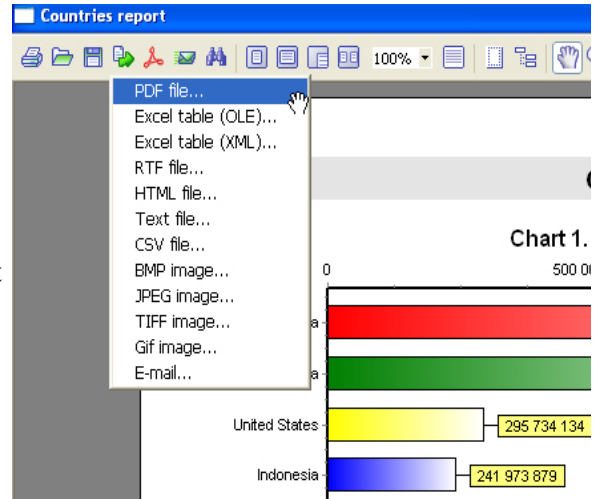# Report Export

FastReport allows to export built report to different formats for further editing, archiving, sending via e-mail, etc.

Now export to 11 formats is supported. They are: PDF, Excel, XML, RTF, HTML, text, CSV, BMP, Jpeg, Tiff, Gif. There is an opportunity to send report via e-mail in any above-listed formats with FastReport means.

Exports in FastReport use one of the following three methods:

Export menu in preview window

- layer-by-layer – object transferring to resulting file is performed alternately. Expert adequacy is approximated to original;
- table – on object transferring transitional matrix of object allocation is used. There is high adequacy to original on the assumption of observance of rules of creating correct report sample ("Report Design References" chapter);
- enveloping – all report objects enveloping is performed on page image. There is full original adequacy. It is used on export to graphic formats.

Export to PDF Format

PDF (*Portable Document Format*) – platform-stand alone format of electronic documents created by Adobe Systems. Acrobat Reader free package is used for viewing. This format is rather flexible – it allows to introduce necessary fonts, vector and bitmapped images; it approaches transferring and storage of documents intended for viewing and further printing.

Export method is a layered one.

On exporting to PDF format the dialogue box for output file parameter settings appears.

Export parameters:

Compressed – output file compressing. It reduces file size but increases export time;

Embedded fonts – all fonts used in report will be also placed to PDF output file for correct file displaying in computer where these fonts can be absent. Output file size increases considerably;

Background – export of graphic image assigned by a page into PDF file. It considerably increases output file size;

Print optimized – output of graphic images in high resolution for further correct printing. This option enabling is necessary only in case when document contains graphics and its printing is necessary. It considerably increases output file size;

Outline – option is enabled when outline is used in report. It enables possibility of outline export to resulting document;

Open after export – resulting file is opened right after export via PDF files viewing program which is allocated in OS by default (for example, Adobe Acrobat Reader).
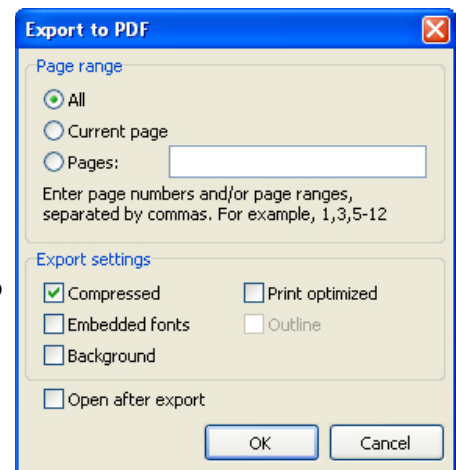
Export peculiarities: RichText objects are exported as graphic ones.

Export to RTF Format

RTF (*Rich Text Format*) was developed by Microsoft as a standard one for text documents interchange. Now RTF- documents are supported by many modern text editors and operating systems.

Export method is a table one.

On exporting to RTF format the dialogue box for output file parameter settings appears.
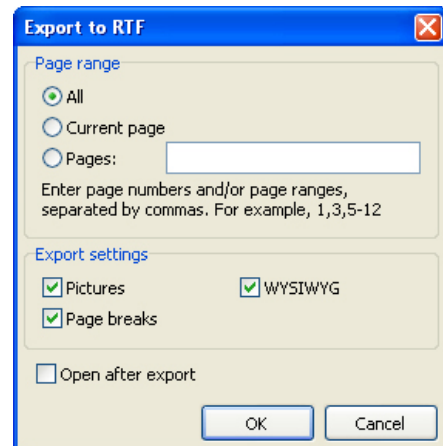
Export parameters:

Pictures – enables possibility of graphic images export to resulting file;

Page breaks – enables page breaks in RTF file;

WYSIWYG – full compliance to report appearance. On this option disabling the optimization for reducing the number of lines and columns in resulting diagram is performed;

Open after export – resulting file will be opened right after export via RTF files viewing program which is allocated in OS by default (for example, Microsoft WordPad).

Export peculiarities: RichText objects are fully integrated into RTF format. File appearance and size depend on report sample greatlys ("Report Design References" chapter);

Export to Excel Editor

Excel – application for working with electronic worksheets. It is included into Microsoft Office System.

Export method is a table/diagram one.

On exporting to Excel format the dialogue box for output file parameter settings appears.

Export parameters:

Styles – transferring of text objects design styles into the table. Disabling increases exporting but worsens document appearance;

Pictures – includes possibility of graphic images export into resulting table;

As text – all objects are transferred into table/diagram as text ones. This option enabling sometimes useful on transferring of numeric fields with complicated formatting;

Fast export – usage of optimized fast data transferring to Excel. This option disabling slows down data transferring but increases export compatibility on any errors during data transferring;

Merge cells – cells integration in resulting table/diagram for achieving maximum correspondence to the original. Disabling increases exporting but reduces document appearance;

WYSIWYG – full compliance to report appearance. On this option disabling the optimization for reducing the number of lines and columns in resulting table is performed;
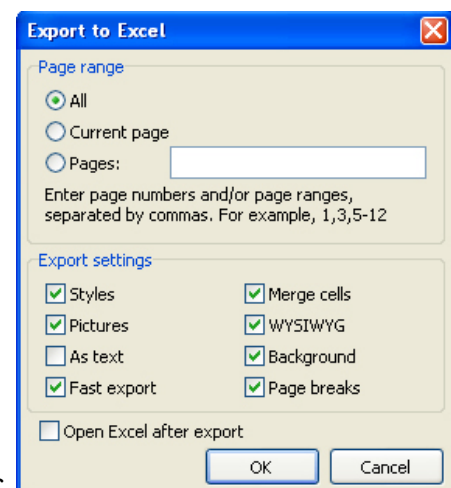
Background – export of filling color assigned to report page;

Page breaks – includes page breaks in Excel;

Open Excel after export – resulting file will be opened right after exporting into Excel.

Export peculiarities: obligatory condition for correct export working is installed Excel program into your PC. RichText objects are transferred as simple text, graphic images transference is supported.

Export to XML Format

XML (*Extensible Markup Language)* is an expansible marking language. XML is intended for structured data storage and also for information interchange between different programs. FastReport uses XML format for data transferring into Excel table/diagram editor ver. 2003 and later.

Export method is a table/diagram one.

On exporting to XML format the dialogue box for output file parameter settings appears.

Export parameters:

Styles – transferring of text objects design styles. Disabling increases exporting but worsens document appearance;
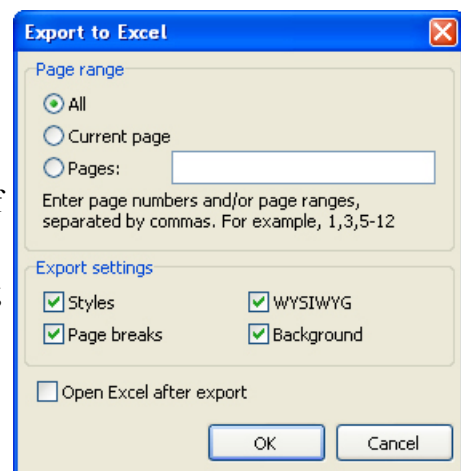
WYSIWYG – full compliance to report appearance. On this option disabling the optimization for reducing the number of lines and columns in resulting table is performed;

Background – export of filling color assigned to report page;

Page breaks – includes page breaks in resulting document;

Open Excel after export – resulting file will be opened right after exporting into Excel.

Export peculiarities: RichText objects are transferred as a simple text, graphic images transference *is not supported*.

Export to CSV Format

CSV-file contains values formatted in the form of a table/diagram and adjusted in such a way that every value in column is divided from value in the next column be means of separator, and every new row begins with new line. This format may be imported into different table/diagram editors.

Export method is a table/diagram one.

On exporting to CSV format the dialogue box for output file parameter settings appears.

Export parameters:

OEM Codepade – resulting file OEM coding selecting;

Separator – values separator in files;

Open after export – resulting file will be opened right after exporting via CSV files viewing program which is allocated in OS by default.

Export peculiarities: on transferring into this format report design is not saved. Graphic images are not supported.

Export into HTML Format

HTML (*Hypertext Markup Language*) is regarded as standard language for document marking in the Internet. HTML was created as a language for scientific and technical documentation interchange suitable for usage by people who are not specialists in nesting. It is used for creating relatively simple but nicely designed documents. Besides document structure simplification hypertext support is included into HTML.

Export method is a table/diagram one.

On exporting to HTML format the dialogue box for output file parameter settings appears.

Background – export of filling color assigned to report page;

Page breaks – includes page breaks in resulting document;

Open Excel after export – resulting file will be opened right after exporting into Excel.

Export peculiarities: RichText objects are transferred as a simple text, graphic images transference *is not supported*.

Export parameters :

Styles – transferring of text objects design styles. Disabling increases exporting but worsens document appearance;

Pictures – includes graphic images exporting possibility;

All in one folder – all additional files are saved in the same folder with main file;

Page navigator – special navigator for fast shift between pages is created;

Fixed width – blocking of automatic table/diagram width modifying on changing preview window size;

Multipage – every page will be written to separate file;

Background – export of graphic attributes assigned to report page;

Open after export – resulting file will be opened right after exporting via HTML files viewing program which is allocated in OS by default.

Export parameters: export may be consisted of several files. Each graphic image is supported and saved in separate in own file, RichText objects are transferred as simple text. Appearance and file volume depend greatly on report sample ("Report Design References" chapter)
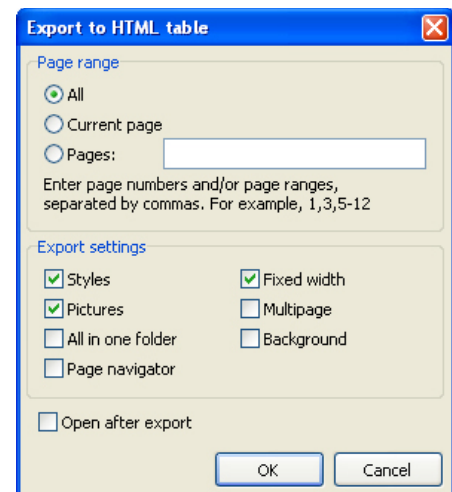
Export to Text Format

Usual text file. It contains information from report. This information is optimized to the limit and converted in accordance with the given format peculiarity.

Open Excel after export – resulting file will be opened right after exporting into Excel.

Export method is a table/diagram one.

On exporting to HTML format the dialogue box for output file parameter settings appears.

Export parameters:

*Page breaks* – export of page breaks to resulting file;

Empty lines – export of empty lines;

Frames – export of text objects frames;

OEM Codepade – resulting file OEM coding selecting;

Open after export – resulting file will be opened right after exporting via text files viewing program which is allocated in OS by default.

Export peculiarities: report design is not saved on transferring to this format, graphic images are not supported, exported page width is figured automatically depending on type of text objects on report page.
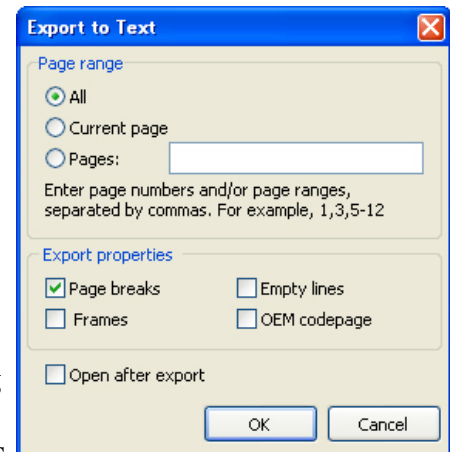
Export to Jpeg, BMP, Gif, Tiff Graphic Formats

FastReport allows to export information to graphic formats.

JPEG (*Joint Photographic Experts Group*) – is a format based on shrinking algorithm which is based not on the same elements search but on difference between pixels. It is characterized by high compression level at the expense of partly graphic information loss.

BMP (*Windows Device Independent Bitmap*) – is used for storage of bitmap images assigned for usage in Windows. Standard file format for computers under Windows control.

GIF (*Graphics Interchange Format*) – independent from hardware support the GIF format was developed for bitmap images transferring through networks. It allows to compress files containing many homogeneous fillings (logos, inscriptions, schemes) rather well.

TIFF, TIF (*Target Image File Format*) – hardwarily stand-alone format. Today it is one of the most widespread and reliable in polygraphy and facsimile information transferring.

Export principle is enveloping.

On exporting to one of above-named graphic formats the dialogue box for image parameters setting appears.

Export parameters:

Separate files – if option is enabled, every report page is exported to separate file. File name is given according to the selected one with addition of underlining and page number;

Monochrome – monochrome picture creating;

Crop pages – after exporting blank area cropping will be performed along edges;

JPEG quality – JPEG file compression ratio. Option is enabled only on exporting to JPEG format;

Resolution – output graphic presentation resolution.

Export peculiarities: on exporting several pages to one file (on disabled *Separate files* option) it is necessary to remember large resources capacity of export.
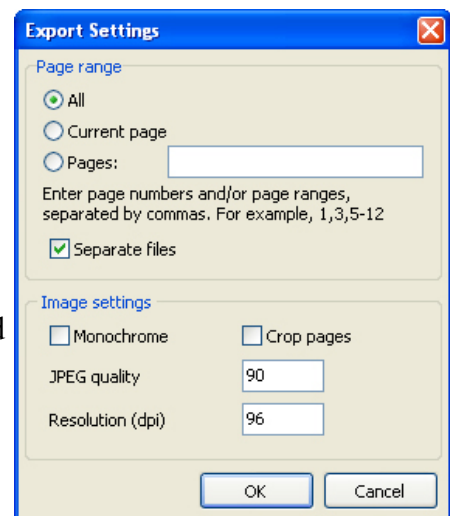
Report Sending via E-mail

FastReport allows to send a ready report via e-mail in any format you need. You do not need any additional programs to send mail.

On selecting export via e-mail the dialogue box for setting of message and exporting format parameters appears.

Before export forming and sending via e-mail it is necessary to set parameters of mail box owner. All these parameters are placed in "Account" bookmark:

From Name – sender's name;

From Address – sender's e-mail;

Organization – sender's organization;

Signature – signature for mail. It may be automatically formed on clicking on "Build" button on condition that the earlier examined fields are filled;
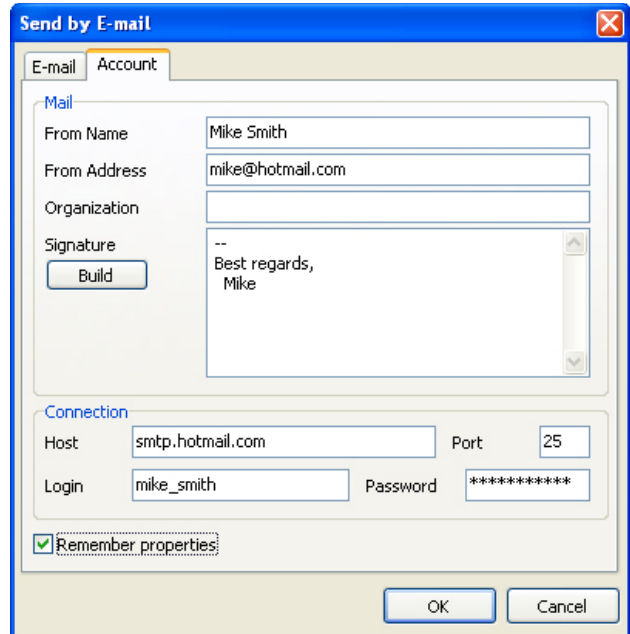
Host – SMTP server port;

Port – SMTP server port;

Login – access name for authorization on SMTP server, if its usage is necessary for mail sending via specified SMTP server;

Password – authorization password;

Remember properties – remember all parameters for further usage.

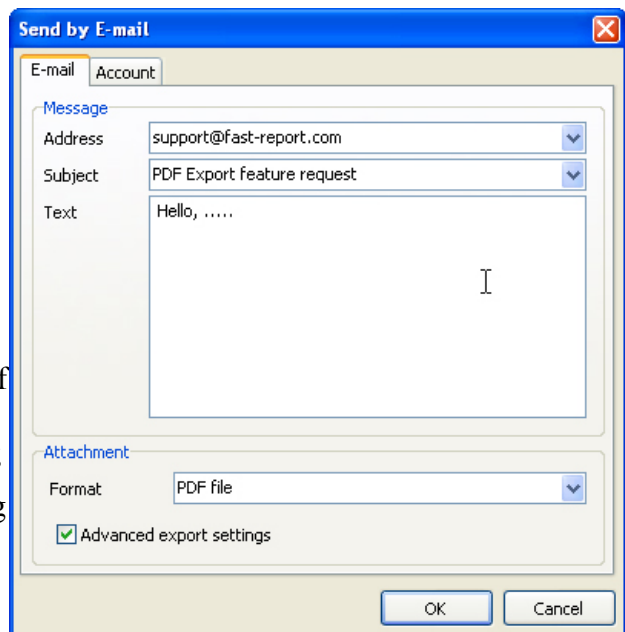After filling of parameters necessary for mail sending it is required to fill message parameters in"E-mail" bookmark:

Address – e-mail address of receiver. Earlier used addresses can be selected in drop-down menu;

Subject – message subject. Earlier used topics can be selected in drop-down menu;

Text – message text;

Format – format of report attached to mail. One of the earlier examined formats and also own format of FastReport (FR3) ready report may be selected;

Advanced export settings – on this option enabling after clicking on "OK" the dialogue box for selected export format setting appears. Otherwise export parameters will be used by default.

Export via e-mail peculiarities: not only plain authentication on SMTP servers is supported. It authentication is not required, it is not necessary to fill "Login" and "Password" fields in settings.

Report Design References

It is significant that quality of export into one or other format depends greatly on report sample competent development. FastReport allows abundant number of opportunities for object manipulation on report sample creation. That gives remarkable advantage on fast development of any reports and their further printing. Printed document will look just as on display. And that is the primary intent of FastReport report generator usage. The underside of such development freedom is complexity of received document export to different data formats having their limits in information presentation which can sometimes be rather large. In this chapter the special report design references intended for export to other data formats will be given.

Many formats use table data presentation. First of all it is a question of such formats as HTML, XLS, XML, RTF and CSV. No cells crossing or their arranging in layers is permissible in such formats (if to consider exactly table marking, that concerns HTML and RTF), in contrast to freedom of report sample development process in FastReport designer. Export filters, as a rule, take into account these requirements at most on objects transferring from FastReport report to necessary format. That is carried out via special algorithms of taking object crossings into account and their optimal placing. On object crossing points new columns and lines in resulting table appear. That is necessary for saving of FastReport transferable objects exact positioning and for getting maximum resemblance between the result and original report. Large number of cross objects in report leads to growth of number of columns and lines in table. That complicates further resulting file usage and reduces exporting.

For example, on report developing there was made slight crossing of two objects placed one under another on the same band. The number of records on report forming was 150. On export to RTF format 450 lines in resulting table will be created (150 lines for each object and 150 ones for crossing). If to remove crossing there will be already 300 lines. In large reports and on huge number of objects the difference will be really tremendous. That, of course, will affect output file size.
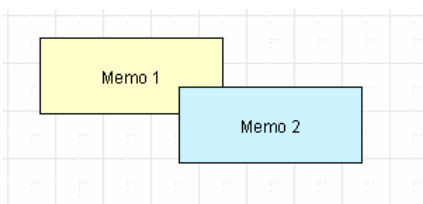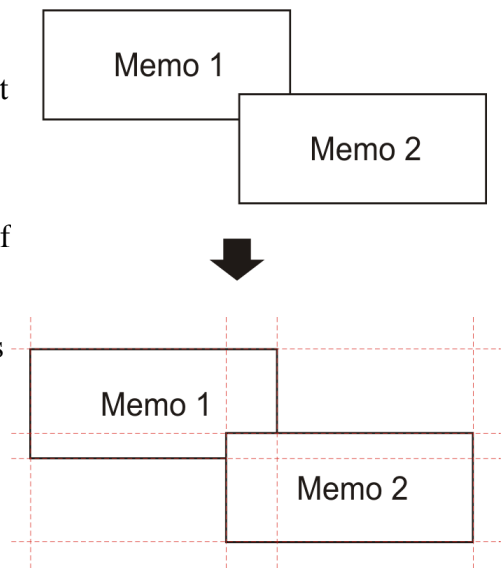
Objects on report page

Objects after exporting into Excel

Remember that during sample developing, if you want to export your reports in any table format. On creating tables in report keep an eye on neighboring cells borders to adjoin each other. It is important that cells do not cross and arrange in layers. Export filter algorithm will cut off cells but export result may be far from desirable (you will see not exactly what you wanted to). Arrange objects in such a way that they are placed in line vertically as well as horizontally. Extension lines can help to perform this.
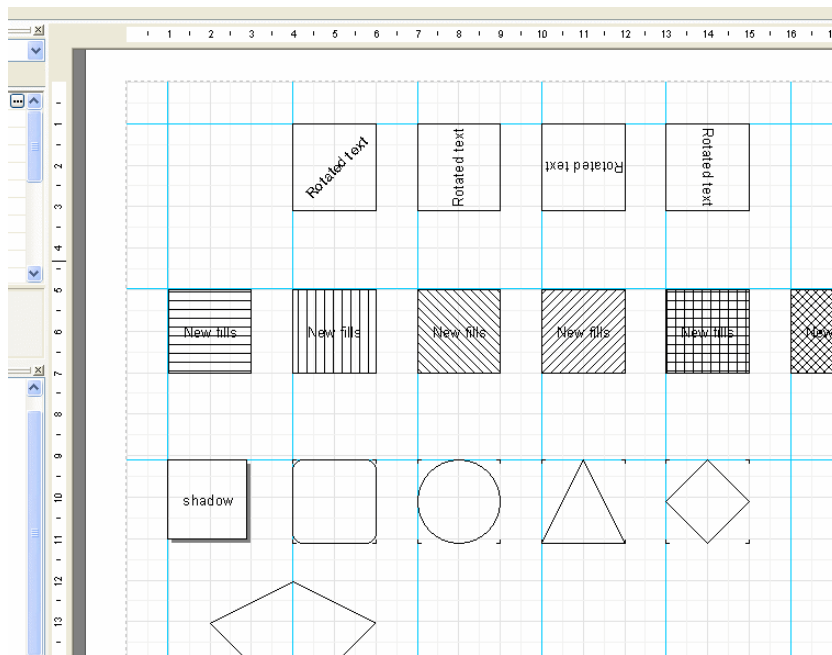
Sample of extension lines usage in designer

For extension lines usage in FastReport designer just click on the horizontal or vertical ruler limiting report page from the left and the top. Then holding mouse button pressed drag extension line to the required position on the page. Further you will be able to place objects immediately along extension lines horizontally and vertically.

Text objects grid alignment can also be helpful in case of cells overlapping. Keep an eye on enabling grid alignment in designer options. In order to simplify alignment you can extend grid pitch. Setting of grid pitch and alignment can be found in designer menu "View" – "Options" – "Grid".

For text framing it is better to use text object embedded properties instead of single graphic objects – lines, rectangles, etc. try not to use background objects under transparent text objects.

Usage of these simple rules in practice will help you to create a report which will look perfectly after export to any format using table (or table-based) marking for data presentation.
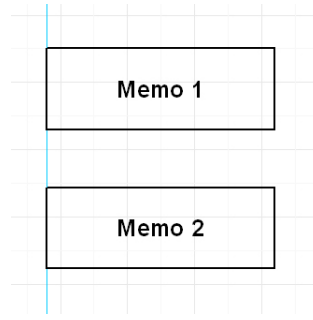
Below there are examples of right and undesirable object arrangement on report sample creation.
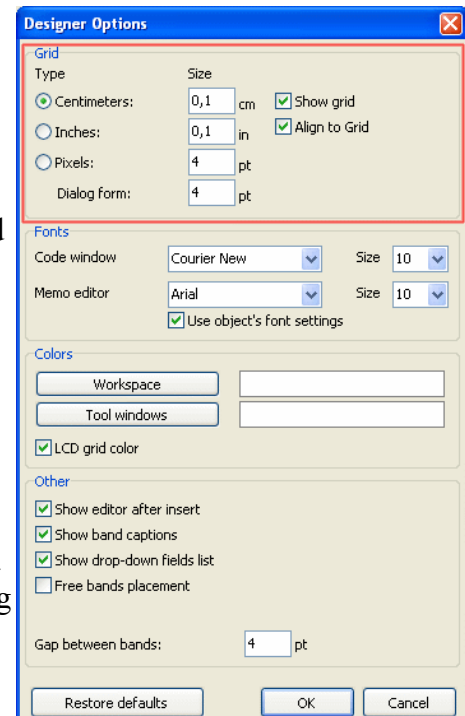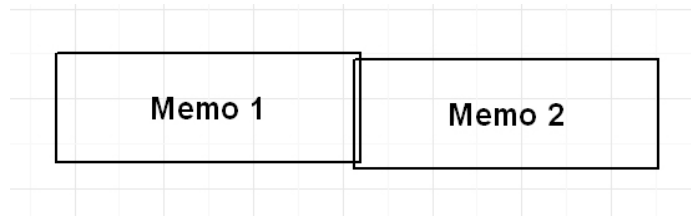

Designer settings window
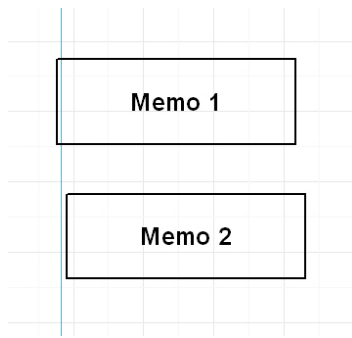
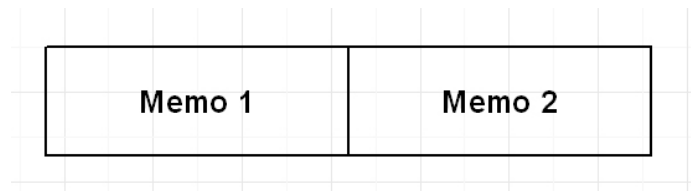*Wrong*   *Right*

Objects are displaced horizontally. It is necessary to use alignment according to extension lines as far as possible for objects to have the same horizontal coordinate.

Wrong

Right

Objects have overlapping. In such a case on export to table/diagram format additional useless lines and columns and also 3 additional cells in crossing zone are created.

It is recommended to get acquainted with demo reports included into FastReport delivery set for mastering basic methods of optimum report development.