Computer Systems Odessa

ConceptDraw

www.conceptdraw.com.ua

User's Guide

for Windows®
and Macintosh®

Contents

Welcome to ConceptDraw.

Welcome to ConceptDraw - a program for creating business drawings developed by Computer Systems Odessa Corp.

Powerful Tools.

ConceptDraw offers you a wide choice of different tools you can use for quickly creating business diagrams, thorough research layouts, schemes, plans, etc. For each object, you can assign different line colors, fill colors, fill and shadow patterns. Any object may contain text. The Snap and Glue tools help you align points, lines and objects as you draw them and position them precisely.

Formulas allow you to define various object parameters, which gives you virtually unlimited control over objects.

ConceptDraw's intelligent connectors automatically change their path when you reposition objects, avoiding crossing other objects. And what is more, you can convert any object into a connector.

Connectors let you easily create all kinds of charts: technological or business processes, organization schemes, program project plans, etc.

OLE (Object Linking and Embedding) compatibility means that a ConceptDraw document can be used in any other OLE-compatible application (for instance, MS Word). And vice versa, any file or document, created in another OLE-compatible program can be easily embedded into ConceptDraw.

Import/Export functionality lets you easily use images stored in files of different formats.

The program provides you with extended Internet capabilities: creating and using

hyperlinks, sending documents by e-mail, saving the document in HTML format.

It's easy.

You don't need to have any artistic talent or drawing skills to use this program. Simpler objects can be easily created by using simple graphic segments and the Snap tool, and for more complicated ones you can use our Libraries, supplied with the program, where most of objects you might need are already gathered for you, and can be easily dragged from there and dropped into your document. Connectors allow you to join objects together and keep them connected even if you reposition the objects.

Key Features.

- Supports basic elementary segments: line, arc of circle, arc of ellipse, spline.
- Basic segments can be combined into one object.
- Text can be associated with objects:
  - Text size and angle can be changed separately of the object.
  - Various text styles are available.
  - Extended formatting options are supported.
- Extended object properties:
  - More than 30 fill patterns. Gradient fill patterns.
  - Color shadows are supported.
  - More than 60 arrowhead styles.
  - Various object properties can be locked against changes.
  - Changeable double-click action of objects.
  - Adding, multiple selecting, moving, deleting of handles.
- Advanced operations on objects:
  - Grouping, ungrouping, editing group.
  - Rotating objects, including images.
  - Vertical/Horizontal flipping.
  - The Snap function adds maximum precision to your work.
  - The Glue functionality lets maintain objects connected to each other.
  - Various tools for aligning object with respect to each other and to a guide line.
- Connectors:
  - When you move objects, connectors re-form accordingly.
  - User-controlled points of connection.
- Document:
  - Working with multiple pages: adding, deleting, renaming pages.
  - Zooming in on and out from pages.
  - Changeable scaling in the document. Standard scales are supported.
  - Metric and non-metric units of measure are supported.
  - The grid, the rulers and the guide lines help you to create accurate drawings.

    - Working with layers is supported: locking, hiding/showing, changing the layer colors.
    - User-defined color palette.
    - All your work settings can be saved in a workspace file, letting you quickly resume working.
- Exporting/Importing of the following graphic formats: Windows bitmap, metafile, JPEG, pict.
- Working with the Internet: creating and using hyperlinks, sending documents via e-mail, saving in the HTML format, searching the Internet.
- Object parameter table, where any parameter can be changed or specified. Formulas can be used to define various object parameters. More than 60 functions supported.
- More than 50 supplied document templates for all occasions.
- Over 70 supplied libraries (about 1500 objects).
- Object Linking and Embedding (OLE) compatibility.

and more ...

System requirements.

To install and work with ConceptDraw, your system must have the following configuration:

PC computer:
- Pentium processor or better;
- 16 MB of RAM or more;
- CD ROM
- SVGA monitor, 256 colors (16-bit color recommended);
- Windows 95/ Windows98/ Windows NT 4.0 system or higher.

Macintosh computer:
- Power Mac processor or better;
- 32 MB of RAM (64 MB recommended);
- CD ROM
- 800x600 resolution, 256 colors monitor (16-bit color recommended);
- MacOS version 8.0 or higher.

Installing ConceptDraw.

For Windows system:

1. Insert your ConceptDraw disk in the CD ROM drive;
2. Run Setup.exe from the disk;
3. Follow the instructions that appear on your screen.

4. During the installation process, all necessary files will be copied on your hard drive. The submenu for ConceptDraw will be created in the Start menu. The setup program will also place the ConceptDraw icon on your desktop.

For MacOS system:

1. Insert the ConceptDraw disk into your CD ROM drive.
2. Drag the ConceptDraw folder on your desktop, or to a folder on your hard drive.

Technical support.

We are always ready to answer your questions, which may arise when you're working with ConceptDraw. We offer you free technical support - if you couldn't find answer to your question in the manual.

The best way to get the support is to do this is via electronic mail. Our email technical support works 24 hours a day, 7 days a week. When reporting a problem, please include the following information:

- Registration number you receive with your copy of the product.
- ConceptDraw version number
- Information describing your computer: processor type, amount of RAM, the video adaptor info (make, resolution, number of colors);
- Your operating system version number.
- A detailed description of how to reproduce the problem.

Send this information via e-mail at **support@conceptdraw.com.ua** and we'll do our best to resolve the problem, or answer your question. Replies usually arrive within one business day.

More information about our support programs can be found on the ConceptDraw site **http://www.conceptdraw.com**. This site is fully devoted to ConceptDraw, and is a perfect source for latest information about the program, newer versions, updates, add-on components, training and some other resources that you can't get in a printed way. Please check it out regularly to get new libraries, samples and other useful things.

Registration.

To become a registered user, you have to fill out the registration form on our site here: **http://www.conceptdraw.com/Register/**

Becoming a registered user, you get the following advantages:

- all registered users get free technical support.
- registration entitles you to receive notification about product updates, add-on components, and other special offers by e-mail.

- discounts for later versions of the product.

Don't forget to register your copy!

The Team.

ConceptDraw was created by a large team of professionals: programmers, designers, mathematicians, testers, and many other people. They worked hard to provide you with a high quality product, to make it powerful, beautiful and easy-to-use. All these people work for Computer Systems Odessa.

Computer Systems Odessa is international corporation, which has been developing and publishing software products of various kinds since 1993. The headquarters of the company are located in the Eastern Europe (the Ukraine), in the wonderful city of Odessa, on the Black Sea coast.

Here you may see the map: http://www.cs-odessa.com.ua/corporateinfo/im/mapeuro.jpg

And here, get acquainted with our city - Odessa: http://www.cs-odessa.com.ua/odessa/odessa.html

Our team always keeps up with our customers' needs creating high quality state-of-art products. We are always happy to hear your feedbacks and suggestions which do help us improve our products, stimulating us to using the very latest cut-edge technologies for creating up-to-date software which helps you to reach the desired results in life and business.

More detailed information about Computer Systems Odessa, the products and the team, visit the company site at **http://www.cs-odessa.com.ua**

Chapter 1 Working with files

ConceptDraw works with its own file types: document, template, library, workspace. Besides that, the Import/Export functions let you work with data in formats supported by other applications.

In the Windows version, own ConceptDraw files have the following extensions: document - cdd; template - cdt; library - cdl; workspace - cdw.

Creating a new document

From the File menu choose New/Document. A blank document window opens.

You can click the New button on the toolbar.

Ctrl+N Cmd+N

Creating a new document from a template

A template includes a document with all its settings (scale, grid, measurement system, etc.) and the list of libraries, that are needed for working with the document. When you create a new document from a template, the program creates a copy of the document and opens all the libraries, listed in the template file. You work with the copy, while the original document remains intact. Using templates helps you to focus on work itself instead of setting up the document page and opening all the required libraries each time.

Templates are especially helpful when several documents have common basic elements (company Logo, standard header, etc).

To create a new document from a template:

Choice one:
1. Choose New/Browse Templates form the File menu, to get the Open dialog
2. In the dialog, use the upper box to navigate to the desired folder.
3. In the main box, open the folder where the file resides by double-clicking the folder.
4. Select a ConceptDraw Template file.
5. Click Open.

Choice Two:
1. On the File menu, click Open, to get the Open dialog
2. In the dialog, use the upper box to navigate to the desired folder.
3. In the box, double-click on folders to open them, until you open the folder where your file is stored.
4 In the File of Type box, choose ConceptDraw Template Files (*.cdt)
5. Select the template you want
6. Click Open.

To call the Open dialog
click the Open button on the toolbar.

Ctrl+O Cmd+O

Creating a new library

Library is a set of ConceptDraw objects gathered together. Their icons or names are displayed in a special window, from where they can be copied into the document, or another library.

To create a new library file:

1. On the File menu, select New Library, to get the Open dialog box
2. In the dialog, use the upper box to navigate to the desired folder.
3. In the box, double-click on the folder in which you want to store the file.
4. Type the library filename in the corresponding field.
5. Click Open button(Win) or Save button(Mac).

If the library window is open, move the pointer over the library title bar, call the context menu and choose New from the menu.

This creates a new empty library, to which you can then add objects from open documents. Don't forget to save the library after you finished working with it.

Opening a document

To open an existing document:

1. On the File menu, click Open.
2. In the dialog, use the upper box to navigate to the desired folder.
3. In the box, double-click on folders to open them, until you open the folder where your file is stored.
4. Select the document file you want to open.
5. Click the Open button.

Ctrl+O Cmd+O

You can use the Open button on the Standard toolbar. You can also select one of the four documents you last opened or saved, listed on the File menu.

Opening a library

To open an existing library:

1. Choose Open Library from the File menu.
2. In the dialog, use the upper box to navigate to the desired folder.
3. In the box, double-click on folders to open them, until you open the folder where your file is stored.
5. Select the library file you want to open.
6. Click the Open button.

You can also use the Open Library button on the Standard toolbar. If the library window is open, position the pointer over the library title bar, call the context menu, and choose Open from the menu.

Opening documents and libraries by using the workspace

A workspace file contains information about all window sizes, positions and other settings of the documents and libraries that were open by the moment you saved the workspace. It lets you continue working in an already set-up environment.

To open a workspace file:

1. On the File menu, click Open.
2. In the dialog, use the upper box to navigate to the desired folder.
3. In the box, double-click on folders to open them, until you open the folder where your file is stored.
4 In the File of Type box, choose ConceptDraw Workspace Files (*.cdw)
5. Select a workspace file you want to open.
6. Click Open.

Closing the document

On the File menu, click Close.

Saving the document (Save, SaveAs)

To save the document:

On the File menu, click Save. If you save the document for the first time, the Save As dialog box opens. If you have already saved the document before, your changes will be saved under the previous filename.

To save the document under a new filename:

1. Click Save As on the File menu. The Save As dialog opens.
2. Type the document filename in the corresponding field.
3. In the upper box, choose the drive(volume) and the folder in which you want to store the file.
4. Click Save.

Ctrl+S Cmd+S

You can also Save button on the toolbar.

Creating a template file

1. Click Save As on the File menu. The Save As dialog opens.
2. In the dialog, use the upper box to navigate to the desired folder.
3. In the File of Type box, choose ConceptDraw Template Files (*.cdt)
4. Type the template filename in the corresponding field.
5. Click Save.

The document with all its settings and the list of all opened libraries is now saved in the template file.

Saving a workspace file

1. Click Save As on the File menu. The Save As dialog opens.
2. In the dialog, use the upper box to navigate to the desired folder.
3. In the File of Type box, choose ConceptDraw Workspace Files (*.cdw)
4. Type the template filename in the corresponding field.
5. Click Save.

All information about currently opened documents, libraries, their window sizes and other is now saved in the workspace file.

Sending a document by e-mail

1. Click Send on the File menu.
2 If the document contains some unsaved changes, the program will ask you to save them. Then the e-mail message window appears, with the document attached to the message.

In the mail client, you'll have to attach the document file to the message, using the appropriate means of the mailer.

Importing files

ConceptDraw allows you to import files of the following formats:

bmp — Windows bitmap
jpg — JPEG format
wmf — Windows metafile
emf — Enhanced metafile

bmp — Windows bitmap
jpg — JPEG format
pic — MacOS picture format

The picture in the file is converted into the ConceptDraw's internal format and is placed into the centre of the active window.

To import a file:

1. Click Import on the File menu, to call the Open dialog box.
2. Choose the drive(volume) and the folder where the file resides.
3. Select the image file.
4. Click Open.

In the Preview window you can see the picture without opening the file.

The default setting for the File of Type box is "All supported formats". If there are too many files in the folder, you may choose the format you want in this box. Then the main box will show only the files that match this format.

Exporting files

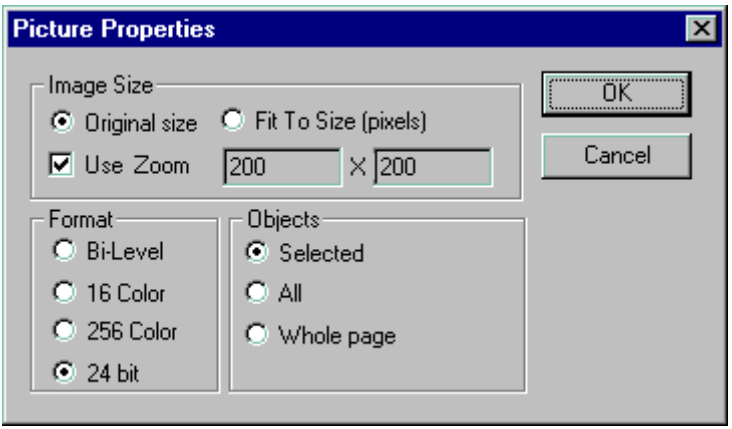
ConceptDraw lets you save your document in one of the following formats:

bmp — Windows bitmap	bmp — Windows bitmap
jpg — JPEG format	jpg — JPEG format
wmf — Windows metafile	pic — MacOS picture format
emf — Enhanced metafile	htm — HTML file
htm — HTML file	

To export in one of the supported formats:

1. On the File menu, click Export. The SaveAs dialog box will open.
2. Choose drive(volume) and folder in which you want to store the file.
3. In the lower box choose the file format you want.
4. Click Save.

If you're saving the document in a raster format (.bmp or .jpg), the Picture Properties dialog box will appear, where you can set some graphic preferences for the exported file.



In the **Image Size** section you can switch between two options:

1. *Original Size*: If the Use Zoom option is checked, the objects in the export file will be the same size they appear onscreen. If this option isn't checked, the objects will be saved in their original size, regardless of the currently set zooming.
2. *Fit to Size*: here you can assign custom dimensions in pixels for the picture.

In the **Format** section you may choose how many colors the saved image will have.

In the **Object** section you specify what objects will form the image in the file:

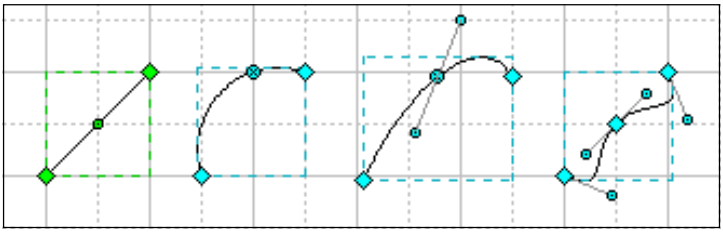
1. *Selected* - all selected on the page.
2. *All on page* - all objects on the page and outside it. The image size will be large enough to fit all objects.
3. *Whole page* - all objects within the page. The image size will equal the page size.

> *If the document is saved in HTML format, the program creates an appropriate HTML page for each page of the document, each containing links to the previous and the next page. After saving the program offers to view all the pages in your Internet browser.*

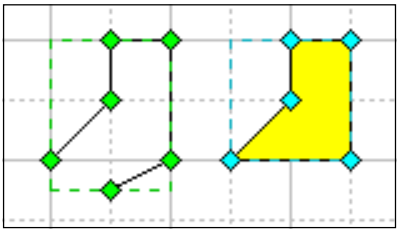
Chapter 2 Objects

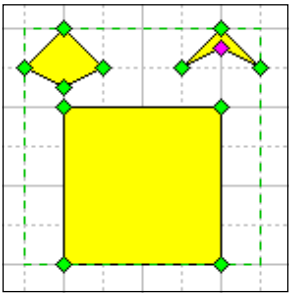
There are the following object types in ConceptDraw: figures, connectors, groups, pictures and OLE objects.

Figure is the main type of object. Figures consist of elementary segments. There are four types of segments: LineTo, SectorTo, ArcTo, SplineTo.



Connected segments form a solid path called Geometry. If the beginning of the first segment coincides with the end of the last one, the geometry becomes closed and is filled by default.

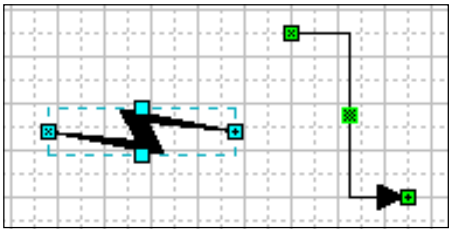




A figure may contain several geometries, so it may look like a group of several objects. But unlike the objects within a group, all geometries that form a figure always have same properties (line style, fill color, etc.). A group of objects may include objects that have different line styles, different fill colors, etc.

ConceptDraw also lets you create and work with special objects, such as connectors, picture, and OLE objects. Connectors can be created by means of the program, pictures and OLE objects are imported from other programs or files.

Connector: connects two objects together. Its distinguishing feature is that the connection maintains even if objects are repositioned, resized, etc.



There are two methods for connecting: to the entire object, or to a connection point of an object. See *Connectors* for more detailed information.

Group: A group is composed of two or more objects. You can work with a group like you work with a single object. If needed, you can edit the objects that form a group. For advanced editing options, you can open the Edit group window. For simpler editing, like modifying the object text, color and some other properties you just have to select the object within a group. See *Grouping Objects* for details.

Picture: The following image formats are supported: raster formats (Windows bitmap - bmp, JPEG - jpg), and vector (Windows metafile - wmf, enchanced metafile - emf). Objects of this type allow limited editing only (rotating, resizing, etc). See *Pictures* for more information.

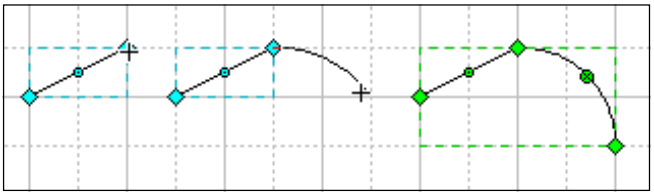
OLE Object: ConceptDraw supports Object Linking and Embedding capabilities (is an OLE-compatible program). This feature allows you to insert into ConceptDraw objects, created in other programs. In ConceptDraw, OLE-objects can be resized, but for full editing the application in which the object was created should be used. You can find out more in the *Working with other programs (OLE)* section.

OLE Objects supported only in Windows version program.

Creating Figures.

To create a new figure you may choose from the toolbar one of the following tools: Line, Sector, Arc, or Spline.

Then using a mouse you draw a segment. To add another segment to it, start drawing in one of the endpoints of the already existing one. This will lengthen the geometry of the figure.



If you hold Shift key when drawing, constrained drawing mode switches on. The way in which constrained segments behave depends on the segment type.

Lets discribe basic segments.

LineTo: is a linear segment. It can be created by using the Line tool . To constrain a line to any 45-degree angle, hold down the Shift key as you drag.

Ctrl+3

ArcTo: is a segment of circle. It can be created by using the Sector tool . The direction in which you first drag the mouse determines which way the curve bows. The point where you release the mouse button defines the other end point of the sector. To change the direction in which the curve bows, hold down the Shift key when you drag.

Ctrl+4

EllipseTo: is an elliptical quarter-arc segment. Use the Arc tool to create it.

Ctrl+5

Spline To: is a smooth curve (also called spline). It can be created by using the Spline tool. This tool works like a pencil on paper, the only difference is that the curve result is smooth rather than jagged. Once drawn, the spline is easy to modify by adjusting its vertices and adjustment handles.

Ctrl+6

Besides single segments you can also draw some widely-used complex figures: rectangle, ellipse, text. Use the corresponding toolbar buttons for each of them.

Rectangle: creates a filled rectangle. Drag the mouse to change its size. By holding down the Shift key as you draw, you constrain the rectangle to a square.

Ctrl+7

Ellipse: draws a filled ellipse. Drag the mouse to change its size. By holding down the Shift key as you drag, you constrain the ellipse to a circle.

Ctrl+8

Edit Text: creates a text box. Drag the mouse to change its size. If you are holding down the Shift key as you drag, the text box results in a square. After you release the mouse button, the Edit Text mode switches on.

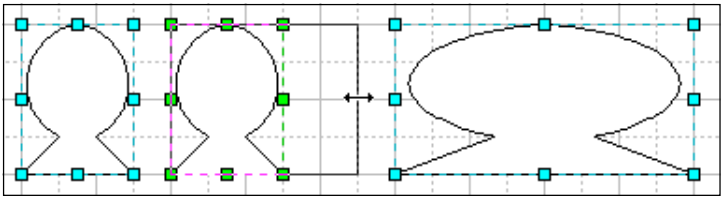
F2 F2

Working with handles

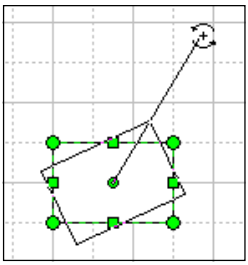
Handles are small square or round controls, which appear when you select an object. By dragging handles, you can alter some properties of an object like its size, proportions and other. There are few handle types, which differ by function.

Resize handles. Resize handles look like small square boxes, usually green or blue. To resize the objects saving its proportions, drag any of its four corner handles. To resize a side of the object, drag the appropriate side handle.

More information about resizing objects can be found in the *Resizing Objects* section.

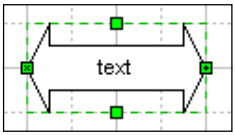


Rotation handles. Rotation handles look like round corner handles, usually green or blue. When you drag them, the object rotates around its rotation centre:



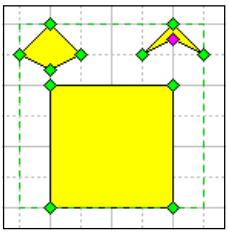
The rotation centre is also a handle, and can be repositioned by dragging it and moving in whatever direction. More information about resizing objects can be found in the Rotating objects section.

Endpoints. All 1D objects have a begin point and an end point, called endpoints.



By dragging an endpoint, you resize and rotate the object at a time. Besides, endpoints have ability of gluing to connection points of other objects, so all 1D objects can be regarded as connectors as well. To learn more about connectors, see the Connectors section.

Vertices and adjustment handles. A vertex is a small diamond-shaped handle, that appears in the point where two segments meet. By dragging a vertex, you change the form of an object.



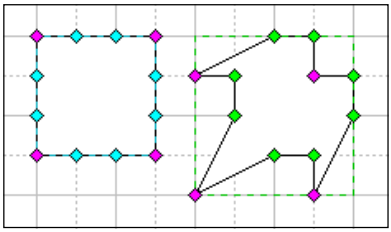
Adjustment handles have different effect, depending on the type of segment on which they appear. A **linear segment** can be transformed in a sector of a circle by dragging its adjustment handles with the Sector or the Arc tool. For a **sector of a circle**, the adjustment handles change its curve. For an **elliptical arc segment**, they adjust the angle and the magnitude of arc's eccentricity. For a **spline segment**, adjustment handles come associated with vertices. By dragging these handles, you alter the curvature of spline sections near the appropriate vertices.

For the first three segments, you can transform one into another by manipulating the handles, for instance, by dragging the adjustment handle of a line with the Sector or the Arc tool, you make it a sector of a circle, then resize it in an elliptical arc segment, and vice versa.

For more information about the elementary segments, refer to the *Creating Figures* section.

Unlike other handles, vertices and adjustment handles allow some additional operations on them, besides simply moving. Both vertices and adjustment handles can be selected and deleted. You can also add new vertices.

To select/unselect a vertex or an adjustment handle, left-click on it. To select more than one, hold the Shift key down as you point and click on each additional handle. The selected handles turn magenta.



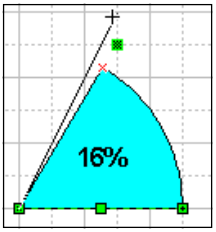
Now any operation on handles will affect all selected handles simultaneously.

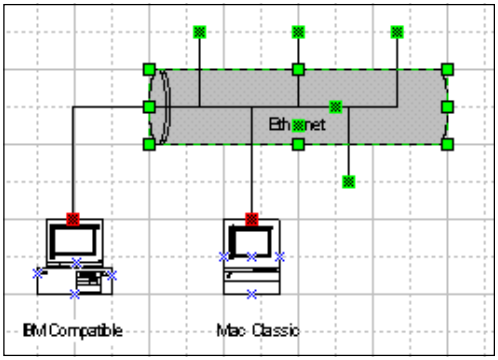
To delete selected vertices, use the Del key. Deleting a handle deletes the segment with which the handle is associated.

Adding a vertex can be regarded as adding a new segment, or even a new geometry in some cases. For more information refer to *Inserting vertices.*

Control handles. Control handles are property library objects. You cannot create or delete them other than from the table. To move them, use the mouse exactly as you do with regular handles.

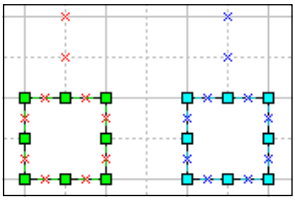
As a rule, each control handle is responsible for a certain characteristic of the object on which it appears. For example, on the picture below dragging the control point adjusts the size of the circle's sector:





Control handles can glue to other objects, the way the endpoints of connectors can.

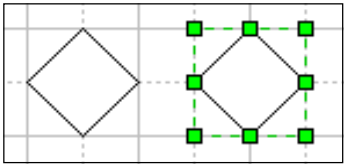
Connection points. Connection points indicate location on objects, where endpoints of connectors can be glued. They look like blue x signs that appear on an object, or near it.



Connection points can be created, moved and deleted with the Connection Point tool. For more information, see the *Connection Points* section.

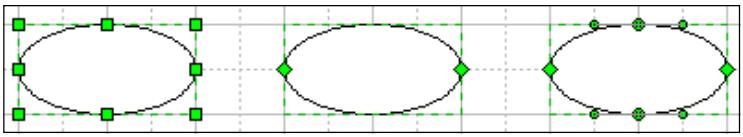
Selecting objects

To work with an object you must select it. Selected objects are surrounded by a dashed line.



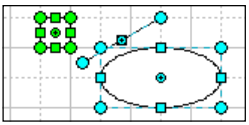
When you select an object, it also shows handles. *Handle* is a small control you can drag to modify some properties of an object. Handles vary with the type of object and the tool selected on the toolbar. Here you can see how an ellipse looks in various tools: Select, Line, Arc.

To select an object, left-click it. If the Select, Rotate or Insert Vertex tool is on, you can also use the Select Box for selecting. Click your mouse beyond all the objects you want to select, and while holding the mouse button, drag across the objects. All objects touched by the resulting dashed-line box will be selected.



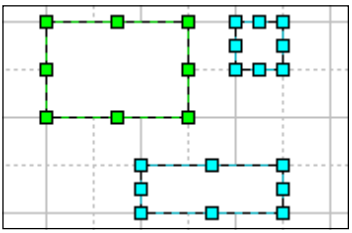
To select all objects on the page, choose Select All from the Edit menu. To cancel the selection, click away from the selected objects.

Ctrl+A Cmd+A



Multiple objects can also be selected by clicking them one at atime when holding down the Shift key. To cancel the selection of an object when several are selected, hold down the Shift key and click the object (this works for the Select Box as well).

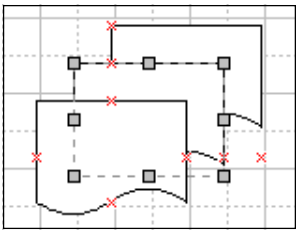
There are two types of selected objects: the object you selected first displays green handles (primary object), all the rest have blue handles. Some operations tell the difference between primary objects and other objects. Such as Align Figures, Distribute Figures, Make Same and some other use the primary object as the pattern for the others. Others, like Information, Hyperlink, Edit Text work with the primary object only, and ignore the rest.



In most case, the Select tool is used for selecting objects. To choose, click its button on the on the toolbar.

Ctrl+1

Selecting objects in a group.
You can select objects in a group like you select other objects.



Unlike common objects, select objects in a group display grey handles. This indicates that objects that form a group are protected against some operations, such as moving and rotating, though you can change their line color and thickness, fill color, add text, etc.

To select an object in a group, select the group first, and then click the object you want. If the group includes other groups, you may have to click more then once until you select the object you want.

Selecting objects in the order they were created.
Another option for selecting is to use the Tab key. Each time you hit the Tab, you activate objects in the order in which they were created or dropped on page, starting from the currently selected object. The program will adjust the document page each time you press the Tab, so that the selected object results in the centre of the screen. If no object has been selected, hitting Tab will affect the first object you've drawn or dropped on the page.

Holding down the Shift key when hitting Tab reverses the selection order.

Moving objects

Only selected objects can be moved. You can use the keyboard or the mouse for moving objects.

Moving objects with the keyboard: Moving objects by using the Arrow keys helps you position objects more precisely. Pressing an arrow key moves the object by one screen pixel with each keystroke. For more precise positioning, use the zooming option. The more you zoom in on your drawing, the greater the precision.

Moving objects with the mouse: may vary depending on the tool with which you move. When you see the pointer change into a black arrow: over an object, it means that you may move the object.

With such tools as Select, Rotate, Rectangle, Ellipse, Text Box, Insert Vertex, you can move an object by dragging either its body, or the Alignment Box.

With such tools as Line, Sector, Arc, Spline, Connector, you can move an object by dragging its Alignment box only.


Select Tool


Text Box Tool


Rotate Tool


Insert Vertex Tool


Rectangle Tool


Line Tool


Ellipse Tool


Sector Tool


Arc Tool


Connector Tool


Spline Tool

To constrain the movement of an object to strictly vertical or horizontal, hold down the Shift key while you drag the object, or use the Arrow keys.

> *You can protect an object from being moved horizontally or vertically. This can be done from the Protect Dialog box. To access the dialog, click on Protection under the Format menu. In the dialog, check X Position for the horizontal movement and Y Position for the vertical. By checking both of them you lock the object against repositioning.*

Sometimes you may want to position an object right in the centre of the page. To do this, first select the object and then perform the Centre Page command under the Tools menu.

The way objects behave when moved is also determined by whether the Snap tool is on or off. If snapping is on, the object you are moving jumps to place nearest snap locations (usually the grid nodes), instead of following the mouse directly.

This functionality lets you easily align objects with the grid lines, guides and other elements. Please refer to the *Snapping and gluing* section for more extended description of this feature.

To align objects to one another the following tools are used: AlignFigures and DistributeFigures. Note, that these tools can only be applied to 2D objects.

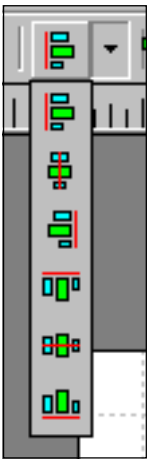
Align Figures

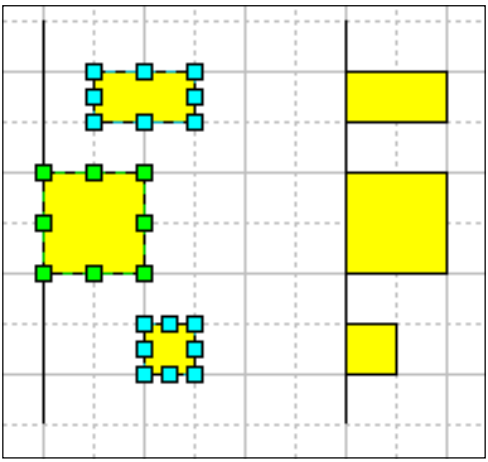
This tool aligns the alignment boxes of two or more selected objects.

	*Horizontal alignment on the left sides*		*Vertical alignment on the tops*
	*Horizontal alignment on the centres*		*Vertical alignment on the centres*
	*Horizontal alignment on the right sides*		*Vertical alignment on the bottoms*

The object with the primary selection (the one that displays green handles) is the object to which other objects align. There are 6 types of alignment: 3 types for the horizontal (on the left sides, on the centres, on the right sides) and 3 for the vertical (on the tops, on the centres, on the bottoms).

Here's an example of aligning objects on their left sides:





Distribute Figures

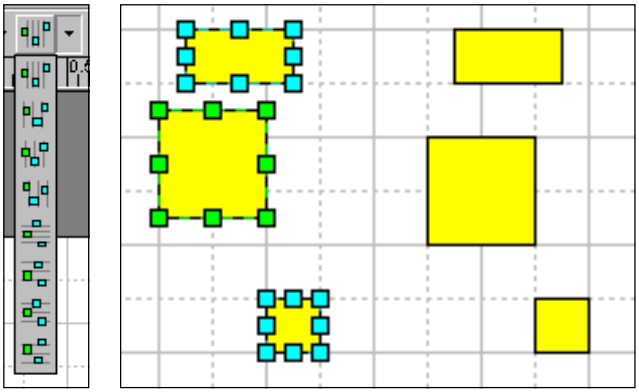
Use this tool to create an equal distance between the alignment boxes of three or more objects.

	Distribute Horizontal Spacing		*Distribute Vertical Spacing*
	Distribute Left		*Distribute Top*
	Distribute Centre		*Distribute Middle*
	Distribute Right		*Distribute Bottom*

The objects are distributed with respect to the primary object (the one that displays green handles). There are 8 distribution options:
for horizontal distribution - Distribute Horizontal Spacing (creates a uniform space between the alignment boxes), Distribute Left (between the left edges of the alignment boxes), Distribute Centre (between the centres of the objects), Distribute Right (between the right edges of the alignment boxes);

for vertical distribution - Distribute Vertical Spacing (creates a uniform space between the alignment boxes), Distribute Top (between the top edges of the alignment boxes), Distribute Middle (between the centres of the objects), Distribute Bottom (between the bottom edges of the alignment boxes).

Here's an example of how the Distribute Vertical Spacing option works:

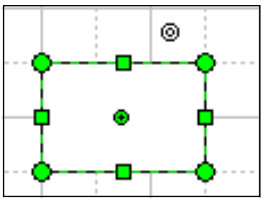


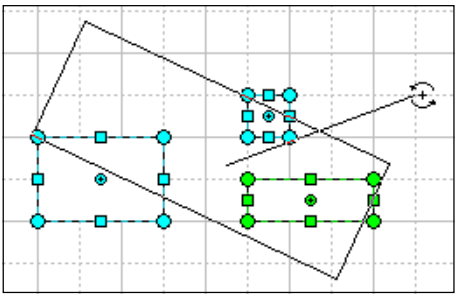
Rotating objects

Selected objects can be rotated with the Rotate tool. By dragging a rotation handle, you rotate the object around its rotation center.

You may switch between the Select and Rotate tools by clicking the alignment box of the object.

The rotation centre looks like a plus sign in a circle. You can be reposition it by dragging it with the mouse.





By dragging the handle farther out from the object, you decrease the increment of rotation from 30 degree to 0.1 degree, and this way increase the accuracy. The angle of rotation in degrees appears in the status bar at the bottom of the screen.

If several objects are selected, you may rotate each of them separately, by dragging a rotation handle of an object. If you start dragging with the Ctrl or Cmd key held down, all objects rotate simultaneously around their common rotation centre.

*To rotate objects in 90-degree increments, use **Rotate Left** or **Rotate Right** buttons on the standard toolbar or select Figure/Rotate Left(90), Figure/Rotate Right(90).*

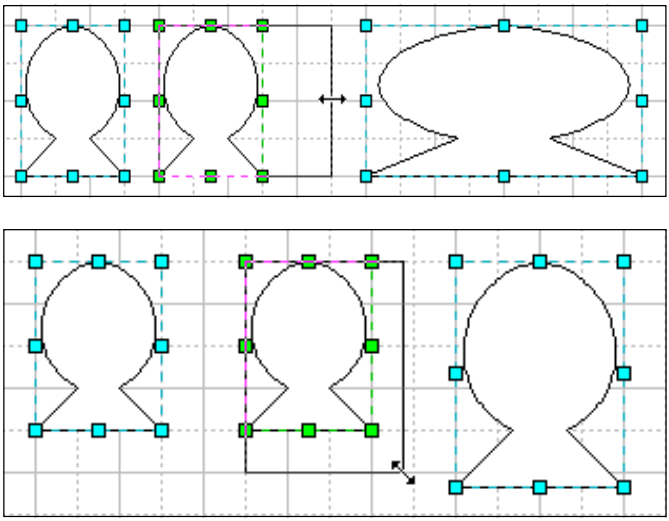
Ctrl+L	Cmd+L
Ctrl+R	Cmd+R

You can prevent an object from rotating and its rotation centre from repositioning. To do this, check Rotate in the Protect dialog box under the Format menu. Then the object will display grey padlocks in place of rotation handles and the rotation centre, indicating that you can't perform the action.

Resizing objects

Like most other operations, sizing is only possible for selected objects.

You may size objects proportionally (the height and width of the object maintain their proportions) and unproportionally - change the width or the height only. Use corner handles to resize objects proportionally, and side handles to resize that side only.



*You can resize objects in either ways with the following tools: **Select**, **Rectangle**, **Arc**. With the **Rotate tool**, you can only resize objects unproportionally. If the snapping is on, the handle you drag will jump automatically into the nearest snap location (usually a grid node).*

As you resize, the status bar at the bottom of the window registers how the width and height change.

Holding down the Shift key as you drag a handle reverses its resize action - a side handles resizes the object proportionally, and a corner handle unproportionally.

If you need to resize several selected objects at once, first group them by selecting Figure/Group, resize the resulted group and then ungroup it by selecting Figure/ Ungroup.

Ctrl+G	Cmd+G
Ctrl+U	Cmd+U

You may lock an object against resizing in the Protect dialog box. Click Protection on the Format menu to bring the dialog up. Check the options you want: Width (to prohibit width alter), Height (to prohibit height alter) and Aspect Ration (allows to resize proportionally only). Locked handles will appear as grey padlocks, indicating that they can't be worked with.

It's possible to hide resize handles so they don't appear on the object. To do this, uncheck Show Figure Handles in the Behaviour dialog box (click on Behaviour under the Format menu to bring up the dialog).

Unproportional resizing may also change one segment type into another. For instance, you can change an ArcTo segment into EllipseTo by altering its width or height.

How objects behave within a group.

When resizing a group, some programs may cause some objects change their internal angles, in case of unproportional resizing. In such programs, if you change the height of a group that includes an angled rectangle, the operation transforms the rectangle into a parallelogram. In some cases this may be inconvenient. ConceptDraw doesn't have such drawback, and resizing will never transform a rectangle into parallelogram.

You can set how an behaves within a group, when the group changes its size. The Behaviour Dialog allows you to choose one of the following 3 options:
***-Scale With Group** - always change the size of the object as the group's size changes.*
***-Reposition Only** - move the object without changing its size.*
***-Use Group's Settings** - use the settings of the group to which the object belongs. This option is default.*

Make Same...

Sometimes you may need to make one or more objects same size as some another object, that serves as a pattern. The Make Same tools (Make Same Width, Make Same Height , Make Same Size) will help you do this.

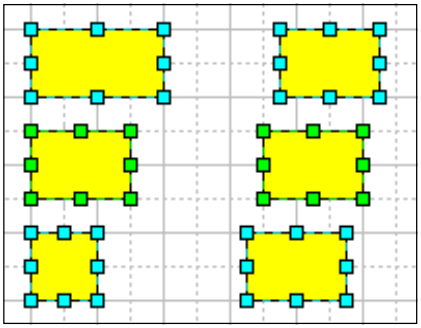

Make Same Width


Make Same Size


Make Same Height

Select the pattern object first so that it displays green handles, and then the objects which size you want to change. Use the Make Same tools to equalise their width, height or both.

Here is an example of how the Make Same Width tool works:



Flipping objects

Flipping can be applied to selected objects and changes the direction the objects face.Use the Flip Vertical and Flip Horizontal items under the Figure menu, or the Flip Vertical/Flip Horizontal buttons on the toolbar.

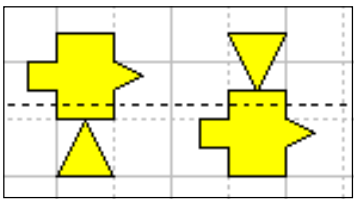
Flip Vertical Tool

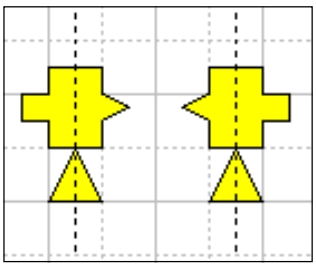
Flip Horizontal Tool

Ctrl+J
Ctrl+H

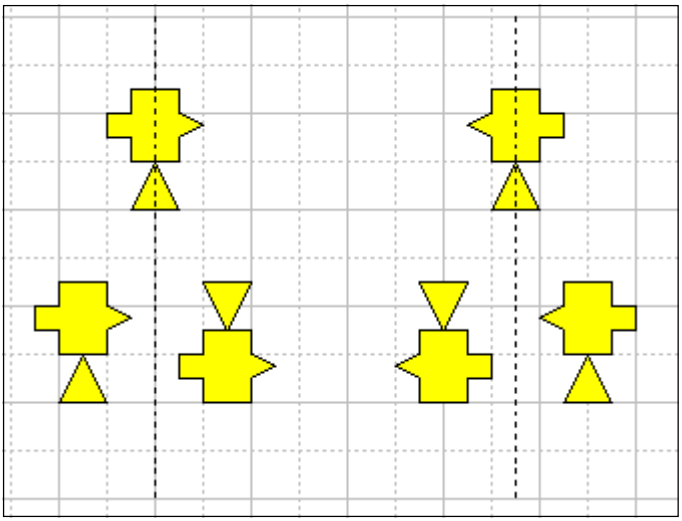
Cmd+J
Cmd+H

These operations transpose opposite sides of an object relatively an imaginary horizontal or vertical line that goes through the rotation centre of the object.





If several objects are selected, the imaginary line goes through their common rotation centre.

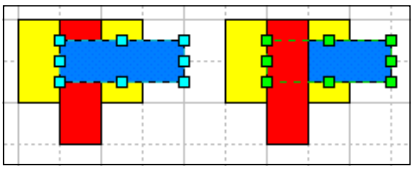


Changing the order in which objects are displayed

Each time you draw an object, or take it from another document or from a library and drop on the page, the object gets registered in the order list. ConceptDraw displays objects according to their place in the order list, so most recent objects may overlap the ones you created earlier.

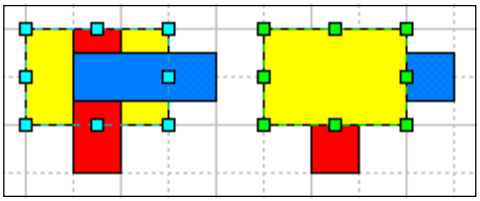
Sometimes you may want to change the display order of an object. Use the following operations to move selected objects along the order list:

SendToBack - sends the object to the back of the order list. Select Figure/ SendToBack.



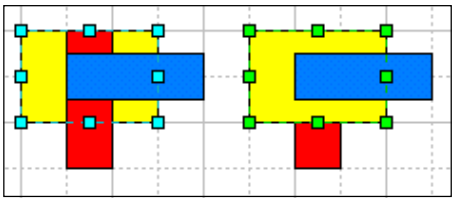
Ctrl+B Cmd+B

BringToFront - bring the object to the front of the order list. Select Figure/BringToFront.



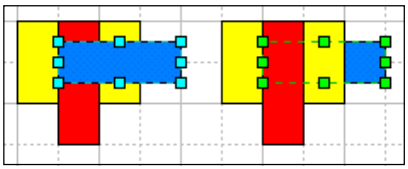
Ctrl+F Cmd+F

SendToStepBack - positions the object one step lower in the order list. Select Figure/SendToStepBack.



Ctrl+Shift+B

BringToStepFront - positions the object one step higher in the order list. Select Figure/BringToStepFront.



Ctrl+Shift+F

Deleting objects

You can delete objects from a document by selecting them and then typing the Del or Delete key. The Delete command under the Edit menu has the same effect. Check there are no handles selected on the object. If there are any (selected handles appear in magenta), you'll delete the handles instead of the object.

You can lock objects to protect them from deleting using the Protection dialog box (Format menu/Protect). Check "From Deletion" in this dialog. Then the program will respond with a warning message each time you attempt to delete the object.

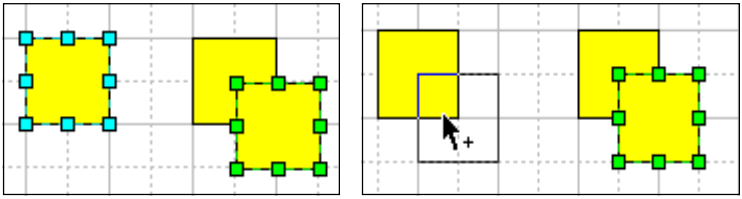
To delete objects within a group, you'll have to switch to the Edit Group mode first.

Duplicating objects

To duplicate a selected object, select Duplicate under the Edit menu. A copy will appear slightly down and to the right from the original object.

Ctrl+D Cmd+D

Another option is to duplicate objects by using the mouse. You may find this one more convenient, for it lets you create a copy and position it straight away. Hold down the Ctrl or Cmd key and drag a copy out of the selected object to the place where you want to position it.



To copy objects into another document or into a library, use the Copy/Paste operations.

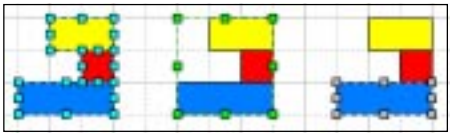
Grouping objects

ConceptDraw lets you group several objects so they act like a single object. The resulting group has its alignment box, and such operations as resizing, rotating and repositioning affect all objects in the group at once.

To group several objects, select them and choose Group under the Figure menu. To ungroup selected groups, choose Ungroup under the Figure menu.

Ctrl+G
Ctrl+U

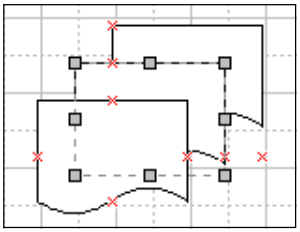
Cmd+G
Cmd+U



Some operations may have a specific action when applied to a group. For instance, you may set resizing to simply reposition all objects that form a group, and don't change their sizes. Or sometimes resizing may affect objects differently depending on the way their are positioned in the group. For more specific information please refer to the Resizing objects section.

You can't associate text with a group. When you select a group and start typing text, it appears on frontmost object in the group.

Even when grouped, the objects can still be worked with. You may modify an individual object's properties (line color, fill color, text) once you select it in the group:



You don't need to ungroup the group if you want to edit an object within it. You can use the Edit Group command under the Figure menu to open a new window with all objects that belong to the group in it. Simply close the window when done editing.

Properties of objects

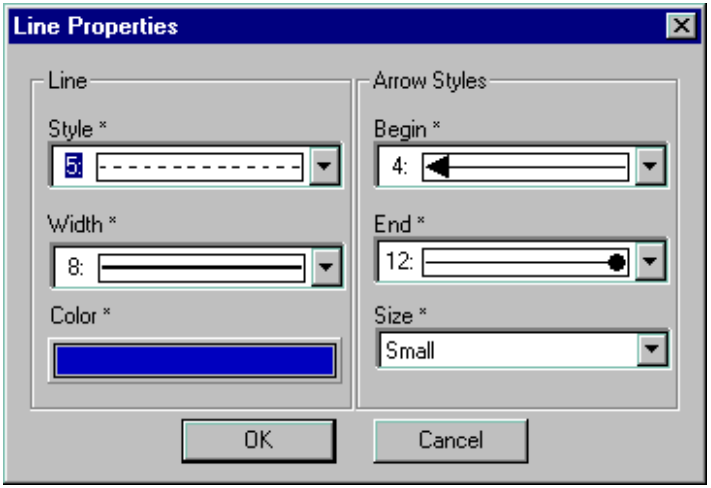
Each object has a set of changeable properties.

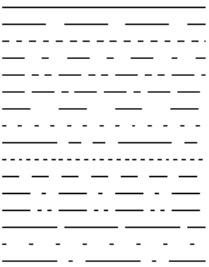
Line Properties

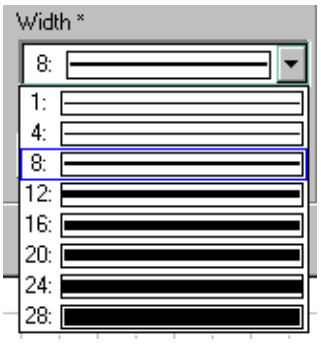
Lines are part of every object. To change their properties, use the LineProperties dialog box (Format/Line), or the appropriate toolbar buttons for each property (click "More..." under each button's menu to get to the LineProperties dialog for full list of options).

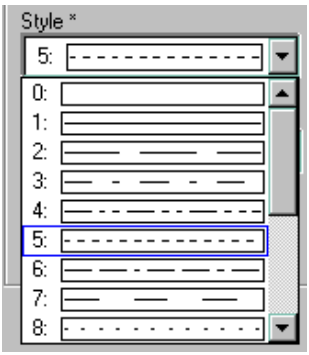
Line styles are the following: solid line (#1), dashed line (#2), no line (#0).

*The **Styles Of Line Tool** lets you choose among the mostly used styles. For more styles, go to the LineProperties dialog and choose any of the available 17 line styles in the Styles drop down box.*









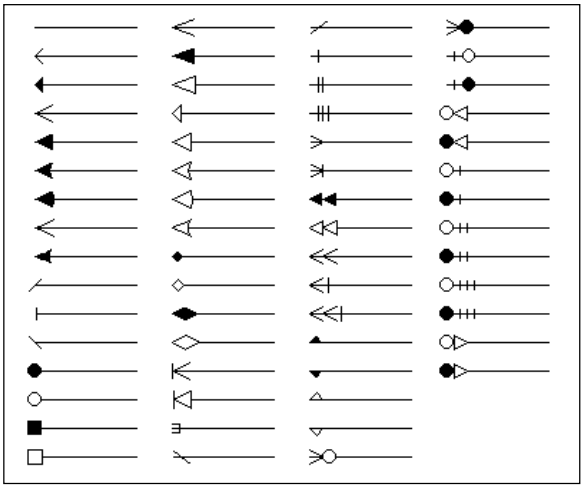
Use the Line Width tool to alter the line width. The Width drop down box in the LineProperties dialog provides the full list of 8 sizes.

To set the line color, use the Line Color tool, or click on the Choose Color button in the Line Properties dialog. The full palette includes 256 colors.

The Line Color tool offers you the first 16 palette colors. The Choose Color button provides you with any color from the current palette. When you click this button, a dialog window appears containing colors which you may choose from. Click the mouse on the one you need. If you don't want to change the color, press Esc or click away from the dialog window.

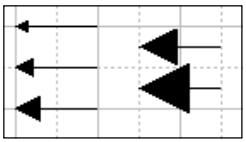
You may modify the color palette if you need other colors than it has (see the *Color Palette* section).

You can apply an arrowhead to either or both ends of a line or any other open figure. ConceptDraw gives you the choice of using any of 61 arrowhead styles for each line ends.



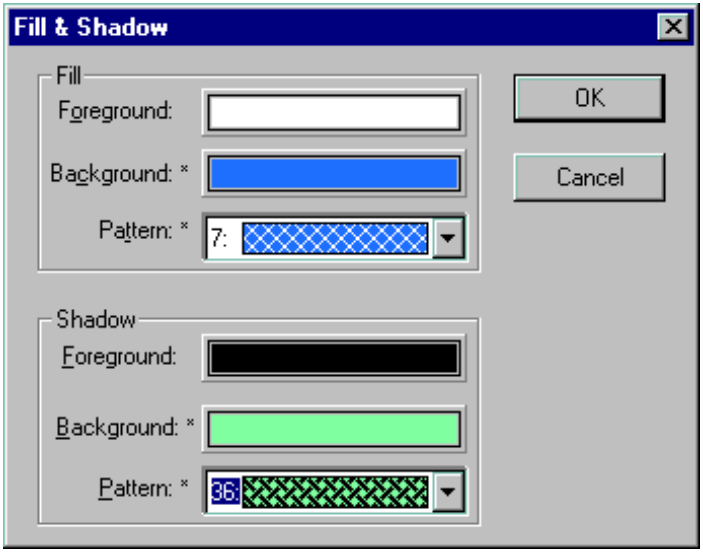
*You can use the **Style Of Arrow tool** to apply an arrowhead to both line ends. The menu button gives you the choice of 12 mostly used arrowheads.*

The Line Properties dialog allows you specify arrowheads separately for the beginning and the end of a line (in the Begin and End boxes respectively). The size of the arrows can be chosen in the Size box. The following sizes are available: Tiny, Small, Medium, Big, Large.



Fill patterns and colors.

For all closed figures, you may change their fill properties. They can be set in the Fill&Shadow dialog box under the Format menu. Or you may change each property by using the respective buttons on the toolbar. Clicking More ... under each opens the Fill&Shadow dialog, with the complete list of available choices.



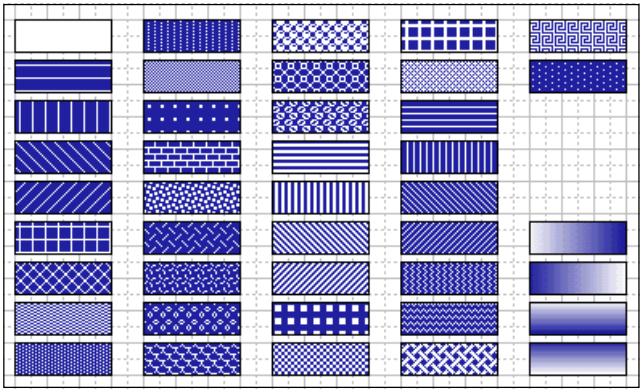
To change the fill color of a selected figure, select the Fill color tool or click the Foreground button in the Fill&Shadow dialog.

Fill color tool displays the fill color palette. On the palette, choose one of the 16 colors to fill the figure with that color, "More Fill Colors" to open the Fill&Shadow dialog box where you can choose more colors or "No Fill Colors" to make the figure transparent..

The "Foreground" button gives you the choice of picking any of 256 colors of the current palette. Click a color you need. If you don't want to change color, press Esc or click away from the palette window.

Use the "Fill Pattern" tool to fill figures with a pattern. It can also be done from the Fill&Shadow dialog box under the Format menu. The "Fill Pattern" tool lets you choose among the mostly used patterns.

The Background button under the Fill&Shadow dialog allows you apply a color to the pattern. The Pattern drop down box opens a list of 38 plain and 4 gradient patterns style.

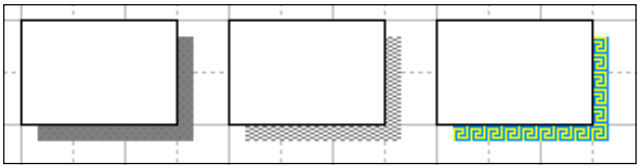


You may modify the color palette if you need other colors than it has (see the Color Palette section).

Shadows

Use the Fill Shadow Style tool to apply shadows to objects and to choose the shadow color. You can select one of the 16 colors from the palette to fill the shadow with.

Shadows, like fills, may be plain or have fill patterns. The complete lists of colors and patterns may be found in the Fill&Shadow dialog box. In the Pattern drop down box you can choose among 38 available pattern styles. The "Shadow Foreground" and "Shadow Background" buttons determine the foreground and background colors of the shadow respectively. For a plain shadow, choose #1 pattern style in the Pattern box and its color in the Foreground box. To remove the shadow, choose "None" (or #0 style) in the Pattern box.

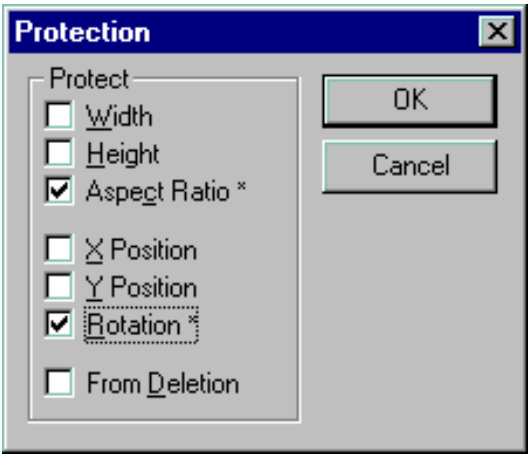


ConceptDraw allows you to specify the shadow offset. All shadows of a document have the same shadow offset. Call the Document Properties dialog under the File menu. Choose the Settings tab. In the "Figure Shadow Offset" section, type values for the shadow offset in the Right and Down boxes (you may type values in any measurement system, for example, 1 in, 35 mm). Then click OK.

Protection

Various attributes of the ConceptDraw objects can be locked against changes that you do from the menus, or with the mouse or the keyboard. You can do this in the Protection dialog by setting the corresponding options.

To lock some characteristics of objects, select them first and call the Protection dialog under the Format menu.

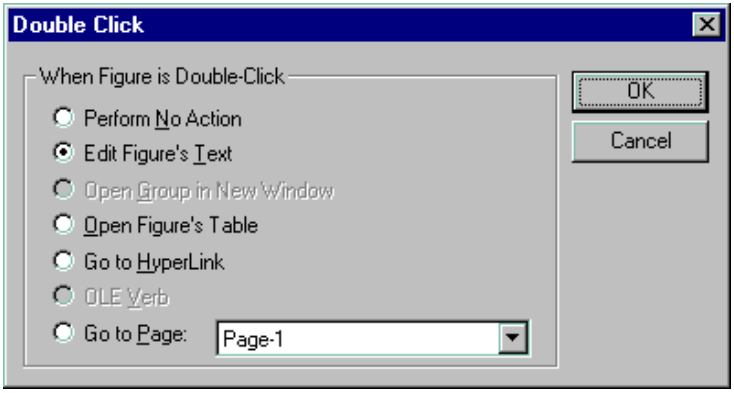


Here are the options:

- **Width** - locks/unlocks the object's width against resizing by using the resize handles.
- **Height**- locks/unlocks the object's height against resizing by using the resize handles. Locked handles will be displayed as grey padlocks, indicating that you can't apply action to them.
- **Aspect Ratio** - locks or unlocks the ratio between the object's height and width. When checked, the object will be resized proportionally by dragging any of its resize handles.
- **X-Position** - locks/unlocks the horizontal (x) position of the object.
- **Y-Position** - locks/unlocks the vertical (y) position of the object.
- **Rotate** - locks/unlocks the object against rotation by dragging its rotation handles. If the object is locked, its rotation centre can't be repositioned either. Locked handles appear as grey padlocks indicating you can't apply action to them
- **From Deletion** - locks/unlocks the object so it or its handles can't be deleted. If an attempt is made to delete a protected object, the warning appears: "Object Is Protected From Deletion".

Double click

The action that double clicking takes on an object, is one of the properties of the objects, which can be be modified. You can do it in the Double-Click dialog box from the Format menu.



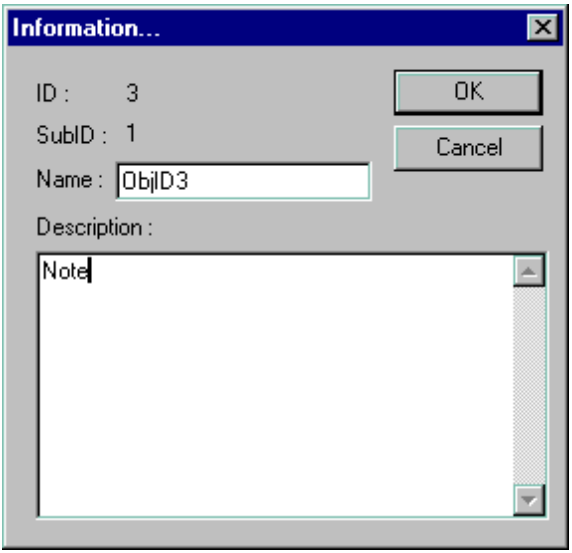
By checking one of the following options you set the action that will be performed when an object is double-clicked:

- **Perform No Action** - takes no action.
- **Edit Figures Text** - opens the object's text box. You can edit a selected object's text anyway by pressing the F2 key.
- **Open Group In New Window** - opens the Edit Group window. The same can be done by choosing the Edit Group option from the Format menu. This option works with groups only.
- **Open Figure's Table** - opens the object's table.
- **Go To Hyperlink** - double-click starts hyperlink processing.
- **Go To Page** - on double-click the program goes to the drawing page specified in the box.

The default option for groups is Open Group In New Window, for other objects - Edit Figure Text.

Information

The Information dialog allows you to alter the additional information about the object. It can be accessed from the Format menu.

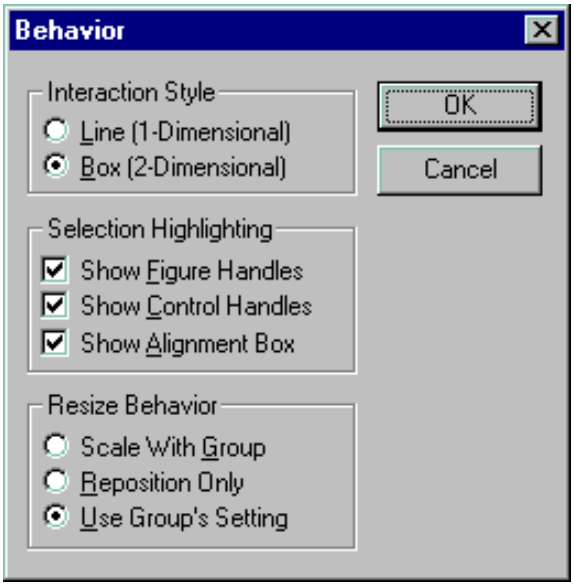


- In the **Name field** you may type the name you want to assign to the object.
- In the **Description field** you may type information describing the object.
- **ID and SubID fields** are used for reference only and can't be edited.
- **ID** is the personal number of the object within the page, which is based on the order in which objects are created.
- **SubID** - sequantial number of the object within a group. It's changed when operations like SendToStepBack are performed.

Note: the values in ID and SubID fields are used when you describe one object through another using formulas. In the table, they are used as references to parameters of other objects. For more specific information, refer to the Formulas section.

Behaviour

You can describe the behaviour of selected objects in the Behaviour dialog. To open it, on the Format menu click Behaviour.



InteractionStyle section determines whether the object is a connector or not. Line (1-Dimensional): the object is connector. Besides, it behaves as a line when you work with it. Box (2-Dimentional): the object is not connector.

Selection Highlighting section describes the way in which to display the object when it's selected. The following options are available: Show Figure Handles, Show Control Handles, Show Alignment Box. For instance, if you lock an object against resizing, it's quite reasonable not to show its resize handles.

Resize Behaviour section determines how an object within a group behaves when the group is resized.

- Scale With Group - always resize the object as the group's resized.
- Reposition Only - simply move the object without changing its size.
- Use Group's Settings - to use behaviour settings of the group to which the object belongs.

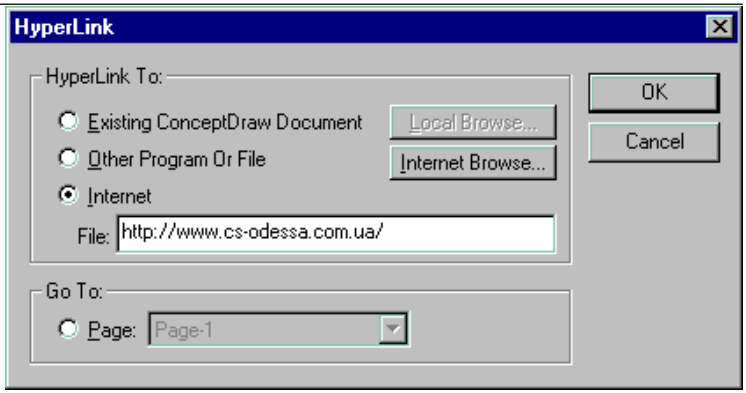
The last variant is set as default.

Hyperlink

You can add a hyperlink to any ConceptDraw object, which can jump to another page in the same document, another document, a file of any type, or a web address (URL). Such object serves as a link.

To go to the hyperlink of an object, select the object and click the Hyperlink button on the toolbar, or choose Format menu/HyperLink/Open.
If hyperlink is the main property of the object, it's usually a good idea to enable double-click open the linked file or URL. This can be done in the Double-Click dialog box.

Use the HyperLink dialog to set the hyperlink options. To open it, choose Hyperlink/Edit under the Format menu.
Ctrl+Shift+H



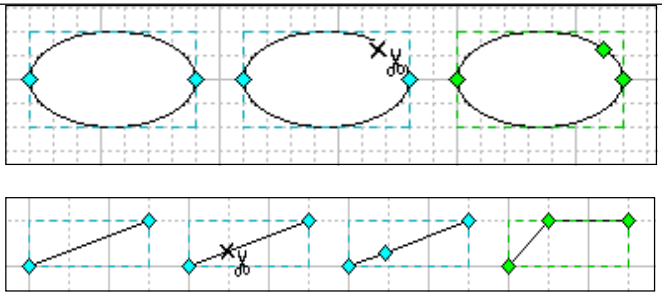
There are four types of links you may choose between:

- **Existing ConceptDraw document**: link to any existing ConceptDraw document. You can either type in a path, or click Local Browse to navigate to the file. You may use a relative path. It describes the path to the linked document starting from the location in which the current document is stored. Clicking Open Hyperlink opens the document you link to in a new window.
- **Other program or file**: link to a file. You can either type in a path, or click Local Browse to navigate to the file. You may use a relative path. It describes the path to the linked file starting from the location in which the current document is stored. Clicking Open Hyperlink starts the program used to process files with such extension.
- **Internet**: link to an URL address. You can type in the address in the File filed. If you click the Internet Browse button, an Internet search system launches in your Internet browser. When you find the address you need, copy it, return to ConceptDraw and paste it into the File field. Then, when you click Open Hyperlink, your Internet browser will start with the address saved.
- **Page**: link to a page within the document. Select a page from the list in the Page box. When you click Open Hyperlink, the chosen page will open in the same window.

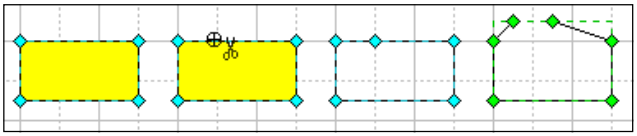
Additional operations on objects

Insert Vertex

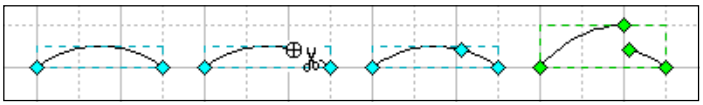
The Insert vertex tool adds an additional vertex to a segment. Adding a vertex may be considered as adding a new segment to the already existing ones, or as dividing a segment into two parts. To add a vertrex to a segment, choose the Insert Vertex tool on the toolbar, and between two existing vertices on the figure's outline, point to where you want to add a new one. The new vertex appears, creating a new segment.



If you perform this command when holding down the Ctrl or Cmd key, you also cut the line in the place you insert the vertex. For a closed figure, this operation will open it.



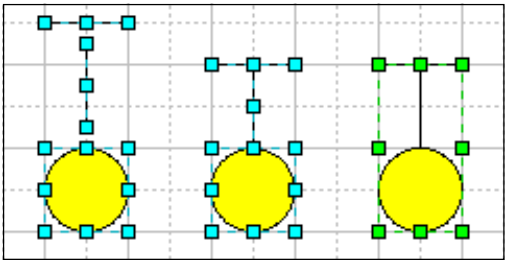
For an open figure, this operation will divide into two parts the geometry to which the vertex was added.



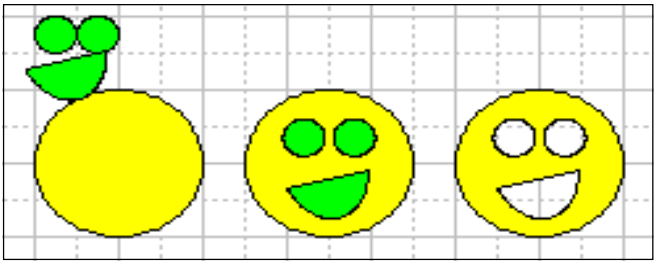
Combine

In ConceptDraw, figures can consist of multiple segments.Several segments, joined together, are called a geometry. A figure may have more than one geometries.

If you want to create a group of several objects, and all of the objects have the same properties, such as fill color, line color, line thickness, etc., it's better use the Combine operation (Figure/Operations/Combine) rather than Group. Combined objects take less space when saved.

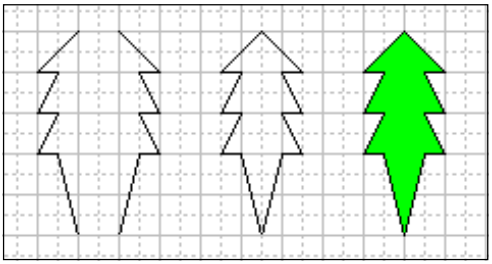


If overlapping figures are combined, the overlapping areas become transparent.



Join

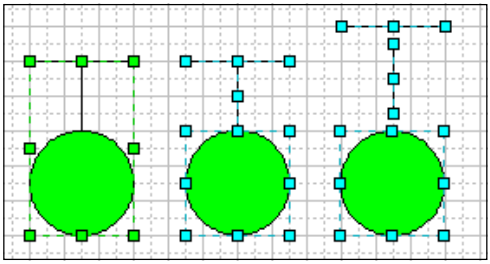
The Join operation (Figure/Operations/Join) lets you make one figure from several different ones. The main difference from the Combine operation resides in that if a solid outline results after the operation, it's considered as a single geometry. The Combine operation just groups figures with same properties, but never makes a new one out of them. That's why when a closed figure results after the Join operation, it's filled automatically, which never happens when the figures are combined.



Be sure to superpose the endpoints precisely (they must have same coordinates). The Snap function is very helpful for this purpose

Scattering

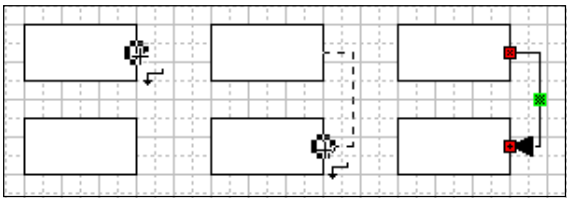
The Scattering operation is the inverse of the Combine operation. If a figure consists of several geometries, the Scattering operation will form an individual object for each geometry of the object. It looks as if the object was divided into parts.



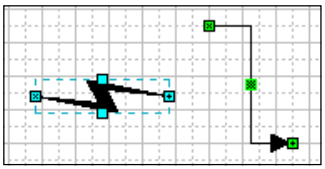
The Scattering operation takes no effect on objects made using the Join operation. The Join operation unifies all segments into one geometry, so the program can't recognize them as separate parts when you perform the Scattering operation. To split such objects into parts, select the InsertVertex tool and holding down the Ctrl or Cmd key, indicate the points where you want to separate the geometry, and then perform Scattering.

Connectors

A connector is used for tYing two objects together. Its distinguishing characteristic is that the connection is maintained even when the objects are moved, resized, etc.



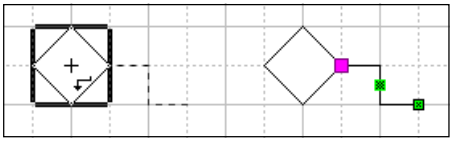
All connectors have a begin point and an end point (that is, they are 1D objects). You glue these endpoints to connection points of other objects to establish connection.



There are 2 methods for glueing a connector to an object:

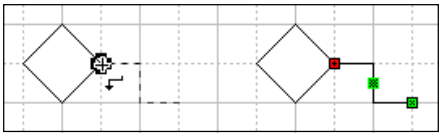
Connection to the entire object

Position one the endpoints of the connector over the center of the object's alignment box, until a black rectangle appears round the object. On releasing the mouse button, a magenta square will indicate the point at which the connector is currently glued to the object. As you move the object, the point of connection will snap to the side of the alignment box nearest to the connector.



Connection to a connection point of the object

Position one of the endpoints of the connector over the object, until you see a grey plus in a circle indicating the pointer is over a connection point of the object. Release the mouse button to establish connection. The glued endpoint turns red, indicating the place of connection.

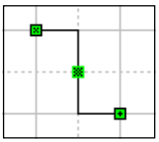


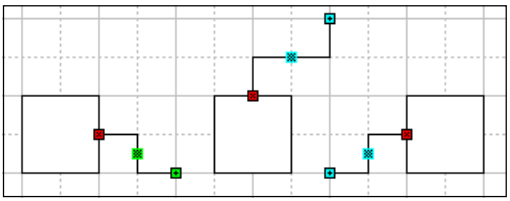
To break a connection, move the connector away from the objects.

There are 2 types of connectors: a smart connector and an object connector.

Smart Connector

Smart Connector is composed of vertical and horizontal lines, which form a solid path. The main feature of the Smart Connetor is that the point of connection changes its location when you move the object, keeping to the side facing the connector.



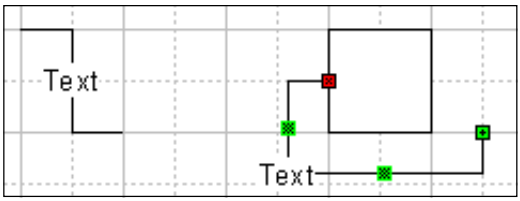


Control handles on the connector let you adjust its shape. The connector will maintain its shape untill you move one of the connected objects.

Use the connector tool to create a Smart Connector. Get two objects connected straight away, start and finish drawing the connector over connection points of the objects.

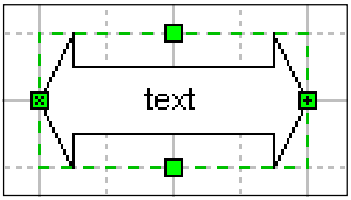
Ctrl+9

Like other objects, a connector may have text in it. By default, the associated text appears on its central control point, or where the lines meet. The text may be then repositioned by using the Text Box tool.



Object Connector

An object connector can be created from any 2D object into object connector by simply changing it into a 1D object. Select the object, call the Behaviour dialog under the Format menu (Format/Behaviour) and check the 1-Dimensional option.

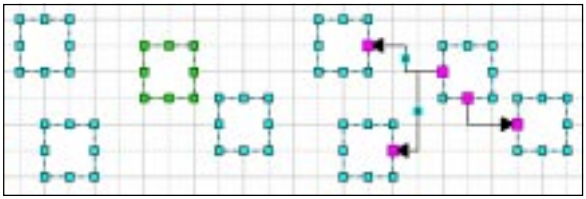


For a 1D object, dragging the endpoints affects its width and angle at once. By dragging the size handles, you control its height. If the rotate tool is on, the endpoints are substituted with rotation handles.

Connect Figures tool

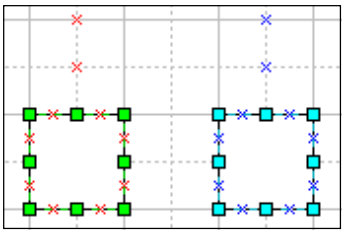
Use the Connect Figures tool to connect one object to one or more other objects.

How to use the tool: First select the object you want to connect to other objects (it will display green handles). Then, with the Shift key held down, select the objects to which the first object will be connected. Click the Connect Figures button. The object with primary selection will be connected to the other selected objects.



Connection points

A connection point is a special kind of handle, to which connectors and control points can be glued. They look like red or blue crosses. **Selected objects display their connection points in red, other objects - in blue.** Note, that connection points may lie both on the perimeter of the object and outside it. Then red color helps us tell to which object the connection point belongs.



To work with connection points use the Connection Point tool.

Ctrl+O

Selecting objects. When the Connection Point, you can select objects by clicking an object with the Ctrl or Cmd key held down. To copy a selected object, hold down the Ctrl and drag the object to where you want to place the copy.

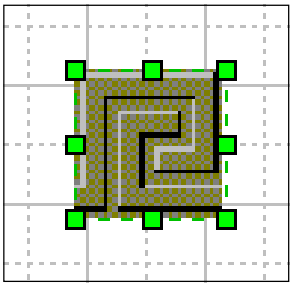
Creating connection points. The main purpose of the Connection Point tool is to create new connection points. Select an object, and then click the object with the Connection Point tool in the place where you want the new connection point to be inserted.

Selecting, moving and deleting connection points. Connection points can be edited (repositioned and deleted) with the Connection Point tool. To select a connection point, move the mouse over it, so that the pointer changes into ✣, and click the mouse button. The selected connection point becomes bigger and turns red.
To move the connection point, drag it with the mouse to a new location. To delete a connection point, select it and click the Del key on the keyboard.

Preventing Connection points from displaying on screen. In ConceptDraw, you may show and hide connection points. Under the View menu, uncheck the Connection points item to hide the connection points, and check the item to show them. Even when invisible, connection points remain operational.

Pictures

Picture is a type of object, used in ConceptDraw.



Objects of this type allow limited editing only (rotating, resizing, etc).

Inserting a picture. To insert a picture into your document, select Picture under the Insert menu. This will open a dialog where you can find the file you need. The following formats are supported: *raster formats* - Winodws bitmap - bmp, JPEG - jpg; *vector formats* - Windows metafile - wmf, enhanced metafile - emf, MacOS picture - pic.

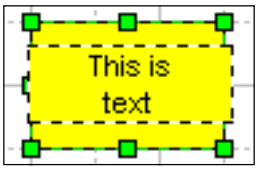
Select the file and click the Open button. The picture is inserted in the centre of the window, and is now part of the document.

ConceptDraw also lets you open image files in a separate document, by using the Import operation (for more information, refer to the *Importing Files* section).

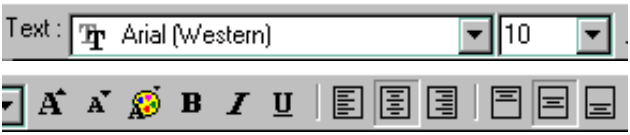
ConceptDraw can also save objects as pictures. More information about it can be found in the *Exporting Files* section.

Working with text

Most of Concept Draw objects, except guide lines, pictures and OLE objects, may contain text. If you select an object and start typing (or press F2), the text editing mode will turn on. If the document scale was less then 100%, the scale will be increased up to the normal automatically.When done editing, press Esc or F2 to quit the text editing mode.

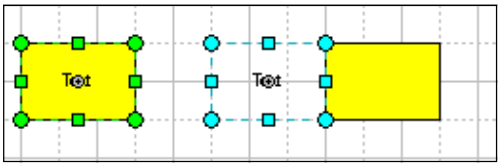


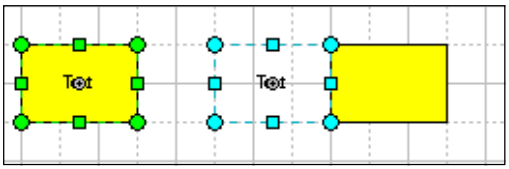
All operations with text are made with the EditText tool. As soon as click the button on the toolbar, the text editing mode is on. In this mode, the lower line of the standard toolbar is replaced by the text toolbar with a set of text editing tools, which you can use for working with text.



Most of text editing operations involve wide usage of selected text blocks. Any formatting or settings change affects selected blocks only. You can select text blocks either with the mouse, or with Shift+<Arrow Key>.

The way text is positioned in relation to the object is determined by its text box. The Text Box tool allows you to resize, rotate and relocate the text, changing its appearance and position independently of its object. When a new object is created, its text box's dimensions coincide with those of the Alignment Box.





Adding text to a new object

Select the object and start typing in the text. Immediately, text editing mode turns on. When done editing, press the Esc key, or click outside the text box.

There are some other methods for switching to the text editing mode:
- double clicking an object.
- selecting an object and pressing F2.
- selecting the Edit Text tool.

Modifying text in an object

To switch to the text editing mode, select the object and choose the Edit Text tool. The existing text of the object becomes selected. If you start typing the new text, the selected block will be deleted. To prevent this, click somewhere within the selected text or press an arrow key. This will unselect the text. After you make all changes you wanted, press the Esc key, or click outside the text box.

There are some other methods for switching to the text editing mode:
- double clicking an object.
- selecting an object and pressing F2.
- selecting the Edit Text tool.

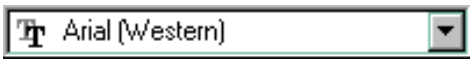
Creating a "Text" object

A text object is an object which contains text only. To create a text object, choose the Edit Text or Text Box tools from the toolbar. Use the mouse to draw the text box on the page. On releasing the mouse button, the text editing mode turns on. Type in the text. When you finish typing, press the Esc key, or click outside the text box.

Changing text styles in selected blocks

The following operations can be applied to selected text blocks:

- Changing the font. To change the font, click the down arrow by the Font Name box and then click the name of the font you want in the list.



- Changing the font size. To change the font size, click the down arrow by the Font Size box, and then click the size you want in the list, or type a custom size. You can open the size list by pressing Ctrl+S(Win) as well.

You can also use Increase Font Size and Decrease Font Size buttons on the Text toolbar to increase/decrease the font size gradually.

Ctrl+>
Ctrl+<

Cmd+>
Cmd+<

-Changing text color. Click the Text Color button on the toolbar. On the button menu, click one of the given 16 colors, or click More Colors for extra colors. This will bring up the Choose Color dialog box, where you can choose among 256 colors of the current palette of the document.

Text Color Button

- Changing font attributes. Font attributes, such as Bold, Italic or Underlined can be set by clicking respective buttons on the text toolbar, or by using keyboard shortcuts(Win): Ctrl+B for Bold, Ctrl+I for Italic, Ctrl+U for Underlined.

Bold Text Button

Italic Text Button

Underlined Text Button

Ctrl+B, Ctrl+I, Ctrl+U

Text alignment

Each text consists of one or more paragraphs. Each paragraph begins from a new line and is separated from the other with line feed symbol (which is inserted each time you press the Enter key). For each paragraph, you may set the alignment and the indentation.

Horizontal alignment. Can be applied to paragraphs only. You can align text on the left side of the Text Box, on its right side, or on its center. To align a paragraph, click somewhere within its bounds and choose one of the alignment tools on the toolbar: Left Align Text, Centre Align Text, or Right Align Text. Several selected paragraphs can be aligned likewise.

Left Align Text

Centre Align Text

Right Align Text

Ctrl+L
Ctrl+E
Ctrl+R

Cmd+L
Cmd+E
Cmd+R

In the MacOS version of ConceptDraw, you can't see the results of paragraph alignment when in the text editing mode. The alignment will be applied after you leave the text editing mode.

Vertical alignment. Vertical alignment determines position of the whole text with respect to its Text Box. You can align the text at the top, middle or bottom of the Text Box. Use the following toolbar buttons: Top Align Text, Middle Align Text or Bottom Align Text.

Top Align Text

Middle Align Text

Bottom Align Text

Cutting, copying and pasting text

When working with text, you may cut, copy and paste text blocks as you do in most other Windows applications.

The Copy command copies selected text onto the clipboard. Choose Edit/Copy.

Ctrl+C Ctrl+Ins	Cmd+C

The Paste command pastes text from the clipboard in the pointer position. Choose Edit/Paste.

Ctrl+V Shift+Ins	Cmd+V

The Cut command removes selected text from its place and puts it on the clipboard. Choose Edit/Cut.

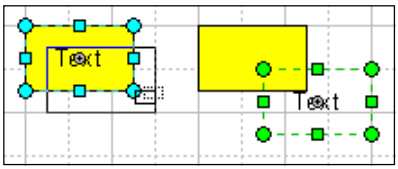
Ctrl+X Shift+Del	Cmd+X

Working with Text Box

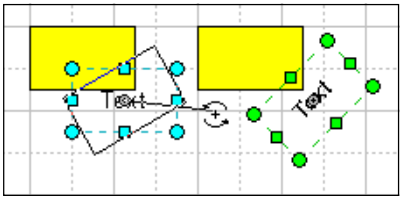
Text box is a dashed line with handles that selected objects display when the Text Box tool is chosen. You can move, rotate and resize an object's text box, modifying thus position of the text in relation to the object.

When you move or resize an object, you move and resize its text box either.

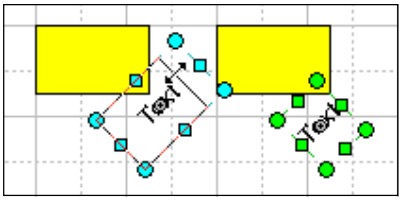
Moving a text box. To move the text box, click its boundaries or the text inside, hold down the mouse button and then drag. When over the boundaries, the pointer changes into a double box, indicating that you may click there and drag.



Rotating a Text Box. To rotate the text Box, drag any of the four rotation handles, located in its corners. The Text Box rotates around its rotation centre, which looks like a grey circle.



Sizing a Text Box. To resize the Text Box, drag one of its square handles. The mouse pointer will change into a double-headed arrow when it's over a handle.



Indents and margins

Margins. You can set margins for the whole text with respect to the Text Box borders. Open the Text Properties dialog box (Format/Text), then select the Text Block tab. Under the tab, modify the values in the Margins fields. Here you may specify the values for left, right, top and bottom margins. By default, you input the values in the current measurement system. If you want to use another measurement system, specify proper abbreviation for the chosen unit of measure after the number. For example: 2, 4 pt, 3.3 in, and so on.

Indents. Indents are paragraph properties. For each paragraph, you may set right, left and first line indents. These settings can be modified in the Indents subsection of the Text Properties dialog (Format/Text, Paragraph tab).

By default, you input the values in the current measurement system. If you want to use another measurement system, specify the proper abbreviation for the chosen unit of measure after the number. For example: 2, 4 pt, 3.3 in, and so on.

The changes will affect the paragraphs, where the pointer was or some text was selected.

The resulting indent value includes the margin value as well.

In the MacOS version of ConceptDraw, you can't see the results of paragraph alignment when in the text editing mode. The alignment will be applied after you leave the text editing mode.

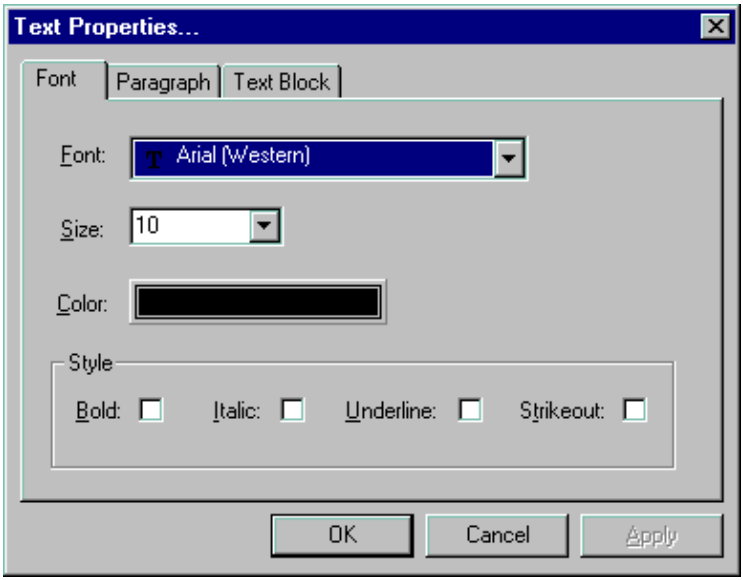
Setting the background color

By default, text has no background and text boxes are transparent (except text boxes of connectors). You may enable the background color for a selected text block in the Text Properties dialog (Format/Text). Under the Text Block tab, uncheck the Transparent option, and click the Text Background button to choose a color. Click OK.

To disable the background color, check Transparent.

Text Properties dialog box

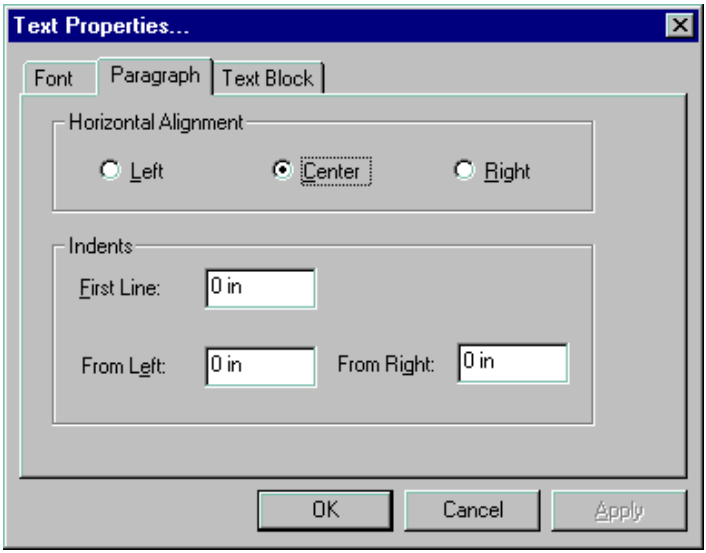
The Text Properties dialog has three tabs:



The Font tab. Here you may change the font properties.

- The **Font Name box** lets you choose a font from the list of available fonts.
- In the **Font Size box**, you may select a font size from the list or enter a custom value.
- **Font Color** determines the font color.
- The **Style** section contains a group of options, that change the font style attributes: **Bold** - determines whether the text is bold. **Italic** - changes plain text to italic and vice versa. **Underlined** - underlines the text. **Strikeout** - displayes crossed out text.

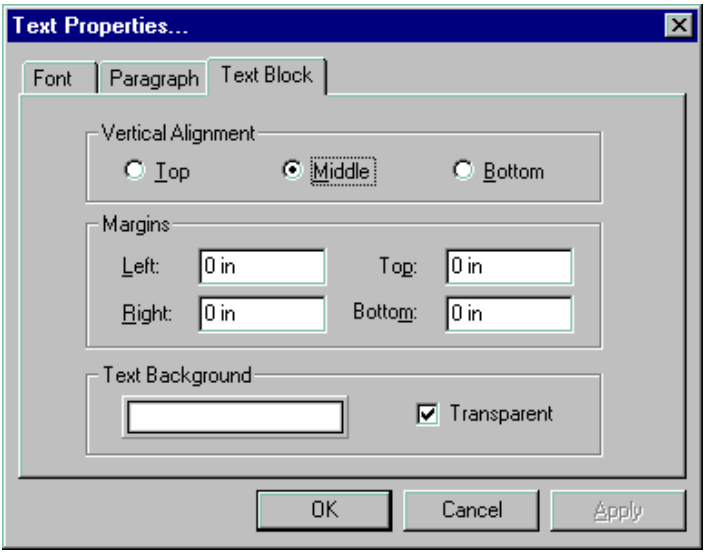
The Paragraph tab. Specifies properties for the paragraph in the cursor position, or for all paragraphs of a selected object.



- The Horizontal Alignment section specifies how the paragraphs are aligned with respect to the text box: **Left** - on the left side, **Centre** - by the centre, **Right** - on the right side.
- The Indent section specifies the paragraph indentation: **FirstLine** - for the first line, **FromLeft** - for the left indent, **FromRight** - for the right indent.

Note, that the indents values are displayed in the currently used measurement system. If you want to use another measurement system, specify the proper abbreviation for the chosen unit of measure after the number. For example: 2,4 pt, 3.3 in, and so on.

The Text Block tab. Under this tab, you may set properties for the entire text box.



- **The Vertical Alignment** sections determines the position of the whole text with respect to the text box. **Top** - aligns text at the top of the text box. **Middle** - aligns text at the middle of the text box. **Bottom** - aligns text at the bottom of the text box

- The Margins section specifies the distance between the text and the edges of the text box. **Left** - sets the left margin. **Right** - sets the right margin. **Top** - sets the top margin. **Bottom** - sets the bottom margin.

> *Note, that the margins values are displayed in the current measurement system. If you want to use another measurement system, specify the proper abbreviation for the chosen unit of measure after the number. For example: 2,4 pt, 3.3 in, and so on.*

- **The Text Background** section specifies the color for the text background. **Transparent** - sets whether the text background has color or is transparent. **Color** - sets the background color, if Transparent is unchecked.

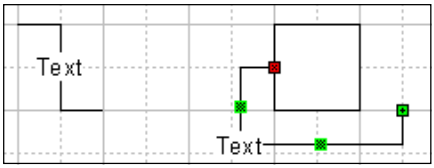
Working with text in groups

Unlike other objects, a group doesn't have text associated with it. The text you type in appears on the frontmost object in the group. If you want to change another object's text, select the object and select the Edit Text tool (or press F2).

Note, that it's possible to change the display order of objects using the SendTo... operations.

Smart Connector's text.

By default, the Smart Connector's text appears: - on its central segment, if the number of the segments is odd. - in the place where to middle segments meet, if the number of the segments is even.



Use the Text Box tool for repositioning the text.

Undo and redo operations

Undo. When creating and editing objects, mistakes are inevitable. So, you may need to cancel a sequence of recent actions and return the document to its previous correct state. The Undo command can be used for this purpose.

To reverse the last action, click the Undo button on the toolbar or choose Undo from the Edit menu. The menu always shows the type of action that will be undone.

Ctrl+Z
Alt+BkSp

Cmd+Z

The number of consecutive actions that can be undone is limited. The default value is 30. You may specify your value under the Settings tab in the Document Properties dialog (File/Document Properties). The higher the number, the more memory the program requires to store the actions.

Redo. *Redo operation is inverse to Undo. Use it to reverse the latest Undo operation. Click the Redo button on the toolbar, or select Redo under the Edit menu.*

Ctrl+Y

Cmd+Y

Copying and pasting

You may exchange information between ConceptDraw and other applications by using the Clipboard.The Clipboard is atemporary storage area, used by the system to transfer data between documents and applications. By using the Cut, Copy and Paste commands, you can copy onto the Clipboard selected text (when the text editing mode is on), or selected objects (when the text editing mode is off).

The Copy command creates a copy of selected objects or text and places it onto the Clipboard. To perform the command, click the Copy tool on the toolbar, or select Copy from the Edit menu.

Ctrl+C
Ctrl+Ins

Cmd+C

Once there is some dataon the Clipboard, it can be inserted into the same document, or other documents and applications.

Cut is a combination of two operations: Copy and Delete. It places selected items on the Clipboard,and then deletes them from the document. To peform the command, choose Cut from the Edit menu, or click the Cut button on the toolbar.

Ctrl+X
Shift+Del

Cmd+X

The Paste command inserts the contents of the Clipboard into the cursor position. Objects from other applications will be inserted as OLE-objects.

To perform the command, select Paste under the Edit menu, or choose the Paste tool on the toolbar.

Ctrl+V
Shift+Ins

Cmd+V

Chapter 3 Document

Working with the document

Zooming

The zooming operations are helpful when editing a document. Use the Zoom In command to magnify a portion of the page for more precise working. The Zoom Out command may be needed for viewing a very large drawing, or to view the whole page.

Here's the row of preset zoom levels (in %):
1,2,3,6,13,25,50,75,100,150,200,400,800,1600,2500.
Both Zoom In and Zoom Out use these values: Zoom In ascendingly and Zoom Out descendingly.

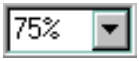
Zoom In. Select ZoomIn by clicking on its View menu item or toolbar button.

Ctrl+«+» Cmd+«[»

Zoom Out. Select ZoomOut by clicking on its View menu item or toolbar button.

Ctrl+«-» Cmd+«]»

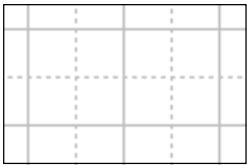
Zoom Box. Use this tool to enlarge a chosen rectangle area to the size of the window. Select the Zoom Box tool and drag the mouse to enclose the area to be enlarged. After you release the mouse button, this area will be enlarged up to the window size.



Zoom. This drop down box lets you choose the magnification in percent from a list, or enter a custom value within the 1-2500% range.

Grid

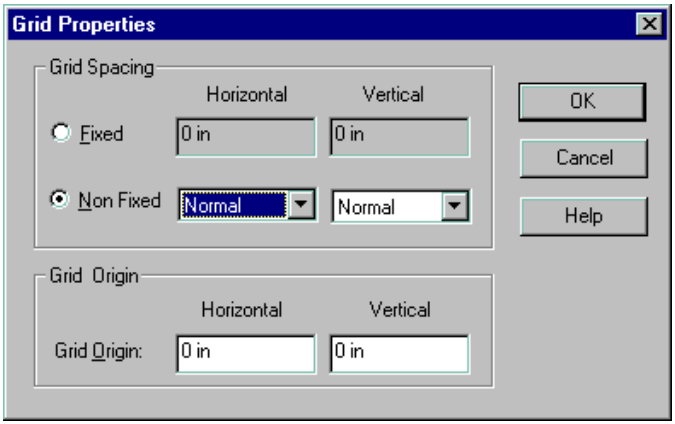
Each document page is crossed by thin grey lines, called grid lines.



You may enable/disable the grid in the View menu, by checking/unchecking the corresponding menu item.

If the Snap To Grid option in the Snap&Glue dialog is enabled, the grid will pull the pointer when you manipulate objects. When you drag a handle, the mouse pointer will jump to the nearest grid node or the cell centre. When moving an object, the same occurs to its alignment box. This helps to position objects precisely.

All grid properties can be set up in the Grid Properties dialog. Click Grid under the Tools menu to bring up the dialog.



The most convenient and used is the Grid Spacing - Non-Fixed mode. In this mode, the grid spacing remains visually the same regardless the magnification, which increases the accuracy with each zoom in level. For instance, if the spacing is 0.5 cm at 100%, it will equal 0.25 cm at 200%. The cell size can be set separately for the width and height. The following options are available: Fine, Normal, Coarse.

Another grid mode is the Fixed Grid mode. Then the grid spacing is a fixed value, and changes visually with the magnification.

You set a specific distance the grid lines stay apart regardless of magnification, though visually the distance changes. You must use the Fixed mode if you want the grid to be printed.

You must use the Fixed mode if you want the grid to be printed. Non-fixed grid can't be printed.

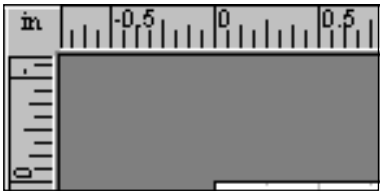
If you need to work constantly with a specifically set grid, save these settings in a template file, and create new documents from this template.

Rulers

The rulers show measurements at the scale of the drawing. The current unit of measure is displayed in the place where horizontal and vertical rulers meet. You may change the unit of measure in the Document Properties dialog, under the Settings tab.

The rulers, as well as the grid, take effect on how the snapping works. If Ruler Subdivisions in the only enabled option in the Snap&Glue dialog, the pointer will snap to the imaginary lines, coming out of the rulers' subdivisions. Use this for the most precise snapping.

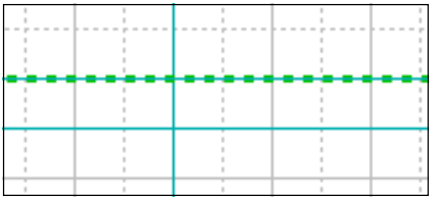
Another reason for using the rulers is that you can drag vertical and horizontal guides out of them. To do this, click on the ruler and drag the guide out of it to the place where you want it to appear. Release the mouse button. The guide will appear.



Note, that rulers can be enabled/disabled from the View menu.

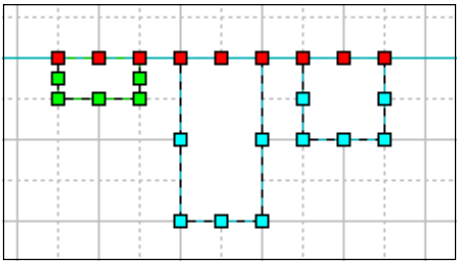
Guide lines

Guide line is a special ConceptDraw object, that may be used for aligning objects and positioning them precisely.



Guide lines can be dragged out from the horizontal and vertical rulers. You can manipulate (select, move, duplicate, delete, etc) guides like other objects.

In most cases, you'll use guides for glueing objects to them (see the Snap&Glue section for specifics). So, by glueing objects to a guide you may then reposition them at once keeping their relative distances.



It may be helpful when you're designing an office layout, or an electronic scheme, where you first line objects along a guide and then move the entire group.

Normally, guides to pull the pointer to them when the snapping is on. This functionality may be disabled the Snap&Glue dialog under the Tools menu (Tools/ Snap&Glue).

Note: Guide lines aren't printed.

Scroll Hand Tool

Usually, you can only see a part of the drawing page on the screen. The Scroll Hand tool is used for moving the page so that you can see its different parts. It looks like a hand that grabs the page an moves according to movement of the mouse. You can activate this tool in whatever mode *by holding down the Space key and dragging the page with the mouse.*

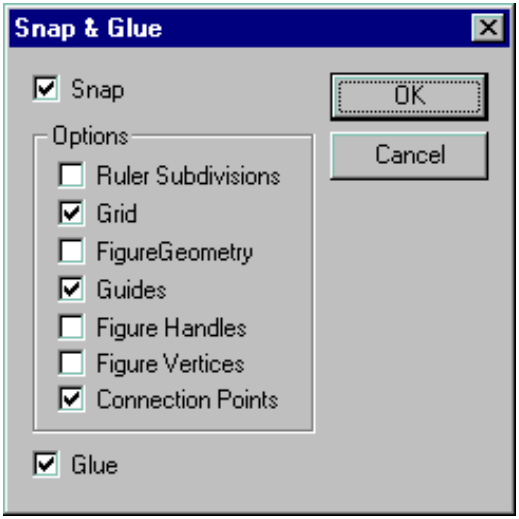
Switch to the Scroll Hand tool, grab the page with the mouse and move it in the direction you need. Another option is to hold down the Space key when dragging.

Snapping and gluing

Snapping is the ability of the mouse pointer to jump into position of the nearest snap location. This feature is used for positioning objects precisely with respect to the grid lines, rulers subdivisions, other objects, etc.

Use the Snap tool on the toolbar to turn the snapping on/ off.

You can specify the snapping settings in the Snap&Glue dialog (Tools/Snap&Glue).



If the **Snap To Grid** option is enabled, the grid will pull the pointer when you manipulate objects. When you drag a handle, the mouse pointer will jump to the nearest grid node or the cell centre. When an entire object is moved, the same occurs to its alignment box. By default, this option is set to on.

If **Ruler Subdivisions** is the only option that's enabled, the pointer will snap to the imaginary lines, coming out of the rulers subdivisions. Use this for very precise positioning.

If the **Figure Geometry** option is checked, the object you move or resize snaps to the outlines of other objects. It's usually a good option for creating figures that are parts of a whole figure.

If the **Snap To Guide** option is on, the pointer snaps to the guide lines. This option is on by default.

Figure Handles: the pointer snaps to the nearest resize handle of an object.

Figure Vertices: the pointer snaps to the nearest vertex of an object.

If the **Connection Points** option is on, the pointer snaps to the nearest connection point of an object.

Even if the snapping is enabled, the pointer jumps to a snap location starting from a certain distance to the location. This distance can be set in the Document Properties dialog. The default value is 15 pixel. If you want to set a specific snap sensitivity distance for all future documents, specify the new value in the Options dialog, under the Default tab (Tools/Options...).

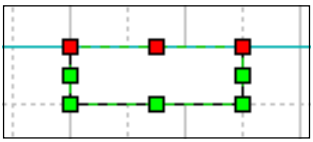
Gluing - is a property of objects to stay connected, even if one of the objects is moved. Unlike snapping, glueing maintains the connection after you release the mouse button. To provide precise positioning of objects and handles, it's usually a good idea to use gluing together with snapping.

To enable/disable the gluing , use the Glue On/Off button on the toolbar or check the appropriate option in the Snap&Glue dialog (Tools/Snap&Glue).

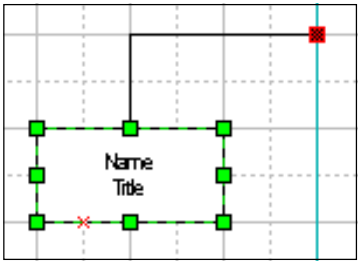
You can glue objects to guide lines, control handles to guide lines, or control handles to connection points of objects.

Gluing objects to a guide line: Sometimes you may need to align objects along a line, so that you can move all objects at once by simply moving the line. This is possible by gluing objects to a guide line. After you glue the objects, they'll be moved together with the guide.

To glue an object to a guide: turn the gluing mode on, then move the object to the place on the guide you want to glue it to. After you release the mouse button, the resize handles on the glued side of the object turn red indicating the object is glued to the guide.



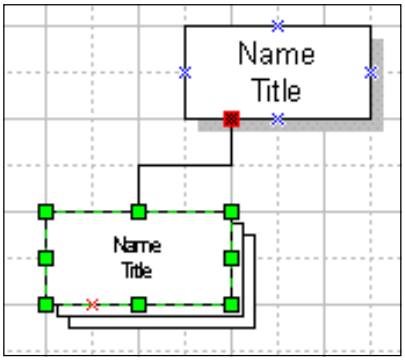
Gluing control handles to guide lines. Control handles can be glued to a guide. Turn the gluing mode on, move the control handle to the guide line and release the mouse button. Once glued, the control handle turns red. When you move the guide line, all glued control handles move with it.



Gluing control handles to connection points of objects. This is one of the main reasons you may use the Glue tool for.

For instance, you have an object with a connector, attached to it. Let's suppose that you need to group them to work with them together. However, in this case the loose end of the connector will lose its ability of gluing to objects. To solve this problem, you should add a control handle to the group, attaching it to the loose end of the connector. Then you can glue the resulting new handle to connection points of other objects as if it was the endpoint of the connector.

To glue a control handle to a connection point of an object, turn the Glue on and move the control handle to a connection point of the object you want to glue it to. On releasing the mouse button, the control handle turns red, indicating that it glued successfully. Now, when you move the object, the connection maintains.



Scaling in documents

When you are drawing a layout that represents a large real-world object, you may have to use scale (for instance, 1cm=1m). To scale of the document can be specified in the Document Properties dialog, under the Settings tab (File/Document Properties).

In the dialog, you may choose one of the preset ISO scales: 1:1000, 1:500, 1:200, 1:100, 1:50, 1:25, 1:20, 1:10, 1:5, 1:2.5, 1:2, 2:1, 5:1, 10:1, 20:1, 50:1. If you need a custom scale, choose the Custom Scale option and specify the desired proportion in the appropriate fields, for example, 1=3, 1in=1ft, 1cm=1km, etc. For the list of supported units of measure, please refer to the Measurements section.

The default scale is 1:1. If you need some other scale for all future documents, save that scale configuration in a template file, and create all new documents from this template.

Measurements

All numeric values, used in the program are entered and displayed in certain units of measure. The following units of measure are supported:

For dimensions and distances:

inches, decimal	in
inches, fractional	in
feet, decimal	ft
feet, decimal inches	ft, in
feet, fractional inches	ft, in
yards	yd
miles	mi
millimeters	mm
centimeters	cm
meters	m
kilometers	km

For angles:

degrees	deg
radians	rad

For font size:

points	pt

You may specify units of measurement for a document in the Document Properties dialog, under the Settings tab. In the open document, the current units of measure appears in the top left-hand corner, in the place where the horizontal and the vertical rulers meet.

If you're constantly working with the units of measure other than the default, enter them in the Units Of Measure field under the Default tab, in the Options dialog (Tools/Options). Then each new document will use this units of measure.

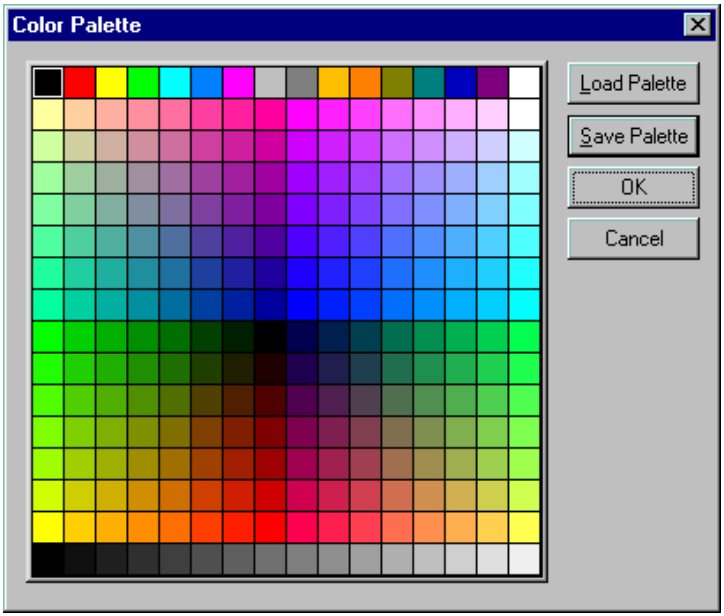
In any input field of ConceptDraw dialogs, you may specify values in the measurement systems other than the default. Just put the appropriate abbreviation after the number, for instance: 13 in, 2 mm, 6.5 ft.

Color Palette

When you choose a line or fill color from the button menus on the toolbar, you may need other colors than those 16 the menus offer. Then click on "More Colors" to bring up the Choose Color dialog, where you may pick any of the 256 colors of the color palette of the document.

Each document may have its own color palette. For instance, it's possible to create a palette of 256 gradations of grey. However, you won't be able to use any other colors than these.

To modify color palette of the document, open the Color Palette dialog from the Tools menu (Tools/Color Palette).

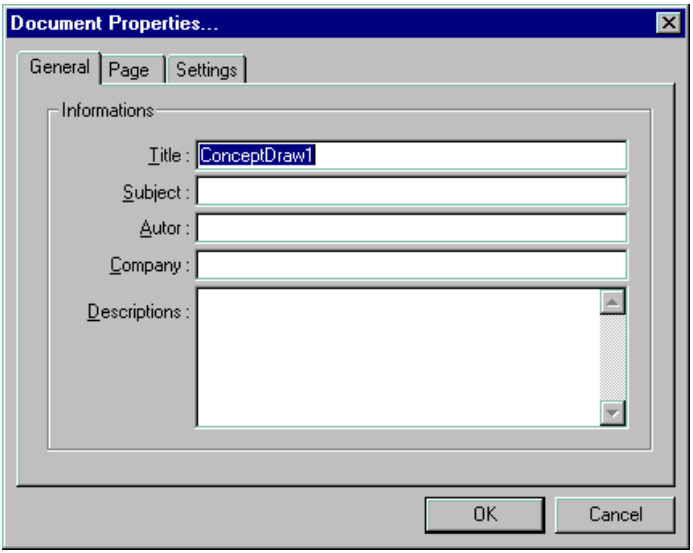


To change a color on the palette to another, click on the box with the color you want to change and choose a new color from the standard dialog that will come up. When all changes are made, you may save the resulting palette in a .pal file. To do this, click the Save Palette button. In the file dialog choose the folder where to store and type a filename for your palette. Then click OK. You can use the saved palette in whatever document. Just load its file in the Color Palette dialog.

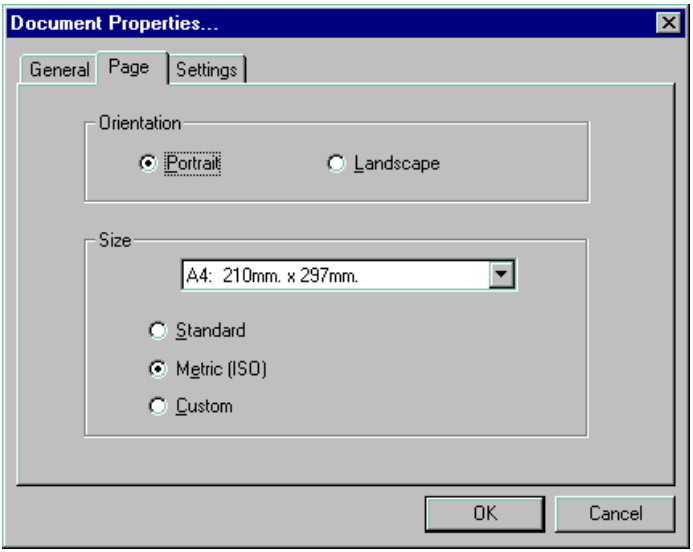
Document Properties dialog (General, Page, Settings)

You can call the Document Properties dialog by selecting Document Properties under the File menu (File/Document Properties).

The General tab. Here you may type information describing the document in the fields as follows: Title, Subject, Author, Company, Description.



The Page tab. Specifies various settings for the entire page:



Orientation: specifies the page orientation. Portrait option displays the page taller than it is wide, and Landscape option swaps the width and the height (the page is wider than it is tall).

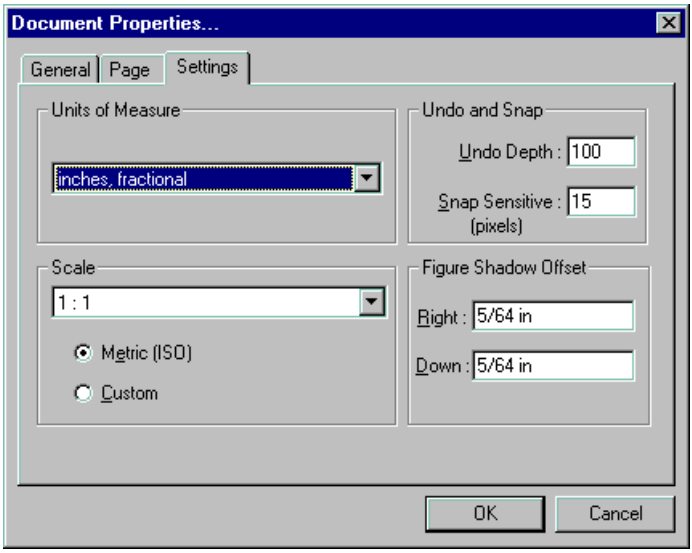
Size: specifies the page dimensions. For Standard and Metric(ISO) options, you choose one of the preset sizes from a respective list:

For Standard: Letter(8.5in*11in), Folio(8.5in*13in), Legal(8.5in*14in), Tabloid(11in*17in).

For Metric(ISO): A5(148mm*210mm), A4(210mm*297mm), A3(297mm*420mm), A2(420mm*594mm), A1(594mm*841mm), A0(841mm*1189mm)

Custom option lets you enter custom values for the width and the height of the page. By default, all dimensions are displayed in the currently used measurement system. However, may enter values in any supported measurement system (see the Measurements section).

The Settings tab. Here you may specify various document settings.



Units of Measure: specifies the units of measure in which all numeric values are displayed on the rulers, on the status bar, in the input fields in dialog boxes, and in the tables. For specifics, refer to the Measurements section.

Scale: Here you may choose one of the Standard(ISO) scales. If you need a custom scale,

- check Custom
- two fields will appear, where you should specify the ratio of the visual sizes on the page to the real sizes of the objects. For example, 1 in = 1ft; 1 cm = 2 km, etc... It's recommended that the units of measure in the first field

correspond to the current units of measure of the document.

For more specific information, refer to the Scaling in documents section.

Undo Dept: Specifies the number of consecutive actions you can undo. The default value is 30.

Snap Sensitivity: Sets the distance from which snapping and gluing activate. This distance is set in pixels and doesn't depend on the scale or magnification.

Figure Shadow Offset: Specifies the amount for horizontal and vertical shadow offset for all objects in the document.

Printing documents

Arranging a document on pages

Concept Draw document size might be bigger than one printed page. Because the printed page and the document page are different things, the size of the printed page is selected from the list of available sizes in the printer properties. The document page size is selected in the the document properties dialog box.

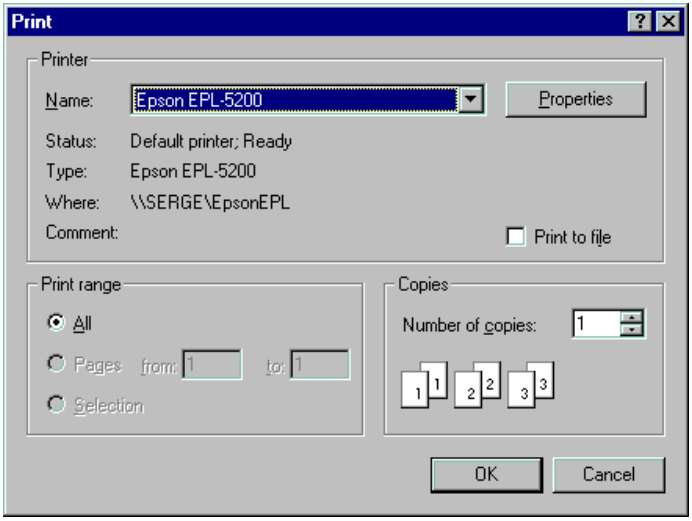
While printing the document, all pages of the document are printed out one after another and split into printed pages if needed. For example, if the document page is A3 size, the printed page size is A4, then each document page will be split into 2 printed pages.

The orientation of the printed page is vital. For example, if you wish to create and print a document sized A4 in the landscape (wide) orientation, then you have to go through 2 steps:

1. In the Document Properties dialog (File/Document Properties from the menu) choose A4 size and Landscape orientation under the Page tab. These parameters refer to the document page sizes only, and don't affect printing properties.
2. In the Print Setup dialog (File/Print Setup) choose A4 size and Landscape orientation as well.

Printing

The Print command prints the document. To perform the command, choose Print from the File menu, or click the Print button on the toolbar. You can also press Ctrl+P. Before printing starts, the Print Setup document will come up, where additional printing properties can be set.



Choose your printer type in the Printer section. If more than one printer is available, you may choose a one you want from the list. Clicking the Properties button will bring up the printer properties dialog box. It may vary for different printer type. Naturally, this dialog lets you set the printed page size, page orientation, graphic printing properties, fonts and other.

In the same section, you may choose Print to file option. Use this option if you can't print the document at the moment. Then the program will store information for printing in a file, which you'll be able to print on any other computer connected to the printer identical to that specified in the file, even if ConceptDraw is not installed on the system.

The Print Range section allows you to select pages to be printed if you don't want the whole document to be printed out. Specify the start page and the end page in the appropriate fields.

In the Copies section, set the number of document copies you want to get printed and how to print them.

When you are sure that all settings are okay, click OK to start printing.

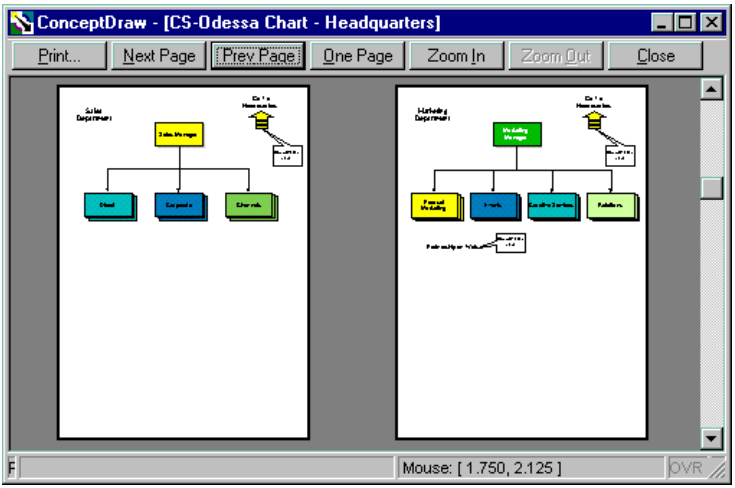
For MacOS, dialog boxes for printing settings don't have a common appearance and may vary with the printer type. Besides the above settings, the may contain some specific ones such as paper quality, paper supply way, printing quality, etc.

Previewing the document

You may see how the printed document will look like before you started printing it.

Choose Page Breaks under the View menu to see how the document will be divided into printed pages. Bold grey lines indicate the corresponding nonprinting areas, thin - are the page separators.

The Print Preview command provides more functions. Select Print Preview from the File menu, or click its button on the toolbar. A new window will open where you can see few pages on the same screen at the same time.



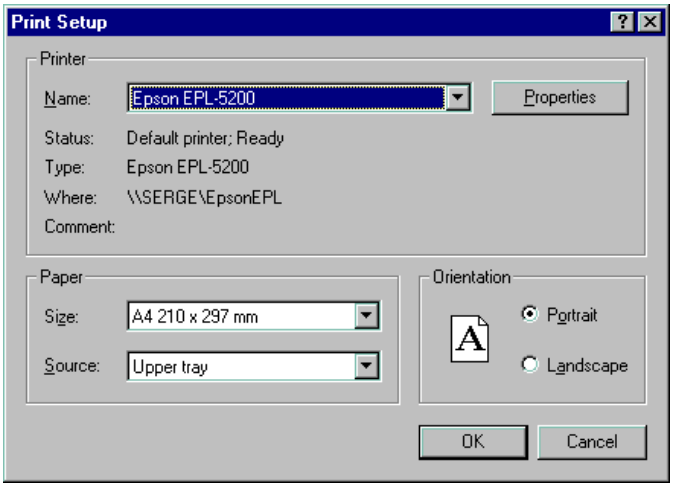
There are some buttons on the window toolbar:

- **Print** - starts printing the document.
- **Next Page / Prev Page** - let you view the document page by page forward and backwards.
- **One Page / Two Page** - displays one or two pages on the screen. **Zoom In / Zoom**
- **Out** - changes magnification. **Close** - closes the Preview window.

For MacOS, the Print Preview option may only be available for some printer types, in this case it's accessed from the Print dialog.

Printer setup

Select Print Setup from the File menu to access the Print Setup dialog box.



Choose your printer type in the Printer section. If more than one printer is available, you may choose a one you want from the list. Clicking the Properties button will bring up the printer properties dialog box. It may vary for different printer type. In the Paper section enter the size of the printed page and the paper supply way (depends on the printer type).

In the Orientation area- select the orientation of pages in your printer (Portrait - for vertical and Landscape - for horizontal orientation).

Working with document pages

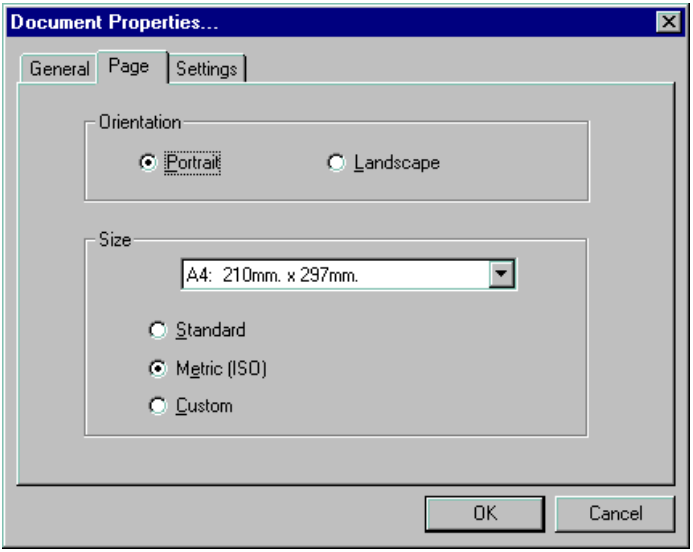
A Concept Draw document may consist of one or several pages. This is very useful, when there are descriptions, drawings and various other information in one document. Then a document is some sort of a collection of pages.

A new document is created to have one page by default. However you can create a template with several pages initially and create new documents using this template.

A row of buttons in the bottom left-hand part of the screen corresponds to the list of pages of the document. The current page is selected. To scroll down the list use the keys to the left.

Global properties of the pages

Orientation and size are global page properties. In ConceptDraw, these properties are assigned to all pages of the document in the Document Properties dialog under the Page tab (File/Document Properties)



Size types. There are 3 types to choose from: Standard, Metric and Custom. Each of them has a specific set of dimensions:

Standard: Letter - 8.5 in * 11 in; Folio - 8.5 in * 13 in; Legal - 8.5 in * 14 in; Tabloid - 11 in * 17 in;

Metric(ISO): A5 - 148 mm * 210 mm; A4 - 210 mm * 297 mm; A3 - 297 mm * 420 mm; A2 - 420 mm * 594 mm; A1 - 594 mm * 841 mm; A0 - 841 mm * 1189 mm;

Custom: Sets the width and height of the page. You may enter the values in whatever units of measure supported in Concept Draw, for example: 10 in, 2 ft, 30 cm...etc.

Orientation: Determines the way the page is displayed: **Portrait** - the height and the width correspond to the specified values; **Landscape** - exchanges the values for the hight and the width. For example, an A4 size page will have the 297 mm * 210 mm dimensions, (i.e.will be wider than it's tall).

Printing pages

A document page and a printed page are not exactly same things. So, if the document page is of A3 size, and the paper in your printer is of A4 size, each document page will be printed out on 2 paper sheets. To see how the document pages will be arranged on printed pages, select Page Breaks under the View menu. Bold grey lines correspond to the nonprinting areas of the page, thin grey lines - are separators between the printed pages.

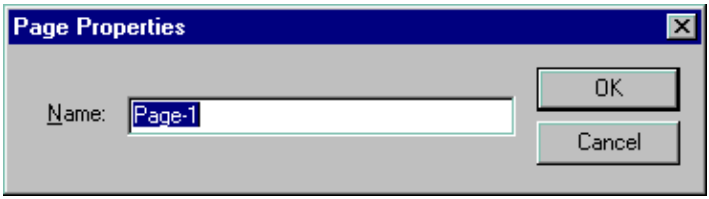
For example, if you want to create and print a document page of A4 size horizontally rather than in its normally vertical orientation, then you have to go through 2 steps.

1) In the Document Properties dialog (File/Document Properties), under the Page tab specify A4 size and Landscape orientation. These are the document pages parameters only, and they don't affect printed pages parameters.

2) In the Print setup dialog (File/Print Setup), choose A4 size and Landscape orientation as well. Check Page Breaks under the View menu to make sure whether your settings are okay.

Adding a page

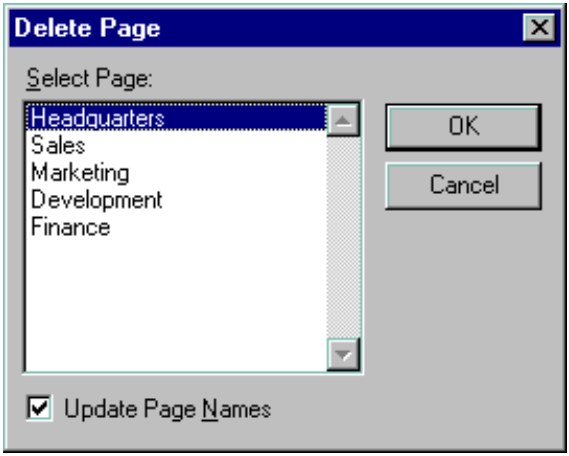
To add a new page to the document, choose Add from the Page menu. The Page Properties dialog box will come up.



For every new page, the program suggests a name like "Page - N", where N is the new page number. You may type in some other name, if you wish. Clicking OK adds the new page to the page list, and you can edit it like all the other pages.

Deleting a page

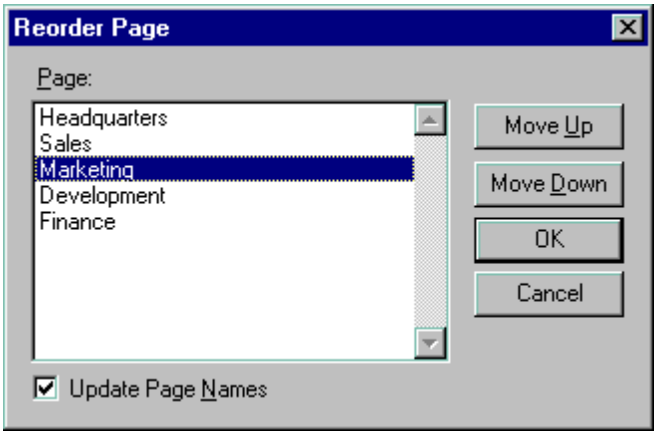
To delete a page, choose Delete from the Page menu. The Delete Page dialog will come up.



In the list of pages select the page to be removed. If the "Update Page Names" option is checked, the program will rearrange all pages with default names so that they have correct numbers. On clicking OK the page you selected will be deleted.

Reordering pages

Besides adding or deleting pages, you may sometimes want to change the order in which pages are placed. To do this, Reorder from the Page menu. The Reorder Page dialog box will come up.

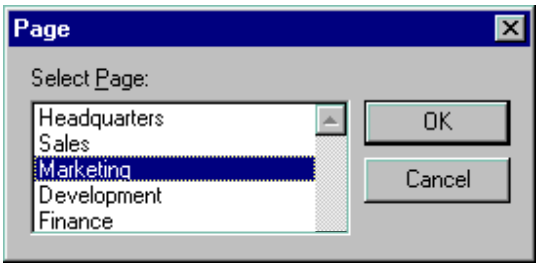


Select a page from the list. Use the Move Up and Move Down buttons to change its position in the list. If the "Update Page Names" option is checked, the program will rearrange all pages with default names so that they have correct numbers. Click OK to apply the changes.

Jumping to another page

There are 2 methods for jumping to another page.

First option is to click the respective page button from the list in the bottom left-hand corner. To scroll the list, use the scroll buttons. Another option is to specify the page in the Goto Page dialog (Page/Goto).

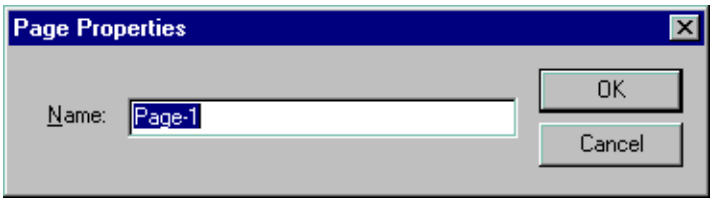


Choose the page you want to jump to from the list and click OK.

You may set the double-click action of objects (see the Double Click section), or their hyperlink options (see the Hyperlink section) so that you can use these objects as links to other pages of the document.

Naming a page

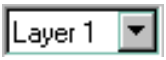
The name of the active page appears in main window title bar. To change it, choose Properties from the Page menu.



In the dialog, type a new name and click OK.

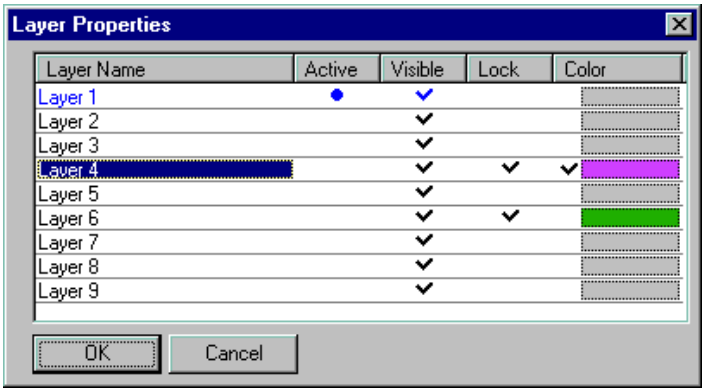
Working with layers

You can use layers to organize related objects in the document. For example, when you're planning a house, you may assign all electrical system to one layer, water-supply system to another, etc.



ConceptDraw supports working with up to 9 layers, one of which is active. To specify the active layer, choose it in the box on the toolbar.

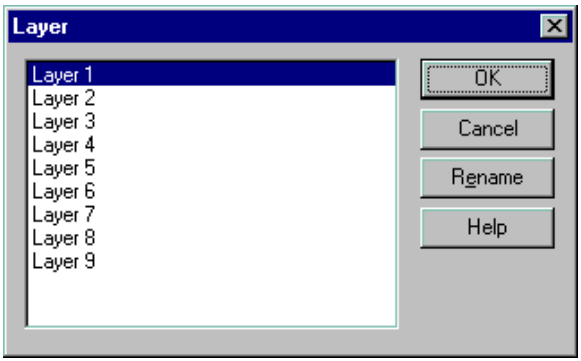
Each layer has a number of properties, which can be changed in the Layer Properties dialog under the View menu (View/LayerProperties).



- **Layer Name -** here you can change the default "Layer N" name to a new one. Double click the name in the list, type a new one and click OK.
- **Active** - only one layer at a time can be active. All new objects that are draw or drop on a page, belong to the active layer.
- **Visible** - hides objects on the layer.
- **Lock** - locks all objects on the layer from being edited. You may find this helpful for creating borders, background drawings, etc.
- **Color** - displays all objects on the layer in one color. To assign the color, click the Color box and select a color from the Choose Color menu. All objects on the layer will take on the chosen color. Uncheck the option to return objects to their original color.

To modify a setting for all layers at once, you may click on the title bar of a section.

Each object belongs to a layer. An object is assigned to a layer when you create it or drop on a page. You can assign an object to another layer in the SetLayer dialog under the Format menu. Select the new layer from the list and click OK. You can also rename layers in this dialog.



Chapter 4 Working with the environment.

Templates.

A template *is a ConceptDraw file which is used to store a desired set of default settings for new documents (measurement system, grid spacings, scale and other), list of libraires to open and a sample document.*

*Template files have *.cdt extension.*

When you open a template, you open a copy of the sample document stored in the template, and then all libraries according to the list. The document appears in a new window, and the libraries are added to the already open libraries in the library window.

There are several reasons for using templates.

- When you need to create multiple documents that have a consistent look (for instance, a weekly report form, or a product presentation template). In this case, simply save the sample as a template once, and use this template for creating new similar documents.
- When your documents require specifically customized settings (related to your country specifics, or the purpose you use ConceptDraw for). This may involve page size, units of measure, font styles, text formatting, grid properties and more. To eliminate the need to reconfigure your documents each time, make all settings once and save them in a template file(s). We also suggest using the «Blank Drawing.cdt» file for this purpose. This file is stored in the Libraries folder.
- When you have to create a document related to a specific field (for instance, draw an office layout or a company structure), it's usually a good idea to use task-related object libraries supplied with the program. ConceptDraw

includes ready-made templates with lists of necessary libraries you may use for each specific task. These templates are stored in the same folders as the appropriate libraries. You may create similar templates for your custom purposes.

For more detailed information about opening templates please refer to the «Creating a new document from a template» section.

For specifics about saving templates see the «Creating a template file» section.

Transporting templates.

When moving a template file from one computer to another, don't forget that a template file only stores references to its libraries rather than the actual libraries. So, you must move the required libraries along with the template. Make sure that the template and the libraries keep their relative positions with respect to one another. Alternatively, you may place libraries in the same folder as the template.

Workspace files

A workspace file stores information about sizes and arrangement of all windows open in the application, the list of open documents and libraries.

*Workspace files have *.cdw extension.*

By opening a workspace file, you reproduce the state in which the application was before you saved the workspace file, with all documents and libraries keeping the same positions.

Here are some situations in which you may need using workspace files.

- When constantly working with the same set of documents and libraries.
- When working with a document displayed in a specific way. For instance, when you need to show tables for some objects, or when several magnified areas of the same page are viewed in separate windows at once.

For more detailed information about opening workspace files please refer to the «Opening documents and libraries by using the workspace» section.

For specifics about saving workspace files see the «Saving a workspace file» section.

Transporting workspace files.

When moving a workspace file from one computer to another, don't forget that a workspace file only stores references to the documents and libraries. So, you ought to move all necessary document and library files along with the workspace. Make sure that the workspace file and the required components keep their relative

positions with respect to one another. Alternatively, you may place the document and library files in the same folder as the workspace file.

Program configuration

Global program configuration can be set in the Options dialog. To call the dialog, select Options under the Tools menu.

The dialog has three tabs: Default, File Paths, Internet.

The **Default** tab contains parameters which the program applies to each new document. This doesn't refer to the documents you create from templates, for templates already include all necessary settings.

Units of measure:
Specifies the default units of measure. The rulers, the status bar, entry fields in dialogs and the table will display values in this units of measure. For specifics, refer to the *Measurements* section.

Size:
Specifies the default page size. You may choose one of the standard sizes by checking Standard or Metric(ISO) and choosing a size from the drop-down list. You may choose Custom to enter the dimensions manually. You may type in the values in any units of measure supported by the program (see the *Measurements* section).

Snap Sensitivity:
Sets the default distance from which snapping and gluing activate. This distance is set in pixels and doesn't depend on the scale or magnification.

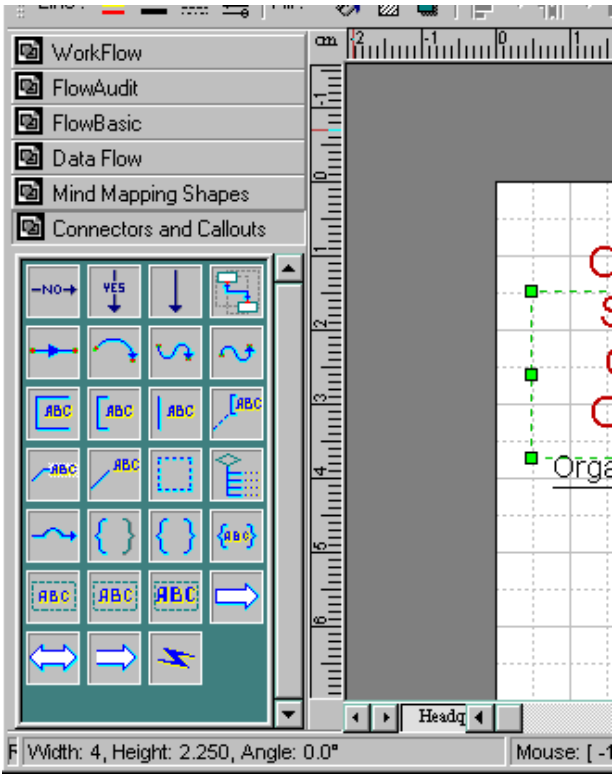
The **File Paths** tab describes the default paths to ConceptDraw components: documents, libraries, templates, help. When you call the file open dialog for documents, templates or libraries first time after the program started, the dialog displays the contents of the respective default folder. Later, the file open dialog displays the current folder for each file type.

The **Internet** tab specifies the path to the Internet browser which the program uses to go to hyperlinks and search the Internet.

Initially, this path corresponds to your default Internet browser. However, if for some reasons this path is incorrect, you may specify the path to your Web-browser manually.

Chapter 5 Libraries

ConceptDraw supports working with object libraries. Library is a file that contains a collection of objects. These objects are usually grouped so that they represent a particular topic, for instance: flow chart, computer network, engineering, etc.



The library window

A special window, called the library window, is used to display open libraries. It usually appears on the left side of the program window.

The buttons with names on the top of the library window represent currently open libraries. The pressed button indicates the active library. Only one library at a time may be active. The context menu for each library button contains the following items:
New - creates a new library.
Open - opens an existing library.
Close - closes the active library.
Close All - closes all libraries.
Save - saves the active library.
Save As ... - saves the active library under a new name.
Properties - calls the Library Properties dialog.
View As Icon - displays only library object icons.
View As Text - displays only library object text.

Under the buttons list goes the contents of the active library. The objects can be displayed in the form of icons, or in the form of text. When you position the pointer over an object, its name appears in the status bar, if you pause the pointer over the object, it also displays atip.The selected object shows ared border around its icon.

There are several ways of how the library window may appear:

- Alongside the document window. By default, it's positioned along the left side, but can be repositioned along whatever side of the drawing page. Just grip the bar that separates library title buttons from the list of objects, drag it to the side you want to attach it to, and release the mouse button. When library window is positioned this way, you can alter its width by moving its border adjoining the document window. Position the pointer over the edge of the library window, so that the pointer changes into a double-headed arrow, and drag the border to adjust the window size.
- In floating state. This is the way in which windows usually appear. To make library window float, grip the bar that separates library title buttons from the list of objects, drag it to the centre of the document window and release the mouse button.
- In minimized state. You can reduce floating library window to its title bar, so that it takes minimum space and can easily restore its previous size. To minimize the floating library window, uncheck Libraries from the View menu, or press F4. To bring the window back, check the menu item, or press F4 again.

Library files allocation

All provided libraries are located in the Libraries folder of the program's root directory. The Library folder contains task-related subfolders. Library files themselves (*.cdl files for Windows) are located inside these folders.

As you create your own libraries, you may store their files anywhere you want, but we advise to create task-related subfolders inside the Library folder and place your library files there, to keep them in good order.

Opening a library

To open one or more libraries, choose Open Library from the File menu. The File Open dialog will come up. All libraries, supplied with ConceptDraw are located in task-related folders. In the dialog, choose the folder you want from the upper box, and then the file in the box. Click OK. The library window will open, including all chosen libraries.

You can use the Open Library tool on the Standard toolbar.

Both libraries and document can be opened by dragging their file icons from Explorer or My Computer windows, and dropping them onto the program window. In this case you have to drag the file icon, position it over the respective taskbar button, wait until the application window opens, and then release the mouse button over the toolbar or over the library window.
As you release the button, the mouse pointer must look like this:

If you open a library, that's already listed in the library window, by opening it again you'll make it active, not duplicate it.

Creating a new library

You can create your custom object library, using the New Library command from the File menu. The File Open dialog will open. Choose a folder where you want the library file to be stored, and in the name field specify the filename for the new library file. Click OK. The empty library window will open. Now you can add there objects from documents or other libraries.

You can't save a library if it doesn't contain any objects. You can only close it without saving.

Closing a library

To close a library, open its context menu select Close Library menu item. If any changes were made after the library was last saved, the program suggests that you save changes before closing the library.

To close all open libraries, choose Close All from the context menu.

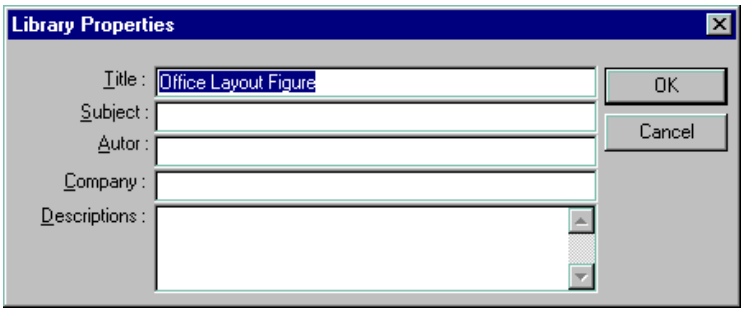
Saving a library

To save a library, open its context menu and choose Save from the menu.

If you need to save the library under another name, choose Save As. The Save dialog will come up, where you may specify the name for the library and choose where you want it to be stored.

Library properties

To set or modify properties of a library, call its context menu choose Properties from the menu. This will bring up the Library Properties dialog box.



Title: the name if the library, you see on its title button. **Subject:** a topic, to which the library can be related. **Author:** the author's name. **Company:** the company name. **Description:** ashort descri ption.

To save changes, click OK in the dialog and then save the library.

Displaying library objects as icon and as text.

There are two ways of viewing library objects: as icons or as text. To switch between the options, call the context menu for the library window and choose one of the following items: View As Icon or View As Text.

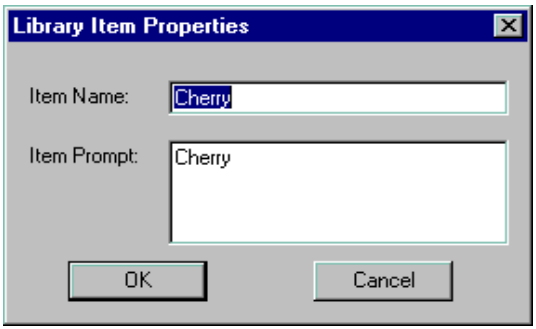
View As Icon. A library object icon has the size of 29*29 pixel. When you move an object into a library, the program creates its icon automatically. However, you may substitute it with a custom icon. Do the following: *). Create a 29*29 pixel image in Windows Bitmap (.bmp) format, which you want to assign as the icon. You can use any graphic editor, MS Paint for one. *). Call the context menu for the object,

which icon you want to change. From the menu, select Change Icon. In the File Open dialog, find the file with the icon, select it and click OK.

View As Text. In this mode, library objects look like small same boxes with text inscriptions at their side.One of them can be selected.

Properties of library objects

To assign and change a library object's properties, use the Library Item Properties dialog. To bring up the dialog, open the context menu of the library object you want and choose Item Properties from the menu.



- **Item Name** - the text of the tip which appears when you pause the pointer over the object.
- **Item Prompt** - text which appears in the status bar when you position the pointer over the object.

Inserting a library object into your document

There are several methods for inserting a library object into your document:

By dragging and dropping. Point to a library object, hold down the left mouse button and drag the object from the library window to the document page. Release the mouse button where you want a copy of the object to be inserted.

By double-clicking the object. If you double-click an object in the library window, its copy will be inserted in the centre of the active document page.

By using Copy & Paste.
Open the context menu for the object, and select Copy from the menu. The copy of the object will be placed on the Clipboard.Then, in the document window, call the context menu again and Paste from the menu.The contents of the Clipboard will be inserted in the position of the pointer.

Note: if the connector tool is on and there is a selected object in the document, the object you paste will be automatically connected to the selected object. The object

you've just pasted becomes selected. So you can connect objects according to the order in which you insert them in the document.

Adding an object from the document to a library

There are several ways of adding a new object to a library:

Using Copy & Paste. Open the context menu for the object in the document, and select Copy from the menu.The copy of the object will be placed on the Clipboard. Then in the library window, call the context menu for an object in the library, and perform Paste from the menu. This will shift the object there, inserting the object on the Clipboard in that place.The inserted object becomes selected.To add an object to the end of the library, call the context menu on an empty place in the library window and paste the object there.

Inserting a selected object. A selected object can be added to a library alternatively. From the Edit menu, perform Put Into Library command. This will place the selected object in the library, shifting the selected object there. If there was no object selected in the library, the object from the document will be added to the end of the library.

As an object is inserted in the library, the program creates its library icon automatically. For how to change the library objet icon, see the Displaying library objects as icon and as text section.

Copying objects between libraries

After you get acquainted with the libraries provided with ConceptDraw, you may want to create a compilation of the library objects you used most frequently. You can do this by using the copy/paste operations for the library objects.

Switch to the source library, select an object (it shows red border) and open its context menu. Select copy from the menu. Then switch to the target library (or create a new library), choose a place where you want the object to be inserted, call the context menu there and select Paste from the menu to insert the object.

Deleting an object from a library

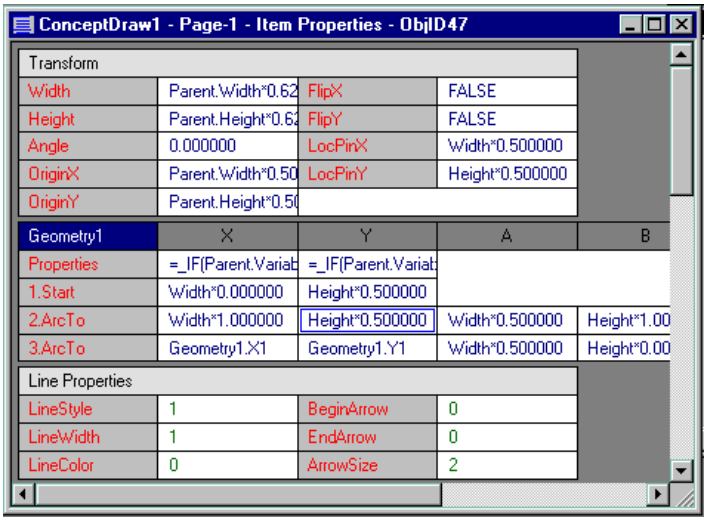
To delete an object from a library, open the context menu for the object and choose Remove from the menu. After you confirm deleting, the object will be deleted.

Another option is to use the Cut operation. This one first copies the object on the Clipboard, and then deletes it, so you may use the copy to insert it into some other place in the document, or in another library.

Chapter 6 Working with the table

Each ConceptDraw object is determined by dozens of parameters, such as numbers, text or formulas.

All the parameters are brought together in the table, where each of them can be modified. To call the table of an object, select it and choose Show Table from the Figure menu, or press the F3 key. This will open the object's table in a new window.



The input field

The input field is at the top of the window. When you select a cell in the table, its contents appears in the input field where it can be edited. Double clicking a cell

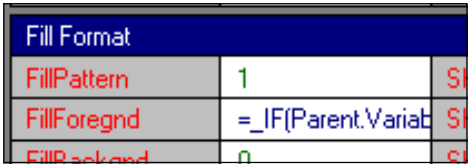
selects its data that appear in the input field. To finish editing, press the Enter key, to return to the initial values press the Esc key (you may also click the respective icons to the left of the input field).

Cells

A cell is the place where the program stores a parameter of an object. Once a cell is active, you may edit its contents in the input field at the top of the table window. To quickly start editing, double click the cell. You may use the arrow keys to change the active cell.

What you see in the cell depends on the viewing mode set for the table. The modes are the Values mode and the Formulas mode. When in the Values mode, all cells show the values in the current units of measure of the document. When the Formulas mode is on, all cells that have formulas in them, display the formulas. The cells which have no formulas, show the values in the tenths of millimetre. Note, that if a cell contains a formula, the input field will always contain a formula when you select the cell, regardless of the viewing mode.

Not every cell allows to input a formula in it. Some support only numeric values. The cells that allow formulas, display their contents in blue, the rest display the values in green.



You can input values in units of measure other than default. For instance: 12 in, 3.5 ft, 0.66 m.

When editing the contents of a cell, you may use the data of another cell, by clicking that cell with the mouse:

- Single click - adds its formula to the input field.
- Click with the Ctrl or Cmd down - adds the numeric value to the input field.
- Click with the Alt down - adds the name of the cell (to refer to it in formulas).

Formulas

By usung formulas, you can make one parameter of an object dependent upon other parameters, or upon the actions of the user. Here are some examples of formulas:

- Variables.X1+(Variables.X2-Variables.X1)*0.293
- _min(0;Geometry1.X2-Variables.X2)
- =_IF(Variables.X1=1;_Setf("Variables.X1";0);_Setf("Variables.X1";1))

If you want to address a contents of a cell, in a formula indicate the name of the cell (it appears in red near the cell). For instance: Width, TextAngle, etc.
For sections, where you can add cells (sections as Geometry, Controls, Connect, Variables, Font Format, Paragraph Format, Actions), other addressing is used: <section name>.<cell name>
The section name is composed of the column name and the string number.
For example: "Controls.YDyn1"; "Variables.Y2"; "Connect.X1"

For the Geometry section, the section name also includes the section number - for a figure may have more than one geometry. For example: Geometry1.Y1, Geometry2.C2. So, for the first two cells the names look like this:
"Geometry1.Visible" and "Geometry1.Filled"

Formulas often include functions. The full list of functions and their specifics can be found in the Functions section.

Another case is when you want to address cells that describe other objects. Since every object has its identification number (you may see it in the title bar of the table window, or in the Information dialog, ID section). This ID is used when addressing the parameters of the object: "ObjID13.Geometry2.X1" or "ObjID2.Width".
If the object belong to a group, you should use the Parent prefix to address parameters of the group. For instance: "Parent.Height"
If you address objects within a group, it looks like this: "Child2.Angle". The number after the name corresponds to the order of the object within the group. You may see this number in the Information dialog (SubID field).

The program may create some formulas automatically. Such formulas are called default formulas. For instance, when we create a line, the program will describe one of its parts as follows:

Geometry1	X	Y
Properties	TRUE	FALSE
1.Start	Width*0.000000	Height*0.666667
2.LineTo	Width*0.750000	Height*0.000000
3.LineTo	Width*0.750000	Height*1.000000
4.LineTo	Width*1.000000	Height*0.666667

Here, Width*0.75000 and Height*0.666667 are default formulas. Due to the formulas, vertices maintain their positions with respect to the alignment box of the object when the object is resized. This formulas change when you reposition vertices or the object.

If a formula has the "=" sign near it, it means that the user can't alter the formula, unless s/he edits its cell. If the formula hasn't the "=" sign before it, it may be altered when you apply actions to the parameter it represents.

Sections

The table window has a number of sections. Each section describes a finctionality of the object (for instance, its position, dimensions, text, etc.). For every section, you may hide it or make visible. To show/hide sections, use the View Sections dialog (select Sections under the View menu).
Some sections may be missing, if object don't have a specific function (for instance, control handles or the context menu). To add sections, use the Insert Sections dialog (Insert Section under the Edit menu).

Here is the list of sections the table may have:

1. Transform
2. Geometry
3. Endpoints
4. Controls
5. Connect
6. Variables
7. Line Properties
8. Fill Format
9. Protection
10. Text Transform
11. Character Format
12. Paragraph Format
13. Text Block Format
14. Text Field
15. Miscellaneous
16. Actions

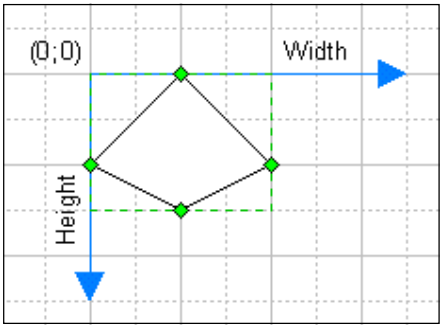
One of the sections is active (it's title bar appears in blue). You may edit cells in the active section. To make a section active, click its title bar or any of the cells inside it.

Each section can be minimize so that only its title bar appears. To minimize a section, activate it and then click the title bar. Click again to expand the section.

For some sections (such as Geometry, Controls, Connect, Variables, Font Format, Paragraph Format, Actions), a row of cells may describe a single element of the object (such as a control handle, a linear segment of a figure, and so on). It this case, operations on the whole row are possible: Add Row, Delete Row.

Transform section

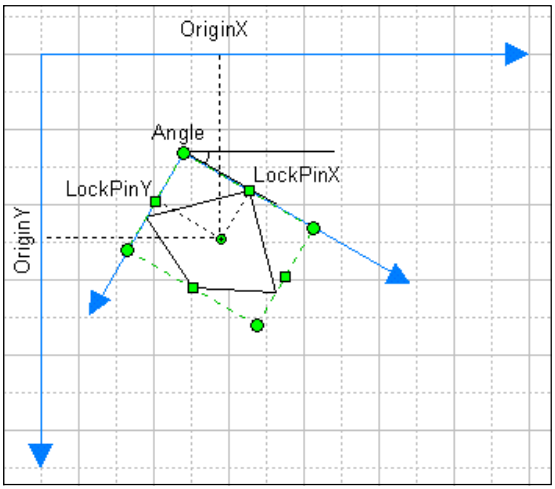
This sections contains parameters which define the position, size and orientation of the object. Note, that the coordinate system is based on the alignment box of the object: the coordinate origin is in the top left-hand corner, horizontal coordinates increase as you move from left to right, and vertical coordinates increase as you move from top to bottom.



Since an object may be part of a parent group, the following parameters describe its position within the group (relatively to the coordinate system of the group):

OriginX, OriginY, Angle, LocPinX, LocPinY for a 2D object
BeginX, BeginY, EndX, EndY, Angle, LocPinX, LocPinY for a 1D object.

Note, that if an object isn't part of any parent group, the program considers that it belongs to the group formed by the entire page.



Here are the fields of the section:

Width. Describes the width of the alignment box of the object. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode all data is displayed in the current unit of measure. As a rule, the Width parameter is used as a variable in formulas for other fields.

The 1D objects usually have the formula in this field: _HYP(EndX-BeginX;EndY-BeginY).

If the object is a part of a group, its width is described through the width and height of the parent group.
For example: _HYP(Parent.Width*0.308575;Parent.Height*0.283963).

Height. Describes the height of the alignment box of the object. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure. As a rule, the Height parameter is used as a variable in formulas for other fields.

Usually there is a number in this field. If the object is a part of a group, its height is described through the width and height of the parent group. For example: _HYP(Parent.Width*0.267234;Parent.Height*0.081973).

Angle. The angle of the object with respect to its parent group. Describes the width of the alignment box of the object. In the Formulas mode, you see the angle in radians, in the Values mode the angle is displayed in degrees. The angle value may range from -180 deg to 180 deg.

The 1D objects usually have the formulafor the angle: FlipX*_PI()+_ATAN2(EndY-BeginY;EndX-BeginX).

OriginX. Specifies the X offset of the rotation centre of the object with respect to its parent group. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure.

OriginY. Specifies the Y offset of the rotation centre of the object with respect to its parent group. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure.

LocPinX. Describes the X offset of the rotation centre of the object relatively the coordinate origin of the object. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure. The default formula is Width*0.5

LocPinY. Describes the Y offset of the rotation centre of the object relatively the origin of the object. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure. The default formula is Height*0.5

FlipX. The flag for horizontal flipping.This is abinary value: FALSE - the object isn't flipped; TRUE - the object is flipped;

FlipY. The flag for vertical flipping.This is abinary value: FALSE - the object is flipped; TRUE - the object isn't flipped.

Geometry section

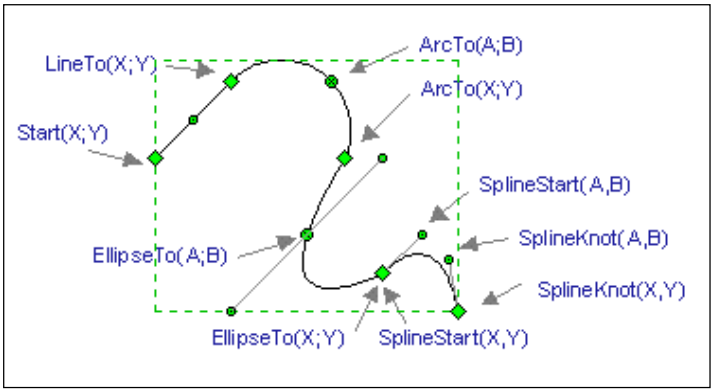
This section describes geometries (or solid sequences of segments) of the object. Since an object may have more then one geometry, there maybe several Geometry sections. Then a number follows the section name: Geometry1,Geometry2,...

To add a new Geometry section: - Open the context menu in the table window and select Insert Sections from the menu. The Insert Section dialog will come up. In the dialog, choose the Geometry option and click OK. A new Geometry section will be added to the table. It will have three rows: Properties, Start and LineTo.

Sometimes it is possible, that Geometry sections exist in the table, but you can't see them because they are hidden. **To make Geometry sections visible:** - Call the context menu in the table window, and select View Sections from the menu. - The View Sections dialog will come up. In the dialog, check the Geometry option and click OK.

A segment may represent apoint, apart of aline, an arc of acircle or of an ellipse, a part of the spline. In the table, the end of one segment usually coincides with the beginning of the adjoining segment.

All coordinates appear in the coordination system of the object.



Geometry1	X	Y	A	B	C
Properties	TRUE	FALSE			
1.Start	Width*0.000000	Height*0.389588			
2.LineTo	Width*0.250000	Height*0.084382			
3.ArcTo	Width*0.625000	Height*0.389588	Width*0.577563	Height*0.083663	
4.EllipseTo	Width*0.750000	Height*0.847397	Width*0.500000	Height*0.694794	_ELLIPS
5.SplineStart	Width*0.750000	Height*0.847397	Width*0.880208	Height*0.694794	
6.SplineKnot	Width*1.000000	Height*1.000000	Width*0.963542	Height*0.790171	

You can add a segment to the active section. Call the context menu and choose AddRow from the menu. A new LineTo segment will be added to the Geometry section.

Properties.X This parameter defines whether the file of segments is visible or not. The value appears in the binary format: TRUE - the file of segments is visible; FALSE - the file of segments isn't visible.

The default value is TRUE.

By changing this flag, you may hide or display geometries of an object.

In formulas, this parameter is addressed in the following way: GeometryN.Visible, where N - is the number of the geometry.

Properties.Y This parameter defines whether the fill of the object is visible. It works only for closed geometries. The value is binary: TRUE - show fill; FALSE - hide fill;

The default value is TRUE.

In formulas, this parameter is addressed in the following way: GeometryN.Filled, where N is the number of the geometry.

Start The starting point of the file of segments. X and Y fields contain the respective coordinates. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure.

Each Geometry section has only one Start parameter.

LineTo A linear segment. The X and Y fields contain the respective coordinates for the end of the segment. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure. The coordinates for the begin point of the segment are taken from the X and Y fields of the previous segment.

ArcTo. An arc of a circle. This segment is defined by three points. The coordinates for the begin point are taken from the X and Y fields of the previous segment, positions for the end point are stored in the X and Y fields, and for the point on the arc - in the A and B fields. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure.

EllipseTo. An arc of a circle. This segment is defined by three points, and two additional parameters. There are: the ratio of the large semi-axis to the small semi-axis and the large semi-axis angle. The coordinates for the begin point are taken from the X and Y fields of the previous segment, positions for the end point are

stored in the X and Y fields, and for the point on the arc - in the A and B fields. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure. The C field contains the the ratio of the large semi-axis to the small semi-axis. If this value equals 1, an ellipse arc becomes acircle arc.The D field is large semi-axis angle with respect to the frame of reference of the object. In the Formulas mode, you see the angle in radians, in the Values mode the angle is displayed in degrees. The angle is usually within 0 to 180 degree range.

SplineStart. The starting segment of the spline. It is defined by two points: the begin point (X and Y fields) and the guide point (A and B fields). In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure.
The SplineStart segment in the table should be followed by one or more Spline-Knot segments.

SplineKnot. Is a segment of the spline. It is defined by four points: the begin point (X and Y fields of the previous segment), the begin guide point (A and B fields of the previous segment), the end point of the segment (X and Y fields) and the end guide point (A and B fields).
In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure.

Endpoints section

This section describes the coordinates (X and Y) of the begin and the end points of the 1D object with respect to the parent group.

BeginX. Describes the X offset of the begin point with respect to the origin point of the parent group. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure.

BeginY. Describes the Y offset of the begin point with respect to the origin point of the parent group. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure.

EndX. Describes the X offset of the end point with respect to the origin point of the parent group. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure.

EndY. Describes the Y offset of the end point with respect to the origin point of the parent group. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure.

Controls section

This section describes control points of the object. Since an object may have no control points, this section may be missing in the table.

To add this section to the table: - Open the context menu in the table window and select Insert Sections from the menu. - This will bring up the Insert Sections dialog box. From the dialog, check the Control Points box and click OK. The Controls section will be added to the table. It will have one row (that is, one control point).

Sometimes it may be possible that the Controls section already exists in the table, but is not visible. **To make the Controls section visible:** - Open the context menu in the table window, and select View Sections from the menu. - The View Sections dialog will come up. From the dialog, check the Control Points box and click OK. The Controls section appears in the table.

To add a control point: Open the context menu for the section you want, and select Add Row from the menu. A new row describing a control point will be added to the end of the section.

To delete a control point: Open the context menu for the row you want to delete, and select Delete Row from the menu. The row describing that control point will be removed. Removing the last control point removes the section with it.

All parameters in the Controls section use the coordination system of the object.

X. Describes the X offset of the control point. if you didn't change this value, the origin point for the offset is determined by the value in the X Behaviour field: 0, 1, 2, 5, 6, 7 - offset with respect to the left side of the alignment box (for instance, Width*0.25); 3,8 - offset with respect to the centre of the alignment box (for instance, Width/2-63.5); 4,9 - offset with respect to the right side of the alignment box (for instance, Width-190.5).

In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure.

Y. Describes the Y offset of the control point. if you didn't change this value, the origin point for the offset is determined by the value in the Y Behaviour field: 0, 1, 2, 5, 6, 7 - offset with respect to the top of the alignment box (for instance, Height*0.75); 3,8 - offset with respect to the centre of the alignment box (for instance, Height/2+63.5); 4,9 - offset with respect to the bottom of the alignment box (for instance, Height-63.5).

In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure.

XDyn. This is the X coordinate of the end of the line that drags behind the control

handle as you move it. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure.

YDyn. This is the Y coordinate of the end of the line that drags behind the control handle as you move it. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure.

XBehaviour. This parameter determines how the control point moves along the X axis when the object is resized. If there was a default formula in the X field, the program changes it according to the XBehaviour field value after the the control point is repositioned.

When resizing the object:

0 The control re-positions proportionally with respect to the alignment box.
1 The control point re-positions proportionally with respect to the alignment box. The re-positioning with the mouse along the X axis is locked.
2 The distance stays constant to the left side of the alignment box.
3 The distance stays constant to the centre of the alignment box.
4 The distance stays constant to the right side of the alignment box.
5 The control point is invisible. When resizing the object, the control point moves proportionally with respect to the alignment box.
6 The control point is invisible. When resizing the object, the control point moves proportionally with respect to the alignment box. The repositioning with the mouse along the X axis is locked.
7 The control point is invisible. When resizing the object, the distance stays constant to the left side of the alignment box.
8 The control point is invisible. When resizing the object, the distance stays constant to the centre of the alignment box.
9 The control point is invisible. When resizing the object, the distance stays constant to the right side of the alignment box.

YBehaviour. This parameter determines how the control point moves along the Y axis when the object is resized. If there was a default formula in the Y field, the program changes it according to the YBehaviour field value after the the control point is repositioned.

When resizing the object:

0 The control re-positions proportionally with respect to the alignment box.
1 The control point re-positions proportionally with respect to the alignment box. The re-positioning with the mouse along the Y axis is locked.
2 The distance stays constant to the top of the alignment box.
3 The distance stays constant to the centre of the alignment box.
4 The distance stays constant to the bottom of the alignment box.
5 The control point is invisible. When resizing the object, the control point

moves proportionally with respect to the alignment box.

6 The control point is invisible. When resizing the object, the control point moves proportionally with respect to the alignment box. The repositioning with the mouse along the Y axis is locked.

7 The control point is invisible. When resizing the object, the distance stays constant to the top of the alignment box.

8 The control point is invisible. When resizing the object, the distance stays constant to the centre of the alignment box.

9 The control point is invisible. When resizing the object, the distance stays constant to the bottom of the alignment box.

Comment. Use this comment to assign the tip for the control point.If this field is not empty, the text in the field will show up when you pause the mouse pointer over the control point.

Connect section

This section describes the connection points of the object. Since an object may have no connection points, this section may be missing in the table.

To add this section to the table: - Open the context menu in the table window and select Insert Sections from the menu. - This will bring up the Insert Sections dialog box. From the dialog, check the Connection Points box and click OK. The Connect section will be added to the table. Initially, it will have one row (that is, one connection point).

Sometimes it may be possible that the Connect section already exists in the table, but is not visible. **To make the Connect section visible:** - Open the context menu in the table window, and select View Sections from the menu. - The View Sections dialog will come up. From the dialog, check the Connection Points box and click OK. The Connect section appears in the table.

To add a connection point: Open the context menu for the section you want, and select Add Row from the menu. A new row describing a connection point will be added to the end of the section.

To delete a connection point: Open the context menu for the row you want to delete, and select Delete Row from the menu. The row describing that connection point will be removed.
Removing the last connection point removes the section with it.

All parameters in the Controls section use the coordination system of the object.

X. This field describes the X offset of the connection point. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure.

Y. This field describes the Y offset of the connection point. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure.

Variables section

This section describes additional variables of the object. Since an object may have no additional variables, this section may be missing in the table.

You may need variables when several different fields use the results of same calculations. So, the additional variables can be used to store the results. You may also use the additional variables to store various object parameters, which you're working with, so that you don't have to refer to them.

To add this section to the table: - Open the context menu in the table window and select Insert Sections from the menu. - This will bring up the Insert Sections dialog box. From the dialog, check the Variables box and click OK. The Variables section will be added to the table. It will have one row.

Sometimes it may be possible that the Variables section already exists in the table, but is not visible. **To make the Variables section visible:** - Open the context menu in the table window, and select View Sections from the menu. - The View Sections dialog will come up. From the dialog, check the Variables box and click OK. The Variables section appears in the table.

To add new variables: Open the context menu for the section you want, and select Add Row from the menu. A new row for variables will be added to the end of the section.

To delete a row with variables: Open the context menu for the row you want to delete, and select Delete Row from the menu. This will delete the row. Removing the last row removes the entire section with it.

Each row contains two variables: X and Y. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current units of measure.

Line Properties section

This section contains variables which describe the appearance of the lines that form the object. Others define the shape and the size of the arrowheads, which geometries may have on their ends.

LineStyle. This parameter sets the dash or dot pattern for the line. One of the following values can be used: 0 - the line is invisible; 1 - the line is solid; 2 - 16 - different dash or dot patterns.

LineWidth. Describes the line width. One unit equals one tenth of millimetre. The valid value range is 1 to 500 units.

LineColor.
Specifies the line color. The value in the field corresponds to the color number in the color palette if the document. The value range is 0 to 255.

BeginArrow. This parameter specifies the type of arrowhead for the beginning of each geometry of the object. You may use one of the following values: 0 - no arrowhead; 1 - 60 - different arrowhead types.

EndArrow. This parameter specifies the type of arrowhead for the end of each geometry of the object. You may use one of the following values: 0 - no arrowhead; 1 - 60 - different arrowhead types.

ArrowSize. Specifies the size of the arrows on the object. The following sizes are available:
0 Tiny;
1 Small;
2 Medium;
3 Big;
4 Large.

Note: alternatively, you may change these settings in the Line Properties dialog box.

Fill Format section

In this section you may set parameters describing the fill and the shadow properties.

FillPattern. Sets the fill pattern. The following values are available: 0 - no fill pattern; 1 - fill with plain foreground color (FillForegnd); 2 - 38 - use a fill pattern; 50 - 53 - use gradient fill pattern.

FillForegnd. Sets the foreground color. The value in the field corresponds to the number of the color in the color palette of the document. The valid values are 0 to 255.

FillBackgnd. Sets the background color. The value in the field corresponds to the number of the color in the color palette of the document. The valid values are 0 to 255.

ShadowPattern. Sets the shadow fill pattern. The following values are available: 0 - no fill pattern; 1 - fill with plain foreground color (ShadowForegnd); 2 - 38 - use a shadow pattern;

ShadowForegnd. Sets the shadow foreground color. The value in the field corresponds to the number of the color in the color palette of the document. The valid values are 0 to 255.

ShadowBackgnd. Sets the shadow background color. The value in the field corresponds to the number of the color in the color palette of the document. The valid values are 0 to 255.

Note: alternatively, these settings can be changed in the Fill&Shadow dialog box.

Protection section

It this section you may lock some parameters of the object against changing them with the mouse. However, even when locked, this parameters can be still changed in the table, or when may be changed when you apply some actions to a group to which the object belong (like resizing - when resizing a group with an object locked against resizing within it, it will be resizes with the entire group, in spite of the protection). The locked handles appear as grey padlocks.

All values of this section are binary values.

LockWidth. Locks the object's width against sizing. TRUE - the width can't be sized; FALSE - the width can be sized.

LockHeight. Locks the object's height against sizing. TRUE - the height can't be sized; FALSE - the height can be sized.

LockMoveX. Locks the object against moving it horizontally.TRUE - horizontal movements are prohibited; FALSE - horizontal movements are allowed.

LockMoveY. Locks the object against moving it vertically.TRUE - vertical movements are prohibited; FALSE - vertical movements are allowed.

LockAspect. Locks the object against unproportional resizing.TRUE - only proportional resizing is possible; FALSE - both proportional and unproportional resizing is possible.

LockCalcWH. Sets whether the alignment box of the object remains the same after you move a vertex on the object, or changes according to the new object outline. TRUE - the alignment box remains the same; FALSE - the alignment box changes according to the new outline.

LockRotate. Locks the object against rotation. TRUE - the rotation is prohibited; FALSE - the rotation is allowed.

LockDelete. Lock the object so it cannot be deleted. When you're trying to delete the locked object, it displays a warning that it can't be deleted. TRUE - the object is protected against being deleted; FALSE - the object can be deleted.

If you want to protect a large number of objects against being deleted, it's convenient to assign them all to a specific layer, and then lock that layer in the Layer Properties dialog.

LockBegin. Locks the begin point of the object (for 1D objects) against repositioning TRUE - the point is locked; FALSE - the point is not locked.

LockEnd. Locks the end point of the object (for 1D objects) against repositioning TRUE - the point is locked; FALSE - the point is not locked.

LockVertex. Prevents vertices from being edited with the mouse. TRUE - the protection is on; FALSE - the protection is off.

Note: alternatively, some of these parameters can be changed in the Protection dialog box.

Text Transform section

This sections contains parameters which define the position, size and orientation of the text box of the object. The values are represented in the coordinate system of the object, which is based on the alignment box of the object: the coordinate origin is in the top left-hand corner, horizontal coordinates increase as you move from left to right, and vertical coordinates increase as you move from top to bottom.

TextWidth. Describes the width of the text box. In the Formulas mode, you see the values in tenths of millimetres, in the Values mode all values are displayed in the current unit of measure.

By default, the text box width is the same as the alignment box width.

TextHeight. Describes the height of the text box. In the Formulas mode, you see the values in tenths of millimetres, in the Values mode all values are displayed in the current unit of measure.

By default, the text box height is the same as the alignment box height.

TextAngle. The angle of the text box with respect to the alignment box of the object. In the Formulas mode, you see the angle in radians, in the Values mode the angle is displayed in degrees. The angle value may range from -180 deg to 180 deg.

The default value is 0 (the text box isn't rotated).

TextOriginX. Specifies the X offset of the rotation centre of the text box in the coordinate system of the object. In the Formulas mode, you see the values in tenths of millimetres, in the Values mode all values are displayed in the current unit of measure.

TextOriginY. Specifies the Y offset of the rotation centre of the text box in the coordinate system of the object. In the Formulas mode, you see the values in tenths of millimetres, in the Values mode all values are displayed in the current unit of measure.

TextPinX. Specifies the X offset of the rotation centre of the text box in the coordinate system of the text box. In the Formulas mode, you see the values in tenths of millimetres, in the Values mode all values are displayed in the current unit of measure.

The default formula is: TextWidth*0.5.

TextPinY. Specifies the Y offset of the rotation centre of the text box in the coordinate system of the text box. In the Formulas mode, you see the values in tenths of millimetres, in the Values mode all values are displayed in the current unit of measure.

The default formula is: TextHeight*0.5.

Character Format section

The text of any object is composed of one or more text blocks. A text block is a section of text with same formatting styles, that is, same font, the font size, font color and font attributes (bold, italic, etc.). In the Character Format section, each block is described in an individual row. The title field of each row shows the position of the last character of this block counting from the beginning of the entire object text.

Font. This field contains the number of the font it has in the font list of the document. The program generates this list basing on the fonts installed on your system. If you paste in the document some text with the font that's missing on your system, the program will display this text in the Arial font.

Size. This field contains the font size in pixels. Only positive values are available.

Color. This field specifies the color of the text in the block. The value corresponds to the number of the color in the color palette of the document. The value may vary from 0 to 255.

Style. The number in the field describes the font attributes for the text block. Each attribute is associated with a digit in the binary representation of the number:2^0=1 - bold; 2^1=2 - italic; 2^2=4 - underlined; 2^3=8 - crossed out.

So, the number for the bold italicised font will be 1+2=3.

Note: alternatively, these parameters can be changed under the Font tab of the Text Properties dialog.

Paragraph section

A paragraph is a text block, that ends with the line feed symbol. An object's text can consist of one or more paragraphs. Paragraphs may have alignment and indentation. The amount of indentation doesn't depent on the scale of the document.

Normally, the paragraph section contains several rows, each of them describing one paragraph. The title field of each row shows the position of the last character of the paragraph counting from the beginning of the entire object text.

FirstInd. Specifies indentation for the first line of the paragraph. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure. This value doesn't depend on the scale of the document.

LeftInd. Specifies indentation of the left side of the paragraph. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure. This value doesn't depend on the scale of the document.

RightInd. Specifies indentation of the right side of the paragraph. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure. This value doesn't depend on the scale of the document.

HAlign. This field describes the horizontal alignment of the paragraph in relation to the text box. The number in the field corresponds to the following allignment type: 0 - align on the left side of the text box; 1 - align on the centre of the text box; 2 - align on the right side of the text box.

Note: alternatively, these parameters can be changed under the Paragraph tab of the Text Properties dialog.

Text Block Format section

This section describes global text properties of the object. They are the alignment, the margins and the background color.

VAlign. Specifies the vertical alignment type of the text in relation to the text box of the object. The number in the field corresponds to the following allignment type:0 - align on the top of the text box; 1 - align on the center of the text box; 2 - align on the bottom of the text box.

TopMargin. Specifies the distance between the text and the top of the text box. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure. This value doesn't depend on the scale of the document.

BottomMargin. Specifies the distance between the text and the bottom of the text box. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure. This value doesn't depend on the scale of the document.

LeftMargin. Specifies the distance between the text and the left side of the text box. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure. This value doesn't depend on the scale of the document.

Note, that the actual distance between the text and the left side of the text box also includes the paragraph indentation (LeftInd field in the Paragraph Format section). For the first line of the paragraph, add the FirstInd field as well.

RightMargin. Specifies the distance between the text and the right side of the text box. In the Formulas mode, you see the data in tenths of millimetres, in the Values mode the data is displayed in the current unit of measure. This value doesn't depend on the scale of the document.

Note, that the actual distance between the text and the right side of the text box also includes the paragraph indentation (RightInd field in the Paragraph Format section).

TextBkgnd. Describes the text background color. The value corresponds to the number of the color in the color palette of the document. The value may vary from 0 to 255.

Note: alternatively, these parameters can be changed under the Text Block tab of the Text Properties dialog.

Text Field section

This section has only one cell, named The Text, which contains the text, associated with the object. The text must be in brackets.

Some hints on how you can use this section:

- Suppose that the text of an object contains some information you want to use as a parameter for other objects. It may be the height of a column in a diagram, so that the column changes its height according to the value you type in it.

So, as you type in a new value, the text gets into the TheText cell in the table. Then in another cell, say, Variables.X1, this text is transformed into a number (=_evaltext(TheText)), which you can use for further calculations.

- The text can also reflect this or that object or system parameter. For instance, you may assign an object to show the system time, its angle, its width, or similar, as the text. Then the TheText cell addresses to that parameter.

For example: in the Variables.X5 cell the sector size as a percentage is stored. To show this value in the text of the object, specify the following in the TheText cell: =_valtotext(Variables.X5)+"%".

Miscellaneous section

This section contains parameters that define the appearance and behaviour of the object.

ObjHandles. A binary value, which defines whether the object's rotation and resize handles are visible or not. TRUE - the handles are visible; FALSE - the handles are invisible.

AlignBox. A binary value, which defines whether the object's alignment box is visible or not. TRUE - the alignment box is visible; FALSE - the alignment box is invisible.

NonPrinting. A binary value, which defines whether the object will be printed when you print the page. TRUE - the object will not be printed; FALSE - the object will be printed.

ResizeBehavior. This field determines the way the object behaves when you resize the group to which it belongs. 0 - Corresponds to the group's appropriate setting; 1 - Simply repositions maintaining the size; 2 - Resizes when the group is resized.

CtrlHandles. A binary value, which defines whether the object's control handles are visible or not.TRUE - the control handles are visible; FALSE - the control handles are invisible.

ShowText. A binary value, which defines whether the object's text is visible or not. TRUE - the text is visible; FALSE - the text is invisible.

Actions section

In this section, you may create and describe the user's context menu. Since an object may not have the user's context menu, this section may be missing in the table.

To add this section to the table: - Open the context menu in the table window and select Insert Sections from the menu. - This will bring up the Insert Sections dialog box. From the dialog, check the Actions box and click OK. The Actions section will be added to the table. Initially, it has one row (that is, one menu item).

Sometimes it may be possible that the Actions section already exists in the table, but is not visible. **To make the Actions section visible:** - Open the context menu in the table window, and select View Sections from the menu. - The View Sections dialog will come up. From the dialog, check the Actions box and click OK. The Actions section appears in the table.

Each row in the section corresponds to a user's menu item. **To add a new menu item:** Open the context menu for the section you want, and select Add Row. A new row will be added to the end of the section.

To delete a menu item: Open the context menu for the row you want to delete, and select Delete Row. This will delete the row that describes this user's menu item. Removing the last row removes the entire section with it.

Action. This field determines the action the program takes when the menu item is clicked. For instance, clicking the menu item can assign a value to a parameter of the object: _SETF("Variables.X4";0.2). To create the line, that separates one menu item from another separator, input in this field any number other than 0.

Menu. Type the name of the menu item here. The name must be enclosed in brackets.

Prompt. The text that will appear on the status bar when you position the pointer over the menu item. The text must be in brackets.

Checked. The flag that defines whether the check sign on the left of the menu item should be displayed.TRUE - show the check sign; FALSE - don't show the check sign.

Disabled. The flag that disables the menu item (when disabled, the item appears in grey and can't be selected). TRUE - disable the menu item; FALSE - enable the menu item.

One of the sections is active (it's title bar appears in blue). You may edit cells in the active section. To make a section active, click its title bar or any of the cells inside it.

Each section can be minimize so that only its title bar appears. To minimize a section, activate it and then click the title bar. Click again to expand the section.

For some sections (such as Geometry, Controls, Connect, Variables, Font Format, Paragraph Format, Actions), a row of cells may describe a single element of the object (such as a control handle, a linear segment of a figure, and so on). It this case, operations on the whole row are possible: Add Row, Delete Row.

Chapter 7 Functions

_ABS
_ABS(arg) Returns the absolute value of the arg number.
_ABS(str)
Returns the str string without changing it.
Examples:
_ABS(-3) = 3
_ABS(0) = 0
_ABS(4) = 4
_ABS("Text") = "Text"

_ACOS
_ACOS(arg)
Returns the arc cosine of the arg (its value is within the -pi/2 to pi/2 range). The argument value must be within the -1 to 1 ranger. Otherwise the error code generates.

_AND
_AND(arg1;arg2)
Returns the bitwise AND;
_AND(str1;str2)
Returns 1 - if the strings are not empty, and 0 - if at least one of them is empty.
_AND(str;arg)
_AND(arg;str)
Returns arg.
Examples:
_AND(1; 0) = 0
_AND(3; 2) = 2
_AND("Hello!"; "") = 0
_AND("Text1"; "Text2") = 1
_AND("Text"; 2) = 2

_ANG360
_ANG360(arg)
Returns the arg angle, reduced to the 0 to 2*pi interval.
Examples:
_ANG360(481 deg) = 121 deg
_ANG360(-4.5 rad) = 1.7832 rad

_ASIN
_ASIN(arg)
Returns the arc sine of arg (its value is within the -pi/2 to pi/2 range). The argument value must be within a -1 to 1 range. Otherwise an error code is generated.

_ATAN
_ATAN(arg)
Returns the arctangent of arg (the returned value is within the -pi/2 to pi/2 range).

_ATAN2
_ATAN2(arg1;arg2)
Returns the arctangent of (arg1/arg2). Unlike the _ATAN function, _ATAN2 correctly processes expressions where the arg2 value equals 0. Anyway, the returned value is within the -pi/2 to pi/2 range.
Examples:
_ATAN(1; 0) = 90 deg
_ATAN(2; 2) = 45 deg

_AUTHORNAME
_AUTHORNAME()
Returns the document author's name, which you specify in the Document Properties dialog (File/Document Properties).

Example:
"Author: "+_AUTHORNAME()=
"Author: Bill Jonson"

_CENTERX
_CENTERX()
Returns the X coordinate of the centre of the object. The centre of the object is:
- for the smart connector - the middle of its central segment, if the number of segments is odd, or the crossing point of two middle segments, if the number of the segment is even.
- for the rest objects - the centre of the alignment box.
This function may be used, say, for positioning the smart connector's text.

_CENTERY
_CENTERY()
Returns the Y coordinate of the centre of the object. The centre of the object is:
- for the smart connector - the middle of its central segment, if the number of segments is odd, or the crossing point of two middle segments, if the number of the segment is even.
- for the rest objects - the centre of the alignment box.
This function may be used, say, for positioning the smart connector's text.

_CIRCLE_CENTERX
_CIRCLE_CENTERX(X1; Y1; X2; Y2; X3; Y3)
Returns the X coordinate of the centre of the circle, built upon the three points: (X1;Y1), (X2;Y2) and (X3;Y3).

_CIRCLE_CENTERY
_CIRCLE_CENTERY(X1; Y1; X2; Y2; X3; Y3)
Returns the Y coordinate of the centre of the circle, built upon the three points: (X1;Y1), (X2;Y2) and (X3;Y3).

_CIRCLES3RD_X
_CIRCLES3RD_X(X1; Y1; X2; Y2; H)
Returns the X coordinate of the point, that lies at the H distance from the middle point of the vector (X1;Y1) - (X2;Y2). If H is a positive number, this point is to the left of the vector, if negative - the point is to the right of the vector. This function is used to create an arc of the circle upon two points and the height of the arc.

_CIRCLES3RD_Y
_CIRCLES3RD_Y(X1; Y1; X2; Y2; H)
Returns the Y coordinate of the point, that lies at the H distance from the middle point of the vector (X1;Y1) - (X2;Y2). If H is a positive number, this point is to the left of the vector, if negative - the point is to the right of the vector. This function is used to create an arc of the circle upon two points and the height of the arc.

_COMPANYNAME
_COMPANYNAME()
Returns the company name, that you specify in the Document Properties (File/Document Properties).
Example:
"Company: "+_COMPANYNAME()= "Company: Computer Systems Odessa corp."

_COS
_COS(arg)
Returns the cosine of arg (the returned value is within the -1 to 1 range)

_COSH
_COSH(arg)
Returns the hyperbolic cosine of arg.

_CUT
_CUT(arg; iarg)
This function discards a number of significant digits after the point from arg. The iarg parameter indicates how many digits to discard. For negative numbers, it discards the digits before the point.
Example:
_CUT(123.4567; 3) = 123.456
_CUT(123.4567;-2) = 100
_CUT(123.4567;0) = 123

_DATE
_DATE()
Returns the string with the current system date on your computer. The data format may vary with system and country.
Example:
_DATE() = 04.09.1999 (Mac)
_DATE() = 04 Sep 1999 (Win)

_DEG
_DEG(arg)
Converts arg from radians to degrees.
Example:
_DEG(3.14) = 180
_DEG(_PI()*3) = 540

_ELLIPSE_ANGLE
_ELLIPSE_ANGLE(koeffX; koeffY; iNumberGeometry; iNumberSegment)
Returns the inclination of the main radius of the ellipse with the cental point with (Width*koeffX; Height* koeffY) local coordinates. Other parameters, required for building the ellipse, are taken from the segment with iNumberSegment number of the geometry with the iNumberGeometry number.
This function is the default formula for the D column of the EllipseTo segment in the table.

_ELLIPSE_ASPECT
_ELLIPSE_ASPECT(koeffX; koeffY; iNumberGeometry; iNumberSegment)
Returns the ratio between the large and the small radii of the ellipse with the cental point with (Width*koeffX; Height*koeffY). Other parameters, required for building the ellipse, are taken from the segment with iNumberSegment number of the geometry with the iNumberGeometry number.

This function is the default formula for the C column of the EllipseTo segment in the table.

_EVALTEXT
_EVALTEXT(str)
Converts the string value of str to a number.
Example:
_EVALTEXT("123.456 ") = 123.456
_EVALTEXT("123") = 123

_FABS
_FABS(arg)
If arg is not zero, returns the absolute value for arg.
If arg equals zero, returns 1.
_FABS(str)
Returns the string value str without changing it.
Example:
_FABS(-3) = 3
_FABS(0) = 1
_FABS(1) = 1
_FABS("Text") = "Text"

_FILENAME
_FILENAME()
Returns the filename under which the document is stored.
Example:
_FILENAME() = "Chart.CDD"

_FLOOR
_FLOOR(arg)
Returns the larges integer number less or equal arg.
Examples:
_FLOOR(123.4567) = 123
_FLOOR(-45.345) = -46
_FLOOR(0) = 0

_FULLFILENAME
_FULLFILENAME()
Returns the filename under which the document is stored with the full path.
Example:
_FULLFILENAME() = "D:\ConceptDraw\Chart.cdd" (Win)
_FULLFILENAME() = "MyDisk:Desktop Folder:Chart.cdd" (Mac)

_GRAVITY
_GRAVITY(Angle; limit1; limit2)
If Angle is more than limit1 or less than limit2, returns 0,
If Angle is within the [limit1;limit2] range - returns the pi number.
Normally this function is used for orientating the text box, so that the text is readable in whatever position of the object.
Examples:
_GRAVITY(30deg; 15 deg; 165 deg) = 0
_GRAVITY(195deg; 15 deg; 165 deg) = pi
_GRAVITY(Angle;-90 deg;90 deg)

_HYP
_HYP(X; Y)
Returns the length of the hypotenuse of the right-angled triangle with X and Y legs.
Example:
_HYP(4; 3) = 5

_IF
_IF(arg1;arg2;arg3)
If arg1 is a non-zero number, or a non-empty string, the function returns arg2, otherwise - arg3.
Examples:
_IF(2 > 1; 3; 4) = 3
_IF(""; 3; 4) = 4

_LG10
_LG10(arg)
Returns the decimal logarithm of arg.

_LN
_LN(arg)
Returns the natural logarithm of arg.

_LOCALX
_LOCALX(X; Y)
Converts the (X;Y) point from the global coordinates to local coordinates. Returns the X coordinate for the resulting point.

_LOCALY
_LOCALY(X; Y)
Converts the (X;Y) point from the global coordinates to local coordinates. Returns the Y coordinate for the resulting point.

_MAX
_MAX(arg1;arg2)
Returns the largest of the two numbers: arg1 and arg2.
_MAX(arg;str)
_MAX(str;arg)
Returns the number arg (the string value is ignored).
_MAX(str1;str2)
Returns the length for the longest of two strings: str1 and str2.
Examples:
_MAX(4; 6) = 6
_MAX("Text"' ; " Big text ") = 8
_MAX("Text" ; 7) =7

_MEASURE
_MEASURE()
Returns the string containing the current unit of measure.
Example:
_MEASURE() = "ft"

_MIN
_MIN(arg1;arg2)
Returns the minimal of two numbers: arg1 and arg2.
_MIN(arg;str)
_MIN(str;arg)
Returns the number arg (the string value is ignored).
_MIN(str1;str2)
Returns the length for the shortest of two strings: str1 and str2.
Examples:
_MIN(4; 6) = 6
_MIN("Text"' ; " Big text ") = 8
_MIN("Text" ; 7) =7

_MOD
_MOD(arg1;arg2)
Returns the excess of arg1 divided by arg2

_MOD(str;arg)
_MOD(arg;str)
Returns the number arg it the other argument is the string str.
_MOD(str1;str2)
Returns zero if both arguments are strings.
Examples:
_MOD(19; 6) = 1
_MOD("Text" ; "Big text") = 0
_MOD("Text" ; 7) =7

_NOT
_NOT(arg)
If arg is zero or an empty string, returns 1.
Otherwise returns 0.
Examples:
_NOT(0)=1
_NOT(123)=0

_OR
_OR(arg1;arg2)
Returns bitwise OR;
_OR(str1;str2)
Returns 1 - if at least one of the strings is non-empty, 0 - if both strings are empty.
_OR(str;arg)
_OR(arg;str)

Returns the number arg.
Examples:
_OR(1; 0) = 1
_OR("Hello!"; "") = 1
_OR("Text1"; "Text2") = 1
_OR("Text";2) = 2

_PAGEHEIGHT
_PAGEHEIGHT()
Returns the height of the document page. Note, that the page size is set in the Document Properties dialog, under the Page tab.

_PAGENAME
_PAGENAME()
Returns the name of the page to which the object belongs. You can set the name in the Page Properties dialog.

_PAGENUMBER
_PAGENUMBER()
Returns the number of the page to which the object belongs..

_PAGESCOUNT
_PAGESCOUNT()
Returns the number of pages in the document.

_PAGEWIDTH
_PAGEWIDTH()
Returns the width of the document page. Note, that the page size is set in the Document Properties dialog, under the Page tab.

_PI
_PI()
Returns the pi number.

_POW
_POW(arg1;arg2)
Raises arg1 to a power of arg2.
_POW(str;arg)
_POW(arg;str)
Returns the arg number if the other argument is a string.
_POW(str1;str2)
Returns zero if both arguments are strings.
Examples:
_POW(2; 3) = 8
_POW("Text" ; " Big text ") = 0
_POW("Text" ; 7) = 7

_RAD
_RAD(arg)
Converts arg from degrees to radians.
Examples:
_RAD(90) = 1.57

_RAND
_RAND()
Returns a random value within 0 to 32K range.

_ROUND
_ROUND(arg; iarg)
Returns arg approximated to iarg digits after the point.
Examples:
_ROUND(123.4567; 3) = 123.457
_ROUND(123.4567;-2) = 100
_ROUND(123.67;0) = 124

_SCALE
_SCALE()
Returns a string describing the current scale of the document in the "N : M" form.
Examples:
_SCALE() = "1 : 1"
_SCALE() = "4 in : 1 ft"

_SETF
_SETF(str; arg)
_SETF(str; strarg)
This function changes the values in the table cells. String str specifies the name of the cell, where to put the

data. The arg parameter must contain the new value for the cell. The strarg parameter must contain the string with a new formula for the cell.
Examples:
_SETF(''Geometry1.X2''; ''Geometry2.X3/2 + Geometry3.X2/4'')
_SETF(''Width'' ; 125 cm)

_SIGN
_SIGN(arg)
Returns the sign of arg:
-1, if arg<0,
1, if arg>0
0, if arg=0
Examples:
_SIGN(123.4567) = 1
_SIGN(-123.4567) = -1
_SIGN(0) = 0

_SIN
_SIN(arg)
Returns the sine of arg (the returned value is within -1 to 1 range).

_SINH
_SINH(arg)
Returns the hyperbolic sine of arg .

_SQRT
_SQRT(arg)
Returns the square root from arg. The resulting value is undefined for negative numbers.

_TAN
_TAN(arg)
Returns the tangent of arg.

_TANH
_TANH(arg)
Returns the hyperbolic tangent of arg

_TEXTHEIGHT
_TEXTHEIGHT(str; arg)
This function calculates the height of the text block, when arg is assigned as its width. The str parameter is usually the contents of text field of the object (the TheText field in the table). When calculating the height, this function considers all current text settings for the object (styles, indents and margins, etc).
Examples:
_TEXTHEIGHT(TheText;Width)
_TEXTHEIGHT(TheText;2 in)

_TEXTLEFT
_TEXTLEFT(str; iarg)
Returns first iarg characters of the str string.
Example:
_TEXTLEFT("A big text."; 5) = "A big"

_TEXTLENGTH
_TEXTLENGTH(str)
Returns the length of the str string (the number of characters in the string).
Example:
_TEXTLENGTH("A big text.") = 11

_TEXTRIGHT
_TEXTRIGHT(str; iarg)
Returns last iarg characters of the str string.
Example:
_TEXTRIGHT("A big text"; 4) = "text"

_TEXTWIDTH
_TEXTWIDTH(str)
Returns the width of the str string considering all current text settings of the object (styles, indents and margins, etc.). Normally, this function is used to make the text box the

same width as the width of the longest string in the object's text.
Example:
_TEXTWIDTH(TheText)

_TIME
_TIME()
Returns the current system time in the "hours:minutes:seconds" format.
Example:
_TIME() = "19:27:13"

_TITLE
_TITLE()
Returns the title of the document. The title is specified in the Document Properties dialog, the General tab.

_VALTOTEXT
_VALTOTEXT(arg)
Converts the arg number to a string and returns the string.
Example:
_VALTOTEXT(567.89) = "567.89"
_VALTOTEXTMES
_VALTOTEXTMES(arg)
Converts the arg number in a string considering the currently used units of measure.
Examples:
_VALTOTEXTMES(15) = "1/16"
_VALTOTEXTMES(1.5 in)+" in." = "1 1/2 in."

_WORLDX
_WORLDX(X;Y)
Converts the (X;Y) point from local coordinates to global coordinates. Returns the X coordinate for the resulting point.

_WORLDY
_WORLDY(X;Y)
Converts the (X;Y) point from local coordinates to global coordinates. Returns the Y coordinate for the resulting point.

_XOR
_XOR(arg1;arg2)
Returns the bitwise XOR.
_XOR(str1;str2)
Returns 1 - only one string is not empty; 0 - if both strings are empty, or both are not empty.
_XOR(str;arg)
_XOR(arg;str)
Returns the arg number.
Examples:
_XOR(1;1) = 0
_XOR("Text1";"Text2") = 0
_XOR("Text"; 2) = 2

Chapter 8 Working with other programs (OLE)

ConceptDraw is an OLE-compatible program (supports Object Linking and Embedding). Due to this feature, you can use your ConceptDraw objects in other OLE-compatible programs, as well as work with other programs' objects from within ConceptDraw.

OLE-compatibility means that you can combine objects created in different programs, such as pictures, audio and video files, and others, in a single document.

Linking

You can link data from another programs to your document. When you link to an other program object, your document stores not the linked object itself, but only a reference to the location where its file resides. When you change the original data file, all changes are reflected in your document.

To modify a linked object, right-click it. The Linked <Application> Object menu item includes a submenu of actions you can perform on the linked objects: Edit and Open. Click any to launch the <Application> program, where you can edit the linked object.

It's usually enough to double-click an OLE object to launch its editing program.

Embedding

You can embed objects, created in other programs into your Concept Draw document, and use Concept Draw objects in other programs - for instance, illustrate your Word documents with Concept Draw drawings. All embedded data is stored with the document, even if it the original file exists.

To modify an embedded object, right-click it. The lower item on the context menu includes a submenu of actions you can perform on the embedded object: Edit and Open. Click any to launch the object's application, where the object can be edited.

It's usually enough to double-click an OLE object to launch its editing program.

Inserting a new OLE object

If there are other OLE-compatible programs on your system, you can insert their new, empty objects in your Concept Draw document, and then edit them from within Concept Draw.

To do this, make the following steps:
- Choose Object under the Insert menu. The Insert Object dialog will open.
- Choose Create New to create a new object.
- From the Object Type list, choose the type you want. If there's no such type in the list, it's possible that the corresponding application is not installed on your system.
- If you only want the object to be displayed as icon, choose Display As Icon option.
- Click OK.

You'll get into the new object editing window. To finish editing, click away from the object (if you're in the ConceptDraw window), or choose File/Exit & Return to ConceptDraw (if the OLE-application opened in a new window).

Editing an OLE object

To edit an OLE object, that already exists in your document, right-click the object. A new submenu will appear at the bottom of the menu - its exact name varies with the type of the chosen object (for instance, for Microsoft Word objects it's called Document Object). It includes two options:

-Edit - to edit the object from within ConceptDraw.
-Open - to open the object's application in a new window and edit the object there.

After you choose an item, the editing starts. To finish editing, click away from the object (if you are within Concept Draw window), or choose File/Exit & Return to Concept Draw (if you're in the object program).

It's usually enough to double-click an OLE object to launch its editing program.

Inserting an object from a file

You may open an existing OLE-compatible file that contains the object you want to insert in ConceptDraw. To do this:

- Choose Insert/Object from the menu. Insert Object dialog box will open.
- Choose Create From File option.
- Click Browse.
- Select a file, that you want to insert in your document.
- If you choose the Link option, the object in the file will be stored apart from the document and all changes, made in the object file will reflect on your document. Otherwise, the object will be embedded and stored with the document
- If you want the object displayed as icon only, choose Display As Icon option.
- Click OK.

Dragging a file from Explorer into ConceptDraw has the same effect as inserting OLE object from the file with the Display As Icon option chosen.

Inserting an object from an open OLE-compatible program

If you want to insert in your ConceptDraw document an object from an already running OLE-compatible program, do the following:

- Copy the object on the Clipboard.
- In ConceptDraw, open the document in which you want to insert the object.
- From the Edit menu, choose Paste Special.

You may also use the Drag & Drop functionality for inserting OLE objects. Select the object in the OLE-compatible application, drag it into the open ConceptDraw window and drop it there. The result will be the same as if you used the Paste operation.

Creating a new ConceptDraw object in an OLE-compatible program

You can create ConceptDraw objects staying within another OLE-program.

Do the following:
- In the OLE-compatible program, open the document, where you want to insert a ConceptDraw object.
- On the Insert menu, choose Object. Insert Object dialog box will open.
- Choose Create New option.
- From the list of available object types, choose ConceptDraw Document.
- If you want the object to be displayed as icon only, choose Display As Icon option.
- Click OK.

You'll start editing the new object in the ConceptDraw window. To get back to the primary application, on the File menu click Exit & Return to <Application Name>.

Editing a ConceptDraw object within another OLE-compatible program.

To modify a ConceptDraw object within another OLE-compatible program, right-click the object to get its context menu. The ConceptDraw Document item gives you the choice of two actions: Edit or Open. Choosing any of them turns the object editing mode on. To finish editing, choose Exit & Return to <Application Name> under the File menu.

It's usually enough to double-click an OLE object to launch its editing program.

Inserting an object from a ConceptDraw file into other OLE-compatible programs.

You can insert objects stored in Concept Draw files in other OLE-compatible programs.
To do this, in the OLE-compatible program

- From the Insert menu, choose Object. The Insert Object dialog will open.
- Choose Create From File option.
- Click Browse.
- Select the ConceptDraw file (a .cdd file) that you want to insert in the document.
- If you choose the Link option, the object in the file will be stored apart from the document and all changes, made in the object file will reflect on your document. Otherwise, the object will be embedded and stored with the document
- If you want the object to be displayed as icon only, check Display As Icon option.
- Click OK.

Inserting an object from an open ConceptDraw document into another OLE-compatible program.

If you have an object in an open document, that you want to insert in another OLE-compatible program, do the following:

- Select the object.
- From the Edit menu, choose Paste or Paste Special.
- In the target program, open the document where you want to insert the object.
- From the Edit menu, choose Paste Special.

Appendix A Keyboard Shortcuts

Document

		Action
Ctrl+N	Cmd+N	Create New Document
Ctrl+O	Cmd+O	Open Document/Template/Workspace
Ctrl+S	Cmd+S	Save Document
Ctrl+P	Cmd+P	Print document

Windows

		Action
Ctrl+F4	Cmd+W	Close current window
Ctrl+Tab or Ctrl+F6	-	Set next window as active
Ctrl+"+"	Cmd+"["	Zoom In
Ctrl+"-"	Cmd+"]"	Zoom Out
F3	F3	Show Table
F4	F4	Show/Hide Library Window

Undo/Redo

		Action
Ctrl+Z or Alt+BkSp	Cmd+Z	Undo last action
Ctrl+Y	Cmd+Y	Redo

Edit

		Action
Ctrl+X or Shift+Del	Cmd+X	Cut into the Clipboard
Ctrl+C or Ctrl+Ins	Cmd+C	Copy into the Clipboard
Ctrl+V or Shift+Ins	Cmd+V	Paste from the Clipboard
Del	Del or Delete	Delete selected object
Ctrl+D	Cmd+D	Duplicate object
Ctrl+B	Cmd+B	Send To Back
Ctrl+F	Cmd+F	Bring To Front
Ctrl+Shift+B	-	Send To Step Back
Ctrl+Shift+F	-	Bring To Step Front
Ctrl+L	Cmd+L	Rotate Left (90 degrees)
Ctrl+R	Cmd+R	Rotate Right (90 degrees)
Ctrl+J	Cmd+J	Flip Vertical
Ctrl+H	Cmd+H	Flip Horisontal
Ctrl+G	Cmd+G	Group
Ctrl+U	Cmd+U	Ungroup
-	Cmd+E	Edit Group
Ctrl+Shift+E	-	Edit hyperlink
Ctrl+Shift+H	-	Open hyperlink

Selecting

		Action
Ctrl+A	Cmd+A	Select all objects on page
Tab	Tab	Select next object in the order list
Shift+Tab	Shift+Tab	Select previous object in the order list

Help

		Action
F1	F1	Call Help.

Switching between tools

		Action
Ctrl+1	-	Activate Select tool
Ctrl+2	-	Activate Rotate tool
Ctrl+3	-	Activate Line tool
Ctrl+4	-	Activate Sector tool
Ctrl+5	-	Activate Arc tool
Ctrl+6	-	Activate Spline tool
Ctrl+7	-	Activate Rectangle tool
Ctrl+8	-	Activate Ellipse tool
Ctrl+9	-	Activate Connector tool
Ctrl+0	-	Activate Connection Point tool
F2	F2	Activate Edit Text tool
Space	Space	Activate Scroll Hand Tool

Library

		Action
Ctrl+Shift+Click	Cmd+Shift+Click	Swap objects in the library. One of the object must be selected.
Ctrl+Shift+I	Cmd+Shift+I	Replaces the selected object in the library with the object selected in the document, maintaining the library object's icon.

Table

		Action
F2	F2	starts editing the selected cell.

In the editing mode, clicking another cell:

single click		inserts the formula from the cell you clicked into the input field.
Ctrl+click	(Cmd+click)	inserts the numeric value of the cell into the input field.
Alt+click		inserts the cell title into the input field.

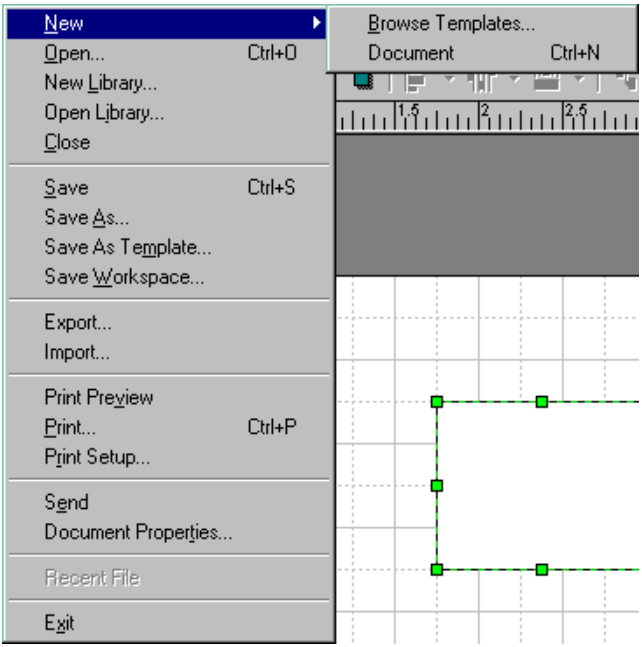
		Action
Ctrl+B	-	Bold
Ctrl+I	-	Italic
Ctrl+U	-	Underline
Ctrl+L	Cmd+L	Align on the left
Ctrl+E	Cmd+E	Align on the center
Ctrl+R	Cmd+R	Align on the right
Ctrl+">"	Cmd+">"	Increase font
Ctrl+"<"	Cmd+"<"	Decrease font
Ctrl+F	-	Select font
Ctrl+S	-	Select font size

Working with the mouse.

Clicking objects with the Shift key held down selects each object you click.
Rotate with Ctrl or Cmd down - rotate around common rotation centre.
Ctrl or Cmd for Connector Point tool - allows to select objects. Clicking on the alignment box of the object switches between the Select and Rotate tools. Dragging an object with the Ctrl or Cmd key held down duplicates the object.

Appendix B A Brief Menu Tour

«File» Menu Items



New->Browse Templates

Creates a new document from the template. Please refer to the «Creating a new document from a template» section for more detailed information.

New->Document

Creates a new document.
See the «Creating a new document» section for more information.

Open

Opens an existing document. Also lets you open other ConceptDraw files: templates, libraries, workspace files.
For more specific information, please refer to the «Opening a document», «Opening a library», «Creating a new document from a template», «Opening documents and libraries by using the workspace» sections.

New Library

Creates a new library.
See the «Creating a new library» section for details.

Open Library

Opens an existing library.
See the «Opening a library» section for specifics.

Close

Closes the active document.

Save

Saves the active document.
Please refer to the «Saving the document (Save, SaveAs)» section for more information.

Save As

Saves the active document under a new filename.
Please refer to the «Saving the document (Save, SaveAs)» section for more information.

Save As Template

Saves/creates a template file
For specifics, refer to the «Creating a template file» section.

Save Workspace

Saves/creates a workspace file
For specifics, refer to the «Saving a workspace file» section.

Export

This option saves the document or a group of selected objects in a graphic format, or as an HTML file.
Please refer to the «Exporting files» section for more specific information.

Import

Opens picture files of various graphic formats.
Please refer to the «Importing files» section for more specific information.

Print Preview 

Lets you view - prior to actual printing - how the document will print.
For specifics, refer to the «Previewing the document» section.

Print

Prints the document.
Please refer to the «Printing» section for more specific information.

Print Setup

Selects the paper size, orientation and some other printer settings.
Please refer to the «Printer setup» section for more specific information.

Send

Sends the document via e-mail.
Please refer to the «Sending a document by e-mail» section for more specific information.

Document Properties

Displays the dialog box, where you can specify the document name, size and orientation of the document pages, scale, measurement system and other parameters.
For specifics, please refer to the «Document Properties dialog (General, Page, Settings)» section.

Recent Files

Shows a list of the four most recent documents you've worked on in ConceptDraw. Clicking on a document name will reopen it.

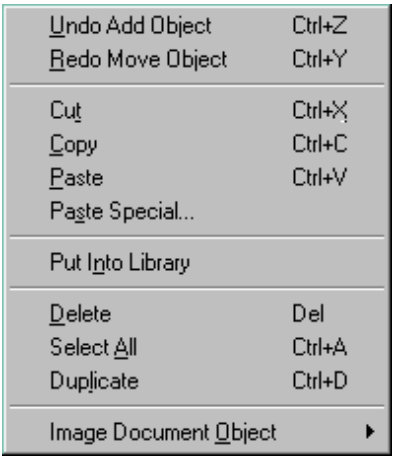
Open Recent

Lets you select one of the ten most recent documents you've worked on from the drop-down list. Clicking on the document name will reopen it.

Exit

Closes all opened documents and exits ConceptDraw. If you haven't saved changes you've made to a document, the program will offer you to save the document before exiting.

«Edit» Menu Items



Undo

Reverses the last operation you performed.
See the «Undo» section for details.

Redo

Reverses the last Undo operation.
See the «Redo» section for details.

Cut

Removes selected objects or text and places them on the Clipboard.
Please refer to the «Cut and Copy» section for more specific information.

Copy

Copies selected objects or text and places them on the Clipboard.
Please refer to the «Cut and Copy» section for more specific information.

Paste

Pastes the contents of the Clipboard onto the document
Please refer to the «Paste» section for more specific information.

Paste Special 

Inserts the contents of the Clipboard onto the document, letting you specify the format in which the pasted object will be stored. This option is mostly used for inserting OLE-objects.
For specifics, refer to the «Inserting an object from an open OLE-compatible program» section.

Paste From Clipboard 

Takes the contents of the Clipboard and inserts it into the document as a picture.

Put Into Library

Copies selected object from the document into the library.
For specifics, refer to the «Adding an object from the document to a library» section.

Delete

Deletes selected objects or handles.
See the «Deleting objects» section for details.

SelectAll

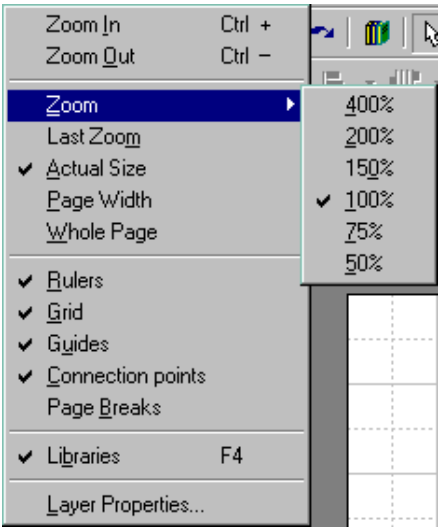
Selects all objects on the active page of the document.

Duplicate

Duplicates selected objects.
See the «Duplicating objects» for specifics.

Object 

Starts editing of selected OLE-object.
Please refer to the «Editing an OLE object» section for specifics.



Zoom In

Magnifies the document for detailed editing.
Refer to the «Zooming» for more specific information.

Zoom Out

Reduces the document and lets you see and work with more of the document at one time.
Refer to the «Zooming» for more specific information.

Zoom

Lets you choose one of the zoom levels within the 50% - 400% range from the submenu.

Last Zoom

Returns the document to the last zoom setting.

Actual Size

Sets zoom to 100%.

Page Width

Sets the zoom level so that the page width fits in the window.

Whole Page

Sets the zoom level so that the entire page fits in the window.

Rulers

Shows/hides the rulers.

Grid

Shows/hides the background grid.

Guides

Shows/hides the guide lines.

Connection Points

Shows/hides the connection points of objects.

Page Breaks

Shows/hides the unprinted areas of the document pages.

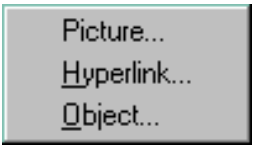
Libraries

Shows/hides the library window.

Layer Properties

Displays the dialog, where you can modify the layer properties. There you may name a layer, specify whether a layer is visible, active, or locked, change the layer color.
More detailed information can be found in the «Working with layers» section.

«Insert» Menu Items



Picture

Imports a picture and inserts it into the document.
See the «Pictures» section for specifics.

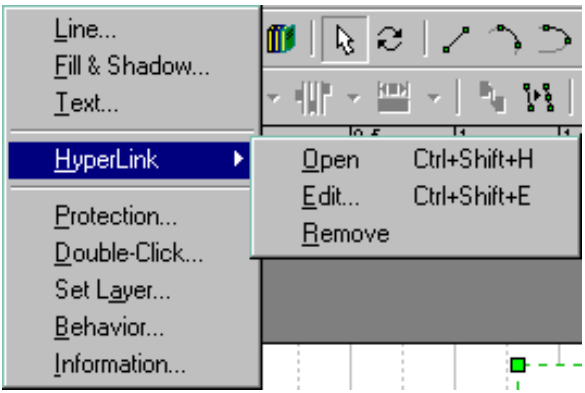
Hyperlink

Assigns a hyperlink to the selected object. You can use this hyperlink to jump to another page of the document, open a document, launch an application, open an Internet page in the browser.
For specifics, please refer to the «Hyperlink» section.

Object

Inserts OLE-object into the document.
Please refer to the «Working with other programs (OLE)» section for details.

«Format» Menu Items



Line

Displays the dialog box, where you can change the line properties of the selected object, and apply arrowheads to the line ends.
See the line «Line Properties» section for more specific information.

Fill&Shadow

Displays the dialog, where you can change the fill colors for the object and its shadow.
Refer to the «Fill patterns and colors» and «Shadows» sections for more specific information.

Text

Brings up the dialog, where the properties of the selected text block can be set. In the dialog, you may select the font, font size, fond color and style, margins and indentation.
Refer to the «Text Properties dialog box» section for more specific information.

Hyperlink->Open

Follows the hyperlink associated with the selected object. Depending on the hyperlink type, this command can open a page of the document, open another document, launch an application, or open an Internet page in an available browser.
For more specific information, refer to the «Hyperlink» section.

Hyperlink->Edit

Opens the dialog where hyperlink properties can be edited.
For more specific information, refer to the «Hyperlink» section.

Hyperlink->Remove

Removes the hyperlink associated with the selected object.

Protection

Displays the Protection dialog, where you can lock some properties of the selected object against being changed: for instance, the width, height, angle and other.
Please refer to the «Protection» section for specifics.

Double-Click

Assigns the double-click action of the object.
See the «Double click» section for details.

Set Layer

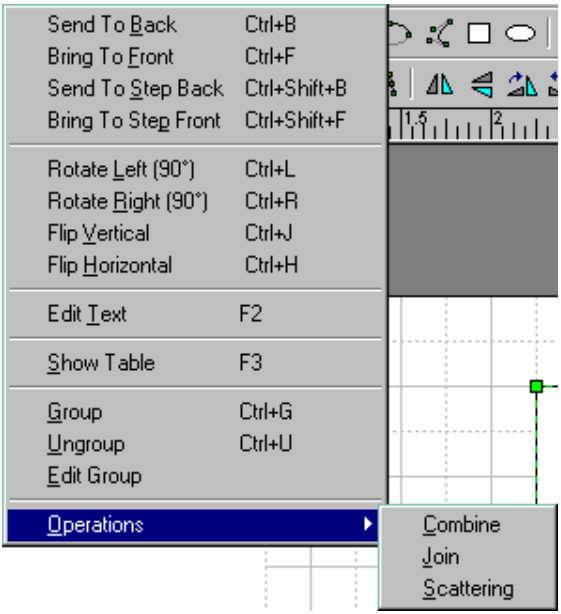
Moves selected objects onto another layer.
For more specific information, refer to the «Working with layers» section.

Behaviour

Opens the Behaviour dialog box, where you can specify whether the object is 1-Dimensional or 2-Dimensional. Here you may also set how the object behaves when resized, show/hide its alignment box and handles.
Please see the «Behaviour» section for more detailed information.

Information

Calls the Information dialog, where you can name and describe the selected object.
See the «Information» section for specifics.



Send To Back

Sends selected objects to the back of the order list.
Please refer to the «Changing the order in which objects are displayed» section for more detailed information.

Bring To Front

Bring selected objects to the front of the order list.
Please refer to the «Changing the order in which objects are displayed» section for more detailed information.

Send To Step Back

Positions selected objects one step lower in the order list.
Please refer to the «Changing the order in which objects are displayed» section for more detailed information.

Bring To Step Front

Positions selected objects one step higher in the order list.
Please refer to the «Changing the order in which objects are displayed» section for more detailed information.

Rotate Left (90)

Rotates selected objects 90 degree counterclockwise.
See the «Rotating objects» for more details.

Rotate Right (90)

Rotates selected objects 90 degree clockwise.
See the «Rotating objects» for more details.

Flip Vertical

Creates vertically mirrored copies of the selected objects.
Please refer to the «Flipping objects» section for specifics.

Flip Horizontal

Creates horizontally mirrored copies of the selected objects.
Please refer to the «Flipping objects» section for specifics.

Edit Text

Turns on the text editing mode for the selected object.
For specifics, refer to the «Modifying text in an object» section.

Show Table

Open the selected object's parameter table in a separate window.
For more specific information, please refer to the «Working with the table» section.

Group

Creates a group of selected objects into a single unit.
For more specific information, please refer to the «Grouping objects» section.

Ungroup

Ungroups the selected grouped unit.
For more specific information, please refer to the «Grouping objects» section.

Edit Group

Opens a new window, where you can edit inside the selected grouped unit.
For more specific information, please refer to the «Grouping objects» section.

Operations->Combine

Combines several selected objects into one object. Each object is converted into a separate geometry.
Please refer to the «Combine» section for specifics.

Operations->Join

Joins several selected objects so they form a single object. As the result of this operation, all geometries with coinciding ends are considered as one solid geometry.
Please refer to the «Join» section for specifics.

Operations->Scattering

Forms an individual object for each geometry of the selected object.
Please refer to the «Scattering» section for specifics.

«Page» Menu Items

Add

Adds a new empty page to the active document.
See the «Adding a page» section for details.

Delete

Removes the selected page of the document.
See the «Deleting a page» section for details.

Reorder

Allows you to rearrange pages in the active document.
For specifics, refer to the «Reordering pages» section.

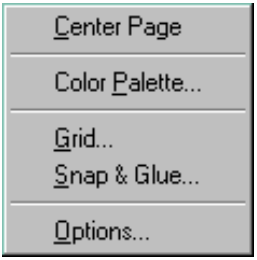
Go To

Activates the specified page.
For specifics, refer to the «Jumping to another page» section.

Properties

Lets you rename the page.
Please see the «Naming a page» section for details.

«Tools» Menu Items



Centre Page

Positions selected objects in the centre of the page.

Color Palette

Allows to modify, load or save the color palette of the active document
For specifics, refer to the «Color Palette» section.

Grid

Displays the dialog where the grid properties of the active document can be modified. Here you can set the grid spacing, its origin, etc.
Please see the «Grid» section for details.

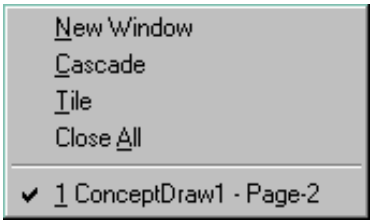
Snap&Glue

Calls the dialog where snapping and gluing properties can be set up.
Refer to the «Snapping and gluing» section for more detailed information.

Options

Brings up the dialog where global environment properties can be set: measurement units, page size for all new documents, path to libraries and samples, supplied with the program, etc.
Refer to the «Program configurations» section for more detailed information.

«Window» Menu Item



New Window

Opens a new window with the active document. It's a useful feature when you're editing a page, but need to see its original copy at the same time.

Cascade

Arranges all open windows so that each next window appears slightly down and to the right from the previous one. This way you can access each window quickly.

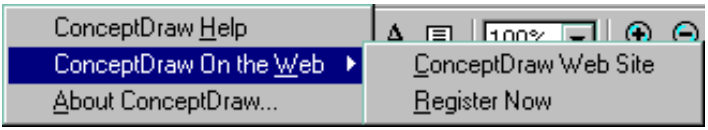
Tile

Resizes and rearranges all open windows so that they don't overlap one another.

Close All

Closes all open windows of the program, offering you to save all unsaved data.

«Help» Menu Item



ConceptDraw Help

Calls ConceptDraw Help. This opens a separate window, where you can see a number of articles containing information on how to use the product. You may read or print the articles, search them for necessary information.

ConceptDraw On the Web -> ConceptDraw Web Site

Launches your Internet browser and goes to the ConceptDraw web site: http://www.conceptdraw.com/

ConceptDraw On the Web -> Register Now

Registers the program owner on the ConceptDraw web site: http://www.conceptdraw.com/Register/

About ConceptDraw 

Displays general information about the program: the title, version number, copyright information.

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