolean variable into the condition field. Enter the "true" part into the second line, and the "false" part into the third. When you press "Insert", the parts will be wrapped into the "Cond(...)" function and inserted into the expression line below.

Note that the "Edit" button starts an additional assistant to help you edit the appropriate part.

Formatting Dates

Using the dialog with the tab "Date$()" you can get assistance for date formatting. This is just to help you, you can modify the format as you like. You can have full-text formatting for day and month values, 2- or 4-letter representation of the year and so on. We recommend that you insert/choose the date, and then enter the values.

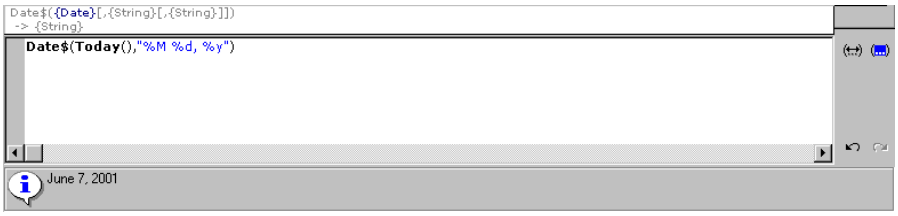


To the left is the format string, to the right the result with an date example:

As default, the function Today() will be selected as date parameter. Of course you can replace it with any date value you like:

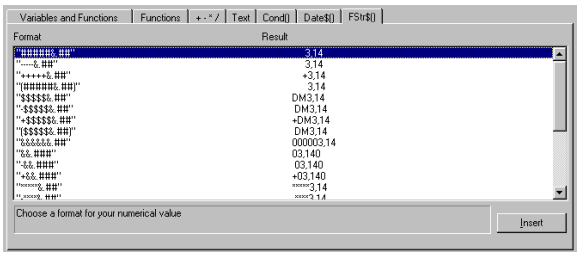
```
Date$(Today() + 7, "%d.%m.%y")
```

it would display the date in a week, and so on.

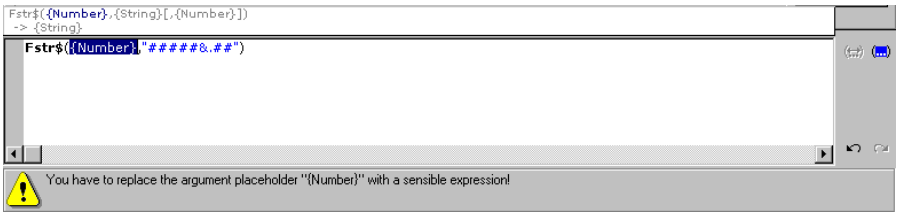


More detailed information on the use of the Date$() function can be found in the appendix.

Formatting Numbers



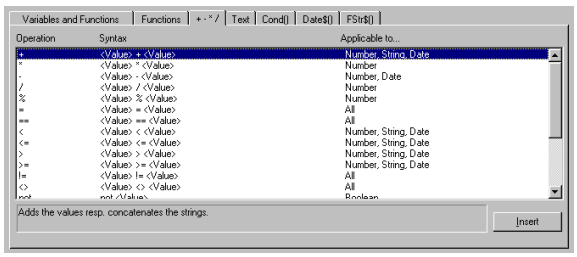
Using the tab "FStr$()" you can define the format in which a number shall be printed in. This is how number of digits, decimals, leading signs etc. can be determined. We recommend using our assistant to insert a format that looks as similar as possible to the one you want to have displayed, and edit it afterwards. Take care to format the result but not some intermediate value.



In this example, the price will be displayed with 7 digits including 2 decimals. If the number just before the decimal point is 0, only one '0' will be displayed.

Please refer to the appendix for more formatting information.

Operators



The tab " + */-" displays all available operators. These can be used to make calculations, combine variables and/or fixed text, as well as to compare expression results.

The categories are (in order of increasing priority):

- logical operators (AND, OR, NOT)
- arithmetic operators (+ , -, *, /, %)
- comparators (<, < = , = , >, > = , <>, ! =)

Please see the appendix for detailed information about the operators.

There are three columns on the dialog page. The first describes the operator, the second is syntax and the third the type(s) of value(s) it can be applied to.

Note that " + " can also be used to add strings.

Working with Sum Variables

It is normally only possible to perform calculations within records in the List & Label Designer. Let's assume that we have a database with articles for which we need to create a printout. The total price for a certain amount of a particular article (ex. article X) can be calculated from the information QUANTITY and PRICE (quantity x price = total price). But it is not possible to calculate the total cost for a whole selection of articles (X, Y, Z,...). For this purpose there is however a special type of variable (which goes beyond the variables defined in the database), the **sum variables**. These can be used to build sums/totals over the records, for example the sum of the column PRICE in a table.

It is possible to optionally add all records on a particular page (page totals) or for the whole project (totals).

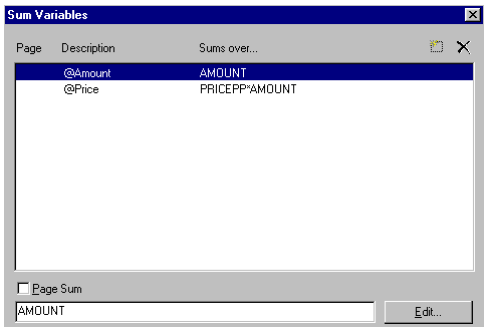
Defining Sum Variables: Sums of this type can be used for all numeric values, i.e. for numeric variables or for expressions which result in a numeric value. The following logic applies for these sum variables :

```
@SumXX = sum over previous records
    of <numeric expression>
```

"@SumXX" is the sum variable in which the result of the addition is saved, "<numeric expression>" stands for the variable or the expression which forms the basis of the addition.

For each record which has been printed, List & Label calculates the value from "<numeric expression>" and adds it to the "@SumXX".

To use sum variables of this kind ("@SumXX") in projects they must first of all be given the required numeric expressions. This is done with the command **Project > Sum Variables**.



Click the "Insert a new variable" button to create a new sum variable first and give a descriptive name. When working with projects from older List & Label versions, 50 variables "@sum01"..."@sum50" are already predifined. To assign an expression to the new sum variable, click the "Edit..." button. This opens the assistant for defining expressions.

The easiest way is to simply select a numeric variable, ex. PRICE. The formula for the result would be:

@SumXX = sum over previous records of <PRICE>

ex. the sum of all previously printed prices is saved in the sum variable "@SumXX".

On the other hand you can also build sums via complex expressions, as long as the result is only a numeric value. For example, you could calculate the gross price in the expression from NETPRICE and VAT, the result would be the addition of the two. Here is the formula for the result:

@SumXX = sum over previous records of <NETPRICE
+ NETPRICE * (VAT/100)>

i.e. the sum of the results of the expression NETPRICE + NETPRICE * (VAT/100) is saved in the sum variable "@SumXX".

Defining a Counter

With sum variables you can easily define the counter which is actualized for each printed record.

In the most simple case, a counter is increased for each record.

@SumXX = 1

Page Totals and Other Totals: The option "page totals" lets you choose whether the sum variables are reset at the beginning of each page or just once at the beginning of the document.

Using Sum Variables: Once you've defined the formula for the sum variables, you can use them in the objects of your project. You can use these variables just like any other variables.

2.8.2. Using Filters

You can use filter conditions to select the data you'd like to print. You can assign such conditions to single objects or layers (so that they are printed or not) as well as to data records.

First, the data is compared with the record filter. If it does not match, then the whole record is ignored. If it matches, each object checks the layer condition and its own appearance condition, and if one of them fails, the object won't be printed.

For table objects, every line has an appearance condition too that is used to evaluate whether the line should be printed or not.

Filter conditions are logical expressions, that is, expressions that return a boolean value. Typically this is done with comparison operators ("Left$(Name,1) = 'A'). If the result of the expression is TRUE, the record is used (or the object is printed), otherwise the record or the object is ignored.

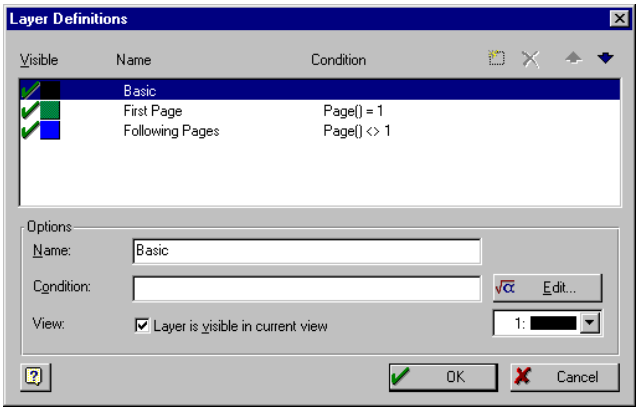
Record Filters

Assume that you would like to print a telephone list with local numbers, that means, no long-distance phone numbers. Even if your database program does not allow a selection like this, List & Label allows you to. In this case, you could use Left$(PHONE,2)<>"1-" as expression to suppress long-distance calls.

Hint: an empty condition expression is always TRUE.

You can define such a condition using the menu commands **Project > Filter**.

Appearance Conditions for Layers



A condition can be assigned to a layer using **Project > Layer Definitions**. This affects the visibility of all objects on this layer.

Appearance Conditions for Objects

Every object can be assigned an appearance condition too. You can define this by choosing **Object > Appearance condition** or **Appearance Condition** in the context menu.

2.9. Saving projects

Projects can be saved using any file name that is allowed by your operating system. It is recommended however to use the default file extension for each project type.

2.9.1. Save

To save a project select **File > Save**.

When you want to save new projects using **File > Save**, the **File > Save As** will be displayed and you can choose a name for your project.

2.9.2. Save As

To save a project under a different name or path, select **File > Save As**.

In addition to the filename, you can give a short description of the file which will be shown in the file-open dialog helping you to easily distinguish your projects.

2.10. Printing Projects

List & Label offers two ways of printing: using the test print in the designer which uses some dummy data values, and the final print with the "real" data, initiated by the application.

2.10.1. Print Sample from the Designer

Using **File > Print Sample** you can have a test printout in order to check the layout of your project.

Fixed text appears like in the final print, but variables are substituted by some dummy data which is constant throughout the sample. Printing real data can not be done from the designer.

Printing layers

The option "Only Visible Layers" in the options dialog, defines the way layers are printed in the sample print. When this option is checked, only the layers visible in the designer are to be printed, thus the sample print looks like the project in the preview window.

Print Sample with Frames

To show the frames of the labels on plain paper, etc., you can have List & Label

print a frame, which represents the borders of the labels.

This helps you in defining the label layout as well as the project page layout.

These frames do not appear when printing real data.

Print Sample without Frames

If you print using this menu item, the page will be printed exactly as it will appear with real data - except that the variables have been replaced with dummy data.

Print Sample in List Projects

When you issue one of the print commands, you will be asked whether you want the "last page" attribute set or not. This will have an effect on the print result if you have used the LastPage() function in the project.

Print Sample 1st Page

To print the first page of the list project, select the menu command **File > Print Sample 1st Page**. This will print the first page of your project (that is, all conditions with "Page() = 1" are TRUE and "Page()<>1" are FALSE).

Print Sample Following Page

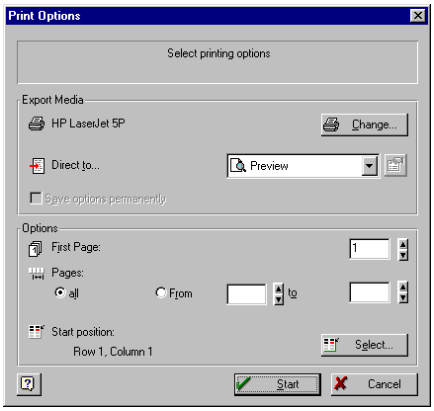
To print a following page of the list project, select the menu **command File > Print Sample Following Page**. This will print the page 2 of your project (that is, all conditions with "Page() = 1" are FALSE and "Page()<>1" are TRUE).

The condition LastPage() will only have effect in footer lines or linked objects.

2.10.2. Printing to Real Data Preview

In addition to the Sample Print, List & Label offers a real data preview. But in contrast to the sample print, this can't be done in the designer, but in the application.

Refer to your application's manual for hints on how to call the preview print.

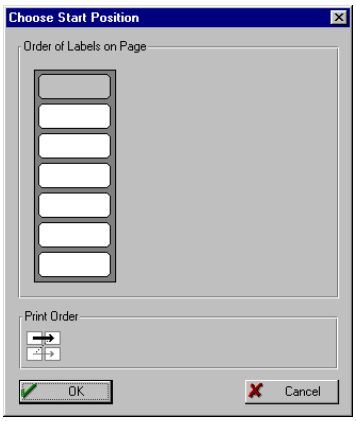


The dialog shown on the left will be presented which allows you to choose the destination printer and - in case of label projects - the starting label.

The "Change..." button allows you to select a different printer or different printer options than the default ones defined for the project in the designer. This setting does not affect the windows printer settings.

If you'd like to permanently change these settings, check the appropriate checkbox. From this moment on, the new printer is the default printer for the project to be printed.

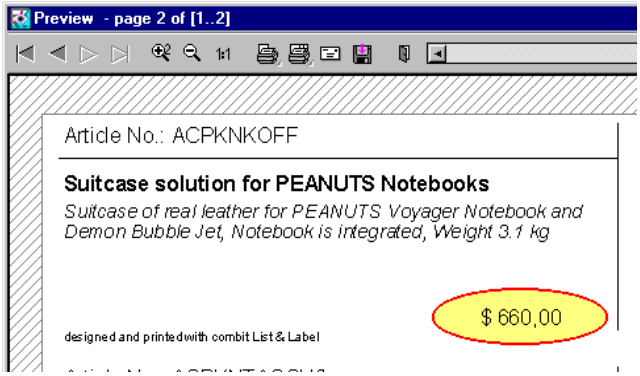
For label projects, you can choose the position of the first label on the first page. This is useful when printing on pages where labels have been already used :



The dialog shows the layout of the label page. Click on the label you want to use first during printout taking into account the print order noted below.

The entire print data can be viewed and printed in a preview window. This allows you to check the layout and data without using a single sheet of paper. The preview can be zoomed to get a more detailed view, as it contains all printout information.

Printing to preview is just like printing to printer, except that the information is not sent directly to the printer. It is sent to an intermediate file that the preview viewer uses to present the layout in a window, or finally print it if you tell it to. You still have to choose the printer you want the data to be printed to.



The preview window is a normal window that you can move and resize as usual. The area the printer cannot print on is displayed in a hatched grey, just like in the designer preview.

The arrow buttons allow you to switch the page being displayed.

The scrollbar is an alternative to the buttons which allows you to switch pages quickly.

The " + " zoom tool zooms the display by a factor of 2, the "-" zoom tool reverts the last zooming operation. "1:1" resets the preview to show the initial state, the whole page is shown.

Alternatively, you can use the mouse to select an area to zoom to. Click the mouse to the left top corner of the display part you want to see, then move the mouse (keeping the button pressed) to the lower right corner. You'll see a rectangle which is the area that will be zoomed to when you release the mouse button.

This button sends all the pages to the printer.

This button sends the current page to the printer.

This button sends the preview information (*.LL) to your email program using MAPI. In order to view the prieview, the receiver uses the freely available List & Label Viewer. The receiver can also simply print the preview file - your product is not necessary for this.

This button allows you to save the current viewer file as an *.LL file.

Ends the preview. No data is printed, the contents of this print job are lost.

2.11. Exiting the Designer

Choose **File > Exit** to end the List & Label Designer session. If your layout definition has been altered since you last saved, you'll be prompted to save the file.

3. Menu "Edit"

The edit command is valid for objects.

Please keep in mind that the option, "Clipboard format is Text" in the options dialog may effect the clipboard commands.

4. Menu "Project"

4.1. Page Setup...

Depending on the project type, you can choose the printer (list projects) and the label page layout (label projects).

4.2. Filter

Information on filters can be found in the chapter "Using Filters".

4.3. Sum Variables

Sum Variables are pseudo-variables that allow you to add numerical values at print time. They have been described in the chapter "

Working with Sum Variables".

4.4. User Variables

Formulas that are often used can be saved in so called user variables. User variables are named @<Name> (e.g. @User01).

4.5. Layer Definition

Information regarding layers and their definition, please refer to in chapter "Working with Layers" on page 27.

4.6. Options

This command starts the options dialog. Options are described in the chapter "Default Values and Options".

5. Menu "Objects"

This menu contains various operations in order to modify objects.

5.1. Select

5.1.1. Selection Mode


This command will switch the designer to the selection mode, in contrast to one of the object modes used to insert objects.

5.1.2. Select All

This menu item will select all objects in visible layers.

5.1.3. Toggle Selection

Choose this if you want to invert the selection, that is, all selected objects become unselected and all unselected objects become selected. This is valid only for objects on visible layers.

This makes sense if you have to select more than half of the objects: it's easier to select the unwanted objects and to toggle the selection afterwards.

5.1.4. Next Object

The objects are in a certain order. This command selects the object that is further down in the object list (that is, the object printed later) than the currently selected one.

This comes handy if two objects are so near to each other that it's hard to select the one you like.

5.1.5. Previous Object

The contrary to the command above.

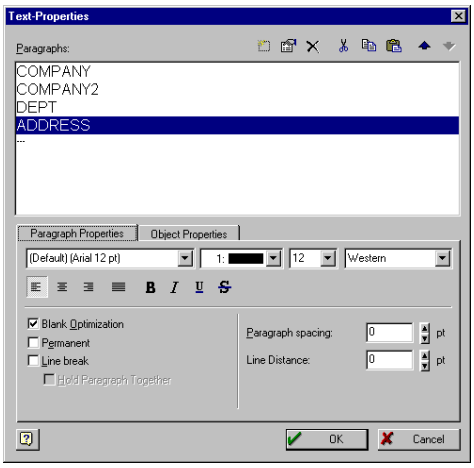
5.2. Insert

This command will offer you several object types. Once you've selected one of them, you are automatically in the insert mode. You can insert one or several of these objects into the project. We recommend that you insert as many objects as you need, switch to selection mode, and edit the object's properties afterwards.

5.3. Text Objects

Text objects are used to print text, either fixed or variable. The latter will be replaced by the corresponding value during print.

The properties dialog is used to define the properties and contents of the object.



Edit Text Lines

Text objects are line oriented, that is, each line can (and must) be formatted separately. You can configure options for more than one line at the same time by selecting multiple lines.

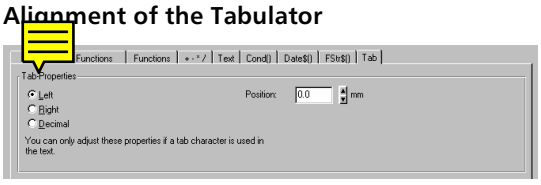
The list control shows the lines that the text object contains. With these three buttons you can add a line, delete the selected line(s) or edit the selected line(s). You may add new lines via drag & drop.

A text expression can consist of fixed text, a variable, a function or a combination of these.

"Tab"

This is where tabulators can be set and formatted. You may set the alignment and the position of the tabulator.

Alignment of the Tabulator



A tab is a vertical separator and divides the text line into two parts. The part to the left and the part to the right are independent and can even have word wrapping if enabled for that line.

The alignment of the left part is defined by the text line's alignment, the alignment of the right part by the tab's alignment.

- **left aligned**: the text is left aligned between tab and the right border of the text object
- **right aligned**: the text is right aligned between tab and the right border of the text object
- **decimal**: the number following the tab is aligned to the decimal point, so the integer part of the number will be right-aligned to the left of the tab, and the fractional part will be left-aligned to the right of the tab. There will be no word wrap before the tab.

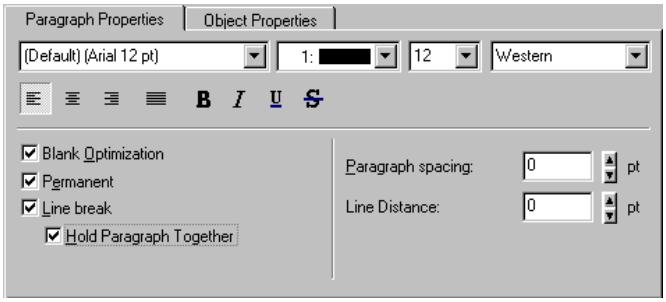
Tab Position: The position of the tab can be given in the system's units (inch or millimeters). If the value is positive, it is relative to the left side of the text object, if it's negative, it's relative to the right side. If the text object is 7 units wide, a tab position of 5 units is the same as that of -2 units.

Tabs are usually used for expressions such as:

"Amount: $÷" + AMOUNT

Paragraph Properties

This part of the dialog enables you to set alignment, space optimization and word wrapping. The choices always affect all selected lines.



Alignment

These icons change the paragraph's alignment - left, centered, right aligned or block justified.

The property "Block Justify" effects text lines that are word wrapped and printed in more than one line. All lines except the last will be block adjusted, that is, the spacing between the words will be adjusted so that the lines are left and right aligned.

Blank Optimization

This will optimize the blanks that unintentionally appear in a line. All sequences of two or more blanks (spaces) are reduced to one blank character and all leading and trailing blanks are suppressed. This makes it easier to create an expression.

Imagine you want to write the address on a label, for example:

```
<Title> <Firstname> <Lastname>
```

You would need to check any field whether it contains a value in order to get rid of the leading blanks, for example if <Title> is empty you'd have a blank at the beginning of the line, having it indented a small amount. Or if the Firstname is empty, there would be two blanks in between Title and Lastname.

So the expression

```
Atrim$(Title + Cond(length(Firstname)>0, " " + Firstname)
                + Cond(length(Lastname)>0, " " + Lastname)
```

is, using this "Blank Optimization" option, the same as

```
Title + " " + Firstname + " " + Lastname
```

which looks a lot easier.

Permanent

Lines that are empty are usually ignored so that the following lines move up. This option suppresses this automatic process, which might be needed to fill out a fixed form.

Line Break

Allows a word wrap into several lines if the text is too long to fit in one line.

If this option is not set, the text will be cut off at the end (or the beginning, depending on the text alignment) of the text object.

A text can only be wrapped between words, so one large word ("thisisonelinethatcannotbewrapped") will not be wrapped but clipped.

With the "Hold paragraph together" setting you can prevent a paragraph from being wrapped by a page break.

Paragraph and Line Spacing

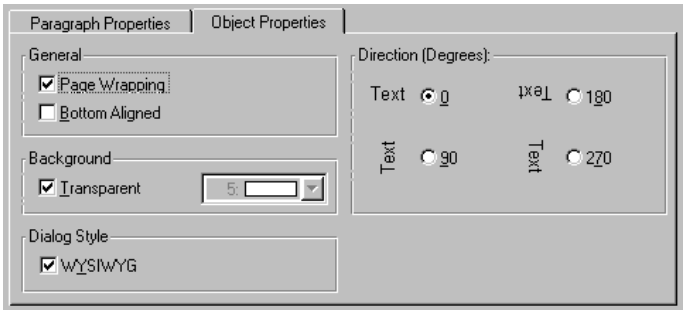
The paragraph spacing defines the space between the different paragraphs of the text object whereas the line distance gives the distance between the lines within one paragraph. Values are given in points - to increase the spacing to 1.5 lines using a 10 point font, set this to 5 points. Negative values are also allowed.

Font Selection

To select the line's font style, size, color and options, use the "Select" button. The "Default" button sets the font to the

project's default font (see **Project > Options**).

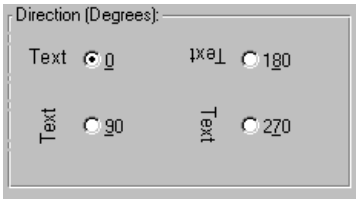
Object Properties



Dialog Style

If this option is set the lines will be displayed as they were formatted. If the text's size is too small or large and thus unreadable, uncheck this option.

Orientation



You have the option to set a text orientation in steps of 90 degrees.

Page Wrapping

If the "Page wrapping" option is enabled, the contents of the object will be automatically wrapped if they exceed the object's size. This is most interesting for text objects containing several pages of text. For label/card projects, the next label/card is not started until all objects with this option for the current label/card are printed.

Bottom Aligned

If this option is set, the texts will be aligned to the bottom of the text object, else they will start at the top. If the text is larger than the text object, however, it will be printed from the start and cut off at the botton. This option is most useful if you want e.g. to print texts of unknown size at the bottom of a page.

Background

This options allows to select a background color for text objects. If the option "Transparent" is disabled you can choose a color from the color selection box.

5.4. Rectangles

A rectangle consists of a frame and interior space that can be filled or left transparent.

Border

The "frame" options lets you the adjust the width and color of the frame.

Fill

A rectangle can be transparent (thus underlying objects shine through) or filled. If it should be filled, select a pattern and a color.

Shade

The frame of a rectangle can have a shadow, creating a 3D-effect. Width, pattern, and color can all be selected.

Note: A shade width larger than 0.0 has to be chosen in order for the patten combobox to appear.

The defaults are set in the dialog of Options > Objects > Object Defaults.

5.5. Ellipse

Ellipses are similar to rectangle objects. The additional circle property forces a circle within the boundaries of the object’s rectangle.

5.6. Lines

In the line object's properties dialog, options such as width and color can be selected.

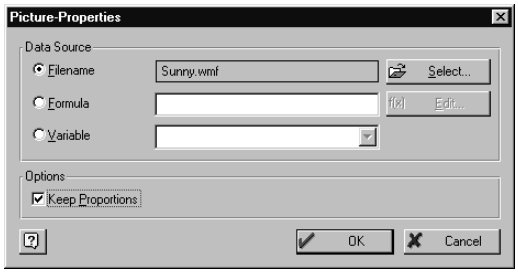
The defaults are set in the dialog of Options > Objects > Object Defaults.

5.7. Pictures

List & Label supports picture files with the following formats:

- .EMF Enhanced Meta Files
- .BMP Bitmaps
- .RLE Bitmaps
- .DIB Bitmaps
- .WMF Aldus Meta Files
- .TIF Tagged Image File Format (uncompressed)
- .SCR Windows Screenshot
- .PCX Bitmaps
- .PCD Kodak Photo-CD

- .JPG JPEG-Standard



You may choose between three different ways of using the property dialog :

Fixed picture: if you want to insert a picture that is independent on the record set, choose "Filename" and use the "Select" button to get a filename. You may choose to embed the selected picture into your project file.

Variable picture: choose "Variable", then one of the picture variables, if the application supplies them. Pictures may also be inserted with a **formula**. Choose the "Formula" option, click on "Edit" and input a valid formula in the dialog. The formula result must be that of the type: picture. You may also supply a valid filename, just convert it to a "picture" variable using the Drawing()-function.

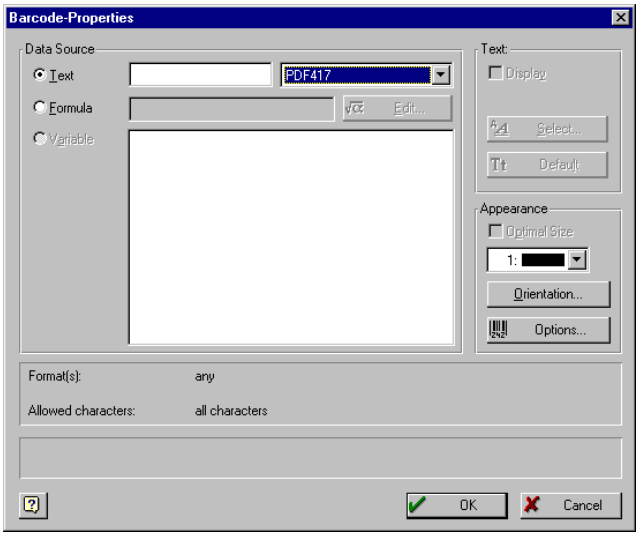
If the "Keep Proportions" checkbox is not marked, the drawing will be forced to fit the object area, probably distorting it. If it is marked, the proportions (relation of width to height) of the picture are always preserved.

5.8. Barcode Objects

Barcodes can be used for example for price labels, serial or part numbering and more.

List & Label by default supports the following barcode formats: EAN 13, EAN 8, UPC-A, UPC-E, 3-of-9, 2-of-5 Industrial, 2-of-5 Interleaved, 2-of-5 DataLogic, 2-of-5 Matrix, Postnet, FIM, Codebar, EAN 128, Code 128, DP-Leitcode, DP-Identcode, German Parcel, Code 93, MSI (different sub types) and Code 11.

The properties dialog lets you choose the barcode field, type, font, color and orientation.



First, select whether it's a fixed barcode (Data Source: Text), from a variable (Data Source: Variable) or from a formula (Data Source: Formula).

- Fixed barcode: choose the option "Text". Enter the text you want to be printed as a barcode, as well as type. Note that some barcode types have restrictions on the barcode characters and formats - if these conditions are not met, a warning will be displayed.
- Formula barcode: Choose the Formula option and define a valid formula after clicking the "Edit"-Button. The value returned by your formula has to be of the type "Barcode". You may supply any variable after converting it to a barcode using the Barcode()-function.
- Variable barcode: select "Variable" as source. Choose the variables from the listbox (lists all possible variables).

In the field "Text" you can enable or disable the text display (again, note some restrictions to the font display, due to layout definitions of the barcode type).

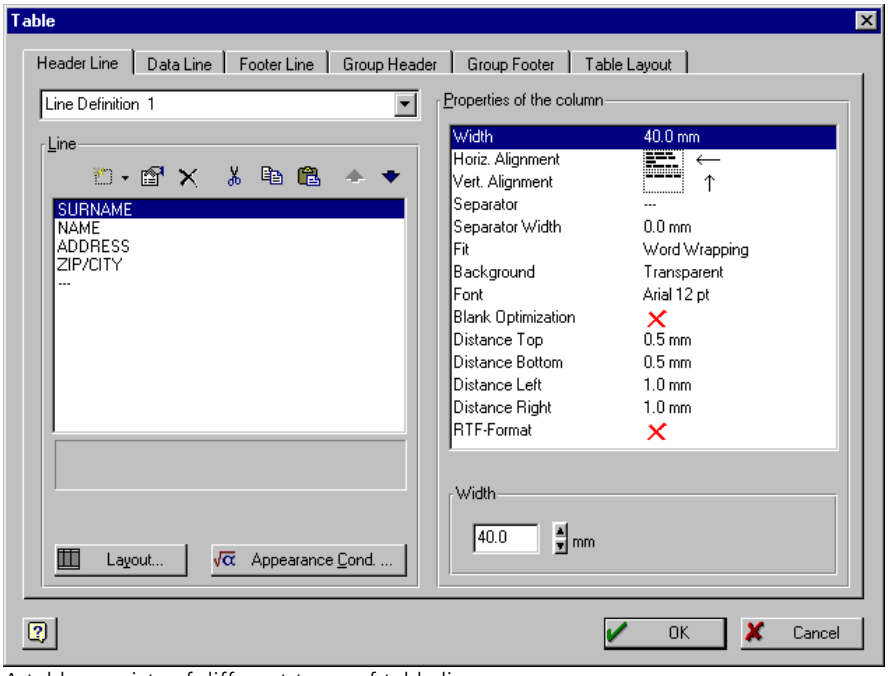
The "Appearance" group is used to set whether the barcode is printed with an optimal size, this means that it is resized automatically according to the respective norms, or if it is resized at will according to the object frame. This option is available for some barcode formats only.

The "Color"- combobox is used to set the color of the barcode. Press on the button "Orientation" to reach the dialog where the barcode can be rotated in 90 degree steps.

If further options are available for the barcode chosen, a button "Options" will appear, allowing you to adjust the settings.

5.9. Tables

In order to create lists, tables, reports or similar forms, you need a table object.



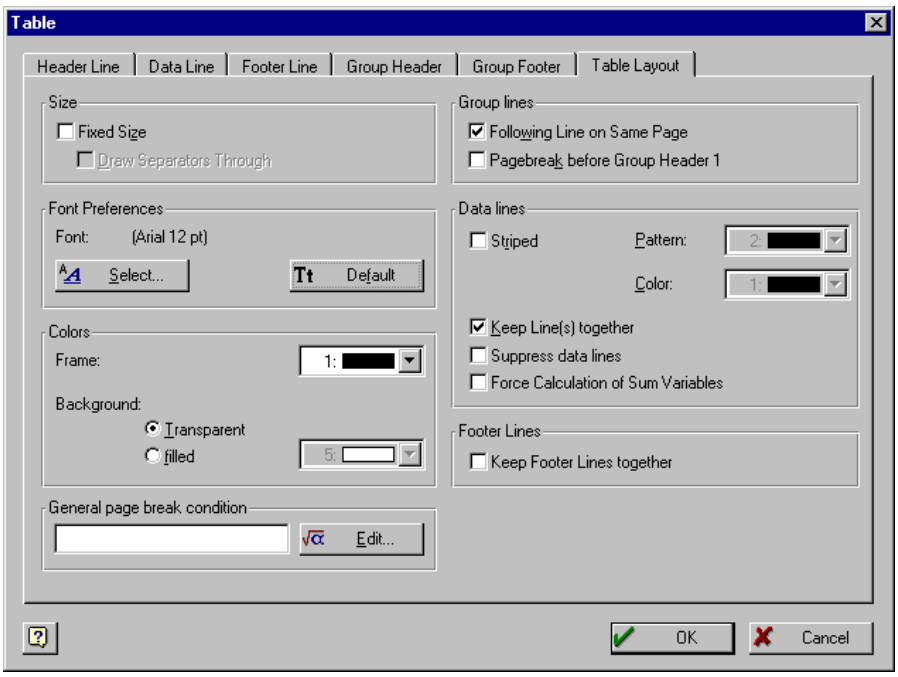
A table consists of different types of table lines

- **Header Lines**
  Typically, this is where the field names are placed
- **Data Lines**
  They contain the data from the records of the database
- **Footer Lines**
  They usually contain intermediate totals or final totals
- **Group Lines**
  Can be used to group the data ("Phone numbers of " + CITY) into logical groups. Of course they may contain data too.
- **Group Footer Lines**
  Can be used like the group lines, but appear after conditions have changed.

If you change an option, the preview changes accordingly, in this manner you can immediately see the effects of the properties you set.

5.9.1. Define a Layout

The last tab offers general layout options for the entire table object:



If the Option "Fixed Size" is set, the footer line is always at the same position on the page, independent of the amount of data in the table. If it's not, the footer "floats" just below the last data line.

If the "Fixed Size" option is set,"Draw Separators Through" lets the table fill up the space between the last data line and the footer with the separators of the data line number 1.

A whole table can be assigned a default font - this option can be set in "Font Preferences" group. "Default" will use the font of **Options > Objects > Font**.

Frame (border) and background colors can be chosen using the control in the "Colors" group. If you want the table to be transparent, choose "Transparent".

The "Striped" option will color every second data line with a pattern that you can choose. This may improve readability for large tables.

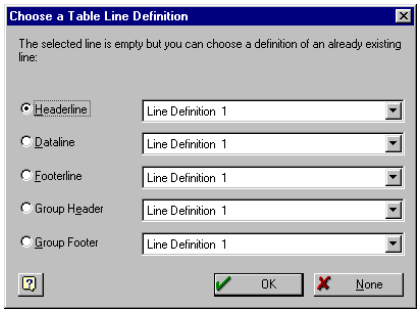
Activate the "Keep lines together" option to keep the block of data lines together if possible even if a page break is necessary.

If you set the "Suppress data lines" option, all data lines will be suppressed completely. This option is most useful in connection with the "Force calculations of sum variables" option. This option tells List & Label to summarize data even if the data line is not printed. By combining these two options, an easy print of statistics is possible.

If you select "Following Line on Same Page", a group line will not be separated by a page break from the following data line. With this option enabled, a group line at the end of a page will be automatically printed on the next page. The "pagebreak before groupheader 1"-setting causes a page break before any group header of line definition 1, if enabled. See the group header layout options for more details on this.

You may enter a general page break condition into the respective field. The page break is then performed by List & Label before the line matching the condition. Edit the condition by clicking on the "Edit" button.

5.9.2. Defining Table Lines



List & Label offers several types of table lines allowing, for example, a separate definition of header and data lines. These can have different layout or column formats.

Each of the different line types can have several formats, each being activated or deactivated using an appearance condition .

The process is more or less alike for all the table line types. Thus the dialog pages look the same for them.

Hint: We recommend that you define the data line(s) first. Afterwards, when you're finished, switch to the header line. You will be asked whether you also want the data line definition to be transferred into the header line definition - this can save you some unnecessary work. If you changed the data line afterwards, and then want the automatic again, delete all header lines, change to the data line and back to the header line:

This automation holds for all lines that you click on: if they are empty, you can select any other (non-empty) line as the source to copy the definition from.

Column Contents

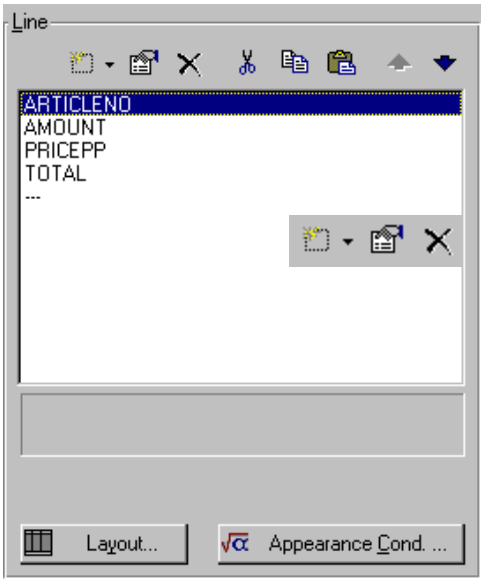
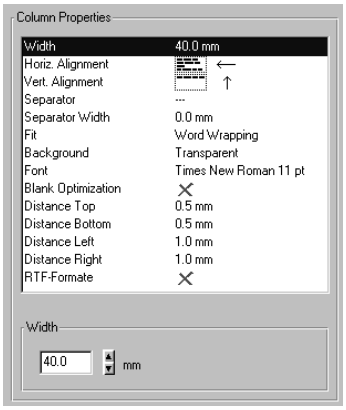


Table lines consist of columns. Each column is a separate entity and can be formatted independently. It is represented by a line in the "Columns" list and can be either a single field or any valid expression.

These three buttons again allow you to 1. insert a column, 2. edit the selected column(s) or 3. delete the selected column(s). You may also insert new columns by drag & drop. Click the left part of the "New" button to insert a normal column, click the right part to insert an object column (Chart or HTML).

Column Layout



The layout selected in this part is valid for all the selected columns of the list box. When you click on one of those properties, the valid choices are displayed below the list.

A column is a rectangular space with a certain width ("Width"). The printable area in this rectangle is reduced by the distance values ("Distance Top", "Distance Left", "Distance Right") which define empty space between the adjacent cell (or, usually, the separator line) and the unprintable area.

You can have several types of values in a column: fields, barcodes, drawings, RTF formatted text and numbers. Text can be word wrapped to become a multiline text, or it will be clipped. Barcodes or drawings must have a fixed height (which, when the drawing cannot be found, is set to 0).

Width, Distance Left, Distance Right

The width is the total width of the column. To get the usable width, you have to subtract the "Distance Left" and "Distance Right" values. If the sum of the widths of all columns exceeds the table width, a warning will be displayed.

You may also resize a field or column directly in the workspace by selecting the table object and move the right separator line according to your requirements. For a more precise adjustment we advice you to use the dialog settings.

Distance Top
This is the distance (empty space) from the line above.

Distance Bottom
This is the distance (empty space) to the next line below.

Horiz. Alignment
A text or number can be left, right, center or tab aligned. The latter is most important for numbers so that they are aligned at the decimal point.

Vert. Alignment
As different columns might be of different heights, the columns can be vertically aligned.

Separator
A column separator is a separating line at the left border of the column.

Separator Width
The width of the separator line can be defined. A width of 0.0 is the minimum width (the width depends on the printer resolution), any other value is the width in system units (1/100 inch or 1/10 mm). To switch the separator off, use the option "Separator".

Fit
Valid fitting options are "Clipping" or "Word Wrapping". Word wrapping can only appear in between words, thus a single long word might still be clipped.

Background
You can define a background for a column which is filled with a selectable pattern and color, or you can have the column transparent.

Font
You can choose your own font or the default font of the line. We do not suggest that you use a lot of different fonts as this might make the table harder to read.

Blank Optimization
This has the same functionality as the same option in the text object. It kills unnecessary blank characters (spaces) from the expression's result prior to printing.

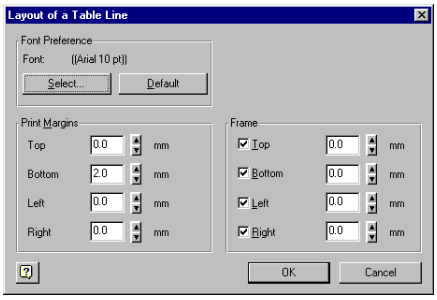
RTF-Text in tables
The option "RTF-Format" enables RTF formatting for the current column. If the setting is enabled, some of the options described above are not needed anymore and are greyed out, as the settings are made by the RTF-object.

More detailed information on using the RTF object can be found in chapter 5.10. "Inserting Formatted Text Objects".

Line Layout

The line layout defines the layout of the whole line.

Again, we have the font default for the columns (the hierarchical default font treating is: *column font* > *line font* > *table font* > *object font*). We suggest that you determine fonts in this order to minimize font switching and to ease changes. It's much easier to change the header font (for example to boldface) than to change several column fonts!



The "Print Margins" define the distances of the table line relative to the table object. "Distance Top" defines an empty space between the line (and separator) from the line above (and separator), "Distance Bottom" defines the same for the bottom. If you use this for data lines, they would be separated by the specified amount. If you use a "Distance Bottom" for the header line, the data lines will be separated from it etc. This gives you a wide variety of choices for your table layout.

The "Distance Left" and " Distance Right" define distances from the left/right border of the table line to the left/right border of the table object, thus indenting the table line. If you have defined "Distance Left" for the header line to 0.0 and for the data line to 4.0, the data lines will be indented 4/100 inch

Header Line
Data Line
...

Anyway, this is more important for the relation of group lines and data lines, where you might find it interesting and readable to have

Phone numbers in New Jersey
Data Lines
Phone numbers in New York
Phone numbers in Brooklyn
Data Lines
Phone numbers in Manhattan
Data Lines

The controls in the group "Frame" define the separator lines around the whole table line and their widths. A width of 0.0 means that the line will be drawn as fine as possible (dependent upon printer resolution).

Appearance Condition for Table Lines

This button will lead you to the well-known expression

assistant.

The condition that you select here will be used in addition to the project's filter condition (that is, if the record is rejected due to the filter condition, its appearance condition won't be checked here!).

If you have only one data line, the project filter is generally better than the line condition.

Multiple Layouts

Each line type can have multiple line layouts which can be switched using the combobox with the "Line Definition..." entries. For example, you can create two data lines that look alike except for the font (which might be boldface for one of the lines). Then you define the condition

```
ATrim$(COMPANY) = ""
```

for the non-bold, and

```
ATrim$(COMPANY)<>""
```

for the boldface line, which will print the phone numbers for companies in boldface while private numbers will be printed using the normal font.

Or, you might add a line which contains the name of the company the person belongs to and which will be printed only if the person has a company's address in the record set. If you also indent the line (line's layout dialog, see above), you can create a list like

Private data for a person
Private data for a person
Company Information for the person
Private data for a person
Company Information for the person
Private data for a person

Each line type has a maximum number of 100 layouts that can be defined.

Rename Multiple Layouts

You can rename the line definitions (i.e.: "Item description 1"). This makes it much more easier to identify the line. To rename a line definition, select it and click in the text an type the new text.

5.9.3. Footer Line Layout

A table often needs footer lines, to print totals of values in the data lines for example. Footers are just like data lines with two exceptions:

- they are always the last line(s) of a table
- the "LastPage()" function can be used to distinguish intermediate footer lines and final footer lines.

5.9.4. Group Line Layout

Group lines are special types of table lines which can group the data lines. This makes sense for example for alphabetical listings ("entries starting with 'A'" etc.), address lists ("People working at yyy") etc.

This requires that the application sends the data in the required order, as List & Label evaluates and prints the data in the order it was sent. If for example the people's names were unsorted, an alphabetical grouping would be disastrous.

Very important for the group lines are the conditions. The "conditions" are interpreted a bit differently though. The "condition" is not a boolean condition which defined whether the line should be displayed or not, but a text expression, whose result will be compared with the result of the expression of the previous data record. If they differ, the group line will be printed. For an alphabetically sorted name list, an expression like

```
Left$(NAME, 1)
```

as "condition" would be a good way to start. Every name that starts with a new first character would have a new group line in front. The group line layout would contain one column such as the folowing, for example:

```
"Following are names starting with " + Left$(NAME)
```

As multiple layouts are possible for group lines, you can create hierarchical groups. If you have a lot of numbers, it might be useful to create some sort of hierarchy. The following condition would be reasonable for the second group line:

```
Left$(NAME, 2)
```

Using the indentation of table layouts, you could easily create a list like

```
.....
A
        AA
            ...
            data lines
            ...
        AB
            ...
            data lines
            ...
        ...
B
        BA
            ...
            data lines
            ...
        BB
            ...
            data lines
```

...

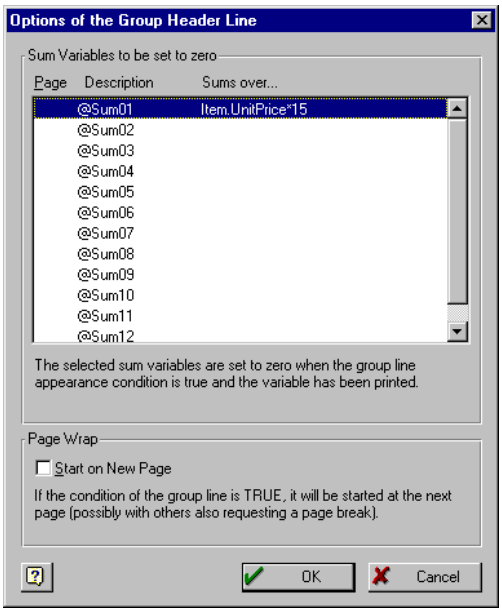
The Appearance Condition

An appearance condition can also be set for group headers. More detailed information on that topic can be found in the "Appearance Condition for Table Lines" section of this chapter.

Options for group lines

Click the Options button 

to get the following dialog:



Choose the sum variables, that should be set to zero when the group line is printed. This setting is used to define group sums.

Choose the option "Start on New Page" if a group header should cause a page break (each group begins on a new page). If more group lines with this option set are printed they appear together on the new page.

5.9.5. Group Footer Line Layout

Another special type of table lines are the group footer lines. Basically they work like the group line, but appear after conditions have changed.

5.10. Formatted Text

With the formatted text object you are allowed in contrast to normal text objects to change the format within a line. In addition you can also use variables in these objects.

When do you have to use the formatted text object and when the text object? Normal text objects should be given preference for every day jobs, since they contain less information and they are, therefore, printed faster. Consequently you should use a formatted text object in case you either can not realize a special format type with the normal text object or succeed only with great effort.

To create a formatted text object select **Object > Insert > Formatted Text**.:

- Create this type of object as described in chapter "Workspace".
  The object is selected automatically.
- Click on the -Tool, into the object with the right mouse button, use Enter or select **Objects > Properties**.

As a source you might either choose an RTF-Variable or "(Free Text)". If you select the latter, an input box and formatting aids are displayed in the dialog, which are explained below. Simply select the text to be formatted and choose the respective format tool:

Select the type and size of the character.

Also select the preferred format: bold, italic, underlined, striked out, superscript, subscript, or text color.

Select the arrangement: left, centered, right, indent a paragraph approximately at 2.5, remove the indentation, listed.

Select: insert clipboard and undo.

With this option word wrapping will be made according to object size. This is only a reference point and will differ insignificantly.

This option allows a page wrap for the RTF object if the text exceeds one page. This option is switched on by default. If you want to print an RTF object once on every

page of a list project you will want to deactivate the option in order to avoid that the object is only printed once.

With this button you can select variables or use the assistant to edit formulas.

The Context Menu

The input field has a context menu, in which you can easily choose from all available formatting parameters for characters and paragraphs.

The RTF object also supports so-called “Embedded Objects”, i.e. objects which are embedded into the text like graphics. You can insert them e.g. using the clipboard from applications such as MS Paint.

5.11. Chart Objects

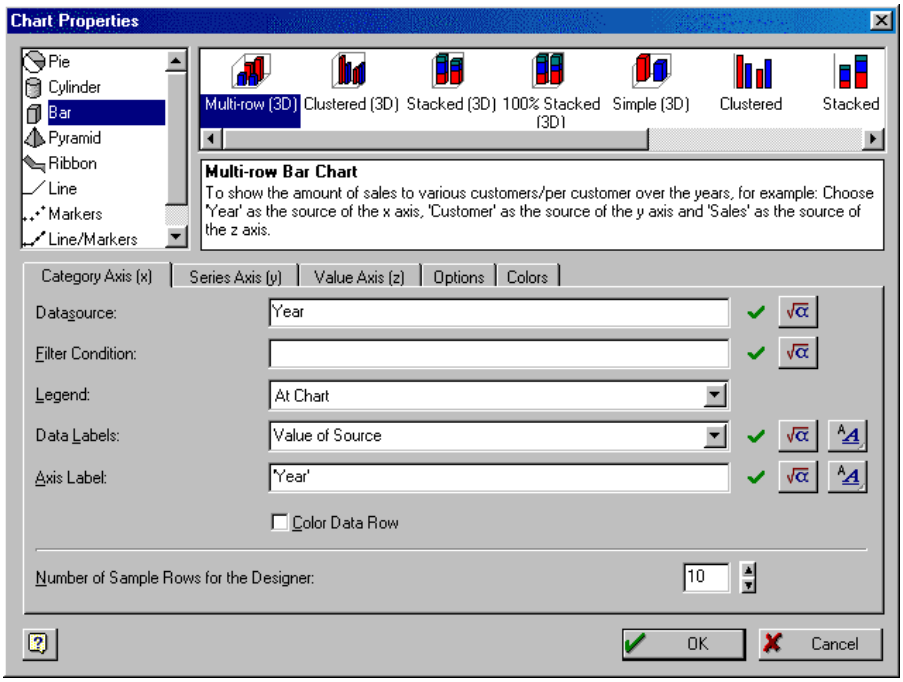
5.11.1. Introduction

By choosing Objects > Insert > Chart or clicking the respective icon you can insert a chart object. This object is used for analyzing and displaying different types of data. You can visualize the range of sales for example, the percentage of different sources or of course "simple" bar charts. A large number of different chart types are available and can be used for diverse applications. Most chart types have different sub types.

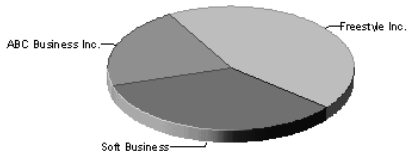
In general, three and two axis charts are differed. Three axis charts have three data axes and can be used to visualize the sales range per month and employee, for example. A two axis chart has only two data axes and shows e.g. the sales range of the whole company over a number of months.

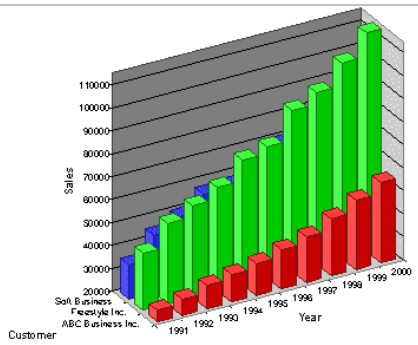
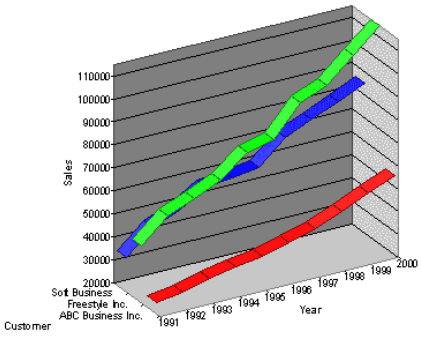
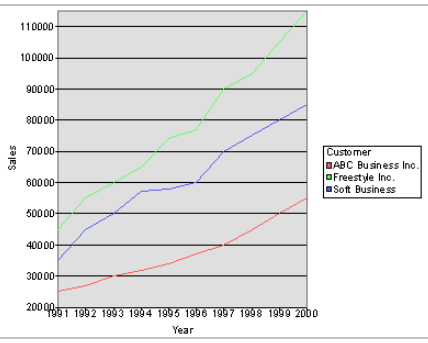
5.11.2. Selecting the chart type

Double click a chart object to reach to the property dialog.



Choose the chart type from the list on the left hand side. The following types are available:

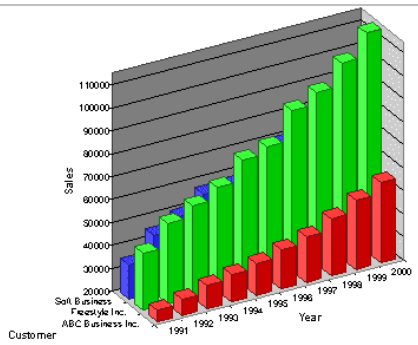
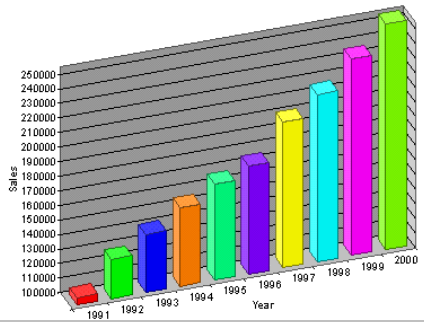
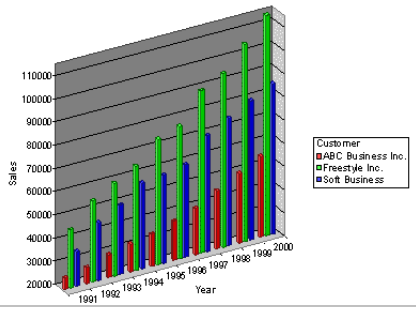
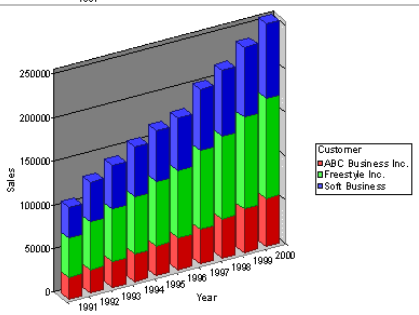
	Pie Chart: a typical pie chart.

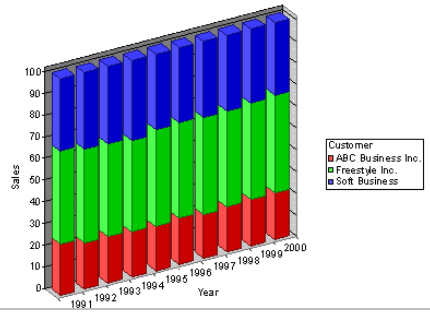
	Cylinder/Bar/Pyramid: bar chart flavors differing in the shape of the bars.
	Ribbon: a three dimensional ribbon chart.
	Line/Symbols/Line & Symbols: two dimensional charts.

5.11.3. Selecting the sub type

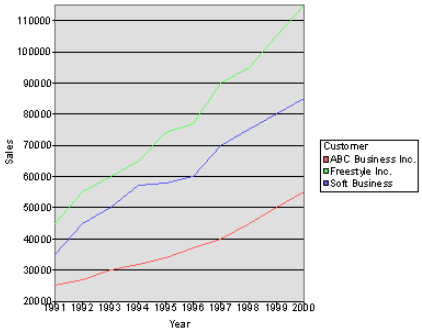
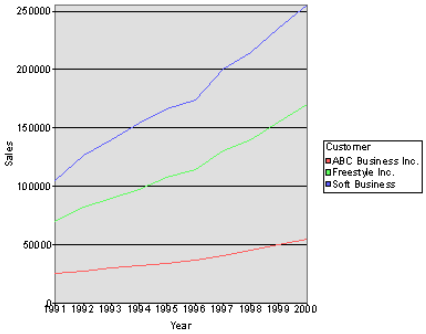
Depending on the chart type chosen, up to eight different sub types become available.

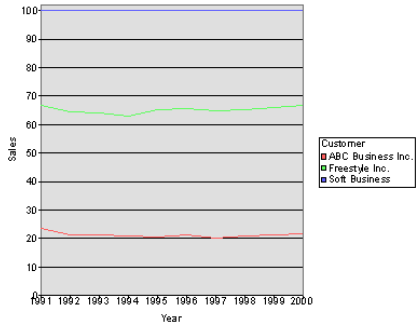
Sub types for cylinder, bar and pyramid charts:

	Multi row: A "normal" 3D chart, showing the sales per month and per employee, for example
	Simple 3D/Simple: Only two axes are available, showing the total amount of sales per month for example. The simple type is without the 3D effect.
	Clustered 3D/Clustered: Values on the x axis are grouped allowing a direct comparison of values. The clustered type is without the 3D effect.
	Stacked 3D/Stacked: This chart type is designed to show the share of each contribution, e.g. the share of sales each employee contributes to the total. This type is not available for pyramid charts. The stacked type is without the 3D effect.

	100% Stacked 3D/100% Stacked: Similar to the stacked chart, single contributions can be visualized with this chart. This chart type, however, shows percentual values. The value of a month's sales always equals 100% and the percentage of contribution for each employee can be extracted from the diagram. This type is not available for pyramid charts. The stacked type is without the 3D effect.

Sub types for line and symbol charts:

	Simple/Multiple: The values are visualized as dots in a coordinate system. Depending on the type, the dots are connected by lines. A multiple diagram contains more than one line.
	Stacked: This chart type is designed to show the share of each contribution, e.g. the share of sales each employee contributes to the total.

	100% Stacked: Similar to the stacked chart, single contributions can be visualized with this chart. This chart type, however, shows percentual values. The value of a month's sales always is 100% and the percentage of contribution for each employee can be extracted from the diagram.

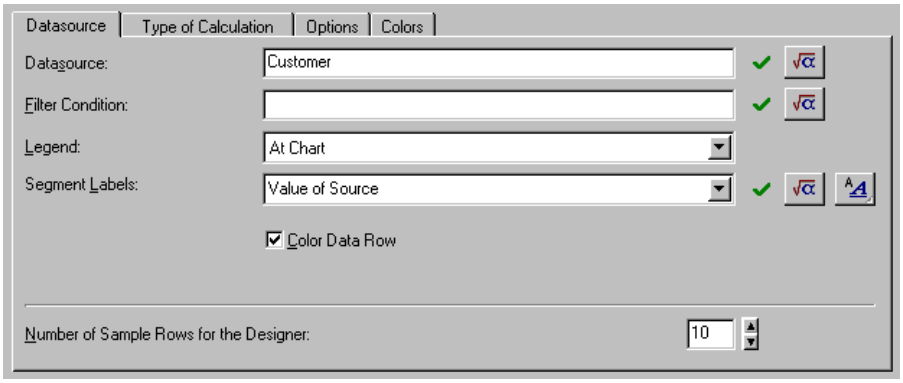
5.11.4. Chart properties

The chart object provides a variety of options. Depending on the chart type, there are two or three data axes. Using the tabs you can switch from one axis to another. You have the following options:

Pie charts

Pie charts have a special position; there are no actual "axes" but segments. Thus, the configuration differs from that of the other chart types.

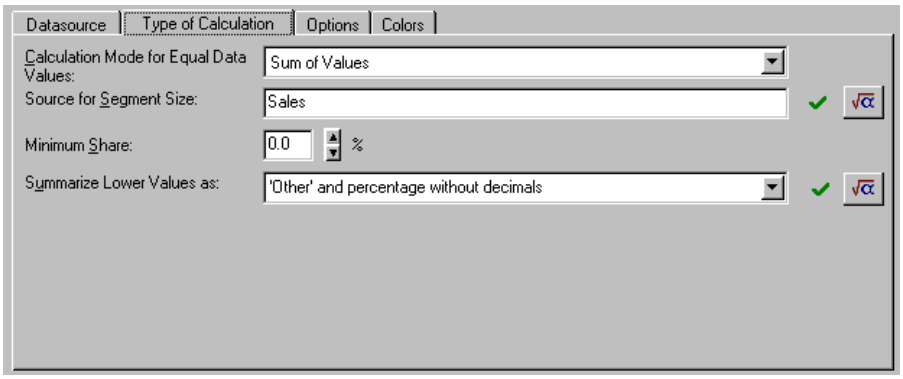
Options for the datasource



Datasource	Choose the datasource for the segments, e.g. "Name" for people, "Month" for date values, and so on.
Filter condition	If you like you can define a filter condition. Only the records matching the condition will be used for the chart data (e.g. `Left$(Name,1) = 'A'`).
Legend	Choose the position of the legend. If you choose "at chart" the values are given directly at the segments.
Segment labels	Choose the text which should be used to label the legend. Some preconfigured values are available, e.g. "Value and Percentage without decimals". Alternatively you may enter your own formula, choose "Formula..." from the list in order to do so. By clicking on √α you may also enter a formula. The AA allows you to set the font for the labels. A left click opens a file selection dialog, a right click

	resets the font to the default object font.
Color data row	The segments are colored with different colors in order to make the diagram easier to read.
Number of sample rows for the Designer	The designer has no access to the "real" data which will appear in your chart when printing. In order to have a picture of how your chart is going to look like, you can set the number of segments to appear in the Designer here.

Options for the type of calculation

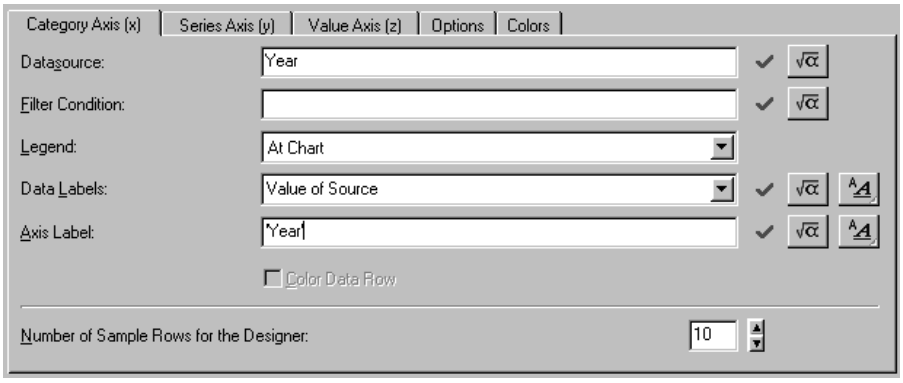


Calculation mode for equal values	Specifies the handling of equal source values. An example: you want to have the sum of sales to your customers. In this case, choose "sum of values". If you're interested in the average price of sales to a customer, choose "mean value". If only the number of sales to a customer is of interest, choose "number of values". As the actual value is not of interest in this case, the source field will be deactivated.
Source for segment size	Choose the datasource for the segment size, e.g. "Value", "Price" etc.
Minimum share	Especially when having lots of small contributions it may be desirable to summarize these in a common segment. Choose the maximum value up to which the segments will be summarized.
Summarize lower values as	Defines the label for the summarized segment. If you do not enter your own formula, the label will be adapted to the "normal" segment label layout on the datasource tab.

Other chart types

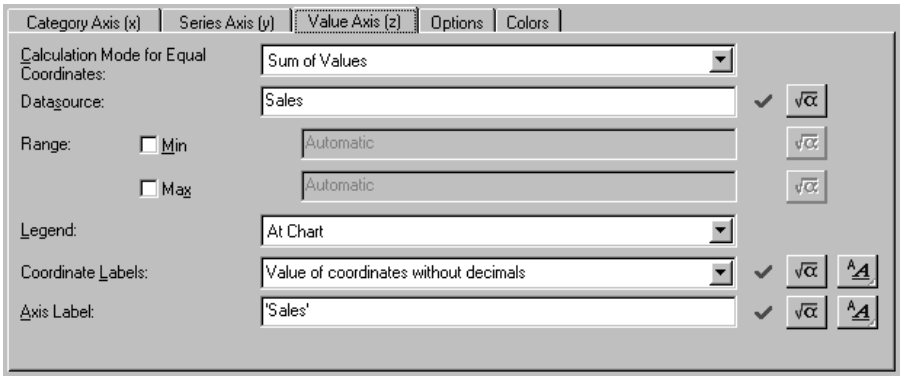
Options for category and series axis

If you chose to have a three axis chart, both axes are available (as x and y-axis). Only the category axis is needed (as x axis) for two axis charts. You have the same options for both axes:



Datasource	Choose the datasource for the row, e.g. "Name" for people, "Month" for date values, and so on.
Filter condition	If you like you can define a filter condition. Only the records matching the condition will be used for the chart data (e.g. `Left$(Name,1) = 'A'`).
Legend	Choose the position of the legend. If you choose "at chart" the values are given directly at the axis. Else, a legend will be added on the left, right, bottom or top of the chart.
Data labels	Choose the text which should be used to label the legend. Some preconfigured values are available, e.g. "Value of source". This setting will display the source value on the axis, i.e. the name of a customer, the month,... Alternatively you may enter your own formula. Choose "Formula..." from the list in order to do so. By clicking on √α you may also enter a formula. The AA allows you to set the font for the labels. A left click opens a file selection dialog, a right click resets the font to the default object font.
Axis label	Choose a text for your axis label here. By clicking on √α you may also enter a formula. The AA allows you to set the font for the labels. A left click opens a file selection dialog, a right click resets the font to the default object font.
Color data row	This attribute may only be chosen for either the series or the category axis. The chosen data row will then be colored in altering colors.
Number of sample rows for the designer	The designer has no access to the "real" data which will appear in your chart when printing. In order to have a picture of how your chart is going to look like, you can set the number of values to appear in the designer here.

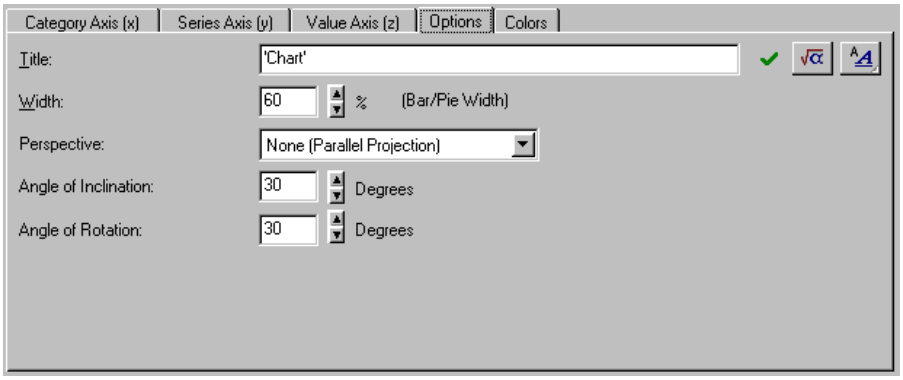
Options for the value axis



Calculation mode for equal coordinates	Specifies the handling of equal source coordinates. An example: you want to have the sum of sales to Customer smith in January. In this case, choose "sum of values". If you're interested in the average price of your sales to this customer, choose "mean value". If only the number of sales to the customer is of interest, choose "number of values". As the actual value is not of interest in this case, the source field will be deactivated.
Datasource	Choose the datasource for the value axis, e.g. "Value", "Price" etc.
Range	You can limit the shown data range in order to e.g. regard huge divergences within the values. If your values have high peaks, you can cut them off by setting a max limit. If you leave the default setting "automatic" the chart will display all values.
Legend, Coordinate labels, Axis label	These options are the same as for the series and category axis. The legend can only be displayed at the chart or not at all, however.

Options for the chart object

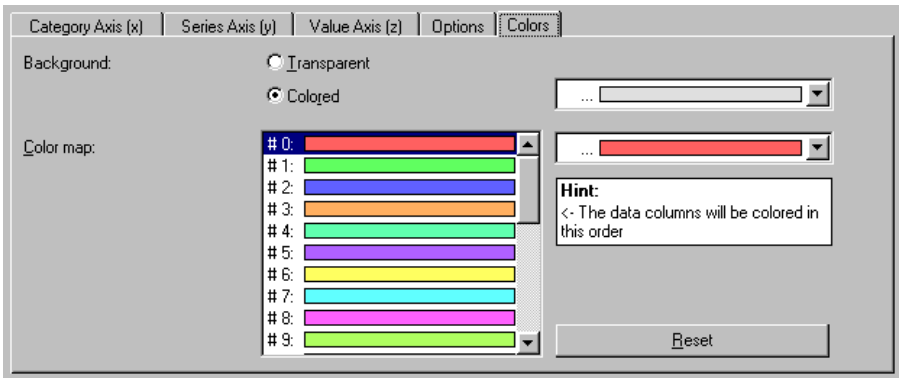
On the options tab you may set different layout options for the chart object.



Title	Choose a title for your diagram. This title will be displayed above your chart. By clicking on √α you may also enter a formula. The AA allows you to set the font for the labels. A left click opens a file selection dialog, a right click resets the font to the default object font.
Width	Sets – depending on the chart type – the bar width, the line width or the width of the segments.
Perspective	Choose the level of perspective for your object here.
Angle of inclination, Angle of rotation	Sets the rotation of the diagram. You may also set these angles using the rotation buttons which appear when the chart is selected on the workspace.

Color options

On the colors tab you can set the colors for your chart.



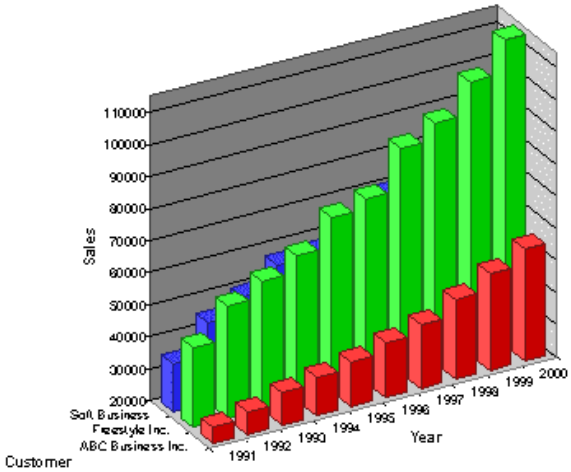
Background	Choose the color for the "back wall" of the chart. Alternatively the wall may also be transparent. To choose a color, select it from the upper combo box. The "..." entry brings up a standard color selection dialog.
Color map	Choose the colors and the order of colors for the chart. For a bar chart, this is the color of the bars, for a pie chart the segment color. To choose a color, select it from the upper combo box. The "..." entry brings up a standard color selection dialog.

5.11.5. Examples

Chart options depend on the available data of course. Thus, the following examples need to be kept general. A fictive application may give you the fields "Name", "Month" and "Sales", denoting the name of your customer, the month in which a transaction took place and the total transaction volume.

Multi row bar chart

This would be the simplest way to analyze your data; you'd have a diagram showing the total transaction volume for each month and customer

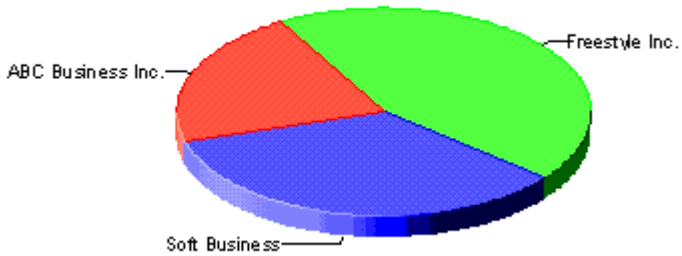


...this is how it's done:

Insert a new chart object, choose "Bar" as type and "Multi row" as sub type. Choose "Month" as the datasource for the category axis and "Customer" as the datasource for the series axis. For the value axis, choose "Sales". Edit the axis labels and title as required – you're finished.

Pie chart

If you're interested in the share each customer contributes to the total sales over a number of months, you'd choose a pie chart. This chart directly displays the shares:

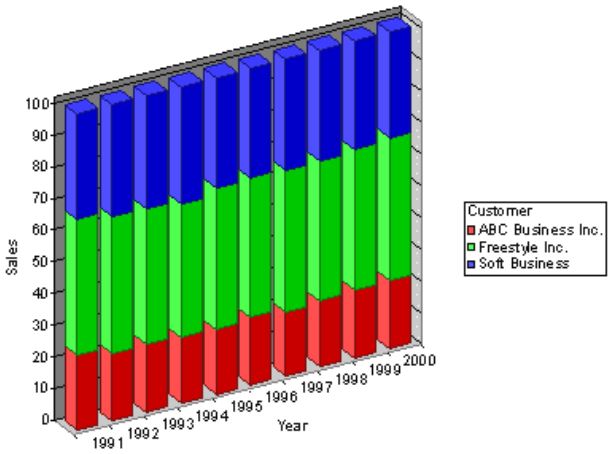


...this is how it's done:

Insert a new chart object, choose "Pie" as type and sub type. Choose "Customer" as the datasource and "Sales" as the datasource for the segment size. Edit the axis labels and title as required – you're finished.

100% stacked bar chart

The pie chart in the last example shows the share over a number of months. However, to quickly take a look at the shares for each month and extract trendlines, it would be interesting to see the change in the shares over a number of months. The 100% stacked bar chart is perfect for this.



...this is how it's done:

Insert a new chart object, choose "Bar" as type and "100% stacked" as sub type. Choose "Month" as the datasource for the category axis and "Customer" as the datasource for the series axis. For the value axis, choose "Sales". Edit the axis labels and title as required – the procedure is exactly the same as for the multi-row bar chart. This is why you can simply switch between the two sub types without having to reconfigure your datasources.

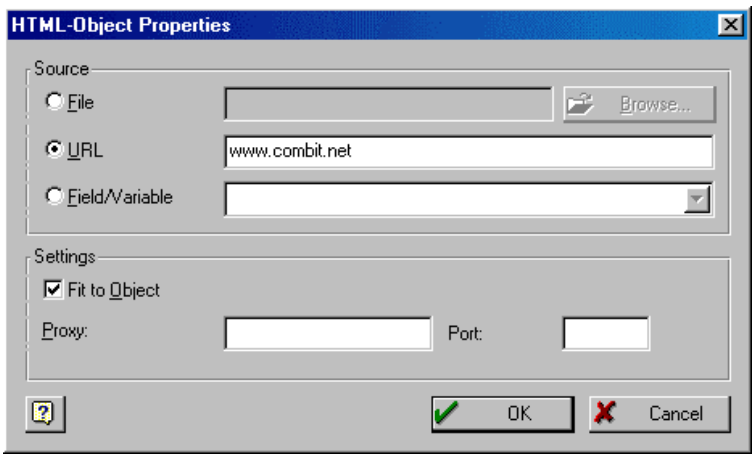
5.12. HTML formatted text

To display HTML formatted text (e.g. web sites) within your projects, you can use the HTML text object. Please note that due to license restrictions no GIF files can be displayed.

The object supports the HTML 3.2 specification. Partially supported are some extended tags as well as cascading style sheets.

To insert a HTML text object use the tool bar or **Objects > Insert > HTML-Text**.

The contents of the object are edited in the properties dialog, where you have various options.



- File – choose this option to display the contents of a previously saved HTML file. The "Browse..." button opens a file selection dialog. The file must be located on a local storage medium or network.
- URL – this option is used to display websites (e.g. www.combit.net). The contents are downloaded at runtime, thus you'll need a connection to the Internet in this case.

If your access is via proxy server, which is the common case in companies, you must enter its address in the settings group. By default, your current proxy configuration will be set. Leave this setting in order to be able to distribute your projects to other systems with a different proxy configuration. The current configuration will always be taken in this mode.

- Field/Variable – if your application makes HTML contents available, these can be chosen here. Refer to your application's documentation for details.

Fit to Object: Choose this option to fit the contents into the object. If the option is deactivated, the contents are fit to the object width and output may wrap over several pages.

5.13. Arrange

The workspace can have a lot of objects that can even overlap or cover each other. You can, for example, put a picture behind a transparent table to make your presentation more interesting etc. Look at this as if each object is on a transparent sheet, and the order of these comes into play whenever you have a non-transparent object. You can look at the order using the object list (**Objects > Object List**).

You see that the order of the sheets is important, as you don't want the picture to cover the table, then your information would be invisible.

Using **Objects > Arrange**, you can rearrange the sheets of the selected objects so that they have the order you need.

Please note that these "sheets" (just a term in this case) have nothing to do with the layers.

5.13.1. To Front

All selected objects are moved on top of the stack of sheets, that is, they have priority to the objects lying deeper. In our example, you must have the table in front of the bitmap.

5.13.2. To Back

This is the contrary to **To Front**: it puts the selected objects to the bottom of the stack of sheets. In our case, you could use this to put the bitmap to the bottom. As this is some sort of "background", this would be a little more logical than putting the table in front, but if no other objects overlap these two, there's no noticeable difference.

5.13.3. Forward One

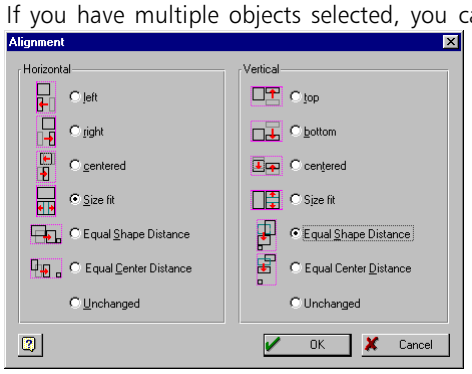
The selected objects will be moved one position up in the stack of sheets.

5.13.4. Back One

The selected objects will be moved one position down in the stack of sheets.

5.13.5. Alignment

If you have multiple objects selected, you can align them in the selection rectangle using the following methods.



Each direction (horizontal and vertical) has 6 alignment methods. Choose the ones you like, even horizontal and vertical simultaneously. If the objects should not change in one direction, leave the method of this direction to "Unchanged".

Left / Right / Top / Bottom:

The methods reposition the selected objects at the corresponding border of the selection rectangle. They will not change in size.

Centered:

The objects will be placed at the center of the selection rectangle. They will not change in size.

Size Fit

The objects will be resized to fill the selection rectangle in the corresponding direction (horizontal or vertical). Thus they will all get the same width or height.

Equal Shape Distance

The selected objects will be repositioned so that the distances between their frames are constant. If the objects are equal in size, this is the same as *Equal Center Distance*.

Equal Center Distance

The selected objects will be repositioned so that the distances between their centers are constant.

Unchanged

Choose this if you do not wish to make any changes in the corresponding direction.

5.14. Group

You can combine objects to a group. This will cause them to be selected as one object. This again means all operations (resizing, moving,...) will take place on all member objects of this group. An object can only be member of one group, thus groups cannot be put into groups.

To group objects, mark them and use the **Objects > Group** command (also accessible from the context menu).

To undo a grouping, select the group and choose **Objects > Ungroup**.

5.15. Assign to Layer

You assign objects to one of the available layers. See chapter 2.6.

5.16. Copy to Layer

Objects can be copied using this command so that they exist in the current and the selected layer.

5.17. Properties

 This brings up the properties dialog of the selected object.

5.18. Edit Position Dialog

This will bring up the positioning dialog where you can define an object's position and/or size in the highest possible resolution.

5.19. Appearance Condition

The expression assistant will help you through the creation process of the expression for the appearance condition.

5.20. Common Appearance Condition

This will set the appearance condition for all selected objects. All selected objects will get the condition you define in the expression assistant.

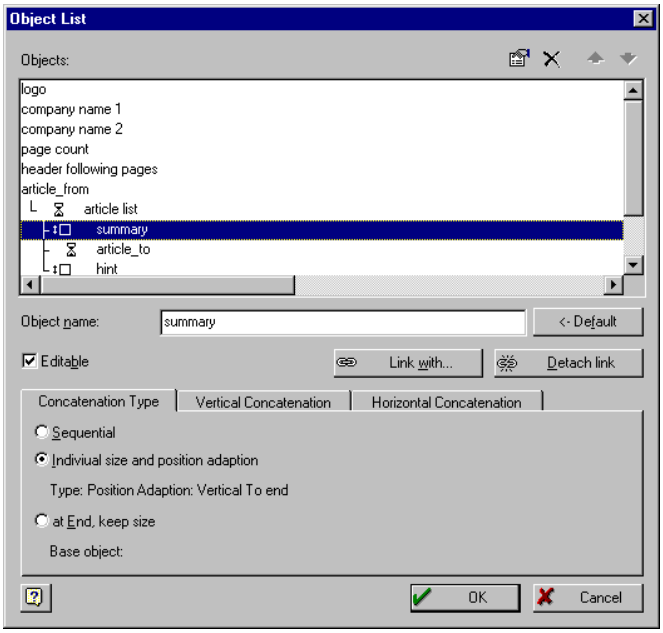
5.21. Name

You can name objects. This name should be unique within your project. The name then is displayed in the status bar as well as in the object list. This gives a visual aid to distinguish objects and their purpose.

5.22. Object List

The object list displays the list of objects belonging to the current project. If you have defined meaningful names for the objects, this list can help you to identify and rename objects, and change their properties.

Objects in invisible layers are greyed and cannot be selected.



When you select an object in the object list, the corresponding visual representation will be selected in the workspace. This enables you to check your selection, or to select objects that are virtually unselectable when several objects of the same size are on top of one another.

Editing or Deleting Objects

This can be done using the "Edit" and "Delete"- Buttons. You may also start the object properties dialog by double-clicking on an object in the list. If multiple objects are selected when clicking the "Delete" button, all objects are deleted.

Lock objects

The checkbox "Editable" allows an object to be selected on the workspace, or not. If it is not selectable on the workspace, the only way to select it is using this object list dialog.

Naming Objects

The edit control allows you to change the name of the selected object. The name is of course the same name that can be changed using **Objects > Name**.

Resetting the Name

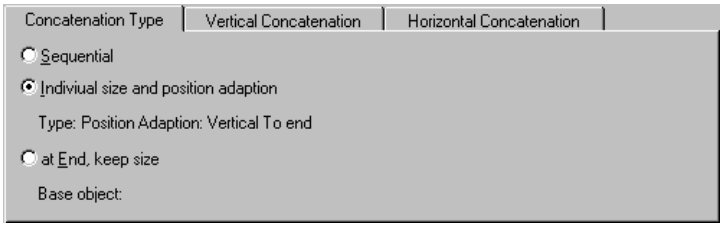
The "<-Default" button will set the default text (type and coordinates) as the name of the object.

5.23. Linking Objects

By linking objects you can make sure that one object is printed after another (either in time or space). A linked object may also adapt its size to the parent object (ex. table). Keep in mind that tables can not be linked to each other. The linked objects are placed in a "parent-child" hierarchy. The object, that other objects are linked to, becomes a parent object. The objects linked to a parent object are child objects.

Click this button to link objects to the selected object in the object list. A list of available objects in your project is displayed. Choose the object that you want to link to the parent object. The links are shown in the object list in Windows Explorer style. You can easily tell which object is the child and which object is the parent object. To link more than one object to the parent object, repeat the steps described above.

5.23.1. Link Types



Once you select a linked object, the type of link can be set in the concatenation type tab. The options are:

Sequential

A sequential link means the child object will be printed after the parent object. This is useful, for example, if you want to state the number of records on the current page in a table. This number, of course, is only known after printing the table. By linking the counter field sequential to the table, you ensure the correct result to be printed.

The sequential link is the default setting after linking two objects. It is symbolized by an hourglass icon in the object list.

If a sequential link is chosen, none of the options for adjusting position or size in the concatenation type group are set.

Link in Space

A link can also affect the position and size of the linked object. **A size and position adaption implies automatically a sequential link.** If the parent object is smaller than the maximum space available, the linked object can use this to move relative to that change to have a constant distance to the lower edge of the parent object.

For example, if you link an object to a table object using "Position adaption: Vertical, to end". The object will have a constant distance to the footer line of the table and will "float" along with it when the size of the table changes.

These settings will only affect printing as they depend on the change of the object's size due to the data that is being printed. Changes in the workspace on the parent objects do not have an effect on the child objects.

The symbol for this type of link is a rectangular shape with one or more arrows.

The choosen link type is displayed on the Concatenation Type tab.

Individual Size and Position Adaption

The link type will be choosen over the tabs Vertical Concatenation and Horizontal Concatenation. In each case 2 different kind of link mechanisms are available:

Link Type: Position Adaption: means that the position of the child object will adapt to the changes of the parent object's position.

- Option "Relative to Begin": the child objects moves like the top left corner of the parent object.
- Option "Relative to End": the child objects moves like the bottom right corner of the parent object.
- Option "To End": the top line of the child objects begins at the end of the parent object independant of the original position. This causes an implicit adaption in size on the first page the child object is printed on.

Link Type: Size Adaption: means that the size of the child object will adapt to the changes of the parent object's size.

- Option "Proportional": the size of the child objects changes like the size of the parent object. If the parent object will be 1 inch smaller the child object will be 1 inch smaller.
- Option "Inverse": the size of the child object changes in the opposite direction: if the parent object shrinks by one inch, the child object increases in size by one inch.

Horizontal Concatenation

The child object adapts the position resp. width to the corresponding changes of the parent object. Which corner is the decisive one depends on the choosen option.

Vertical Concatenation

The child object adapts the position resp. height to the corresponding changes of the parent object. Which corner is the decisive one depends on the choosen option.

If both options "Horizontal" and "Vertical" are set, the child object adapts to both changes of the parent object.

Keep Size

If you want to link an obect to another object so that the child objects keeps its size but adapts its position so that it starts under the parent object choose the link type "At End, Keep Size". In contrast to the plain position adaption this options cares about the available space. If neccessary a page break is done and the child object starts on a new page. You can use this option to place multiple objects (pictures, charts, etc.) underneath each other. In this case the "base object" us the first object in the hierarchy with activated page break.

Detach link

Using this button you can unlink the selected object. It then is available again as single object in the object list.

5.23.2. Examples

As stated above, links in time should be used whenever the contents or conditions set in the child object are not available or met before the parent object is printed. It is, for example, inevitable to use a link in time to use the function LastPage(). If you want to print the total price on the last page of an invoice, you may insert a text object with the appearance condition LastPage() and link it in time with the table containing your items. If the link was omitted, the object would never be printed, as variables (text objects) are printed before fields (tables) by default, and the total price is not available at that time, nor whether the current page is actually the last page.

A common use for links in space is the printing of invoices. An invoice usually consists of a table, which holds the items of the invoice. The first page, of course, should be different from the others, because it contains the invoice header with your address, logo etc. On the first glance, one would insert two table objects in different layers, one for the first page, the other one for the following pages. By using an inverse, vertical size adaption, you get by much easier: Design an invisible frame on the base layer (see chapter 5.4. "Inserting Rectangles"), which begins where the invoice table should start, and ends where the invoice table should start on page one. Choose "Page()=1" as appearance condition for the rectangle and link the table (child) to the rectangle (parent). Choose an inverse, vertical size adaption and a position adaption vertical, relative to end. In this way you solve your problem with just one table and don't have to update both tables if you change your table design later on.

A typical example for a "keep size" link is a chart object that should be printed at the end of a table object. In most cases you know what size the chart should have. Place the chart object in the desired size an link it to the table object. Check the options "At End, Keep Size". Independant of the final ending of the table object the chart object is printed under the table object in the desired size, if neccessary on a new page.

6. View

The View Menu offers different options for the appearance of the designer.

Zoom

For precise work in the designer different zoom modes are available:

- Full View ALT + 1
- 2 times ALT + 2
- 4 times ALT + 3
- 8 times ALT + 4

The current zoom mode can be seen in the menu.

View Mode

With the options "Layout", "Layout Preview" and "Preview" you can choose the view mode.

Windows

With this menu you can determine weather different windows are visible or not.

7. Options

This command uses the same dialog as described under **Project > Options** except that it starts with the dialog page *Preview*, and isn't project specific.

8. Appendix

8.1. Expressions

8.1.1. Syntax

The expressions all use the same syntax, and look quite like that of the programming language BASIC:

Result = **Expression(Parameters)**

You enter the expression and List & Label calculates the result. Lower/upper case are not important for functions, but imperative for arguments:

Left$(COMPANY) = Left$(COMPANY)

<> Left$(COMPANY)

There are basically two types of formulas:

- Conditions (which return a boolean result: TRUE or FALSE)
- Expressions which may result in different types of return values (barcode, picture, string, number, date or boolean). Which type of result is expected is obvious, from where the expression is used and the syntax. This which will inform you of the result type that is necessary.

Element	Meaning
Expression()	An expression combining functions, text and variables.
Parameters	Values used in the expression to calculate the result. Usually they are the variables from the database but can also be constant numbers, texts or such.
Result	The value List & Label calculates from the expression and the parameters.

8.1.2. Value Types

Type	Meaning
BOOLEAN	Logical values TRUE or FALSE. If the condition is met, the value is TRUE, else FALSE.).
STRING	Any combination of letters and numbers. If this is used as fixed text, it must be in single or double quotation marks.
DATE	A number representing the date using a Julian calendar.
NUMBER	A numerical value.
BARCODE	A string used as barcode text.
PICTURE	A supported graphic format.
RTF	A formmatted text

8.1.3. Function Overview

The available functions are listed in the "Function" dialog page of the formula wizard along with their parameters and usage.

Arguments in brackets are optional. A function must be followed by parentheses, even when it doesn't have parameters, Today(), for example.

The argument type "ALL" means that the argument can be of any type, SAME means that this argument must be of the same type as the ALL parameter.

8.1.4. Examples of the function usage

The function "Empty(STRING)"

The function "`Empty(STRING)`" checks, whether the argument string is empty or not. If it is, it returns TRUE.

This is intended for use in the IF-THEN-ELSE condition:

```
Cond(not Empty(COUNTRY), COUNTRY + "-")
```

It has the same effect as `Length(STRING) = 0`.

The function "FStr$(NUMBER, STRING)"

"`FStr$(NUMBER, STRING)`" formats a numeric argument (NUMBER) using the format string (STRING). It returns a string with the formatted number.

The format string can contain the following characters:

Format	Meaning
*	number or '*'-Prefix
$	number or '$'-Prefix
-	number or sign (when numerical argument negative)
+	number or sign
(	number or '('-Prefix (when numerical argument negative)
)	')'-Postfix (when numerical argument negative)
#	number or space
&	number or '0'
.	decimal point
,	1000-comma or space

The 'or' part will be taken when the number is too small to fill the position of that format character.

A prefix is a character which is written in front of the number. The formula `FStr$(1, "***")` has "`**1`" as result. In case of `FStr$(100, "***")`, the result would be "`100`". A postfix is put behind the number.

As an example, assume you want to format the number of software products you're selling and that number would be in the variable QUANTITY.

```
Fstr$(QUANTITY, "#####&")
```

formats the number to 6 significant digits. Every place except the smallest can be blank if the number is too small.

Value	result
0	" 0"
1	" 1"
255	" 255"

Imagine that you have the price of that software in PRICE and you need it with two decimals (rounded):

```
Fstr$(PRICE, "#####&.##")
```

Value	result
999.55	" 999.55"
1100	" 1100.00"
1099.5	" 1099.50"

You want the total price? No problem:

```
Fstr$(QUANTITY*PRICE, "$$, $$$, $$&.##")
```

We use the '$' here to show this feature:

Value	result
2*999.55	" $1, 999.10"
1100	" $1, 100.00"
100*1099.5	" $109, 950.00"

Some additional examples:

Formula	Result
FStr$(3.142, "#.###")	"3.142"
FStr$(3.142, ".######")	"*******" (overflow!)
FStr$(3.142, "(&.###)")	" 3.142 "
FStr$(3.142, "(&.###)")	"(3.142)"
FStr$(3.142, " + + + &.###")	" + 3.142"
FStr$(3.142, "---&.###")	" 3.142"
FStr$(-3.142, "--- &.###")	" -3.142"
FStr$(3.142, "&&&.&&&")	"003.142"
FStr$(3.142, "***.***")	"**3.142"
FStr$(3.142, "$$$.$$$")	" $3.142"
FStr$(5003.1, "#,###.&&")	"5,003.10"
FStr$(3.142, "##&.***")	" 3.142"

The function "If(<BOOLEAN>, <ALL>[, <SAME>])"

This function (as well as the "Cond({Boolean}, {All}, {Same})" function which is equivalent) gives you the opportunity to use conditional expressions. It can be interpreted as a function that represents the IF-THEN-ELSE statement in programming languages. Please keep in mind that both expressions are evaluated, it's not possible to assume boolean shortcut evaluation.

Depending on the boolean first argument, the value of the second (if TRUE) or the third argument (if FALSE) is returned.

If the third argument is empty, the return value defaults to

type of 2nd argument	result if 1st argument is FALSE
Boolean	FALSE
String	"" (empty string)
Date	Julian date 0
Number	0
Picture	"" (empty string)
Barcode	"" (empty string)

Imagine your database has a COUNTRY field which contains the country code (maybe not, if it's in your own country). This field shall be inserted before the city name in CITY (if it is not your country, assumed USA here). Then you'd use the following formula:

```
if(Empty(COUNTRY) or COUNTRY = "USA", CITY, COUNTRY +
 '–' + CITY)
```

Once you've written a few formulas, they will become easier to use and you will be pleased with the flexiblity that you gain.

The function "LastPage()"

"`LastPage()`" returns TRUE if the current page is the last or FALSE if not. LastPage() has no arguments, still the parentheses have to be written to declare it as function usage.

As example we assume you want to have a 'sum' line at the bottom of a page which displays the current subtotal or total:

```
If(LastPage(), "Subtotal: ", "Total: ") + FStr$(SUM, "$$$$$$$&.##")
```

The function "Left$(STRING, NUMBER)"

The function "`Left$(STRING, NUMBER)`" returns the first NUMBER characters of the STRING.

Formula	result
Left$("combit", 2)	"co"
Left$("combit", 10)	"combit"

8.2. Order of priority

In an expression, a lot of operations can be performed. Operators, functions, parentheses - all in one formula. Thus it can be important to use parentheses to change the order of evaluation.

The order of priorities is

Priority	Operators
1	Parentheses ()
2	Functions
3	Logical operator NOT
4	Logical operators AND, OR, XOR
5	Arithmetical operator modulo (%)
6	Arithmetical operators (*, /)
7	Arithmetical operators (+ , -)
8	Relational operators (<, < = , = , > = , >, <>, ! =)

8.2.1. Operators

Operators combine two values to make a result, except for the negation operator NOT, which just takes one value. Operators are used to calculate (mathematical operators), compare (relational operators) or combine (logical operators).

Operator	Meaning	Data Types	Result Types
>	Greater than	STRING, NUMBER, DATE, RTF	BOOLEAN
> =	Greater than or equal	STRING, NUMBER, DATE, RTF	BOOLEAN
<	Less than	STRING, NUMBER, DATE, RTF	BOOLEAN
< =	Less than or equal	STRING, NUMBER, DATE, RTF	BOOLEAN
=	Equal	STRING, NUMBER, DATE, RTF	BOOLEAN
= =	Equal	STRING, NUMBER, DATE, RTF	BOOLEAN
<>	Not equal	STRING, NUMBER, DATE, RTF	BOOLEAN
! =	Not equal	STRING, NUMBER, DATE, RTF	BOOLEAN
%	Modulo	NUMBER	NUMBER
+	Add	STRING, NUMBER, DATE	STRING, NUMBER, DATE
-	Subtract	NUMBER, DATE	NUMBER, DATE
*	Multiply	NUMBER	NUMBER
/	Divide	NUMBER	NUMBER
AND	Logical AND	BOOLEAN	BOOLEAN
OR	Logical OR	BOOLEAN	BOOLEAN
XOR	Logical exclusive-OR	BOOLEAN	BOOLEAN

9. Index

A

B

C

D

E

S

T

U

V

W

Z