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Overview

Welcome to *Top Draw*!   If you have been using the evaluation version, you already know how powerful and easy to use the program is.   If not, prepare to be pleasantly surprised!   With your <u>continued support</u>, *Top Draw* will get even better!

Top Draw can be used to create a wide range of drawings and diagrams.   It may be used in conjunction with a word processor for creating large documents, or stand-alone for creating small documents or presentation graphics.

Top Draw can be used for making view graphs, illustrating stories, creating design diagrams, flow charts, organizational charts, floor plans, cards, newsletters, cartoons, desktop publishing, and more.

Top Draw appeals to people who have never used a draw program before because they can create great looking pictures with very little practice.   It appeals to experienced user's because it provides advanced features for producing   professional quality illustrations quickly.

More:

<u>Copyright Notice</u>

<u>Warranty</u>

<u>License Agreement</u>

<u>Release Notes</u>

<u>How This Manual Is Organized</u>

<u>Typographical Conventions</u>

<u>How to Contact Top Software</u>

Copyright Notice

Top Draw™

Copyright © 1993-1996 Top Software™.   All rights reserved.

The *Top Draw* software and User's Guide are the property of Top Software and are copyrighted.   Any
unauthorized reproduction in whole or in part is strictly prohibited.

Warranty

THIS SOFTWARE IS GUARANTEED TO PERFORM AS DOCUMENTED IN THE OPERATING ENVIRONMENTS FOR WHICH IT WAS DESIGNED.

BECAUSE OF THE VARIOUS HARDWARE AND SOFTWARE ENVIRONMENTS INTO WHICH THIS PROGRAM MAY BE PUT, NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS OFFERED.   GOOD DATA PROCESSING PROCEDURE DICTATES THAT ANY PROGRAM BE THOROUGHLY TESTED WITH NON-CRITICAL DATA BEFORE RELYING ON IT.   THE USER MUST ASSUME THE ENTIRE RISK OF USING THE PROGRAM.

ANY LIABILITY OF THE SELLER WILL BE LIMITED EXCLUSIVELY TO PRODUCT REPLACEMENT OR REFUND OF PURCHASE PRICE.

License Agreement

Top Draw is protected by copyright law and international treaty.   This license agreement describes your rights and responsibilities as a user of this software.   "*Top Draw*" and "Top Software" are trademarks of Top Software.

Top Draw Evaluation Version supports most registered version features but has a "Sign-On" dialog that requires a button press, a random "reminder" message on exit, reminder text on printed and clipboard output, and "UNREGISTERED" appears in the title bar.   *Top Draw* Registered Version supports all features with no registration reminders.   The program "Sign-On" and "About" dialogs will tell you which version you are running.

Top Draw Evaluation Version is provided to the user for evaluation for 60 days without a license fee.   At the end of the evaluation period, the user must either register the program or stop using it.   The Evaluation Version may be copied freely and distributed to other users provided that no fee is charged. Anyone distributing *Top Draw* for any kind of remuneration must have authorization from Top Software. See the file "`VENDOR.TXT`" for more information about distributor licensing.

Upon paying the registration fee, one copy of *Top Draw* Registered Version is licensed to the purchaser for use on one computer at any one time.   You must treat the software just like a book.   This software may be used by any number of people and may be freely moved from one computer location to another, so long as there is no possibility of it being used at one location while it's being used at another.

More:

Register Dialog

Register Dialog

The first time you run the Registered Version of *Top Draw,* you will asked to provide a name to "personalize" your copy.   Type your full name in the space provided.

Release Notes

This is Version 3.1 of *Top Draw*, released May 1996.

More:

[New Features in Version 1.0a](#)

[New Features in Version 1.0b](#)

[New Features in Version 2.0](#)

[New Features in Version 3.0](#)

[New Features in Version 3.1](#)

New Features in Version 1.0a

ASP Member - The author of *Top Draw* is now a member of the Association of Shareware Professionals. Required ASP notices have been added.

Smaller Help file - The Help file is now *much* smaller with the *same* content.   This makes room for future upgrades!

Text shortcuts - To add text to the selected object, just start typing.   Double-click with the Select tool to switch to the Text Tool and set the text caret location.

New keyboard accelerators - Ctrl+C (Copy Style), Shift+Ctrl+C (Set Style), Ctrl+B (bold), Ctrl+I (italic), Ctrl+U (underline), Shift+Ctrl+G (Ungroup - was Ctrl+U).   Backspace key can now be used to delete objects and nodes the same as the Delete key.

Main Menu "Help" moved - shifted over from far right corner to match Microsoft conventions, makes it easier to find.

topdraw.ini moved - to Windows directory to allow running *Top Draw* directly from CD-ROM.

New Features in Version 1.0b

Bitmap Import - now you can read BMP and PCX files directly into *Top Draw* (see **"List Files of Type"** in the **File|Open** dialog).

Interruptible Redraw - now you can press the ESC key to interrupt a lengthy screen redraw.

User ID and Key eliminated -   in order to simplify order processing for high-volume sales, the User ID and Key system has been removed.

Fixes - lots of little problems, and some not so little ones, have been fixed.

New Features in Version 2.0

Line Text - Click on an existing line (even a curved one) and start typing.   The text will follow the line.   Numerous style options are available.   Convert line text to curves for even more exotic effects.

Paragraph Text Improvements - Just click anywhere with the Text Tool or Select Tool and start typing to get paragraph text that can be easily rotated and resized.   Tab characters are expanded.

Bitmap Export - Export bitmaps in BMP or PCX format directly from *Top Draw* (see **"Save Files as Type"** in the **File|Save As** dialog)..

Status Line - More information during sizing, moving, and rotating operations.

Fine Tuning - Improved memory management handles more complex drawings faster.   Numerous changes for easier keyboarding.   Flip/rotate objects with a simple menu command.

More! - Seven new built in textures. Control printing by layers.   Zoom to a specified percentage.   Bitmap rotation in 90 degree increments.   Bitmap outlines.   Open a TrueType font as a shape set.   Modeless Shapes Palette (can leave it open while adding shapes to a drawing).   Nudge individual nodes using the arrow keys.   And many other improvements!

New Features in Version 3.0

Multiple Pages - Now a single drawing can span multiple printer pages and a single drawing file can contain multiple drawing pages.

OLE - *Top Draw* is now an <u>OLE</u> 1 client.   OLE objects can be placed in *Top Draw* using either embedding or linking. *Top Draw* is also an OLE server, making it much easier to use *Top Draw* drawings in OLE enabled word processors and other programs.

Context Sensitive Menus - Click the right mouse button to display a context sensitive menu for the current object and tool.

File Drag-and-Drop - Files can be opened using drag-and-drop.   Dropping a file from the File Manager (or Win95 Explorer) on *the Top Draw* icon starts *Top Draw* and opens the file.

Drag-and-Drop Text Editing - A selected block of text can now be moved or copied using drag-and-drop just like in a sophisticated word processor!

Drag-and-Drop from the Shape Palette - A shape from the Shape Palette can be placed in a drawing in its original by dragging it from Shape Palette and dropping it in the drawing.

Automatic Line and Arrowhead Resizing - Lines are now automatically resized when a shape is resized.   Arrowheads are automatically resized when the line thickness is changed.

Brush Fills - Shapes can now be filled using a pattern brush.   A built in editor is provided for creating user-defined brushes.

<u>Bitmap</u> **Fills** - Shapes can now be filled with a bitmap.   The bitmap can be stretched to fit the shape, or tiled in a user-specified width and height.

Multi-Color Gradient Fills - Gradient fills can now have any number of colors, not just two.   A "square" gradient fill style has been added.

Fully Customizable Rulers - Rulers are now fully customizable, with units, mark spacing, and ruler-to-page scale being user definable.   Built-in ruler styles now includes a Decimal Inch ruler.   The Ruler Grid can now be composed of multiple mark types.

Autosave, Multi-Save, Safe Save, and Backup Files - An autosave timer controls how frequently files are automatically saved.   Another option allows saving a file in *Top Draw* format every time it is exported to another format.   The current file is deleted only after a successful save, making lost work due to a file save problem highly unlikely. Backup files can also be created whenever a file is saved.

More! - Windows 95 3D look and feel.   Movable Tool Bar.   Select an object *inside* a group without ungrouping!   Cycle the <u>current selection</u> through objects or nodes using the Tab key.   Autoscrolling is provided with many more editing operations.   Many more import and export format are supported (registered version only).   Fill styles rotate when an object is rotated.   Multiple color palettes.   And many other improvements!

New Features in Version 3.1

New Multiple Page Commands - Insert Page, Delete Page, Page Forward, and Page Backward commands are now provided on the Desktop Menu.   To access the Desktop Menu, click right on an empty area of the drawing page.

Missing Font Names - Names of fonts that are used in a drawing but not installed on your system are displayed in red in the Style Bar when the text object is selected.

Numerous Fixes and Improvements - a number of minor and not so minor problems in v3.0 have been corrected, including incompatibility between medium size Style Bar buttons and certain display drivers, incorrect initial display of Paragraph Text with line spacing greater than 100%, mouse and object tracking in the rulers with Autogrid turned on, and alignment of the Rulers and Ruler Grid with the Autorgrid.

How This Manual Is Organized

This manual contains the following sections:

Introduction

General information, notices, and license agreement.   Getting started instructions including how to install, run, and register *Top Draw*.

Learning *Top Draw*

How to learn ***Top Draw***, system overview, and tutorial.

***Top Draw* Windows**

How to use each *Top Draw* window, and what each one does.

***Top Draw* Tools**

How to use each ***Top Draw*** tool, and what each one does.

***Top Draw* Menus**

How to use each ***Top Draw*** menu command, and what each one does.

Keyboard Commands

Summary of keyboard commands used for menu shortcuts, text editing, and drawing.

Glossary

Definitions of technical terms.

Typographical Conventions

This <u>font</u> is used for commands: **Command**

This font is used for screen elements: **Window**

This font is used for file names: `filename.fnt`

This font is used for text you type: Text you type

Menu commands are represented as a sequence of menu choices separated by vertical bars:

MainMenu|SubMenu|SubSubMenu

For example, the **Open** command on the **File** menu is represented as:

File|Open

The following abbreviations are used for special keyboard keys:

Ctrl *The **Control** key.*

Ins *The **Insert** key.*

Del *The **Delete** key.*

BkSp *The **Backspace** key.*

Key combinations are represented as:

Key1 + Key2 ...

For example, the following combination is typed by holding down the **Shift** key while pressing the **Ins** key:

Shift + Ins

How to Contact Top Software

We want to hear from you if you have trouble when using *Top Draw*, or if you have ideas about how to make *Top Draw* better.   We also enjoy receiving submissions to our annual art contest.   You can contact us by:

Mail: Top Software / P.O. Box 1141 / Conifer, CO 80433 / USA

Phone/Fax: (303) 838-0384

CIS E-Mail: 72643,436

Internet: 72643.436@compuserve.com

More:

Technical Support

Feature Requests/General Feedback

Technical Support

Unregistered users are entitled to *one* free technical support call.   Registered users may call as often as necessary.   Please, read all applicable documentation (on-line and/or printed) before calling.   All technical support calls are logged so that we can improve our products.

Technical support is provided for:

- Fixing problems or incompatibilities discovered during installation (can't get program to run).

- Reports of possible bugs, and to find out if there is a work-around (program glitches during operation).

- Other major problems (program stops running).

Technical support is NOT intended to provide:

- Free training on basic program features.

- Artistic advice.

- Windows or DOS configuration advice or training.

In order to correct a problem you discover, we must be able to reproduce the problem.   Please record the exact steps necessary to cause the error and the exact wording of any error messages using the form in PROBLEM.WRI.   If at all possible, be in front of your computer and have *Top Draw* running when you call.   Also, have available the contents of your `CONFIG.SYS`, `AUTOEXEC.BAT`, and `WIN.INI` files.

To reach **Top Software** for technical support:

Mail:	Top Software, P.O. Box 1141, Conifer, CO 80433, USA
Tel:	(303) 838-0384
Fax:	(303) 838-0384
CIS:	72643,436

In the **UK**, contact Nildram Software at:

Mail:	Nildram Software, 23A High Street, Tring, Herts, HP23 5AH, UK
Tel:	01442 891331
Fax:	01442 890303
BBS:	01442 891109
Internet:	support@nildram.co.uk

In **French-Speaking Europe**, contact WindowShare at:

Mail:	WindowShare, 46-48 route de Thionville, 57140 Woippy, FRANCE
Tel:	(+33) 87 32 37 75
Fax:	(+33) 87 30 85 57
CIS:	100031,3257

In **Dutch-Speaking Europe**, contact Computer Solutions Dorth at:

Mail:	C.S.D., Postbus 59, NL-7213 ZH Gorssel, NETHERLANDS
Phone:	(+31) - 0575.494.545
Fax:	(+31) - 0575.491.222

CIS: 100117,3555

In **Scandinavia**, contact Pro-Soft at:

Mail: Pro-Soft, Benlose Skel 4 G, DK-4100 Ringsted, DENMARK

Tel: (+45) 53 61 90 42

Fax: (+45) 53 61 93 91

CIS: 100065,1744

In **Japan**, contact P.& A. <u>Shareware</u> at:

Mail: 1-3-6-2 Kamisunacho, Tachikawa, Tokyo 190 JAPAN

Tel: (0425) 35-9901

Fax: (0425) 35-9902

CIS: 76663,124

NIFTY-Serve: PAF02461

Only authorized representatives of Top Software are qualified to provide technical support for *Top Draw*. If you have any questions about a particular company's affiliation, please contact Top Software.

Feature Requests/General Feedback

How are we doing?   Please drop us a line and let us know.

What new feature do you need the most?   If you've gotta have it, call us, or print, fill out, and mail in a completed opinion form (below - print this topic).   We may be able to put *your* special feature in the next release.

Top Draw 3.1 Opinion Form

1. Overall Rating: __ excellent   __ good   __   fair   __ poor

2. I use *Top Draw* for:

3. Features I like the best are:

4. Features I think should be changed are:

5. New features I would like to see are:

6. Are you a registered user?   Why or why not?

7. General comments:

Other potential buyers would like to know what you think.
May we quote you in our future advertising?   ___ yes   ___ no

     If "yes" checked, please sign below:

Signature: _____   Date _____

Name: _____

Address: _____

                _____

                _____

Phone: _____

        -- Mail completed forms to: Top Software, P.O. Box 1141, Conifer, CO 80433 --

Getting Started

System Requirements

Top Draw runs under Microsoft Windows 3.1, 95, and NT.   It requires about 4 megabytes of free memory under Windows to run.   All distributed files occupy about 4 megabytes of disk space.   A display resolution of 640x480 (standard VGA) or better is required.   Your system must have a Windows supported mouse or equivalent pointing device. *Top Draw* works with any printer supported by Windows.

Top Draw will run on any 80386 or 80486 (SX, DX, DX2) or Pentium based computer that runs Microsoft Windows.   For acceptable performance, a 33MHz 80386 or better CPU is recommended.   If you want to experience the full power of *Top Draw*, a fast 486 or Pentium processor and an accelerated Super-VGA display are best.

Installation

The *Top Draw* **install** program takes care of the details of setting up *Top Draw* on your hard drive.   All you have to do is tell it where the source files are, where the destination directory should be, and where to put the icon (if you don't like the defaults).   Installation involves decompressing and copying the program files to a destination directory on your hard drive, updating `WIN.INI`, and creating an icon in the Program Manager.

1.   Insert the floppy disk.

2.   Select **Run** from the Program Manager **File** menu.

3.   Type **a:install** or (**b:install**) and press **Enter**.   The *Top Draw* **Install** <u>dialog box</u> will appear.

4.   Verify that the <u>directory</u> displayed in the **From** box is where the *Top Draw* files are located.   Normally, this is the directory containing **install.exe** and it will be correctly displayed.   To install from a different directory, modify the **From** location.

5.   Verify that the <u>directory</u> displayed in the **To** box is where you want the *Top Draw* files installed and that sufficient space is available on the destination drive.   The default location is `C:\TOPDRAW.` To install to a different directory, modify the **To** location.

6.   Select a Program Manager group to place the *Top Draw* <u>icon</u> in from the list provided.   This can be a new group, any existing group, or none.   By default, a new *Top Draw* group is created to contain the icon.

7.   Select the groups of files to be installed.   By default, all are installed.

8.   <u>Click on</u> the **Install** button to   begin copying files.   The files will be decompressed and <u>copied</u> to your hard drive.   Insert the next disk when prompted.   Required entries will be placed in `WIN.INI` when file copying is complete.   These modifications are described below..

9.   Installation is complete.   Click **OK** when prompted to read new user information (recommended).

More:

WIN.INI Modifications

The **Install** program makes a few minor modifications to `WIN.INI`.

An entry is added in the `[Extensions]` section so that you can run *Top Draw* by double clicking on `*.TDR` files in the Windows File Manager.

A new `[Top Draw]` section is added with the following entries:

- `Version=`*Version number.* Used when installing upgrades.
- `UserID=`*User Name.* Do not modify.

Registry Modifications

Windows Registry entries are made to associate **`TOPDRAW.EXE`** with the **`*.TDR`** extension for opening drawings, to support printing of **`TDR`** files using the Windows File Manager **Print** command, and to register *Top Draw* as an <u>OLE</u> client and server.

Networks and Multiple Configurations

If *Top Draw* is installed on a network server, each user should have their own copy of the *Top Draw* configuration files stored in a separate directory.

Server Files	User Configuration Files
`TOPDRAW.EXE`	`TOPDRAW.PAL`
`TOPDRAW.HLP`	`ASSORTED.TDS`
Sample Drawings (`TDR`)	`PENS.TDS`
On-line documents & forms (`WRI`,`TXT`)	`ARROWS.TDS`
	`TOPDRAW.INI`
	`BRUSH2.BMP`
	`BRUSH16.BMP`
	`UNITS.DAT`
	`RULERS.DAT`

To specify a directory for a user's configuration files, create a `Path`=*Path Name* entry in the **[*Top Draw*]** section of each user's **WIN.INI** file.

The `Path` entry in the **[*Top Draw*]** section of **WIN.INI** can also be used by advanced users to maintain multiple configurations.   If there is no `Path` entry, *Top Draw* looks for the configuration files in the directory containing the file **TOPDRAW.EXE,** except for **TOPDRAW.INI** which is stored in the **WINDOWS** directory.

Top Draw *Files*

The **install** program copies a number of files to your hard drive.   They are all installed into the same destination directory.   Besides the program and help files, there are a several symbol sets, sample drawings, and a number of on-line documentation files.   The distributed files are listed on-line in the file **files.txt**:

Uninstalling Top Draw

If you need to uninstall *Top Draw* for any reason, all you have to do is:

1. Delete all of the files in the *Top Draw* directory and delete the directory.   Delete `TOPDRAW.INI` in the Windows directory.

2. Delete the entries added to `WIN.INI` listed above.

3. Delete the *Top Draw* icon and group, if created, from the Program Manager.

Running *Top Draw*

Running *Top Draw* is like running any other Windows application.   You can double-click on the *Top Draw* icon in the Program Manager, double-click on any `*.tdr` (*Top Draw*) file to start the program with the clicked-on file loaded, or type in a command line in the Program Manager **File|Run** dialog.

To exit *Top Draw,*   choose **Close** in the system menu of the *Top Draw* window (upper left), or choose **Exit** in the *Top Draw* **File** menu.

More:

File Drag-and-Drop

Command Line Options

Running Modes

File Drag-and-Drop

Files can be opened using drag-and-drop.   Dropping a file from the File Manager (or Win95 Explorer) on the *Top Draw* icon starts *Top Draw* and opens the file.   If *Top Draw* is already running, a single dropped file will be imported into the current drawing, multiple dropped files will be opened as separate drawings. Files with any extension recognized by *Top Draw* can be opened using this technique.

Command Line Options

One or more files can be passed to *Top Draw* on the command line (**File|Run** in the File Manager, or the **Run** command on the Win95 Task Bar).   Each of the files will be opened on startup.

Multiple files can be printed   via the command line by including "**/p**" before the list of files as follows:

<div align="center">

`TOPDRAW` **/p file1.tdr file2.tdr**

</div>

In this case, the file is opened, printed, and *Top Draw* exits.

Running Modes

Top Draw will run in one of three modes depending on whether you have a registered copy of *Top Draw*:

Evaluation Mode - Provides most of the normal functionality except that the "Sign-On" dialog requires a key press, registration reminder messages appear occasionally on exit, registration reminder text appears on printouts and clipboard output, and UNREGISTERED appears in the Title Bar.

Demonstration Mode - Provides the same functionality as Evaluation Mode except that printing and copying to the clipboard are disabled.   *Top Draw* runs in Demonstration Mode after the evaluation period has expired.

Registered Mode - Provides full functionality with no registration reminders.   See Registering to order a registered copy.

Common Problems

No Colors - If the fill colors of all drawing objects disappear, and all outlines become simple black lines, you are most likely in Wireframe mode.   Check the **View** menu.   If there is a checkmark by **Wireframe**, click on it to exit Wireframe mode.   The colors should reappear.

Fonts Don't Print as Drawn - If you are printing to a Postscript printer, use the Advanced Options in the Printer Setup dialog for the printer to customize the font mapping table.   Select "Download as Soft Font" for the font that is causing a problem.   For HP printers, try using the "Print Text as Graphics" mode.

Program Doesn't Run Properly -   If *Top Draw* runs but you receive error messages when opening files or at what seems to be random times, you may need to reconfigure virtual memory on your computer. For the most reliable (and fastest) operation, run Windows 3.1 in **386 Enhanced** mode and use a **permanent swap file**.   If you don't have a battery powered laptop, turn on the **32-**bit **access** option for faster operation.   If you are using a disk compression program, make sure the permanent swap file is set up in an uncompressed area.   Consult your Windows and compression program documentation for details.

Purchasing *Top Draw*

You can place your order for the full version of *Top Draw* by phone, fax, or mail.   Prices and other details are provided in the "**Ordering -** " topics below.   Printable order forms are also provided.   Contact Top Software or one of our authorized international distributors if you have any questions.

More:

Why Purchase the Full Version?

Here's What You Get!

Upgrades

Ordering - USA

Ordering - UK

Ordering - French-Speaking Europe

Ordering - Germany (Deutschland)

Ordering - Dutch-Speaking Europe

Ordering - Australia

Ordering - Scandinavia

Ordering - Japan

Other International Orders

Why Purchase the Full Version?

 Here are a few good reasons:

1. To bypass the sign-on message without a key press.
2. To get rid of "reminders" in the program title bar and when you exit the program.
3. To get rid of "reminder text" on printouts, clipboard output, and exported files.
4. To get additional pens, arrow heads, and symbol sets.
5. To get extended file import/export format support.
6. To get a disk full of clip art and a printed clip art guide.
7. To get full <u>technical support</u>.
8. To get a printed user's manual.
9. To get the latest version of the program, which may have new features that you need.
10. To get program upgrade notices.
11 To get our newsletter containing tips, tricks, contest, and company information.
12. To be able to convert existing drawings if the drawing file format changes.

Here's What You Get!

When you receive the Full Version, you will get:

1.   The newest version of *Top Draw*, which may contain extra features that you need.

2.   Additional pens, arrows, and a 3D shapes symbol set.

3.   Additional import and export format support, including GIF, TIFF, TGA, JPEG, and many more. Larger bitmap sizes are also supported.

4.   A disk full of clip art and a printed clip art guide.

5.   A professionally printed 190+ page user's manual.

6.   Full technical support.

7.   Our newsletter, which contains information you need to make the most of *Top Draw*.

Note: Since on-line files can be in circulation for a long time, this offer and product prices may change without notice.   Call for the latest details.

Upgrades

Previous version customers can upgrade to the latest version of *Top Draw* at a discounted price.   Contact the dealer in your area for details.

Ordering - USA

To print this form, choose **Print Topic** in the *Top Draw* Help **File** Menu.

- Mail Orders: **Top Software** / P.O. Box 1141 / Conifer, CO 80433 / USA
- Phone/Fax Orders: (303) 838-0384
- CIS: 72643,436

_____

TOP DRAW ORDER FORM

_____
Name

_____
Company

_____
Address

_____
City   State   Zip Code

(_____) _____ – _____
Phone

_____

Quantity	Description	Price	Amount
_____	*Top Draw* 3.1 Registration & Manual	$49.95	_____
	Subtotal		_____
	Sales Tax (Colorado Residents Only - 3.8%)		_____
	Shipping & Handling ($4 US, $5 Candada & Mexico, $8 Other International)		_____
	TOTAL ORDER		_____

_____

Payment Method

__ Cash (US currency)
__ Money Order (in US dollars drawn on US bank)
__ Check   -   Payable to **Top Software** (in US dollars drawn on US bank)
__ VISA
__ Mastercard
__ Purchase Order ($100 minimum)

__ __ __ __ - __ __ __ __ - __ __ __ __ - __ __ __ __   _____/_____
Credit card number   Expires

_____   Date _____
Signature (as shown on credit card)

My <u>shareware</u> copy came from: _____

Ordering - UK

To print this form, choose **Print Topic** in the *Top Draw* Help **File** Menu.

- Mail Orders: **Nildram Software** / 23A High Street / Tring / Hertfordshire / HP23 5AH
- Phone Orders: 01442 891331
- Fax Orders: 01442 890303
- BBS: 01442 891109,   Internet: sales@nildram.co.uk

_____

TOP DRAW ORDER FORM

_____
Name

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Company

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Address

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All prices in pounds sterling.   Prices include shipping/handling.

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Quantity	Description	Price	Amount
_____	*Top Draw* 3.1 Registration & Manual	39.95	_____
	Subtotal		_____
	VAT (17.5%)		_____
	TOTAL ORDER		_____

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Payment Method

__ Cash
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Credit card number   Expires

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My <u>shareware</u> copy came from: _____

Ordering - French-Speaking Europe

To print this form, choose **Print Topic** in the *Top Draw* Help **File** Menu

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Remplacez le soulignement par les renseignements demandés.
Imprimez cette fiche, et adressez le tout avec votre règlement à :

WindowShare   Fax:(+33)87 32 37 75
46-48 route de Thionville   Vox:(+33)87 30 85 57
57140 WOIPPY   Minitel 3615 WinShare
FRANCE   Boutique Licenseware

Nom et Prénom :   _____

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_____ TOP DRAW 3.1 avec manuel en anglais (190 pages)

330.85 FF HT / 399 FF TTC (TVA 20.6%) pour chaque poste, port compris

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Merci de respecter le principe du shareware.

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- Schriftlich: **JDS-Software Jens Driese** / Postfach 1269 / D-26302 Varel, Germany
- Tel: (0049)-4451-959195 Fax: (0049)-4451-959196
- CIS: 100273,2252

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TOP DRAW BESTELLFORMULAR

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Firma

_____
Strasse und Hausnummer

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PLZ   Ort

(_____) _____–_____
Tel.

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Menge	Artikel	Preis/DM	Gesamt
_____	*Top Draw* 3.1 Registrierung & Handbuch	109,-	_____
_____	Porto und Verpackung bei Vorkasse	8,-	_____8,-___
Zuschlage:			
_____	Nachnahmeversand	5,-	_____
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Kreditkartennummer   Gultig bis

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Unterschrift des Karteninhabers

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- Bestel per post bij: **C.S.D.** / Postbus 59 / NL-7213 ZH Gorssel / Nederland
- Bestel per telefoon: (+31) - 0575.494.545
- Bestel per fax: (+31) - 0575.491.222
- Bestel per CIS: 100117,3555

TOP DRAW 3.1 Bestelformulier

Hierbij bestelt ondergetekende de meest recente versie van Top Draw.

Bedrijfsnaam ....

Naam .... M/V

Adres ....

Postcode + Plaats ....

Telefoon ....

Datum ....

Alle bedragen zijn in Nederlandse guldens, incl. 17,5% BTW en verzendkosten.

Aantal	Omschrijving	Prijs	Bedrag
......	Registratie met gedrukte handleiding (190+ pag.)	fl. 127,50	....
	Bestellingen uit Belgie: Voeg fl.7,50,- toe		....

		Totaal fl	....

Betalingsmethode
__ Postgiro 27.47.162
__ ABN.Amro 49.85.42.173
__ BBL Brussel 310.095.966.533 (Omrekenkoers fl.1,- = Bfr. 20)
__ Eurocheque t.n.v. C.S.D. bijgesloten
__ Rembours (Extra kosten Nederland fl.15,-, Belgie fl.30,-)
__ MasterCard / EuroCard / Visa / Diners / AmEx

     Kaartnummer: _____ _____ _____ _____ geldig tot: _____

     Handtekening: _____

Alle betalingen ten name van C.S.D., Gorssel, onder vermelding van 'Top Draw'.

Mijn shareware versie was afkomstig van: ....

Hartelijk dank voor uw bestelling en het feit dat u Shareware ondersteunt.

Ordering - Australia

To print this form, choose **Print Topic** in the *Top Draw* Help **File** Menu.

- Mail Orders: **BUDGETWARE** / P.O. Box 496 / Newtown NSW 2042 / AUSTRALIA
- Phone Orders: (02) 519-4233
- Fax Orders: (02) 516-4236

_____

TOP DRAW ORDER FORM

_____
Name

_____
Company

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Address

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_____
Phone

All prices in Australian dollars.   Prices include shipping/handling.
_____

Quantity	Description	Price	Amount
_____	*Top Draw* 3.1 Registration & Manual	$89.00	_____
	Subtotal		_____
	Sales Tax		_____
	TOTAL ORDER		_____

_____

Payment Method

__ Cash
__ Postal Order
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PRO SOFT / Benlose Skel 4 G / DK-4100 Ringsted / DENMARK

- Tlf: (+45) 53 61 90 42.   Monday-Friday 10:00 - 16:30
- Fax: (+45) 53 61 93 91, 24 hours
- BBS: (+45) 57 67 17 47, 24 hours, free access (28.800, 8, N, 1)
- Internet: 100065.1744@COMPUSERVE.COM
- CompuServe: 100065,1744

TOP DRAW 3.1 ORDER FORM

PRO SOFT receives orders for Denmark, Norway, Sweden, and Finland

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Name

_____
Evt. Company

_____
Address

_____
Address

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Zipcode   City   Country

_____   _____
Phone   Fax

Country:	Denmark	Sweden & Finland	Norway
Item / Valuta:	DKR.	DKR.	DKR.
[ ] 1.0 Top Draw$_1$	350,00	350,00	350,00
[ ] 1.1 Top Draw, school licens	ask	ask	ask
[x] 2. Shipping & Handling	28,00	80,00	80,00
[ ] 3. If not prepaid, COD	18,00	20,00	20,00
[ ] 4. Check exchange (50,00)	_____	_____	_____
5. Total before VAT (MOMS)	_____	_____	_____
6. MOMS$_2$ (25%) of the above	_____	_____	_____
7. Grand total	_____	_____	_____

Payment:

[ ] 8.   Prepaid to Danish giro account 406 2140, date: _____/_____ 199___

[ ] 9.   Send the program(s) with "postforskott" / postopkrav (add line 3 above in total).

[ ] 10. Swedish* or Finnish VAT-no.: _____

[ ] 11. Check.   If from Norway, Sweden, or Finland, prefer payment by check.
          Please also add dkr. 50,00 in line 4 above for bank processing fee.

1. The package we send you consists of:
   1) Newest Full Version of Top Draw on 3.5" 1.44MB disks.
   2) Full description of the program in a professional manual.

2. Customers in Sweden and Finland with a local VAT Number (SE), will
    not have to apply VAT (MOMS) 25%, but please provide your VAT-number
    in line 10 above.   Norwegian customers will have to pay local MOMS
    (23%) at the import plus a handling-fee to Norwegian customs authorities.

Ordering - Japan

To print this form, choose **Print Topic** in the *Top Draw* Help **File** Menu.

- Mail Orders: **P.& A.** Shareware **Distribution,**
   1-3-6-2 Kamisunacho, Tachikawa, Tokyo 190 JAPAN
- Phone Orders: (0425) 35-9901
- Fax Orders: (0425) 35-9902
- NIFTY-Serve: PAF02461

This program can now be registered in Japan. Simply fill in the following order form and send it by FAX, mail, E-mail or call us in English or Japanese. The yen price for the registered version of *Top Draw* includes tax, shipping and handling.

We accept payment by credit card, bank transfer, postal transfer or on NiftyServe. Call for details.

----------------------------- Cut here ---------------------------------

     [   ]   Top Draw with Manual   Yen 5,800

Name:

Address:

TEL (FAX):

NIFTY-Serve: P&A ID: (   )

Payment:

     [   ] NIFTY-Serve   [   ] Post   [   ] Bank

         [   ] Cash (genkinkakitomei)   [   ] Takkyubin COD

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           Expiration date:

System used:

Other International Orders

- Send your order to Top Software (see <u>USA</u> ordering instructions).
- Shipping/Handling: $5 Canada/Mexico, $8 Other International.
- VISA/Mastercard provide the most convenient payment method.
- Due to the high fees charged by US banks to process non-US checks, all checks must be in US $ drawn on a US bank.

How to Learn *Top Draw*

Learning how to use all of the features of a new program can be a challenge.   Several approaches are available for learning *Top Draw*.

You can learn most of the basic features of *Top Draw* by just using it.   *Top Draw* provides immediate visual feedback for commands so that it extremely easy to figure out what a command does.   It is equally easy to know what options are currently set.   We call this "learning by doing".

One of your most valuable resources for learning *Top Draw* is the context-sensitive on-line Help system. It is handier than a book when you are looking for information about a particular command because you can find the information you need much more quickly.   If you are not familiar with <u>Windows Help</u>, take a few minutes now to find out more.

If you would like a guided introduction to *Top Draw*, the tutorial exercise provided in this section is for you. It covers all of the main features of the program as you create a drawing.   You may want to review the **Top Draw Basics** <u>Top Draw Basics</u> section before starting the tutorial to get a quick overview of *Top Draw* user interface and drawing elements.

More:

<u>Learning By Doing</u>

<u>Using Help</u>

Learning By Doing

When most people get a new program, the first thing they want to do is fire it up and try it out.   Go for it!   Most experienced users follow an established pattern when test driving a new application.   The following sequence is recommended:

1. Start the program and open some of the drawing files that came with the program.   Use the File|Open menu command.   If you have any questions, click the **Help** button in the **File Open** dialog box.

2. Move the mouse around so that it lands on top of each of the "buttons" on the display (don't click yet).   A yellow "bubble help" box will pop up after a few seconds with the name of the button.   Now look at the text displayed in the Status Line at the bottom of the *Top Draw* window.   It will give you a brief description of what that button does.

3. Repeat the mouse around exercise, only this time pull down each of the menus and drag the mouse slowly across each of the menu items.   Again, read the brief description on the **Status Line**.

4. Start experimenting.   You can either manipulate objects in an existing drawing, or open a new file and play around in it.   Try each of the tools.   Experiment with style changes.

5. Use the on-line Help system to find out more about the commands.   Do some browsing so you know what is there and how to find it.

Using Help

There are several ways to access the *Top Draw* Help system.   The method you choose depends on what you want to know.

More:

<u>The Help Menu</u>

<u>Context Sensitive Help</u>

<u>Dialog Box Help Buttons</u>

<u>Searching the Help Index</u>

The Help Menu

The *Top Draw* <u>Help Menu</u> provides several entry points into the Help system.   Once you have entered the Help system, you can move around freely using hypertext links, the browse buttons, history buttons, and by searching the index.

Context Sensitive Help

Context sensitive help enables you to find information about a command with a single keypress.   Position the mouse over a button or menu choice so that the associated description appears in the <u>Status Line</u>, then press the **F1** key to get detailed help.

Dialog Box Help Buttons

Most *Top Draw* dialog boxes have a **Help** button.   Click on it to find out how to use the dialog box.

Searching the Help Index

Searching the Help index is a lot like using the index of a book, only the process is automated.   It is one of the more frequently used methods for finding information.

Select **Search** in the **Help Menu** or <u>click on</u> the **Search** button in the Help window to bring up the **Search dialog box**.   Try typing different words associated with the topic you have in mind.   When you find a match, click on the **Show Topics**   button in the **Search** dialog box, choose a topic from the list provided, then click on the **Go To** button to jump to the associated help topic.

Top Draw Basics

The section provides a quick introduction to the components of the *Top Draw* screen,   common <u>dialog box</u> features, and elements of a drawing.

More:

<u>Screen Layout</u>

<u>Dialog Box Conventions</u>

<u>Drawing Elements</u>

<u>Using Top Draw with Other Applications</u>

Screen Layout

The figure below shows a typical *Top Draw* screen and gives the names of the components:
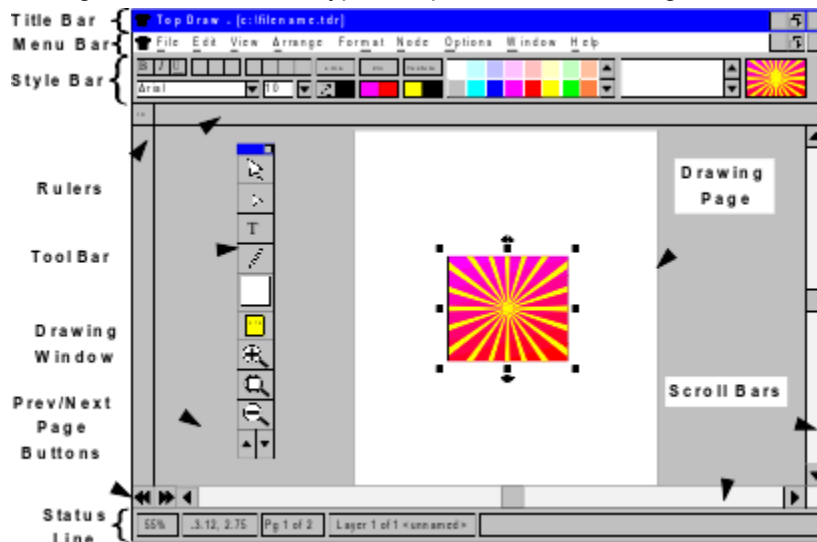
Title Bar

The Title Bar displays the name of the program and the file name of the current drawing.   The **Title Bar** also contains the usual Control Menu button (left) and minimize/maximize/restore/close buttons (right).

Menu Bar

The Menu Bar contains the program main menu.   The *Top Draw* main menu is organized according to standard Windows conventions.   You will find common operations in the usual places.

Style Bar

The Style Bar provides quick access to style setting commands, and displays current style settings.

On the left, the text style group displays and provides a fast way to set the text font, font size, style, line spacing, and horizontal alignment.

In the center, the object style group provides quick access to object style commands. It also displays and allows setting of object colors using the color palette.

On the right, the Line Sample and Fill/Texture Sample show the current object style settings.   The scroll bar next to the Line Sample enables quick changes to line thickness.

Tool Bar

The *Top Draw* tools are used for a wide variety of interactive operations:

	Select Tool	Used to pick drawing objects to be used with menu commands, and to move, size, rotate, skew, and stretch objects.
	Node Tool	Used to pick nodes to be used with menu commands, to pick locations for new nodes and line breaks, and to move nodes.
	Text Tool	Used to create new text objects, to add text to an existing object, and to edit existing text.

	Draw Tool	Used to draw all kinds of lines: freehand and straight, single- and multi-segment, open and closed, polylines and Bezier curves.
	Shapes Tool	Used to add pre-defined shapes to the drawing, and to access the shapes palette. The Shapes Tool button displays the currently selected shape in the current style, so it is not always a square.
	Notes Tool	Used to create Notes. Notes can be shown/hidden as a group, and note text can be printed on a title page with the drawing.
	Zoom Buttons	Three buttons: Zoom In , Zoom Out , and Zoom to Standard Size .
	Layer Buttons	Used to move up/down through the layers of a drawing.

Drawing Window

The Drawing Window consists of **Rulers**, **Scroll Bars**, and the drawing itself.   The printable page is displayed as a white rectangle.   There can be multiple open drawings.   Each drawing has its own window.   They can be viewed one-at-a-time, or several drawings can be viewed at once.

Status Line

The Status Line displays current zoom scale, mouse position, layer, and selected object information. When the mouse is on a menu item or a button, the **Status Line** displays a brief description of the associated command.

Dialog Box Conventions

A <u>dialog box</u> is a window that allows you to set a number of related options.   A dialog box may be displayed in response to a menu command, a button press, or keyboard input.   *Top Draw* uses over 28 different dialog boxes.   All are composed of standard buttons, number display/input boxes, lists, and other elements.

Even though they are used for a wide variety of purposes, dialog boxes all work pretty much the same.   When a dialog box first appears, settings for the current choices will appear as button highlighting, numbers, text, list element highlighting, samples, etc.

Change options by clicking on buttons, typing in new data, or selecting from a list.   When a dialog box input is disabled, it is "grayed" like a disabled menu choice, and attempts to <u>click on</u> it have no effect. When you are finished changing options, click **OK** to cause them to take effect.

Common *Top Draw* input elements are described in more detail:

More:

<u>Standard Buttons</u>

<u>Numerical Values</u>

<u>Radio Buttons</u>

<u>Checkboxes</u>

<u>Edit Boxes</u>

<u>Lists</u>

<u>Color Palettes</u>

Standard Buttons

Most *Top Draw* dialog boxes have **OK**, **Cancel**, and **Help** buttons.

Clicking the **OK** button exits the dialog and causes the selected options to take effect.

Clicking the **Cancel** button exits the dialog and leaves the options at their original values.

Clicking the **Help** button provides help on the current dialog box.

Numerical Values
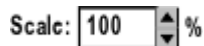
Most numerical values are entered using a box like the one on the left. You can increase the value by clicking on the up arrow, decrease it by clicking on the down arrow, or you can edit the value directly.

Most values have limits. When using the arrows, the value will stop changing when the limit is reached. When you type in a value, the limit is applied when you click on something else in the dialog box. If the value you have entered exceeds a limit, the minimum/maximum value is displayed.

Radio Buttons

Radio buttons are used for "one of the above" type options. The term is a reference to the channel selection buttons on many car radios. In *Top Draw*, as in most Windows programs, radio buttons are represented by circles with a caption to the right as shown in the example. The current choice is shown by a small black circle in one of the radio buttons.

Checkboxes

Checkboxes are used for "on/off" type options. In *Top Draw*, as in most Windows programs, checkboxes are represented by squares with a caption to the right as shown in the example. When an option is "on", the checkbox has an "X" in it. When the option is "off", the checkbox is empty.

Edit Boxes

Edit boxes contain text that can be edited freely, such as a file name. Click in the box to set the position of the text caret, then type new text, use the arrow keys, delete key, backspace key, or any other standard editing commands.

Lists
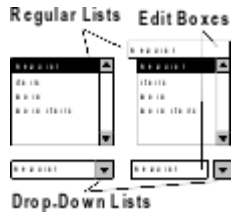
Several forms of lists are used in *Top Draw* dialog boxes, and in the **Style Bar**.   A list can be either "regular" so that you can always see the choices, or "drop-down" so that you have to click a down arrow to see the choices.   A list can also have an edit box associated with it so that you can enter choices not on the list.   These combinations are shown to the left.

Scroll to your choice (if necessary) by using the scroll bars or by holding down the left mouse button while moving the mouse cursor past the top or bottom of the list box.   Select your choice by clicking on it.

Color Palettes

Color Palettes appear in the **Style Bar**, and in the **Color**, **Line Style**, **Fill Style,** and **Texture** dialogs.   The same colors appear in the same order in all of them and they all work the same way: use the scroll bar to find the color you want, then click on the color.

Drawing Elements

Top Draw drawings are composed of a few simple elements.   These elements can be combined in an amazing number of ways.   A drawing is a collection of *objects* (also called *shapes*).   All objects have *Line*, *Fill*, and *Texture Styles*.   Some objects contain *text*.   Some objects are *groups* of other objects.   All objects belong to a *layer* and have a *front/back position* within the layer.

These terms are described in more detail:

More:

Shapes

Shape Styles

Groups

Text

Text Styles

Notes

Layers

Shapes
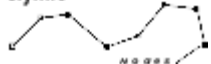
A shape is defined by an outline.   An outline can be a <u>Polyline</u>, a <u>Bezier Curve</u>, or an <u>ellipse</u>   A polyline is a sequence of connected straight line segments.   A Bezier curve is a sequence of connected smoothly curving line segments.

Line segment endpoints are called "nodes".   Bezier curve nodes have "handles" that are used to control the curvature of a line segment.   The line segment curves towards the handles.

An **Ellipse**. is a special kind of Bezier Curve.   Ellipse nodes can be edited to create pie slices, arcs, and chords.   A **circle** is an ellipse with equal width and height.

If the first and last nodes of an outline are connected, the shape is "closed".   Otherwise, it is "open".   Only closed shapes have Fill and Texture Styles.   All shapes have a Line Style.

New shapes are added to a drawing using the <u>Draw Tool</u>**,** the <u>Shapes Tool</u>, and the Clipboard.   The **Draw Tool** is used like a pencil to create entirely new shapes.   The **Shapes Tool** is used like a set of rubber stamps or templates to create copies of predefined shapes.   The Clipboard is used to paste in objects, such as bitmaps or metafiles, that were created in other programs.

Once a shape has been created, it can be moved, resized, rotated, skewed, and stretched using the <u>Select Tool</u>.   The nodes and handles can be edited using the <u>Node Tool</u>.

<u>Bitmap</u>

Bitmaps are a handled a <u>bit</u> differently.   Bitmaps are imported via the clipboard or by opening a bitmap file in any of the supported file formats.   Bitmaps have a line style but no fill or texture style, and can be resized, flipped, or rotated in 90 degree increments.

Shape Styles

Each shape has three styles: Line, Fill, and Texture.

Line Style

The <u>Line Style</u> applies to the object outline.   The line style consists of width, color, dashing, pen shape, and arrow head/tail settings.
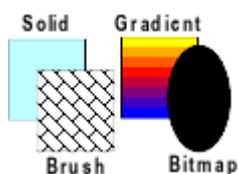
Fill Style

The <u>Fill Style</u> applies to the object interior.   It can be nothing (transparent), a single solid color, a multi-color pattern brush, one of four gradient (or "fountain") fill styles, a stretched <u>bitmap</u>, or a

tiled bitmap.

Texture Style
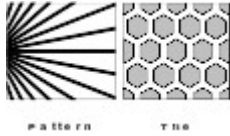
The Texture Style also applies to the object interior.   The texture is drawn on top of the fill.   In most cases, the fill can be seen through gaps in the texture.   There are two types of textures: "Pattern" and "Tile".   For pattern textures, you can select from a variety of line and circle patterns.   Tile textures consist of a shape drawn repeatedly in rows and columns.   You can pick from a variety of tile shapes.   Most pattern textures have one color. Tile textures have two colors.

To set the style of a shape, select the shape (by clicking on it using the **Select Tool**), then click on the **Line**, **Fill**, or **Texture** button in the Style Bar, or choose a style command in the Format Menu**,** or click on the shape with the right mouse button and choose a style command from the context-sensitive pop-up menu.

Groups
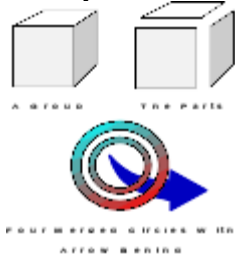
A group is a collection of objects that act like a single object. There are two kinds of groups: regular and merged.

In a regular group, all of the grouped objects keep their original styles.   The example shows a typical group, and its parts.   The parts are moved apart for clarity - grouping and ungrouping does not move the parts.

A merged group has a single style, and the outlines of the merged objects act like a single outline.   Merged groups can be used to create see-through holes, and to make a pattern extend across multiple shapes.

The Group, Merge, and Ungroup commands are on the Arrange Menu.

Text

Text in *Top Draw* is always attached to an object.   Paragraph Text is arranged in lines and paragraphs, just as it is in most word processors, and appears inside the object.   Text is indented and lines are wrapped to fit inside the container object, as shown above on the left.   When the container shape is changed, the text is automatically updated.

Line Text follows a line or curve as shown below on the left. When the line shape is changed, the text is automatically updated to follow it.

Paragraph Text can be placed anywhere in the drawing by just clicking at the desired starting point with the **Text Tool**.   To add Paragraph Text or Line Text to an existing object, just select the object and start typing.   The **Text Tool** can also be used to create an invisible rectangle for positioning paragraph text.

Text Styles

Text styles are grouped into Character and Paragraph styles

Character Style

A Character Style includes: font, size, width, spacing, **bold**, *italic*, underline, ~~strikeout~~, superscript, subscript, and color.   Character Styles apply to both Paragraph Text and Line Text.

Paragraph Style

A Paragraph Style includes: horizontal and vertical alignment, indentation, line spacing, paragraph spacing, and container top/bottom spacing.   You can also specify whether the text will be resized and rotated with the container.   Paragraph Styles apply only to Paragraph Text.

Line Text Style

A Line Text Style includes: align top/bottom of characters to line, horizontal and vertical offsets, rotate text to follow line or maintain a constant angle.   You can also specify whether rotated characters are squeezed/stretched around curves.   Line Text Styles apply only to Line Text.

Notes
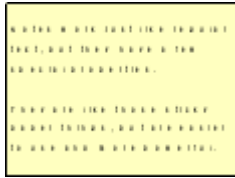
Notes are just like paragraph text, but with a few special properties:

- Note text can be printed on the title page when a drawing is printed.

- Notes can all be shown/hidden together (View|Notes).

- When a new note is created, it has a yellow rectangle instead of invisible one.   You can change the style of this rectangle.

- When a Note is selected, the Status Line indicates that the object contains a Note.

- The Notes Tool won't work on regular text, and the Text Tool won't work on Note text.

Layers
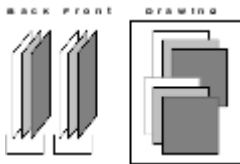
A layer works like a transparent sheet of plastic on which part of the drawing is drawn.   Layers can be used to control how much of the drawing is viewed/edited at a time.   A drawing can have any number of named layers.   A new drawing has one unnamed layer.

Each object in a drawing has a front/back position in a layer as well as a vertical/horizontal position in the drawing.   New objects are placed at the front of the current layer.

When a drawing is redisplayed, the layers are drawn from back to front. The objects within each layer are also drawn from back to front.   Objects in front may hide part or all of objects in back.

Layers are created and arranged using the Format|Layers command.   The forward/back position of objects is changed using the Forward / To Front / Backward / To Back commands in the Arrange Menu.

Since it is unusual for all objects in a drawing overlap, it is not always possible to tell what the relative front/back positions are.   Multiple **Forward / Backward** commands may be needed to get the selected object to move in front of or behind some overlapping object.

Layers can be selectively printed.   A non-printing layer can be used to represent pre-printed forms, or can be used to contain information that is needed while constructing the drawing but is not on printed copies.

Using *Top Draw* with Other Applications

Two ways to transfer drawings between *Top Draw* and other Windows applications are:

1. Via the Windows clipboard

2. Via a file using a format that both programs recognize.

3. Via object linking and embedding (OLE).

To transfer a drawing from *Top Draw* via the Windows clipboard, select the objects to be copied in *Top Draw* using the **Select Tool**, then perform the **Edit|Copy** command.   Switch to the other application and perform **Edit|Paste** in that application.   This works with a wide variety of applications.   Drawings copied to the Windows clipboard in other applications can usually be pasted into *Top Draw*.

To transfer a drawing from *Top Draw* via a file, perform the **File|Export** command, then select a file type in the **"Save File As Type"** list.   Switch to the other application and import the file.   *Top Draw* can read and write drawing files in WMF, BMP, PCX, and many other formats.

To transfer a drawing to another application using *Top Draw* as an OLE server you can:

1. Select part (or all) of a drawing

2. Copy it to the Windows clipboard.

3. Switch to the other application and use the **Edit|Paste Special** command to specify whether the drawing in the clipboard should be linked or embedded.

or

1. Save the drawing to a file.

2. Switch to the other application and use the **Insert Object** (or equivalent) command to link to or embed the drawing file.

Note: Other methods may be available in other applications for linking and embedding.   Consult the documentation for that application for details.

Tutorial Exercise

In this exercise, you will be creating a new drawing similar to the one below.   Feel free to make your drawing look different, but do try to use all of the commands discussed.   Try additional options whenever you feel like it.   *Have fun!*

This exercise should take around 45 minutes, but may take longer if you play around a lot.   It does not cover every *Top Draw* feature, there are just too many, but it will teach you the skills you will need 90% of the time.   If you haven't read the Top Draw Basics section yet, it would be a good idea to do so before starting the tutorial.

Let's get started.   Start *Top Draw* by double clicking on the *Top Draw* icon in the Program Manager.

Note: Once Help is open, you can switch quickly between *Top Draw* and Help as follows:

1.   Hold down the **Alt** key.

2.   Type **Tab** until the icon for the application you want appears.

3.   Release the **Alt** key.

More:

Page Setup

First, setup the page in the landscape (sideways) orientation:

1. <u>Perform</u> the **Format|**<u>Page Setup</u> menu command.   The **Page Setup** dialog will appear.

2. Click the **Landscape** button.

3. Click the **OK** button**.**

The *Top Draw* window should be maximized, i.e., it should take up the entire screen.   If necessary, click the up arrow at the far right hand corner of the **Title Bar** to maximize it.

Now click the middle **Zoom Button**   to make the drawing page just fit inside the rulers.

Drawing Mountains
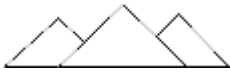
To start the drawing, you will draw three triangular mountains as shown to the left, then edit them to create a more natural appearance.

Starting with large background objects helps establish the overall layout of the drawing.   Unlike working with real paint, or bitmap oriented paint programs, it is *not* necessary to draw everything from back to front.   In fact, you will draw the sky behind the mountains later on.

Using the Shapes Tool

Click twice on the **Shapes Tool** to display the **Shapes** dialog. Click twice on the triangle (first shape, second row) to select it as the current shape.   The **Shapes Tool** will now have a triangle on it.

Draw the left mountain follows:

1. Move the mouse cursor to the top left corner of the rectangle that the triangle is to fit inside.

2. Press the left mouse button and drag to the bottom right corner.

3 Release the left mouse button.

The sequence you just performed is the standard way of specifying a "sizing rectangle".   Draw the middle mountain and then the right mountain the same way.   The right mountain will be on top but, you will fix that later.

What if mountains are not in the right place or the right size?

Moving an Object

To move an object, do the following:

1. Click on the **Select Tool** if it is not active.

2. Move the mouse cursor over the object.

3. Press the left mouse button.   A dashed outline will appear.

4. Drag the outline to the desired new location for the object.

5. Release the left mouse button.
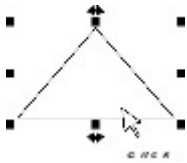
Resizing an Object

To resize an object, do the following:

1. Click on the **Select Tool** if it is not active.

2. Click on the object you want to resize (move the mouse cursor over the object, press and release the left mouse button). The "selection highlighting" will appear as shown to the left. This is called "selecting the object."

3. Move the mouse cursor over one of the little black boxes. The cursor will change from an arrow to a cross-hair. Use a corner box to change width and height simultaneously, or a middle box to change just the width or height.

4. Press the left mouse button. A dashed outline will appear, and the mouse cursor will change to a double arrow.

5. Drag the outline to the desired size.

6. Release the left mouse button.
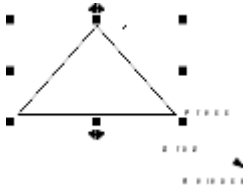
Undoing Mistakes

What if you make a mistake when drawing, moving, or resizing?

To undo the last operation:

1. <u>Perform</u> the **Edit|Undo <Operation>** menu command.

That's it! **<Operation>** is a place holder. The **Edit Menu** will really show something like **Undo Move** or **Undo Resize**.

What if you make two mistakes in row? Just perform the **Undo** command twice. In fact, you can undo the last ten operations!

Changing Forward/Back Positions

Now put the right mountain behind the middle one:

1. Select the right mountain by clicking on it.

2. Perform the **Arrange|To Back** menu command.

At this point the drawing should resemble the figure on the left.

Zooming In and Out

The next step involves some detail work and you will want to be able to get a close up view of the middle mountain.

To zoom in:

1. Click on the **Zoom In Tool** (magnifying glass with a "+" sign). The mouse cursor will change to look like the **Zoom In Tool**.
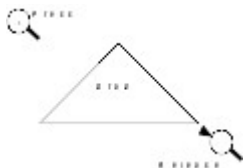
2. Move the cursor to the top left corner of the area you want to zoom in on.

3. Press the left mouse button.

4. Drag to the bottom right corner of the area you want to zoom in on.   A dashed rectangle will be drawn around the area as you drag.

5. Release the left mouse button.

To zoom out:

1. Click on the **Zoom Out Tool** (magnifying glass with a "-" sign).

Zoom in any time you need a close-up view, and out any time you need to see more of the picture.

Adding Nodes

Mountains are rarely perfect triangles.   Next, you will change the shape of the middle one a little.   A triangle has three nodes, one at each corner.   Extra nodes are needed to create a more natural shape.
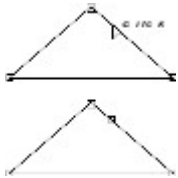
To add a <u>node</u>:

1. Click on the **Node Tool** if it is not active.

2. Click on the object outline where you want to add a node. The "node highlighting" will appear, and the pink <u>selection point</u> "+" will appear as shown in the upper figure on the left.

3. Perform the **Node|Add** menu command, or type **Ins** (Insert key).   A new node will appear at the selection point as shown in the lower figure.

Add two more nodes a little farther down on the same side of the triangle.   Now, move them around to change the shape.

Moving Nodes

To move a node:

1. Click on the **Node Tool** if it is not active.

2. Click on the object to be edited with the **Node Tool**.   The node highlighting will appear.

3. Move the point of the **Node Tool** over a node.

4. Press the left mouse button.

5. Drag the node to the new location.   The lines on either side of the node will move along with the node so you can see how the shape will be changed.
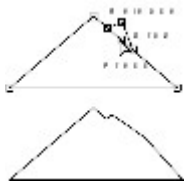
6. Release the left mouse button.

Move the nodes around until you get a shape that you like. Change the shape of the other mountains too, if you wish.

Using the Ruler Grid

If the node "jumps around" when you move it, and you can't position a node exactly where you want, the **Ruler Grid** is on. The grid helps when you want to align shapes or nodes, but makes fine positioning difficult.

To turn the **Ruler Grid** off:

1. Click on the **View Menu**.

2. If **Snap To Grid** has a checkmark by it, the **Ruler Grid** is on. Choose the **Snap To Grid** command to toggle it off.

3. Otherwise, the **Ruler Grid** is already off.

Setting the Fill Style of an Object

Mountains aren't solid white. For a snow capped coniferous forest look, set the fill style of the left mountain as follows:

1. Select the object to fill by clicking on it with the **Select Tool**.

2. Click on the **Fill** button in the **Style Bar**, or perform the **Format|Fill Style** menu command. The **Fill Style** dialog box will appear.

3. Click on the **Gradient** tab.

4. Set the gradient fill style options to:
   Fill Type = Linear,   Angle   = 0
   Color 1 = White,   Color 2 = Dark Green

5. Click the **OK** button. The selected object will be redrawn in the new fill style.

Feel free to experiment with other **Fill Style** dialog option settings.

Note: If the fill colors do not appear, *Top Draw* is probably in "Wireframe" mode. If there is a checkmark by **Wireframe** in the **View** menu, click on **Wireframe** to return to full color mode.

Copying the Style of an Object

A convenient way to make several objects have the same style is to copy the style of one object into another. Set the style of the other two mountains by copying the style of the left one.
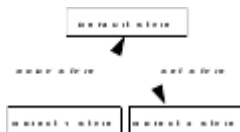
To copy an object style:

1. Select the object to copy the style from by clicking on it with the **Select Tool**.

2. Perform the **Edit|Copy Style** menu command.

3. Select the object to copy the style to by clicking on it with the **Select Tool**.

4. Perform the **Edit|Set Style** menu command.

After the first **Copy Style** you can perform any number of **Set Style** commands. The **Copy Style** command modifies the Default Style so the style will appear in the **Style Bar** samples when nothing is selected, and new objects will have the new Default Style.

Saving a Drawing to a File

It is a good idea to save work to a file periodically in any application. Now would be a good time to do so.

To save a drawing to a File:

1. Perform the **File|Save** menu command. Since this is a new file, the **Save File As** dialog will appear.

2. Select the desired drive and directory, then enter a file name (e.g. `mountain.tdr`)

3. Click **OK**.

Drawing with Layers

Layers let you work on parts of a drawing separately. A layer is like a clear sheet of plastic on which only part of the drawing appears. When the layers are viewed together, you can see the entire drawing. Each layer can be given a name, and the name of the current layer appears on the **Status Line.** New objects are always added to the front of the current layer.

The layer arrangement for the drawing will be as shown to the left. To setup the layers:

1. Perform the **Format|Layers** menu command.

2. In the **Name** column, replace the "<unnamed>" entry with "Mountains".

3. Click the **Insert** button three times. There will now be four layers shown, three of them unnamed.

4. Click the **Forward** button once to move the Mountains layer forward one position.

5 Name the other three layers by editing the "<unnamed>" entries in the **Name** column.

6   Click the **Single Layer** radio button in the **Edit** group
     (upper left section of the <u>dialog box</u>).   Now you will only
     be able to modify objects in the current layer.

7   Click the **OK** button.

The current layer, as indicated on the **Status Line**, should be
Mountains.   Click the **Layer Up** button to move to the Forest
layer.

Drawing a Forest

How do you draw an entire forest?   One tree at a time.   But
trees, especially pine trees, all look pretty much alike.   *Top Draw*
makes it very easy to make multiple copies of an object.   In fact,
there are several different ways, and you will get to try each of
them.

Copy and Paste

There is a picture of a tree in the file **pinetree.tdr** in the *Top
Draw* directory.   Open this file using the **File|Open** command.

To copy an object from another File:
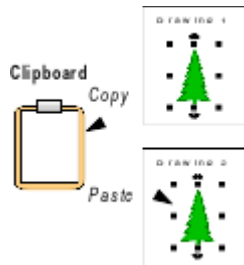
1.   Select the object to copy by clicking on it with the **Select
     Tool**.

2.   <u>Perform</u> the **Edit|Copy** menu command.

3.   Switch back to your drawing by selecting the drawing
     name in the **Window Menu**.

4.   Move the mouse to the point where you want to paste the
     tree and click the left mouse button.   The pink <u>selection
     point</u> "+" will appear where you clicked.

5.   Perform the **Edit|Paste** menu command.   The tree will
     appear in your drawing.

6.   Resize or move the tree, if you wish, using the **Select
     Tool**.

You can create multiple copies of the tree by repeating steps 4, 5,
and 6.   Try it a couple of times, but don't make too many trees
yet.

When you **Copy** an object, it also becomes available for pasting
into *other* Windows programs via the Windows clipboard.   You
can view the clipboard contents by running the Windows Clipboard
Viewer or Clipbook Viewer utility.

Importing a Picture

If you want to copy all objects in another drawing into the <u>current drawing</u>, you can do so by using the **File|Import** command as follows:
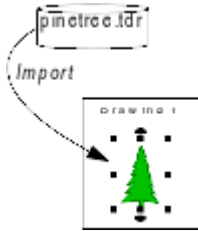
1. Move the mouse to an empty spot in the drawing where you want the tree to appear and click the left mouse button.   The pink selection point "+" will appear where you clicked.

2. Perform the **File|Import** menu command.   The **Import File** dialog will appear.

3. Find and select the **pinetree.tdr** file as you did before.

4. <u>Click on</u> the **Import** checkbox.

5. Click **OK.**   The tree will appear at the selection point.

6. Resize or move the tree, if you wish, using the **Select Tool**.

Importing a drawing also places a copy of it in the Windows clipboard.

Duplicating an Object

Once an object is in a drawing, it can be easily duplicated as follows:

1. Select the object to be duplicated by clicking on it with the **Select Tool**.

2. Perform the **Edit|Duplicate** menu command (or type **Ctrl+D**).   A duplicate of the selected object will appear, offset slightly from the original.

3. Resize or move the duplicate, if you wish, using the **Select Tool**.

Repeating the **Duplicate** command duplicates the last new copy.

Transforming an Object

Another way to duplicate objects is with the **Arrange|Transform** command.   This powerful command can also move, resize, mirror, skew, and rotate an object with or without creating duplicates. For this exercise you will create two duplicates, each smaller than the previous:

1. Select a tree to duplicate using the **Select Tool**.

2. Perform the **Arrange|Transform** menu command.   The **Transform** dialog will appear.

3. Click on the **Defaults** button. This will reset all options to their original default values.

4. Set the **Horizontal Move** value to 0.5 inches.

5. Set the **Horizontal** and **Vertical Resize** values to 80%.

6. Click on the **Duplicate** checkbox.

7. Increase the **Repeat** value to 2.

8. Click the **OK** button. Two smaller copies of the tree will appear.

This is a relatively simple example of what the **Transform** command can do.

Creating Custom Shapes

The handiest way to add many copies of an existing shape to a drawing is using the **Shapes Tool**. In fact, you will use it to complete the forest. Here's how:

1. Select a tree to add to the Shapes palette using the **Select Tool**. Pick one of the larger ones.

2. Perform the **Edit|Copy** command.

3. Click on the **Shapes Tool** twice to bring up the Shapes dialog.

4. Scroll down to an empty spot in the Shapes palette and click on it to select it.

5. Perform the **Edit|Replace** *Shapes dialog menu* command. The tree will appear in the Shapes palette.

6. Perform the **Edit|Use Shape Style** *Shapes dialog menu* command. With this option selected, the original shape style, rather than the current <u>Default Style</u> for the drawing, is used when creating new shapes.

7. Edit the name field at the top of the **Shapes** dialog to change the name from <unnamed> to "Tree".

8. Click on the Tree shape again. The **Shapes** dialog will close and the tree will appear on the **Shapes Tool** button.

Drawing with this new shape works the same as before (press-drag-release). Complete the forest by drawing more trees with the **Shapes Tool**. The result should look something like this:
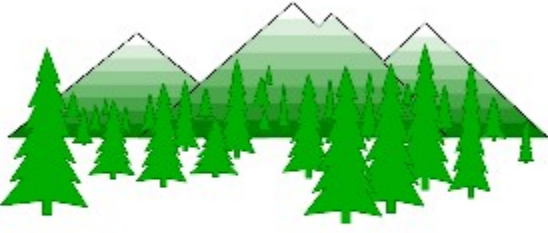
Drawing a Pond

This part of the exercise will involve freehand drawing and Bezier curve node editing.   You will find out how easy, and how much fun, Bezier curves are to work with.

The pond should be placed in the Foreground layer, towards the bottom of the drawing.   Click on the **Layer Up** button to move to this layer.

Freehand Drawing

Freehand drawing is done with the **Draw Tool**.   The basic process is:
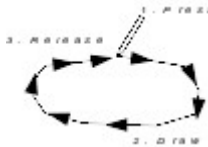
1.   Click on the **Draw Tool** button if it is not already active.
2.   Move the mouse cursor, which will look like a pencil, to a starting place on the outline.
3.   Press the left mouse button.   You can think of this as moving the pencil into contact with the paper (sort of).
4.   Move the mouse to draw the outline.
5.   To complete the outline, release the left mouse button.

To make a closed curve, you must end the outline at the start point.   To make an open curve (i.e., just a line), the start and end points must be some distance apart.   The pond should be a closed curve.

If you don't get it right the first time, just use the **Edit|Undo** command and try again.

The **Draw Tool** can also be used to draw straight lines.   You will get to try this later on in this tutorial.

Closing an Open Curve
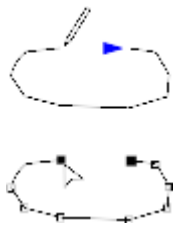
What if the shape you drew was just right, except the endpoints were not quite close enough for *Top Draw* to automatically close the curve?   There are three ways to fix this:

1.   Using the **Draw Tool**, draw a line between the endpoints.

or

2.   Using the **Node Tool**, select the object, select both endpoints (hold down the **Shift** key to select multiple nodes), then perform the **Node|Join** menu command.

or

3.   Select the object and type **Ctrl+Shift+O**.

Smoothing a Bezier Curve

It is sometimes difficult to draw a smooth freehand Bezier curve.
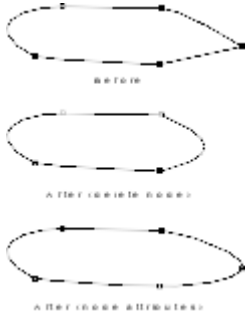
Here are two handy techniques for smoothing a curve:

1. Using the **Node Tool**, select the object, then select a node on the object that makes an unwanted corner in the outline.

2. Perform the **Node|Delete** menu command, or press the **Delete** key to delete the node.   *Top Draw* will approximate the corner with a rounded curve.

or

1. Using the **Node Tool**, select the object, then select a node on the object that makes an unwanted corner in the outline.

2. Perform the **Node|Attributes** menu command.   The **Node Attributes** dialog will appear.

3. Make sure the **Curve Before**, **Curve After**, and **Same Angle** checkboxes are checked (click on them if not).

4. Click **OK**.   The line will now pass smoothly through the modified node.

If you want to *add* a corner, click on the line with the **Node Tool** where you want the new node to appear, perform the **Node|Add** command, and position the new node as you have done previously.

Shaping a Bezier Curve

To adjust the shape of a Bezier curve, you can move the nodes or the node handles.   The nodes are points that the curve must pass through.   The handles control the curvature near a node - the curve is "attracted" towards the handles.
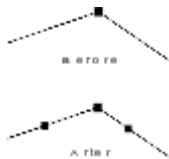
To make the nodes appear, click on an object with the **Node Tool**. To make the node handles appear, click on a node with the **Node Tool**.

A Bezier curve handle may or may not be visible.   To make both handles appear:

1. Select the node that needs handle(s).

2. Perform the **Node|Attributes** menu command.

3. Set the **Curve Before** and **Curve After** checkboxes "on" and click **OK**.

To move a node or node handle:

1. Move the **Node Tool** over a node or node handle.

2. Press the left mouse button.

3. Move to the new location.   The connected lines will be

redrawn as you move the node or handle.

4. Release the left mouse button.

Reshape the pond using these techniques to get the desired shape.

Line, Fill, and Texture Styles

Set the **Line**, **Fill**, and **Texture Styles** of the pond to your liking:

1. Click on the pond shape with the **Select Tool** to select it.

2. Click on the **Line**, **Fill**, or **Texture** buttons on the **Style Bar**, or use the corresponding commands in the **Format Menu**. A style dialog box will appear.

3. Experiment with the style options. Click the **Help** button in the dialog box if you need more information.

4. Click **OK** to set the object style.

Repeat steps 2, 3, and 4 for the remaining styles. The object will remain selected unless you click on something else in the drawing.

Making Waves
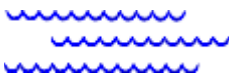
Top Draw line styles can be used to create numerous interesting effects. To add waves to the pond:

1. Draw a simple horizontal line in the middle of the pond and leave it selected.

2. Click on the **Line** button on the **Style Bar**, or use the corresponding command in the **Format Menu**. The **Line Style** dialog box will appear.

3. Make sure the **Pen** radio button is selected (the **Start** and **End** radio buttons are for adding arrow heads and tails).

4. Select **Cresent** in the list of shapes, set **Size** to 8 pt, set **Width** to 50%, set **Angle** to 90 degrees, select the second choice in the list of dash styles (dotted line), set **Dash Length** to 0.11 inch, and set the color to blue, but not the same shade of blue that you used for the lake itself.

5. Click **OK** to set the line style.

With the wavy line still selected, perform the **Edit|Copy Style** menu command to change the default style. Now draw some more horizontal lines in the pond for more waves.

At this point, your drawing should look something like this:
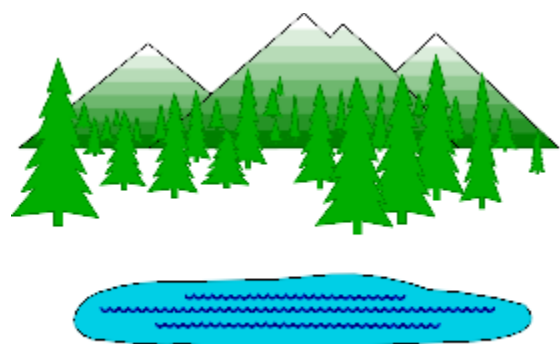
Drawing a Cabin
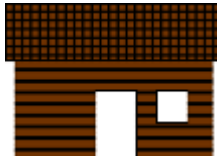
Next you will draw a cabin just above the pond.   The approach taken will be rather simplistic, and the results of questionable artistic merit. But, the intent is to demonstrate some additional features.   With your newly learned skills, you can go back and do a proper job of it later.

The cabin is all rectangles.   The easy way to draw it would be to select the Rectangle shape in the **Shapes Palette**, then draw four rectangles using the **Shapes Tool**.   Just for practice, you will use the **Draw Tool**.

Drawing a Rectangle

When drawing a shape with horizontal and vertical lines, it is usually best to have the snap grid on to make aligning the corners easier (make sure **Snap To Grid** in the **View Menu** is checked). To draw a rectangle (for the cabin wall):

1. Click on the **Draw Tool** button if it is not already active.

2. Move the mouse cursor to the location of the first corner and click the left mouse button.

3. Move to the location of the next corner.   A "rubber line" will appear between the first corner and the mouse cursor to show where the new line will go.   While holding down the Shift key, click the left mouse button to place the corner.

4. Repeat Step 3 for the third and fourth corners.

5. To close the rectangle, release the Shift key, move back to the first corner and click the left mouse button.

The rectangle outline probably looks like blue waves!   Perform the **Format|Line Style** command and click on the **Default** button in the **Line Style** dialog to get a simple black outline.

Now create the remaining rectangles by using the **Draw Tool**, the **Shapes Tool**, or by creating copies of the first rectangle.   Move and size the rectangles until you are satisfied with the arrangement.   Don't worry about styles yet.

Selecting Multiple Objects

The door and window will make see-through holes in the wall. First, select all three objects (the wall, the door, and the window) using one of these two methods:

1. Click on the **Select Tool** button if it is not already active.

2. Hold down the **Shift** key.
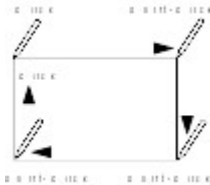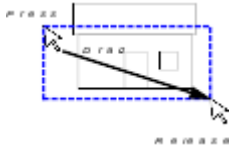
3. Click on each of the three shapes.

or

1. Click on the **Select Tool** button if it is not already active.

2. Move the mouse cursor to just above and left of the top left corner of the wall.   Position the mouse cursor so that it is not over any drawing objects.

3. Press the left mouse button and drag to the right and down until the dashed box surrounds all three objects.

4. Release the left mouse button.

Making Holes

With the three objects still selected, perform the **Arrange|Merge** menu command.   The objects will be "merged" into a single object, and the door and window will be holes.   A merged object can be split apart at any time using the **Ungroup** command (but don't do it now).

Setting Styles

Now, set the styles of the roof and the wall.   The example has a solid brown fill, a crosshatch pattern texture on the roof, and a lines pattern texture on the wall.   You can use these styles, or choose your own.

Making a Group

In order to keep the roof on the cabin, it would be a good idea to group the wall together with the roof.   To do this:

1. Select both the wall and the roof.

2. Perform the **Arrange|Group** menu command.

Now,   the roof and wall will select, move, size, rotate, etc. together as a single object.   Groups can be split apart at any time using the **Ungroup** command.

Move and size the cabin using the **Select Tool** to see how it acts like a single object.   Position the door and window in front of various background objects to see that you can in fact see through them.

A Bit o' Text

Text in *Top Draw* is always attached to an object, but the object is not always visible.   Paragraph text appears inside of the object to which it is attached.   The **Text Tool** can be used to create invisible rectangles to contain text using the familiar press-drag-release technique to specify the rectangle size.   Or, you can simply click on an existing object.   Here you will use the latter method.

To start, find the shape that looks like this in the **Shapes Palette** and draw one in the Foreground layer of the drawing:

Rotating Objects

The new shape does not look quite like a curly piece of paper.   First, it needs to be rotated about 90 degrees.   Rotating an object is as easy as resizing it:
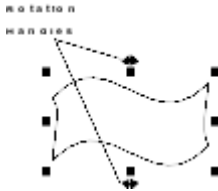
1.   Select the object to be rotated using the **Select Tool**.

2.   Move the mouse cursor over a rotation handle (tiny double arrow at top or bottom center).   The mouse cursor will change to a cross hair when it is over the handle.

3.   Press the left mouse button.   The mouse cursor will change to a double headed curved arrow.

4.   Move the mouse to rotate the object.

5.   Release the left mouse button.

Finish making the object the desired shape by using the Node **Tool** to move nodes and node handles.

Adding the Text

To add text to an existing object:

1.   If the **Text Tool** is not active, click on it.

2.   Using the **Text Tool**, click on the object to add text to.   A blinking vertical bar will appear.   This is the text caret.

3.   Start typing.   The usual arrow key, backspace, delete, and other editing commands are available.

You can modify the text style using the buttons on the left side of the **Style Bar**, or the **Character** and **Paragraph Style** commands in the **Format Menu**.

You can also modify the object style.   Simple styles work best if the text is to be readable.   You can make the object invisible by using the **None** pen in the Line Style, **None** Solid Fill, and **None** Texture.

An Easier Way to Add Simple Text

If you just need to place a few words in a drawing, such as your name in the lower right hand corner, there is an easy way to do it:

1. Using the **Select Tool, Node Tool,** or **Text Tool**, click on the spot where you want the text to start. The pink selection point "+" should appear at that spot. Make sure you don't select any drawing objects.

2. Start typing.

That's all there is to it! Text created using this method can be sized and rotated using the **Select Tool** and the object sizing and rotation handles in the usual way.

Line Text

Paragraph Text works fine for most purposes, but for fancy titles and other special effects, what you really want is Line Text. The examples on the left show two style options - the characters can rotate with the line (above) or maintain a constant angle for a "ribbon" effect (below).

Unlike Paragraph Text which is always a solid color, Line Text supports the same Line, Fill, and Texture styles as other *Top Draw* objects. For even greater control, text can be converted to Bezier curves.
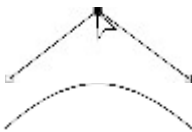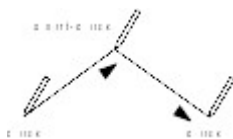
Here's how to create an arched headline:

1. Start by placing a large arch at the top of the drawing between the left and right mountains. To create the arch, first draw two straight lines as shown on the left using the **Draw Tool**. Hold down the shift key when placing the middle node.

2. Using the **Node Tool**, select the middle node then press the **Delete** key to delete it. The result will be a smooth curve. Adjust the shape of the curve, if necessary, by repositioning the handles of the two end nodes.

3. Click on the **Text Tool** to activate it. If the arch is not still selected, click on it with the **Text Tool**. Type in the headline text, e.g. "The Three Sisters". The text will be placed along the arch.

4. The text is probably much smaller than you want. Switch to the **Select Tool**, leaving the arch selected, and

increase the <u>font</u> size until the text fills the arch.   The font size can be changed using the drop down font size list on the **Style Bar** or by using the **Format|Character** menu command.

5. Now make the arch line disappear by clicking the down arrow on the right side of the **Line Sample** in the **Style Bar**.   You may have to click the down arrow several times.

6. To change the Line, Fill, or Texture style of Line Text characters,   select the range of characters to be modified using the **Text Tool,** then click on the Line, Fill, or Texture button in the **Style Bar** and change the style as desired.

More Text Tricks!

#1. If you need even more control, select the Line Text using the **Select Tool** and <u>perform</u> the **Format|Text To Curves** menu command.   The result will be a group of objects that can be ungrouped so each character can be manipulated like any other drawing object.

#2. If you just need a few big characters, or to easily access shapes in a "Wingdings" or "Sorts" font, you can open a TrueType font as a shape set in the **Shapes** dialog by performing the **File| Use Font** command in the **Shapes** dialog menu.

Earth and Sky

Finishing the drawing is left as an exercise for the reader.   Here are a couple of suggestions.

Create a big rectangle in the Mountains layer below the mountains and set fill and/or texture styles to make it look like grass.

Create a big rectangle in the sky layer and use a linear gradient fill to make it look like the sky.   Add clouds, sun rays, or whatever you like.

What have you learned?

A lot!   You know how to draw with predefined shapes, draw freehand shapes, select, move, resize, and rotate objects, undo mistakes, move objects forward and back, zoom in and out, add, delete, and move nodes, turn the Ruler Grid on and off, change the styles of an object, copy a style from one object to another, use <u>layers</u>, group and ungroup, and much more.

Some general principles should be noted:

- To create a complex shape, it is often a good idea to start with a simple shape and add nodes to the outline as needed.

- Don't worry about making mistakes.   Undo is available.

- You don't have to get it right the first time.   Everything can be changed.

- You can reuse entire drawings, parts of drawings, and create copies of shapes with ease.

- Save your work often!

This should get you started.   To learn even more, remember to use on-line help frequently.
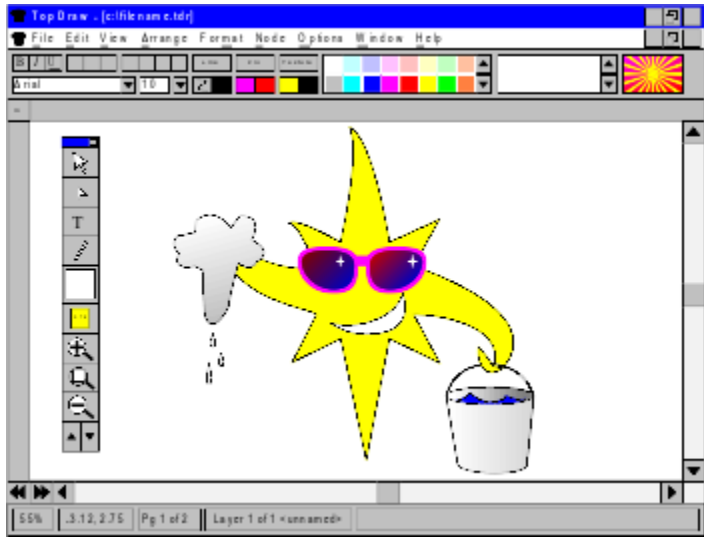
The Title Bar

Top Draw . [c:\filename.tdr]

Control Menu Application Name Drawing File Name   Window Size/Close Buttons

The **Title Bar** displays the application name, and, when the <u>Drawing Window</u> is maximized, the name of the <u>current drawing</u> file.   Like all Windows applications, it provides the standard control menu and window sizing buttons (see Microsoft Windows documentation for details).

The Menu Bar

The **Menu Bar** is located immediately below the Title Bar.   The menu is organized in the customary fashion for Windows applications, so experienced users will be able to learn the location of common commands very quickly.

The **Menu Bar** contains the following menus:

File	*Create, open, close, save, or print a file*
Edit	*Edit an object (undo, redo, cut, copy, paste...)*
View	*Modify the appearance of this application*
Arrange	*Arrange objects (forward, back, group, ungroup...)*
Format	*Change style of selected object(s)*
Node	*Manipulate selected node(s)*
Options	*Set configuration options*
Window	*Select and arrange drawing windows*
Help	*Get help on using Top Draw*

When the current Drawing Window is maximized, the **Menu Bar** contains the control menu and a resize button for the **Drawing Window**.

When all of the drawing windows are closed, the **Menu Bar** contains only the following menus:

File	*Open a file or create a new file*
Help	*Get help on using Top Draw*

The Style Bar

The **Style Bar** provides point-and-click access to numerous style setting commands, and displays current style settings.   The style that is displayed and changed depends on the current selection.

• If an object is currently selected,   the **Style Bar** shows the object styles and **Style Bar** commands modify the selected object(s).

• If nothing is selected, the Default Style is displayed and is modified by **Style Bar** commands.

• If the Text Tool is active and a block of text is selected, the style of the first character in the block is displayed, and text style changes apply to the selected block of text.

- If the **Text Tool** is active and an object is selected but the <u>text caret</u> is not visible, the style of the first character of text in the object is displayed (if any), and text style changes apply to all text in the selected object(s).

More:

<u>Character Style Buttons</u>

<u>Paragraph Style Buttons</u>

<u>Font Selection</u>

<u>Line Style Buttons</u>

<u>Fill Style Buttons</u>

<u>Texture Style Buttons</u>

<u>Color Palette</u>

<u>Line Sample</u>

<u>Fill and Texture Sample</u>

Character Style Buttons
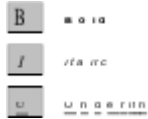
The <u>Style Bar</u> **Character Style Buttons** are used to set the **bold**, *italic*, and <u>underline</u> Character Style attributes.   The button positions indicate the current character style.

Paragraph Style Buttons

The <u>Style Bar</u> **Paragraph Style Buttons** are used to set the horizontal alignment and line spacing Paragraph Style attributes. If any text in a paragraph is selected, the Paragraph Style is changed.   The button positions indicate the current paragraph style.

The line spacing buttons set the amount of vertical space between lines in a paragraph.

The horizontal alignment buttons set the alignment of lines in a paragraph.   Horizontal alignment can be flush left, centered, flush right, or justified (flush left and right).   Horizontal alignment is relative to the borders of the object containing the text.

Font Selection

Drop down lists are provided on the <u>Style Bar</u> for setting the text <u>font</u> and font size.   The font name and size displayed indicate the current text style.

A font name can be selected from the list provided.   The font size can either be selected or typed in.   The minimum font size is 4pt. There is no limit on the maximum size.   When selecting sizes for large text, it helps to keep in mind that 72 pt = 1 inch.

Line Style Buttons
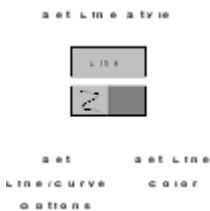
The <u>Style Bar</u> **Line Style Buttons** allow you to easily modify Line Style attributes.

• To modify the current Line Style using the <u>Line Style</u> dialog, <u>click on</u> the **Line** button.

• To set line conversion and display options using the <u>Line & Curve Options</u>, click on the **Line/Curve Options** button.

• To set the line color using the <u>Style Bar Color Palette</u>**,** click on the **Line Color** button.   To select a custom color using the <u>Color</u>

dialog, click on it again.   The color of this button is the color of the current Line Style.

Fill Style Buttons

set Fill style

Fill

set Fill   set Fill
color 1   color 2

The Style Bar **Fill Style Buttons** allow you to easily modify Fill Style attributes.

• To modify the current Fill Style using the Fill Style dialog, click on the **Fill** button.

• To set the first or second fill color using the Style Bar Color Palette, click on the **Color 1** or **Color 2** button.   To select a custom color using the Color dialog, click on it again.   The color of these button indicates the current Fill Style colors.

Note: For a **Solid** fill, only Color 1 is used.   For **None** fill, both colors are ignored.   For all brush and gradient fills, both colors are used.   When the **Text Tool** is active Color 1 indicates the current character color and the **Color 1** button can be used to set the character color.

Texture Style Buttons

set Texture style

Texture

set Texture   set Texture
color 1   color 2
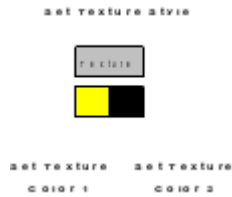
The Style Bar **Texture Style Buttons** allow you to easily modify Texture Style attributes.

• To modify the current Texture Style using the Texture Style dialog, click on the **Texture** button.

• To set the first or second texture color using the Style Bar Color Palette, click on the **Color 1** or **Color 2** button.   To select a custom color using the Color dialog, click on it again.   The color of these button indicates the current Texture Style colors.

Note: All tile textures and the crosshatch pattern texture have two colors.   All other pattern textures have one color.

Color Palette

The Style Bar **Color Palette** is used in conjunction with the **Line**, **Fill**, and **Texture Style** color buttons on the **Style Bar**.   To set a style color:

1.   Click on the appropriate style color button if it is not already active.

2.   Scroll until you see the desired color in the color palette, then click on the color square.

Line Sample

The <u>Style Bar</u> **Line Sample** displays a sample of the current Line Style.   The scroll bar on the right side of the sample box can be used to change the line thickness.   Click the up arrow to increase the line thickness, click the down arrow to decrease it.

Fill and Texture Sample

The <u>Style Bar</u> **Fill and Texture Sample** displays a sample of the current fill and texture styles.

The Tool Window

The Tool Window can   either be free-floating or "docked" on the left side of the vertical ruler.   Initially, the Tool Bar   appears just to the right of the vertical ruler.   To "dock" the   Tool Bar to the left of the vertical , drag it over the left edge of the ruler.   To "undock" the Tool Bar and make it free-floating again, double click in the area just below the Layer Buttons.

The *Top Draw* tools are used for a wide variety of interactive operations:

	<u>Select Tool</u>	Used to pick drawing objects to be used with menu commands, and to move, size, rotate, skew, and stretch objects.
	<u>Node Tool</u>	Used to pick nodes to be used with menu commands, to pick locations for new nodes and line breaks, and to move nodes.
	<u>Text Tool</u>	Used to create new text objects, to add text to an existing object, and to edit existing text.
	<u>Draw Tool</u>	Used to draw all kinds of lines: freehand and straight, single- and multi-segment, open and closed, polylines and Bezier curves.
	<u>Shapes Tool</u>	Used to add pre-defined shapes to the drawing, and to access the shapes palette. The Shapes Tool button displays the currently selected shape in the current style, so it is not always a square.
	<u>Notes Tool</u>	Used to create Notes. Notes can be shown/hidden as a group, and note text can be printed on a title page with the drawing.
	<u>Zoom Buttons</u>	Three buttons: Zoom In, Zoom Out, and Zoom to Standard Size.
	<u>Layer Buttons</u>	Used to move up/down through the <u>layers</u> of a drawing.

The Drawing Window

Units Button   Rulers

Desktop   Page   Scroll Bars

Page Buttons   Drawing Window
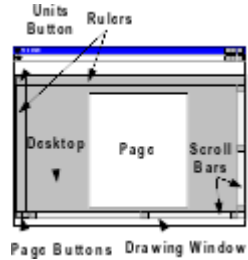
The **Drawing Window** is where most of the action happens. Since there can be many drawings open at one time, there can be many Drawing Windows, one per drawing.

Normally the Drawing Window is maximized to give you the largest possible screen area to work on and you only see one drawing at a time.   However, you can arrange the drawing windows so that you can see more than one at a time using normal Windows moving and sizing operations and/or *Top Draw Window Menu* commands.

Each **Drawing Window** consists of a **Page**, **Desktop**, **Rulers**, **Units Button,** and **Scroll Bars**.   When the **Drawing Window** is not maximized, it also has a Title Bar that contains control menu and minimize/maximize buttons, and displays the drawing filename.

More:

Page

Page Buttons

Desktop

Rulers

Units Button

Scroll Bars

Page

The white area in the middle of the Drawing Window is the **Page.** It represents the physical paper to be printed on.

• To set the page size and orientation, use the Format|Page Setup command.

• To set the page color, use the Options|Display command.

• To print objects drawn outside the page boundaries, or to print a large drawing page to several smaller sized sheets of paper, use the "Print Overflow Pages" option in the File|Print dialog.

Page Buttons

The two small double-triangle buttons on the left end of the horizontal scroll bar are used to move between pages of a drawing.   Click the left page button to display the previous page.   Click the right page button to display the next page, or to add a page if the current page is the last page in the drawing.

- To insert a page between existing pages in a drawing, use the **Edit|Insert Page** command.

- To delete a page use the **Edit|Delete Page** command.

- To rearrange pages, click right on an empty area of the drawing and use the **Page Forward** and **Page Backward** commands in the Desktop Menu.

Desktop

The Drawing Window **Desktop** is the area around the Page.   You can draw on the **Desktop**, but nothing drawn off the **Page** will appear in printouts.

• To set the desktop color, use the Options|Display command.

Rulers

The <u>Drawing Window</u> **Rulers** aid in sizing and positioning objects in a drawing.   The Rulers are fully customizable.   They can display various units and can be scaled to, for example, show one yard per inch on the printed paper.   You can change the tick mark spacing, change the <u>origin point</u>, and hide/show the rulers.   A dashed line in each ruler tracks the current mouse position.   A magenta bar in each ruler tracks the size and position of the selected object(s).

• To setup all Rulers display options, <u>click on</u> a ruler, or use the <u>View|Ruler Setup</u> command.

• To interactively set the <u>Ruler origin</u>, press on and drag from the <u>Units Button</u>.

• To hide/show the Rulers, use the <u>View|Rulers</u> command.

Associated with the rulers are a visible grid, a snap grid, and guidelines.

More:

<u>Ruler Grid</u>

<u>Snap Grid</u>

<u>Guidelines</u>

Ruler Grid

The visible ruler grid helps you align objects with the rulers. The grid can be composed of dashed lines, cross hairs, dots, or pin points.   You can change the grid spacing and hide/show the grid.

- To change the ruler grid style or spacing, <u>click on</u> a ruler, or use the <u>View|Ruler Setup</u> command.

- To hide/show the Ruler Grid, use the <u>View|Ruler Grid</u> command.

Snap Grid

The snap grid helps you precisely align and size objects by forcing object edges to land on snap grid lines.   The edge that is aligned depends on the direction of motion.   You can change the snap grid spacing and disable/enable the snap grid.

- To change the snap grid spacing or enable/disable the grid, <u>click on</u> a ruler, or use the <u>View|Ruler Setup</u> command.

- To disable/enable the snap grid, use the <u>View|Snap To Grid</u> command.

Guidelines

A guideline works like a single horizontal or vertical snap grid line.   It appears as a solid blue line.   Any number of guidelines can be placed anywhere you wish in the drawing.   Guidelines are useful for aligning rows or columns of objects or nodes.   You can hide/show guidelines, disable/enable guideline snap, and adjust the snap distance.

• To add a horizontal/vertical guideline:

   1.   Move the mouse cursor over the horizontal/vertical ruler.

   2.   Press the left mouse button and drag to the position in the drawing where you want the guideline.

   3.   Release the left mouse button.

• To remove a guideline:

   1.   Move the mouse cursor over the guideline.

   2.   Press the left mouse button and drag the guideline back into the ruler it came from.

   3.   Release the left mouse button.

•   To hide/show guidelines, use the View|Guidelines command.

•   To disable/enable guideline snap, use the View|Snap To Guidelines command.

• To set the guideline snap distance, use the Options|Select Tool command.

Units Button

The Drawing Window **Units Button** displays the current ruler units, lets you quickly change to a different ruler style, and lets you interactively change the ruler origin.

• To change the ruler style, click on the **Units Button** and choose the desired style from the pop-up menu.

• To interactively set the ruler origin:

1. Move the mouse over the **Units Button**.

2. Press the left mouse button and drag to the desired ruler origin location.   Horizontal and vertical blue lines will appear to help you place the origin.

3. Release the left mouse button.

Scroll Bars

The Drawing Window **Scroll Bars** let you move about in the drawing.   They work like standard Windows scroll bars.

Top Draw also provides an autoscroll feature.   If you move an object with the Select Tool outside of the visible part of the drawing, the drawing will automatically be scrolled to keep the object visible.

The Status Line

| 55% | .3.12, 2.75 | Pg 1 of 2 | Layer 1 of 1 <unnamed> | |

Zoom   Mouse   Current   Current Layer   Selected Object(s) Description
Scale Position   Page

Button or Menu Item Function Description

The **Status Line** displays several types of status information.   When the <u>mouse cursor</u> is over a drawing, the current zoom scale, mouse position, page number, layer name and number, and selected object description are displayed.   During editing operations, object size and position information is displayed. When the mouse is over a button or a menu command, a brief description of the associated function is displayed.

The Select Tool

The **Select Tool** is used to select objects to be operated on by menu commands.   It is also used to move, resize, skew, stretch, and rotate selected objects.

The **Select Tool** is active when the **Select Tool** button is down. To activate the **Select Tool**, just click on the button.   To set Select Tool Options, click on the button again.

More:

Selecting Objects

Moving Objects

Sizing Objects

Rotating Objects

Slanting Objects

Stretching Objects

Selecting Objects

To select an object with the Select Tool, activate the **Select Tool** and click on the object.   The part of an object that can be clicked on depends to some extent on the type of object.   In general, if some part of an object appears solid, you can click on that part to select the object.

Here are the rules:
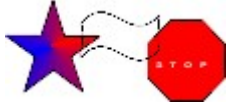
Filled Objects
To select a filled object, click anywhere in the object interior or on the outline.   An object must be closed to be filled.   If an object has a Fill Style other than **None**, if it has a Texture Style other than **None**, or if it contains text, it is considered to be filled.

Lines
To select a line, or any unfilled object, click on the line.   For skinny lines, you just have to be "near" the line as defined by the   **Contact Distance** setting in the Select Tool Options.

Groups
To select a group, click on any object that is part of the group. Highlighting will surround the entire group and the **Status Line** will indicate that a group is selected.   To treat several objects as a group on a temporary basis, use multiple object selection.

To select a sub-object of a group, hold down the **Ctrl** key when clicking on the sub-object.   If groups are nested, each click takes you inside the next level down.   The group must be unlocked.

More:
Cycling Through Objects
Selected Object Highlighting
Selecting Multiple Objects
Selecting Nothing
Cluttered Drawings
Right Mouse Button Menus

Cycling Through Objects

Sometimes objects are overlapped in a way that makes selection difficult.   Press the **Tab** key to select the next object in the current layer (cycle back to front).   Press **Shift+Tab** to select the previous object (cycle front to back).   If a subobject of a group is currently selected, the key presses will cycle through the objects in the group.

Selected Object Highlighting

Two types of highlighting are associated with the Select Tool. The first type appears the first time an object is selected. If you click on an object a second time, the second type of highlighting appears. Additional clicks on the object toggle the highlighting.

Primary Highlighting

Highlighting consists of eight squares and two double-headed arrows. The middle top and bottom squares are used for changing the object height. The middle left and right squares are used for changing the object width. Corner squares are used to change both width and height simultaneously. The double-headed arrows are used for rotating an object.

Secondary Highlighting

Highlighting consists of eight diamonds and two double-headed arrows. The middle top and bottom diamonds are used for slanting an object from side to side. The middle left and right diamonds are used for slanting an object up and down. The corner diamonds are used for stretching an object. The double-headed arrows are used for rotating an object.

Note: When Size/Rotate Text with Shape mode is OFF for the selected object, the middle handles on each side appear *hollow*. Otherwise, the handles are solid black as shown. To toggle the Size/Rotate Text with Shape mode for the selected object, use the **Format|Paragraph Style** command, or type **Ctrl+H**.

Selecting Multiple Objects

When several objects are selected, they act just like a group. The selected objects can be moved, sized, rotated, etc., together. By selecting multiple objects, you can also apply menu commands to more than one thing at a time. Some menu commands (e.g. **Arrange|Group**) require multiple selected objects.

There are two ways to select more than one object with the Select Tool:

Method 1 - *Shift-Click*:

1. Hold down the **Shift** key.
2. Click on each object.

If you click again on a selected object while the **Shift** key is held down, that object is deselected.
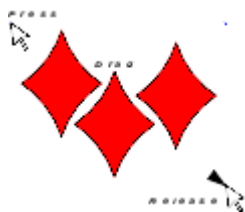
Method 2 - *Box Select*:

1. Move to one corner of an imaginary box surrounding the objects to be selected.
2. Press the left mouse button and drag to the diagonally opposite corner. A dashed outline will show the current box size.

3. Release the left mouse button.

To be selected, an object must be entirely contained in the box.

If you hold the **Shift** key down during a box select, previously selected objects will remain selected and the boxed objects will be added to the set of selected objects.

The location chosen for Step 1 must be a clear spot on the drawing.   If you can't find a clear spot, use the right mouse button instead of the left.

You can combine the two methods.   For example, it is often convenient to use the box select method to select a set of closely spaced objects, then shift-click to deselect a couple of objects that don't belong.

To "grab" the selected objects again or to toggle the highlighting, just click on any one of the selected objects.

Selecting Nothing

There are three ways to clear the <u>current selection</u>:

1. With the <u>Select Tool</u> active, <u>click on</u> a clear spot in the drawing with the left mouse button.   The <u>Selection Point</u> (a bright pink "+") will appear where you clicked.

2. With the **Select Tool** active, click anywhere with the right mouse button.   The Selection Point will appear where you clicked.

or

3. Press the **ESC** key.

There are several reasons for clearing the current selection:

- To hide the selection highlighting so you can see the drawing better.

- To see the current <u>Default Style</u> settings in the <u>Style Bar</u>.

- To set the Selection Point location.   The Selection Point marks the spot where pasted in objects will appear in the drawing when using the <u>Edit|Paste</u> command.

Cluttered Drawings

What if the drawing is cluttered and you keep selecting the wrong object(s)?   Try one of these:

- Lock the object(s) using the <u>Arrange|Lock</u> command.

- Hide the object(s) using the <u>Arrange|Hide</u> command.

- Divide the drawing into <u>layers</u>.   See the <u>Format|Layers</u> command.

Right Mouse Button Menus

Press the right mouse button to pop-up a context-sensitive menu.   There is a menu for the desktop and for each top of object that can be selected.   Menu functions are the same as the corresponding Main Menu items.

Moving Objects

To move an object with the Select Tool, activate it then:

1. Move the mouse cursor over the object.

2. Press the left mouse button.   The object outline will appear.

3. Move the mouse cursor to the new location.   The object outline will move with it to help you place the object.

4. Release the left mouse button.

To move precisely in a horizontal or vertical direction, hold down the **Ctrl** key while moving, or use the arrow keys as described below.

More:

Object Outlines

Moving Objects with the Snap Grid On

Moving Objects near Guidelines

Moving Objects with the Arrow Keys

Object Outlines

The object outline usually appears as a dashed blue line the same shape as the object.   For complex objects, the outline appears as a rectangle that surrounds the object.   You can change the threshold at which the outline changes to a rectangle using the <u>Options|Select Tool</u> command.

Moving Objects with the Snap Grid On

If the snap grid is on, the object position will be constrained so that the leading edge falls on a grid line during a move.   The object will appear to jump from gridline to gridline.   This helps to precisely position or align objects.

- To turn the snap grid on/off, use the <u>View|Snap To Grid</u> command.
- To set the snap grid spacing, use the <u>View|Ruler Setup</u> command.

Moving Objects near Guidelines

When the edge or center of rotation of an object approaches a <u>guideline</u> while being moved with the **Select Tool**, the object jumps into contact with the guideline and "sticks" until it is pulled far enough away. This helps to precisely position or align objects.

- To set the guideline snap distance, use the <u>Options|Select Tool</u> command.
- Guidelines can be moved with the Select Tool like any other object.

Moving Objects with the Arrow Keys

To move objects in small precise increments using the arrows keys:

1. Select the object(s) to be moved using the <u>Select Tool</u>.

2. Press an arrow key to move the object.   Each key press moves the object one increment.

To adjust the size of the motion increment, use the <u>Options|Select Tool</u> command and change the **Nudge Step** value.

Sizing Objects

To change the size of an object:

1. Select the object with the Select Tool.

2. Move the mouse over one of the black highlighting squares.   The mouse cursor will change to a cross hair.

3. Press the left mouse button.   The mouse cursor will change to a double headed arrow and the object outline will appear.

4. Move the mouse until the outline is the desired size.

5. Release the left mouse button.
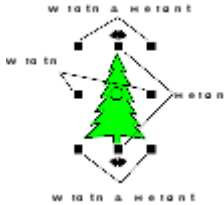
To change the **width** only, use the middle left or right square.

To change the   **height** only, use the middle top or bottom square.

To change both **width and height**, use a corner square.

To size from the **center** of an object, hold down the **Shift** key while sizing.
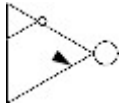
To size **proportionally**, hold down the **Alt** key while sizing.   When sizing proportionally, a corner square must be used.

To make the **width and height the same** (e.g. for square rectangles or circular ellipses), hold down the **Ctrl** key while sizing.

The **Shift** key can also be used in combination with the **Alt** key or the **Ctrl** key for proportional-from-center and square-from-center sizing.

More:

Sizing Objects with the Snap Grid On

Sizing Objects Near Guidelines

Sizing Objects with the Snap Grid On

If the snap grid is on, the object edges will be constrained to fall on grid lines while sizing.   The object edges will appear to jump from gridline to gridline.   This helps to precisely size objects.

Sizing Objects Near Guidelines

When the edge of an object being sized is moved near a <u>guideline</u>, the object will jump into contact with the guideline and "stick" until it is pulled far enough away.   This helps to precisely <u>size objects</u>.

Rotating Objects
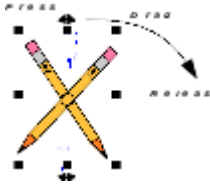
To rotate an object:

1. Select the object with the Select Tool.

2. Move the mouse over one of the double-headed arrows in the object highlighting at the top or bottom of the object. The mouse cursor will change to a cross hair.

3. Press the left mouse button.   The mouse cursor will change to a circular double headed arrow and the object outline will appear.

4. Move the mouse until the outline is at the desired angle.

5. Release the left mouse button.

More:

Controlling the Rotation Angle

Changing the Center of Rotation

Controlling the Rotation Angle

To rotate an object in steps, hold down the **Ctrl** key while <u>rotating the object</u>.   To set the angular step size, use the <u>Options|Select Tool</u> command.

Changing the Center of Rotation
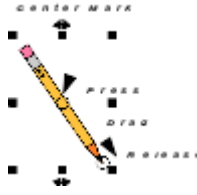
To change the center of rotation:

1. Select the object with the Select Tool.

2. Move the mouse over the center mark in the object highlighting. The mouse cursor will change to a cross hair. For new objects, the center mark will be at the center of the highlighting rectangle. If the center has previously been moved, it could be about anywhere. An easy way to find it is to rotate the object.

3. Press the left mouse button. The mouse cursor will change to a four headed arrow around the center mark.

4. Move the mouse until the center is at the desired location.

5. Release the left mouse button.

This feature is useful for creating objects that rotate around a hinge point. For an example, make a copy of the Scissors shape in the **Shape Palette**, ungroup it, and rotate each half of the scissors.

The center of a group of objects can also be moved. If the group is ungrouped, the group center point goes away since the group no longer exists.

To restore the center of rotation to its original location, hold down the **Ctrl** key while moving it as described above, or select the object and type **Ctrl+P**.

Slanting Objects
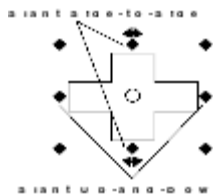
Slanting is accomplished using the Select Tool secondary highlighting. For side-to-side slanting, use the middle top or bottom diamond. For up-and-down slanting, use the middle left or right diamond.

To slant an object:

1. Select the object with the **Select Tool**. Click on it again to show the secondary highlighting.

2. Move the mouse over one of the side diamonds in the highlighting. The mouse cursor will change to a cross hair.

3. Press the left mouse button. The mouse cursor will change to a double headed arrow and the object outline will appear.

4. Move the mouse until the outline is at the desired slant.

5. Release the left mouse button.

To keep the height (side-to-side slant) or width (up-and-down slant) constant while slanting the object, hold down the **Ctrl** key while slanting.

To slant with respect to the object center, hold down the **Shift** key while slanting.

To slant with constant width/height around the center, hold down both the **Ctrl** and **Shift** keys while slanting.

Stretching Objects
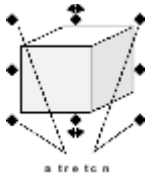
Stretching an object deforms it as if it were made out of rubber.

To stretch an object:

1. Select the object with the Select Tool.   Click on it again to show the secondary highlighting.

2. Move the mouse over one of the corner diamonds in the highlighting.   The mouse cursor will change to a cross hair.

3. Press the left mouse button.   The mouse cursor will change to a double headed arrow and the object outline will appear.

4. Move the mouse until the outline is the desired shape.

5. Release the left mouse button.

Note: Ellipses and all shapes based on ellipses (circle, arc, pie, chord) are automatically converted to Bezier curves when stretched.

The Node Tool

The Node **Tool** is used to edit nodes.   With it you can:

- Move nodes and Bezier curve node handles to reshape lines.

- Set the Selection Point for adding a node or breaking a line.

- Change an ellipse into a pie slice, arc, or chord.

- Select nodes to be operated on by **Node Menu** commands.

The **Node Tool** is active when the **Node Tool** button is down.   To activate the **Node Tool**, just click on the button.

More:

Node Editing Basics

Nodes are points along a line that determine the position and shape of the line. *Top Draw* provides two types of lines: polylines, and Bezier curves.   The Node Menu commands work on both types.   An ellipse is a special kind of Bezier curve.   Ellipse nodes don't behave like polyline or Bezier curve nodes.   To determine the type of an object, select it and read the object description in the Status Line.

More:

Selecting Objects with the Node Tool

Selecting Nodes

Cycling Through Nodes

Selecting Multiple Nodes

Moving Nodes

Node Editing Menu Commands

Selecting Objects with the Node Tool

In order to work with the nodes of an object, the object must first be selected with the <u>Node Tool</u>.   To select an object with the **Node Tool**, <u>click on</u> the object just as you would with the <u>Select Tool</u>.

To select multiple objects, hold down the shift key while clicking on each object.

Except for the **Delete** key, all commands that work for objects selected with the **Select Tool** work for objects selected with the **Node Tool**.   When the **Node Tool** is active, the **Delete** key will delete selected node(s) instead of selected object(s).

Selecting Nodes
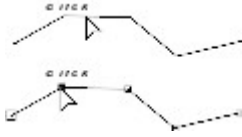
To select a <u>node</u> with the <u>Node Tool</u>:

1. Select the entire object by clicking on it with the **Node Tool**.   The nodes will be highlighted with small hollow squares.   The start node square is slightly larger.

2. Click in the node highlighting square with the **Node Tool**. The node highlighting will become solid black.

Cycling Through Nodes

Press the **Tab** key to select the next <u>node</u> in an outline.   Press **Shift+Tab** to select the previous node.
Note: A single object (not multiple) must be selected with the **Node Tool**.

Selecting Multiple Nodes
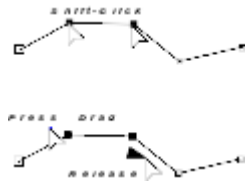
There are two ways to select multiple nodes:

Method 1 - *Shift Click*:

1. Select the object or objects containing the nodes to be selected.

2. Hold down the shift key.

3. Click on each node with the Node Tool.

Method 2 - *Box Select*:

1. Move to one corner of an imaginary box surrounding the nodes to be selected.

2. Press the left mouse button and drag to the diagonally opposite corner.   A dashed outline will show the current box size.

3. Release the left mouse button.

Moving Nodes
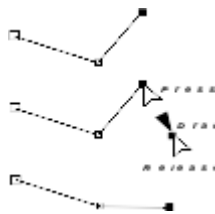
To move a node with the Node Tool:

1. Click on the object to be edited with the **Node Tool**.   The node highlighting will appear.

2. Move the point of the **Node Tool** over a node and press the left mouse button.

3. Drag the node to the new location.   The lines on either side of the node will move along with the node so you can see how the shape will be changed.

4. Release the left mouse button.

To move nodes precisely in a horizontal or vertical direction, hold down the **Ctrl** key while moving, or use the arrow keys.

Node Editing Menu Commands

These menu commands appear on the Node menu in the main menu, and in a context sensitive pop-up menu that appears when you click the right mouse button on a node while the **Node Tool** is active.

• To make a line more "jagged" or to add an extra corner, use the Node Tool to set the Selection Point on the line where the additional node is needed, then use the Node|Add command.

• To make a line smoother, straighter, or shorter, select the node to be removed with the Node Tool, then use the Node|Delete command.

• To make an open line into a closed shape or to connect two lines, select two nodes then use the Node| Join command.

• To open a closed shape or break a line in two, select the node where the break is to occur, then use the
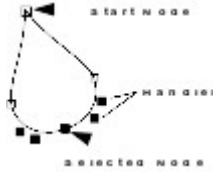
Node|Break command.

- To make a line segment exactly horizontal or vertical, select the two endpoints with the Node Tool, then use the Node|Align command.

Polyline Node Editing

All aspects of polyline node editing are covered under Node Editing Basics .

Bezier Curve Node Editing

Basic Bezier curve node editing works as described in Node Editing Basics .   Controlling the curvature of a line segment takes a couple more steps.

When a Bezier curve node is selected with the Node Tool, in addition to the node box becoming solid black, the node "handles" appear.   The near handles on the two adjacent nodes also appear.   Node handles are connected to their nodes by dashed lines.
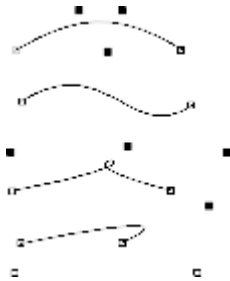
A Bezier curve segment is defined by four points: the   two nodes that are the endpoints of the segment, and the two handles that point towards the middle of the segment (more or less).   The curve segment always passes *through* the endpoints and is attracted *towards* the handles.   Some examples are shown on the left.

Moving a handle farther from its node makes the segment more curved.   It is even possible to make loops.   Moving a handle closer to its node makes the segment less curved.   If the handle point is the same as the node point, the handle does not show up when the node is selected.   If both handle points are the same as the corresponding node points, the segment is a straight line.

To move a node handle:

1. Move the **Node Tool** over the node handle.
2. Press the left mouse button.
3. Move to the new location.   The affected lines will be redrawn as you move the node or handle.
4. Release the left mouse button.
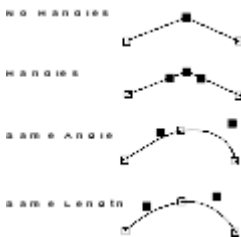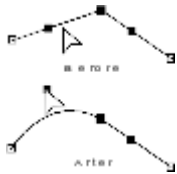
To control the shape of a line as it passes through a node, set the node attributes using the Node|Attributes command.

To make handles appear, set the **Curve Before** and **Curve After** checkboxes on.

To make a smooth line through a node, turn the **Same Angle** checkbox on.   To make a corner at a node, turn the **Same Angle** checkbox off and move one or both handles.

To constrain both handles to be the same distance from the node, turn the **Same Length** option on.   To allow different length handles, turn the **Same Length** option off.

Ellipse Node Editing
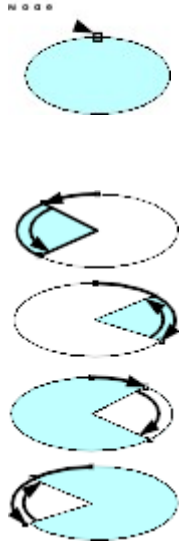
Ellipses are created with the Shapes Tool.   When a new ellipse is selected with the Node Tool, it appears to have a single node.   It actually has two nodes that happen to be in the same place.   The nodes determine the start and end angles of an elliptical pie slice, arc segment, or chord.

To create a pie slice:

1.   Move the **Node Tool** over the ellipse node.

2.   Press the left mouse button.

3.   Move the mouse cursor around the ellipse outline.   As long as the mouse cursor is near the outline, both ellipse nodes will move together.   When the mouse cursor moves off the outline,   one node will stop, and the other will keep moving.

4.   When you reach the desired location for the first node, move *inside* the ellipse outline.

5.   Continue moving the mouse inside the outline until you reach the position for the second node.   Refer to the figure on the left.

6.   Release the left mouse button.

If the nodes end up in the wrong place, just move them again with the **Node Tool**.   The nodes will continue to follow the original ellipse outline.

To create an elliptical arc segment, use the same process as for creating a pie slice, but instead of moving the mouse *inside* of the ellipse, move it *outside*.

A chord is like a pie slice, except the two nodes are connected directly to each other instead of to the center of the ellipse.   To create a chord, use the same process as for creating a pie slice, but hold down the **Ctrl** key.

Ellipses, pie slices, arcs, and chords can be resized, rotated, and slanted.   If one of these is stretched, it is automatically converted to a Bezier curve of the same shape.

Line/Curve Type Conversions

Type conversions allow you to work with a shape in the form that is most convenient:

- To convert an object to a <u>polyline</u>, select the object and <u>perform</u> the <u>Format|Convert To Polylines</u> command.

- To convert an object to a <u>Bezier curve</u>, select the object and perform the <u>Format|Convert To Curves</u> command.

The original type of a shape depends on how it was created:

- Shapes added using the <u>Shapes Tool</u> always have the same type as the original.

- Shapes created using the <u>Draw Tool</u> can be either polylines or Bezier curves.   Use the <u>Options| Draw Tool</u> command or click twice on the **Draw Tool** button to display the **Draw Tool Options** dialog, then set the **Line Conversion** options.

- An <u>ellipse</u> can only be created with the <u>Shapes Tool</u>.   The second shape in the **Shapes Palette** is always an ellipse.

The following type conversions are supported:

- Polyline to Bezier Curve

- Bezier Curve to Polyline

- Ellipse to Bezier Curve

- Ellipse to Polyline

Note: Conversion from a Polyline to a Bezier curve form can result in a slight change in shape since curve fitting is approximate.

The Text Tool

T

The **Text Tool** is used to add text to a drawing, to edit existing text, and to select text for menu and keyboard commands.   The **Text Tool** is active when the **Text Tool** button is down.   To activate the **Text Tool**, just click on the button.

There are two types of text in *Top Draw* - Paragraph Text and Line Text.   The **Text Tool** is used with both.   Paragraph Text is most useful for "plain" text and for longer blocks of text.   Line Text is most useful for short but very stylish text such as curved headlines.

Paragraph Text appears inside a drawing object.   The "container" object can have any line type and can be any shape. It can be any style, including invisible (no fill, no outline).   The text will flow to match the shape of the container (within reason).

Editing Paragraph Text in *Top Draw* is similar to working in a powerful, yet easy to use, word processor.   Text is edited in place in the drawing.   A complete set of character and paragraph styles is supported and the styles can be mixed freely.

Line Text appears next to and follows a line.   As with Paragraph Text, the line need not be visible.   Line text is also edited in place in the drawing.

Each Line Text character has its own Line, Fill, and Texture styles. For even greater control, Line Text can be converted to Bezier curves so that individual characters can be edited as drawing objects.

More:

Creating Paragraph Text

Creating Line Text

Text Editing

Text Styles

Creating Paragraph Text

There are three ways to create <u>Paragraph Text</u>:

1. Set the <u>Selection Point</u> and start typing for "free" text.

2. Make a box with the Text Tool and start typing for "boxed" text.

3. Select an existing object and start typing for "attached" text

The first method is best for simple one line captions or labels.   The second is best for longer blocks of text where an invisible rectangular boundary is needed.   The third is best when the desired result is text inside a visible shape, such as labeled boxes in a diagram, or when an irregular boundary is needed.

To control margins, alignment, line spacing, and whether paragraph text rotates with the object it is attached to, see the <u>Format|Paragraph Style</u> command.

More:

<u>Creating Free Paragraph Text</u>

<u>Creating Boxed Paragraph Text</u>

<u>Creating Attached Paragraph Text</u>

Creating Free Paragraph Text

Just click and type

This is usually the easiest way to add simple text, such as one line labels, to a drawing.   You don't even have to <u>click on</u> the **Text Tool**:

1. Using the **Select Tool,** <u>Node</u> **Tool,** or **Text Tool**, click on the spot where you want the text to start.   The pink <u>selection point</u> "+"   should appear at that spot.   Make sure you don't select any drawing objects.

2. Start typing.   See the <u>Text Editing</u> section for details on editing commands.

That's all there is to it!   Text created using this method can be sized and rotated using the **Select Tool** and the object sizing and rotation handles in the usual way.

Multiple Lines

Free Text can have multiple lines.   Each line is a paragraph. When you reach the end of a line, press the **Enter** key to create a new paragraph, then continue typing on the next line.

Creating Boxed Paragraph Text

Press

Drag

Release

The <u>Text Tool</u> can be used to create an invisible rectangle to hold new   <u>Paragraph Text</u> as follows:

1. Move the <u>mouse cursor</u> to one corner of the rectangle.

2. Press the left mouse button.

3. Drag the mouse to the other corner of the rectangle.   A dashed blue outline will be drawn to show the current rectangle size.

4. Release the left mouse button.   The <u>text caret</u> will appear in the rectangle just created.

5. Start typing to add text.   See the <u>Text Editing</u> section for details on editing commands.   The text will wrap to fit inside the box.

The invisible rectangle created by the **Text Tool** is an ordinary rectangle that can be resized, reshaped, and changed to any style.

Creating Attached Paragraph Text

Click on any object and start typing to add text..

To add <u>Paragraph Text</u> to an existing object:

1. <u>Click on</u> the object with the <u>Text Tool</u>.   The <u>text caret</u> will appear.   If the object already contains text, the text caret will appear in the text where you clicked.   Otherwise, the

text caret will appear in the usual starting location for the current Paragraph Style.

2. Start typing to add text.   See the <u>Text Editing</u> section for details on editing commands.
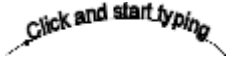
Shortcut: To add Paragraph Text to the currently selected object, just start typing (the object must be *closed* or you will get <u>Line Text</u>).   The object can be selected with the <u>Select Tool</u> or <u>Node Tool</u>, or newly created with the <u>Shapes Tool</u>.   If the object already contains text, the existing text is replaced.

Note: Paragraph Text cannot be attached to Groups nor to open objects.
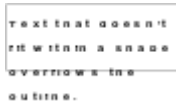
If the object is not big enough to hold all of the text, the text will overflow the shape outline.   The overflow direction (top, bottom, or both) depends on the current vertical alignment style.

Creating Line Text

<u>Line Text</u> can be added to either open or closed shapes.   To add Line Text to a shape:

1. Make sure nothing in the drawing is selected.

2. <u>Click on</u> the **Text Tool** if it is not already active.

3. Click on the line at the starting location for the text.

4. Start typing.

Shortcut: To attach Line Text to the currently selected object, just start typing (the object must be *open* or you will get <u>Paragraph Text</u>).   The object can be selected with the <u>Select Tool</u> or <u>Node Tool</u>, or newly created with the <u>Shapes Tool</u>.   If the object already contains text, the existing text is replaced.

Note: Line Text cannot be attached to Groups.

Text Editing

Most *Top Draw* text editing commands will be familiar to experienced Windows users.

More:

<u>Typing Text</u>

<u>Moving the Text Caret</u>

<u>Line Text Arrow Key Functions</u>

<u>Selecting Text</u>

Typing Text

Once an object has been selected with the <u>Text Tool</u>, new text is added by typing the desired characters.

The "<u>text caret</u>" marks the current text insertion point.   The text caret appears as blinking line when in "insert" mode, and as a blinking box when in "overwrite" mode.

In *insert* mode, a new character is inserted at the text caret position.   In *overwrite* mode a new character replaces the character currently highlighted by the text caret.   The text caret moves to the right as new text is entered.

To toggle between insert and overwrite mode, press the **Insert** key.

## Moving the Text Caret
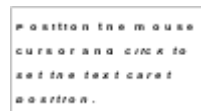
To position the <u>text caret</u> using the <u>Text Tool</u>:

1. Move the <u>mouse cursor</u> to the desired location in the text.

2. Click the left mouse button.   The text caret will jump to the new location.

To position the text caret using the keyboard:

Arrow Key	Function
Left	Left one character.
Right	Right one character.
Up	Up one line (<u>Paragraph Text</u>).
Down	Down one line (Paragraph Text).
Ctrl+Left	Left one word.
Ctrl+Right	Right one word.
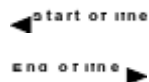
| <u>Edit Key</u>	<u>Function</u>
Home	Start of line.
End	End of line.
Page Up	Start of paragraph (Paragraph Text).
Page Down	End of paragraph (Paragraph Text).

Line Text Arrow Key Functions

In <u>Line Text</u>, the following functions are associated with the arrow keys:

Arrow Key	Function

| ◄ | **Left** | Left one character.   If at the start of the text, shift the text left along the line. |
►	**Right**	Right one character. If at the end of the text, shift the text right along the line.
▲	**Up**	Increase vertical offset from line.
▼	**Down**	Decrease vertical offset from line.

Selecting Text

Many commands, such as Copy, Cut, Paste, and text style changes, require that you select the block of text to be operated on by the command.   The following sequences work with both Paragraph Text and Line Text.   The object must already be selected with the Text Tool.
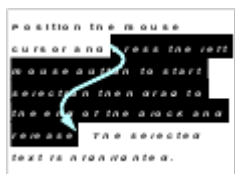
To select text with the mouse:

1. Move the mouse cursor to the start of the block of text to be selected.

2. Press the left mouse button.

3. Drag the mouse to the end of the block of text.   The selected text will be highlighted as you move the mouse.

4. Release the left mouse button.
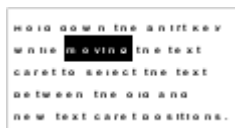
To select text using *any* text caret movement technique:

1. Position the text caret at the start of the block of text to be selected.

2. Hold down the **Shift** key.

3. Move the text caret to the end of the block of text.   The selected text will be highlighted as you move the text caret.

4. Release the **Shift** key.

To select a word:

1. Move the mouse cursor to a position inside the word.

2. Double-click the left mouse button.   The word will be highlighted.

Copying, Cutting, and Pasting Text

To copy or cut text to the Clipboard:

1. Select the text to be copied, cut, or deleted.

2. Perform the Edit|Copy or Edit|Cut command.

To paste text from the Clipboard:

1. Position the text caret where the text is to be inserted.

2. Perform the Edit|Paste command.

Moving Text Using Drag-and-Drop

To move a block of text:

1. Select the text to be moved with the **Text Tool**.

2. Press the left mouse button with the cursor inside the highlighted area.

3. While holding down the left mouse button, position the <u>text caret</u> where the text is to be inserted.

4. Release the left mouse button.

To move a block of text without deleting it from its original location, <u>perform</u> the sequence above and hold down the **Ctrl** key during steps 3 and 4.

Deleting Text

The currently <u>selected</u> block of text is deleted when you: type new text, paste new text,   press the **Del** or **BkSp** key, or <u>perform</u> the <u>Edit|Delete</u> command.

The following keys can be used to delete characters:

Key	Function
Backspace	Delete character to left of <u>text caret</u>.
Delete	Delete character to right of text caret.

Text Styles

Text styles are divided into Character Styles, which apply to individual characters, Paragraph Styles, which apply to paragraphs and text containers, and <u>Line Text</u> Styles.

More:

<u>Character Styles</u>

<u>Paragraph Styles</u>

<u>Line Text Styles</u>

Character Styles

The styles that apply to individual characters in both Paragraph Text and Line Text are:

	Font	(typeface)
	Size	(overall size)
	Width	(horizontal size)
	Spacing	(distance between characters)
	Style	(special character attributes)
	Super/subscript	(vertical position)
	Color	(solid fill color)

To set all styles except color, select the text to be modified and use the Format|Character Style command on the main menu, the **Character Style** command on the context sensitive pop-up menu (right mouse button), or a Style Bar button.

To set text color, select the text to be modified and change **Fill Color 1** on the Style Bar.

Paragraph Styles

The styles that apply to individual paragraphs in <u>Paragraph Text</u> are:

Horizontal Alignment	(left, centered, right, justified)
Indentation	(left, right, first line)
Line Spacing	(distance between lines)

The styles that apply to all Paragraph Text in a container are:

Vertical Alignment	(top, centered, bottom)
Spacing	(top, bottom, between paragraphs)

A paragraph is selected for style changes if any character in the paragraph is selected, or if the <u>text caret</u> is currently in the paragraph.   If the container object is selected, styles changes apply to all of the text in the container.

To set paragraph styles, select the text to be modified and use the <u>Format|Paragraph Style</u> command on the main menu, the **Paragraph Style** command on the context sensitive pop-up menu (right mouse button), or a <u>Style Bar</u> button.

Hint: If a text container object has a pointy top or bottom, increase the top or bottom spacing so that the text begins/ends where the container is wider.   Otherwise, *Top Draw* will break words to get text to fit in the narrow space.

Line Text Styles

The styles that apply to <u>Line Text</u> are:

Alignment	(top/bottom of characters to line)
Offset	(distance of characters from line)
Angle	(rotate characters with line, or keep characters at a constant angle)

Line Text is selected for style changes if the container object is selected.

Characters in Line Text can also have their own Line, Fill, and Texture styles.   To set these styles:

1. Select the characters to be changed using the Text Tool.

2. <u>Click on</u> the **Line**, **Fill**, or **Texture** button in the **Style Bar**, or use the corresponding **Format** menu command.

3. Set the desired style options in the style dialog and click **OK**.

The Draw Tool

The **Draw Tool** is used to draw new shape outlines.   It can be used to draw straight lines, freehand lines, and combinations of both.   The outline can be open or closed.   The **Draw Tool** can be used to create both polylines and Bezier curves.

The **Draw Tool** is active when the **Draw Tool** button is down.   To activate the **Draw Tool**, just click on the button.   To set Draw Tool Options, click on the button again.
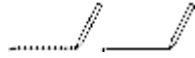
More:

Draw Tool Options

Drawing Straight and Freehand Lines

Line, Fill, and Texture Styles

Draw Tool Options

The **Draw Tool Options** let you control the way new lines are created using the Draw Tool.   The following options can be set using the Options|Draw Tool command:

Freehand Point Spacing
Controls the minimum distance between adjacent points when drawing freehand lines.

Join/Close Distance
Controls the distance for points to be considered "touching" when automatically attaching a new line to an existing line, or closing a line.

Control Angle Step
Controls the rotational angle between steps when pivoting a new straight line segment with the **Ctrl** key down.

Single/Multiple Segment
In Single Segment mode (the default), the **Draw Tool** finishes a new line as soon as you release the left mouse button after freehand drawing or after clicking on the second point of a straight line.   In Multiple Segment mode, the **Draw Tool** keeps adding line segments to a new line until you double click the left mouse button.   Holding down the **Shift** key temporarily toggles from the current mode to the opposite mode.
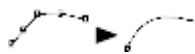
Grid Freehand Input
When this option is on, all freehand input points are forced to fall on snap grid lines.   By default, this option is off.

Simplify Polyline
When this option is on (the default), points that fall in the middle of a nearly straight line are deleted before the new line is added to the drawing.

Convert To Curves
When this option is on (the default), new lines are converted and added to the drawing as Bezier curves.   When off, they are added as polylines.

Drawing Straight and Freehand Lines

To draw a straight line with the Draw Tool:

1. Move the mouse cursor to the start point.

2. Click the left mouse button.

3. Move to the end point.   A "rubber line" will be drawn from the start point so you can see where the line will go.

4. Click the left mouse button again (see **Note**).

To draw a freehand line with the **Draw Tool**:

1. Move the mouse cursor to the start point.
2. Press the left mouse button.
3. Draw the desired contour while holding the left mouse button down.
4. Release the left mouse button (see **Note**).

Note: In Single Segment mode, a new line will be added to the drawing at the end of Step 4.   In Multiple Segment mode, a new straight line segment will be started.   To finish the line in Multiple Segment mode you can 1) double-click, 2) hold the **Shift** key down during Step 4 , or 3) click the right mouse button to drop the last line segment and complete the line.

More:

Combining Straight and Freehand Lines

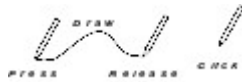Drawing Open and Closed Outlines

Connecting To Existing Lines

Correcting Mistakes

Combining Straight and Freehand Lines

First, set the Draw Tool mode to Multiple Segment using the Options|Draw Tool command, or hold down the **Shift** key if in Single Segment mode.

To follow a straight line with a freehand line, press and hold down the left mouse button at the second straight line point (instead of clicking), then draw with the mouse while continuing to hold the left mouse button down.

To follow a freehand line with a straight line, release the left mouse button.   A new straight line segment will automatically be started.

Drawing Open and Closed Outlines

To draw an open outline, make sure the first and last points drawn are *not* close together.

To draw a closed outline, make sure the first and last points *are* close together.

Connecting To Existing Lines

To connect a new line to a line already in the drawing, start or end the new line at an endpoint of the existing line.   You can also connect *both* the start and end of a new line to existing lines.   The existing line must be open, not closed.

The style of the existing line is converted to the current Default Style when it is connected to the new line.

Correcting Mistakes

To delete the last point(s) in a line while drawing with the <u>Draw Tool</u> in Multiple Segment mode:

1. Release left mouse button.

2. Press the **Backspace** key.   Press again to delete another point.

Line, Fill, and Texture Styles

The current default Line Style is used to display freehand lines and completed straight lines as you draw with the Draw Tool.   The current default Fill and Texture Styles are used to draw the interior of a completed closed shape.

The current Default Style is shown in the Style Bar sample boxes when nothing is selected.

To change the Default Style, make sure nothing is selected.   To change the style of an object, make sure the object is selected using the Select Tool   Then, use one or more of the following main menu commands or the corresponding **Style Bar** buttons to modify styles:

- Format|Line Style
- Format|Fill Style
- Format|Texture Style

The Shapes Tool

The **Shapes Tool** is used to add predefined shapes to a drawing, and to access the **Shape Palette**

The current shape is displayed on the **Shapes Tool** button in the style that will be used when it is added to the drawing, so it will not always have a white square on it as shown on the left.
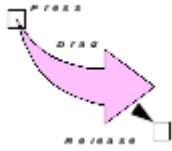
The **Shapes Tool** is active when the **Shapes Tool** button is down. To activate the **Shapes Tool**, just click on the button.   To display the **Shape Palette**, click on the **Shapes Tool** button again.

More:

Drawing a Shape

The Shape Palette

Drawing a Shape

To draw a shape with the Shapes Tool:

1. Move the mouse cursor to the starting corner on an imaginary rectangle that will surround the new shape.

2. Press the left mouse button.

3. Drag to the diagonally opposite corner. The shape outline will be drawn to help you position and size the shape.

4. Release the left mouse button.

The relative position of the starting and ending corners determines the orientation of the shape. Normal is top-left to bottom-right. Drawing bottom-to-top flips the shape vertically, drawing right-to-left flips it horizontally.

Alternate Sizing Methods

The **Shapes Tool** supports the same sizing method alternatives as the Select Tool:

- To size from the center, hold down the **Shift** key.

- To make the height equal the width, hold down the **Ctrl** key.

- To maintain the proportions of the original shape, hold down the **Alt** key.

- The **Shift** key can be used in combination with the **Ctrl** key for square-from-center sizing, and in combination with the **Alt** key for proportional-from-center sizing.

To create the new shape in the **same size** as the original:

1. Move the mouse cursor to the point where the center of the new shape is to be placed.

2. Click the left mouse button.

Or, use the drag-and-drop technique described next.
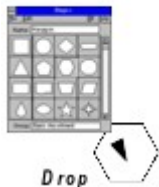
Drag and Drop

To place a shape in a drawing using drag-and-drop:

1. Display the **Shape Palette** if it is not visible by clicking on the **Shapes Tool** button twice.

2. Move the mouse cursor over a shape in the **Shape Palette**.

3. Press the left mouse button.

4. Drag the shape to the desired location in the drawing.

5. Release the left mouse button to drop the shape in position.

Shapes placed in a drawing using this technique are the same size as the original shape.   Shapes can be resized and repositioned using the **Select Tool**.

The Shape Palette

The **Shape Palette** is used to access and modify sets of shapes.It is displayed by clicking twice on the Shapes Tool.

The shapes are stored in files with the "`tds`" suffix.   The default shape set is stored in the file "`assorted.tds`" in the *Top Draw* directory.

More:

Choosing a Shape

Controlling the Style of a New Shape

Changing Shape Sets

Using a Font as a Shape Set

Creating a New Shape Set

Customizing a Shape Set

Choosing a Shape

To choose a shape from the **Shape Palette**:

1. Scroll until you see the desired shape.

2. <u>Click on</u> the shape to select it.   A black box will highlight the selected shape.

You can draw with the newly selected shape *without* closing the **Shape Palette**.   To close the **Shape Palette** click on the selected shape again, or click **OK**.

Controlling the Style of a New Shape

A new shape can be created using either the current Default Style, or the same style as the original shape.

To use the current Default Style, choose **Use Current Style** in the **Edit Menu** of the **Shape Palette**.

To use the original style, choose **Use Master Style** in the **Edit Menu** of the **Shape Palette**.

Changing Shape Sets

To change to a different shape set, open a different shape file by choosing **Open** in the **File Menu** of the **Shape Palette**.   Choose a file name using the **File Open** dialog and click **OK**.

Using a Font as a Shape Set

To use a <u>True Type</u> <u>font</u> as a shape set, choose **Use Font** in the **File Menu** of the **Shape Palette**. Choose a font in the **Font** dialog and click **OK**.   This is especially useful for "Wingdings" and "Sorts" fonts, and is also a handy way to add really big letters to a drawing.

Creating a New Shape Set

To create a new shape palette, choose **New** in the **File Menu** of the **Shape Palette**.   The first four shapes are predefined and cannot be modified.   Additional shapes can be added as described in Customizing a Shape Set.

Customizing a Shape Set

A shape set is customized by adding new shapes or changing existing shapes.   Shapes are created by drawing in a regular drawing file.   Shapes are transferred to the Shape Palette via the Windows clipboard.   The entire shape set is then saved to a file.

Here are some guidelines for creating shapes that work well in the **Shape Palette**:

- Keep shapes relatively simple.   Stick to symbols or objects that you use frequently in your daily work.

- Avoid styles that don't scale with the object.

- For wide lines, be sure to set the Resize Line with Shape and Resize Arrows with Line options in the **Line Style** dialog.

- If an object contains text, be sure to set the Size/Rotate Text with Shape option in the **Paragraph Style** dialog.

- When creating the original drawing, make it at least 1 inch by 1 inch.   Bigger is fine.

To copy a shape to the clipboard:

1. Select all of the shape with the Select Tool.

2. Perform the Edit|Copy command.

To put the shape in the **Shape Palette**:

1. Scroll to and click on the cell to receive the shape.   The cell will be highlighted by a black rectangle.

2. Choose **Replace** in the **Edit Menu** of the **Shape Palette**.   The shape will appear in the selected cell.

3. Give the object a unique name by editing the string in the **Name** edit box in the **Shape Palette**.

To save a Shape Set:

1. If you haven't named the Shape Set, edit the string in the **Group** edit box in the **Shape Palette**.

2. Choose **Save** in the **File Menu** of the **Shape Palette**.

3. Choose directory and a file name using the **File Save As** dialog and click **OK**.

The Notes Tool

The **Notes Tool** is used to add notes to a drawing.   Notes can be printed as part of the drawing, or hidden.   Note text can be printed on a title page when the drawing is printed.
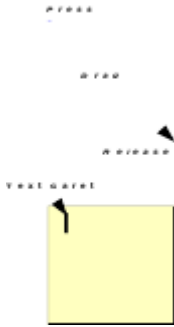
To add a note to the current drawing:

1. Click on the **Notes Tool** if it is not already active.

2. Move the mouse cursor to one of the note corners.

3. Press the left mouse button and drag to the diagonally opposite note corner.   A dashed blue line will be drawn to indicate the rectangle size.

4. Release the left mouse button.   A new rectangular yellow note will appear with the text caret blinking inside it.   The starting position of the text caret depends on the current Paragraph Style.

5. Start typing.   Note text is edited using the same commands as regular text.   The same default text style is used for both regular text and for notes.

To edit text in an existing note:

1. Click on the **Notes Tool** if it is not already active.

2. Click on the note.   The blinking text caret will appear.

3. Edit the note text using the same commands as regular text.

When a note is selected, the selected object description in the Status Line includes **"[Note]"** before the layer number.

The note text container, the yellow rectangle, can be modified like any other object (size, shape, style, etc. can be changed).   Be careful though, or you may loose track of which objects are notes.

To hide/show all notes, use the View|Notes command.

To print note text on a title page, use the File|Print command and set the **Title Page** and **Notes** checkboxes on.

The Zoom Buttons

The **Zoom Buttons** allow you to change the magnification (scale) at which a drawing is displayed, and to select the section of the drawing to magnify.

Each of the **Zoom Buttons** provides two related functions, one for the left mouse button, and one for the right:

Zoom In

Left	Zoom to selected region.
Right	Zoom in by 2X (make image two times bigger).

Zoom to Fit

Left	Zoom to fit page to window (nothing selected), or zoom to fit current selection to window.
Right	Zoom to 100%.

Zoom Out

Left	Zoom to previous scale.
Right	Zoom out by 2X (make image two times smaller).

The left/right mouse button functions can be exchanged using the Options|Zoom Buttons command.

Except for zooming in to a selected region, all you have to do is click on the appropriate **Zoom Button**.   To zoom in to a selected region:

1. Click on the **Zoom In Tool**.   The mouse cursor will change to look like the **Zoom In Tool**.

2. Move the cursor to the top left corner of the area you want to zoom in on.

3. Press the left mouse button.

4. Drag to the bottom right corner of the area you want to zoom in on.   A dashed rectangle will be drawn around the area as you drag.

5. Release the left mouse button.

Unless the rectangle you select has exactly the same proportions as the drawing window, the displayed area will be slightly larger than the selected region after zooming in.

The Layer Buttons

The **Layer Buttons** let you move up and down through the layers of the current drawing.

Layer Up

Click on this button to move to the next layer *up* in the drawing.   If there isn't one, it beeps.

Layer Down

Click on this button to move to the next layer *down* in the drawing. If there isn't one, it beeps.

The number and name of the current layer, and the layer that the currently selected object belongs to, are displayed in the Status Line.

To set up drawing layers, use the Format|Layers command.

File Menu

New

Open

Close

Save

Save As

Save All

Import

Export

Options

Annotate

Print

Printer Setup

Scan

Scanner Setup

Reopen

Exit

New
Creating a New Drawing

The **File|New** command creates a new, empty drawing.   The drawing is given a default name such as "Drawing-X", where X is a number.The new drawing has the same configuration (page size and orientation, ruler setup, ruler grid style, etc.) as the last active drawing.

Any number of drawings may be open at the same time, limited only by available memory.

Open
Opening a Drawing File

The **File|Open** command opens an existing drawing file in a new window.

To open a File:

1. Select a Drive

The current drive is shown below the Drives heading.   To switch to a different drive, select one from the drop-down list.

2. Select a Directory

The current directory is shown below the **Directories** heading as a DOS pathname, and illustrated in tree form.   To switch to a different directory, double-click on folders in the directory tree.

3. Select a File Type

The current file type is shown below the **List Files of Type** heading.   To select a different file type, choose one from the drop-down list.

4. Select a File Name

Select an existing file to open by clicking on one of the file names in the **File Name** list box.   You can also type a name in the **File Name** edit box.   If the file does not exist, a new empty drawing is created with the given name.

5. Click OK

The drawing will be opened in a new window and displayed.

Close
Closing a Drawing

The **File|Close** command closes the current drawing.   If the drawing has been modified since it was last saved, you will be prompted to save the file first.

See also: Window|Close All

Save
Saving a Drawing

The **File|Save** command saves the current drawing to a file using the current file name.

If the current drawing has never been saved, the **File|Save As** command is automatically used instead.

If the backup option is enabled in the **File|Options** dialog, the current file is renamed with a modified extension (for example, ***.tdr** becomes ***.~td**).   Otherwise, only the most   recent copy of the drawing file is saved.

When editing a *Top Draw* drawing that is embedded in another application using OLE, the **Save** command changes to **Update**.

Save As
Saving a Drawing with a New Name or Format

The **File|Save As** command saves the current drawing to a file.   This command can be used to save a new drawing to a file, to save a previously saved drawing under a different file name, or to save a drawing in a different format.

To save a drawing to a File:

1. Select a Drive

The current drive is shown below the **Drives** heading.   To switch to a different drive, select one from the drop-down list.

2. Select a Directory

The current directory is shown below the **Directories** heading as a DOS pathname, and illustrated in tree form.   To switch to a different directory, double-clicking on folders in the directory tree.

3. Select a File Type

The current file type is shown below the **List Files of Type** heading.   To select a different file type, choose one from the drop-down list.   If the file type specifies a bitmap format (e.g. BMP, PCX, GIF, TIF, JPG, ...), a Bitmap Export Options dialog will appear after you click **OK**.

4. Select a File Name

Type a file name in the **File Name** edit box.   A file type extension will be automatically added if you don't provide one.   The currently selected file type will be used.

To select an existing file name, click on one in the **File Name** list box.

5. Click OK

The   drawing will be saved to the named file.   If the **Backup** checkbox is checked, the current file is renamed with a modified extension (for example, ***.tdr** becomes ***.~td**).   Otherwise, only the most recent copy of the drawing is saved.

Save All
Saving All Modified Drawings

The **File|Save All** command saves all open drawings that have been modified.

If an open drawing has never been saved, the **File|Save As** command is automatically used instead.

Import
Importing a Drawing

The **File|Import** command opens a drawing file and places the drawing into the active layer of the current drawing.

To import a File:

1. Select a Drive

The current drive is shown below the Drives heading.   To switch to a different drive, select one from the drop-down list.

2. Select a Directory

The current directory is shown below the **Directories** heading as a DOS pathname, and illustrated in tree form.   To switch to a different directory, double-click on folders in the directory tree.

3. Select a File Type

The current file type is shown below the **List Files of Type** heading.   To select a different file type, choose one from the drop-down list.

4. Select a File Name

Select an existing file to open by clicking on one of the file names in the **File Name** list box.

5. Click OK

The drawing will be opened in the current drawing window and displayed.

Export

Exporting a Drawing

The **File|Export** command saves a drawing to a file in a new format.   This command can be used to save a new drawing to a file, to save a previously saved drawing under a different file name, or to save a drawing in a different format.

To export a drawing to a File:

1. Select a Drive

The current drive is shown below the **Drives** heading.   To switch to a different drive, select one from the drop-down list.

2. Select a Directory

The current directory is shown below the **Directories** heading as a DOS pathname, and illustrated in tree form.   To switch to a different directory, double-clicking on folders in the directory tree.

3. Select a File Type

The current file type is shown below the **List Files of Type** heading.   To select a different file type, choose one from the drop-down list.   If the file type specifies a bitmap format (e.g. BMP, PCX, GIF, TIF, JPG, ...), a Bitmap Export Options dialog will appear after you click **OK**.

4. Select a File Name

Type a file name in the **File Name** edit box.   A file type extension will be automatically added if you don't provide one.   The currently selected file type will be used.

To select an existing file name, click on one in the **File Name** list box.

5. Click OK

The   drawing will be saved to the named file.   If the **Backup** checkbox is checked, the current file is renamed with a modified extension (for example, ***.tdr** becomes ***.~td**).   Otherwise, only the most recent copy of the drawing is saved.

Setting Bitmap Export Options

If the selected file type for **File|Export** or **File|Save As** is a <u>bitmap</u> (e.g. BMP, <u>PCX</u>, GIF, TIF), the following <u>dialog box</u> will appear after the file selection dialog box closes:

To specify the exported bitmap attributes:

1. Select Drawing Area to Include

Full Page - Bitmap will be an image of the entire page.

All Objects - Bitmap will be an image of the smallest area that includes all objects in the drawing.

Selected Objects - Bitmap will be an image of the smallest area that includes all objects currently selected in the drawing.

2. Specify Drawing Size

Width and Height - Specify the overall size of the exported bitmap in either pixels or the current ruler units (e.g. inches).

Note: Ruler units do *not* determine the size a bitmap will appear when initially imported into another application.   Use ruler units when you know the desired physical size of the bitmap and the resolution of the output device.

Margins - To allow extra room around the image in the bitmap, increase the Margins value.   To crop the image, use a negative Margins value.

Resolution - Values in pixels are converted to ruler units, and vice-versa, according to the current resolution setting.   Adjust the resolution setting to scale the size in pixels proportionally, or to match the resolution of a particular output device.

3. Specify The Number of Colors

The default setting will usually provide good results.   If the bitmap will eventually go to a black and white printer, a 2 color bitmap will provide good results while occupying the least memory.   Specifying more colors than the initial setting does not change the appearance of the resulting bitmap, but may be useful if you need a bitmap in a particular format for use with another application.

4. Select Driver

Several drivers are available for exporting bitmaps.   Each has certain limits.   The Screen driver (in most cases) is limited to exporting bitmaps smaller than the current display size and at the same or lower bits per <u>pixel</u>.   The DIB driver works for most drawing sizes at 8 bpp or less.   It may not work on some computers.   The LEADDIB driver works for most drawing sizes but produces poor quality dithered output. The best driver to choose depends on the type of drawing and type of output desired.   Try each to determine which gives the best results.

Exporting Drawings with <u>Layers</u>

Only the layers currently visible in the **Drawing Window** are exported.

Only the layers currently selected for printing are exported.

Additional Considerations

Bitmaps containing dithered (grainy looking) colors may look bad when scaled.   Use solid colors in drawings to be exported as bitmaps, or use WMF format instead of a bitmap format for images that must be scaled.

Large bitmaps occupy a lot of memory and redraw slowly.   For example, a sixteen color bitmap with 1500 x 1500 pixels requires 1.12 megabytes.   Be careful!

Bitmaps larger than the current screen size (e.g. 640x480 VGA, 1024x768 SVGA) can be successfully exported only in the registered version.

Options
Setting Backup and Autosave Options

The **File|Options** command lets you control backup file creation and autosave frequency:

1. Create backup file when saving

Turn this option on to make a backup file whenever a file is saved.   The backup file name is the original file name with a modified extension.   The file extension used is "~" plus the first two characters of the regular file extension.   For example, "**drawing1.tdr**" becomes "**drawing1.~td**".   This makes it possible to have backup copies of files with the same name but different extensions.

If a previously created backup file with the same name exists, it is overwritten.   So, at most two copies of a drawing file will reside on your hard drive when this option is active.

To recover a drawing from a backup file, rename the file so it has the original extension then open the file using the **File|Open** command.

2. Also save in TDR format when exporting

Turn this option on (recommended) to save a drawing in **TDR** format every time it is exported to a non-native format.   Other drawing formats, such as **WMF** and **BMP** do not preserve as much information as the **TDR** format.   So, even if you are using another format to transfer drawings to another application, it is a good idea to save every drawing in **TDR** format.   This option does the job automatically.

3. Autosave Every X Minutes

This value controls how frequently a file is automatically saved.   The default is every five minutes.   To autosave more frequently, use a smaller value.   To autosave less frequently, use a larger value.   To turn off autosave, set the value to zero.

If a drawing has not been given a name when autosaving is triggered, you will be prompted for a file name.

Annotate
Annotating a Drawing

The **File|Annotate** command lets you add or edit textual information associated with a drawing.

To annotate a drawing:

1. Check the File Name

The name of the current file is shown in the **File** text box.

2. Enter the Drawing Title

Type/edit the drawing title in the **Title** edit box.

3. Enter the Drawing Author

Type/edit the author's name in the **Author** edit box.

4. Enter Comments

Type/edit any additional comments in the **Comments** edit box.

5. Click OK

Related Commands

Annotation information can be printed on a title page when you print your drawing (see the File|Print command).

You can also add notes *in* your drawing and print note text on the title page (see the Notes Tool).

Print
Printing a Drawing

The **File|Print** command sends the <u>current drawing</u> to the printer.

To print a File:

1. Select a Printer

The name of the currently active printer is shown.   A different printer can be selected from the drop-down list.

2. Set the Start and End Pages

By default, the entire document is printed.   To print just part of the document, set the start and end pages.

3. Select the Number of Copies and Collation Order

Set the <u>number of copies</u> desired.   With the **Collate** checkbox checked, the print order is: [1,2,3...,1,2,3...,1,2.3...].   With the **Collate** checkbox unchecked, the print order is: [1,1,1,...,2,2,2,...,3,3,3...].

4. Set the Print Scale

Set the <u>print scale</u> to resize a drawing as it is printed.   Set the scale to 100% to print the drawing at the same size as it is displayed while editing.   Changing the print scale does not modify the original drawing.

To scale the drawing so that is just fits on the printable area of the page, check the **Fit To Page** checkbox. The percent scale determines what percent of the page size to use when the **Fit To Page** option is selected.

5. Set Title Page Options

To print a <u>title page</u>, <u>click on</u> the **Title Page** checkbox.   To print **Annotations**, **Notes**, and/or **Object Comments** on the title page(s), click on the corresponding checkbox(es).

6. Set Print Options

- To print oversize drawings on multiple pages, click on the **Print Overflow Pages** checkbox.
- To print just the <u>current selection</u>, click on the **Selected Objects Only** checkbox.
- To include yellow "sticky" notes in printed output, click on the **Print Sticky Notes** checkbox.
- To print only object outlines, click on the **Use Wireframe View** checkbox.

7. Click OK

Printer Setup

Click on the **Setup** button to modify configuration options for the current printer.   This functionality is part of Windows.   For additional information, use the **Help** buttons in the printer setup dialog boxes.

Printer Setup
Selecting and Configuring a Printer

The **File|PrinterSetup** command can be used to change to a different printer and to set configuration options for the current printer.

To setup a printer:

1. Select a Printer

Click on a printer in the list displayed to select it as the current printer.   The list you see depends on which printers are installed on your computer.

2. Set Printer Options

Click on the **Setup** button to set configuration options for the selected printer.   This functionality is part of Windows.   For additional information, use the **Help** buttons in the printer setup dialog boxes.

3. Click OK

Scan
Scanning in an Image

The **File|Scan** command tells your TWAIN compliant scanner to begin scanning a picture.   The picture will be imported into and displayed in the <u>current drawing</u> as a <u>bitmap</u>.

Note: This function will only work if you have a TWAIN compliant scanner driver installed on your system and a scanner properly connected.   *Registered version only*.

Scanner Setup
Selecting and Setting up a Scanner

The **File|Scanner Setup** tells your TWAIN compliant scanner driver to display the scanning source selection and configuration dialog.   This functionality is part of the TWAIN scanner driver.

Note: This function will only work if you have a TWAIN compliant scanner driver installed on your system and a scanner properly connected.   *Registered version only*.

Reopen
Reopening a Recently Closed Drawing

The **File|<filename>** command reopens the named file.   A list of the five (or fewer) most recently closed files is displayed near the bottom of the **File** menu.

Exit
Exiting Top Draw

The **File|Exit** command closes all open drawings, prompting you to save any modified drawings, then exits the *Top Draw* application.

Note: The **Close** command on the **Control** menu does the same thing.

Edit Menu

Undo

Redo

Cut

Copy

Paste

Paste Special

Delete

Insert Page

Delete Page

Copy Style

Set Style

Duplicate

Select All

Deselect All

Undo

The **Edit|Undo <op>** command undoes the last editing operation.   The menu is changed so that **<op>** indicates which operation is to be undone.

Ten levels of undo are provided.   You can undo the last ten editing operations by performing undo ten times in a row.

All menu commands and tool operations can be undone except:

> File operations (open, save, close, etc.)
>
> Window operations (tile, cascade, change active window, etc.)
>
> View operations (show/hide subwindow,   snap on/off, etc.)
>
> Option setting (Display, Select Tool, Zoom Buttons, etc.)

Redo

The **Edit|Redo** command redoes the last undo operation.

Ten levels of redo are provided.   You can redo the last ten undo operations by performing redo ten times in a row.

Cut

The **Edit|Cut** command copies the <u>current selection</u> to the Windows clipboard and removes it from the drawing.

See the <u>Edit|Copy</u> command   for information on clipboard formats used by *Top Draw*.

Copy

The **Edit|Copy** command copies the <u>current selection</u> to the clipboard.

If the current selection is one or more drawing objects, the objects are copied to the Windows clipboard in Metafile format.   Most Windows programs that support graphics can paste-in data in Metafile format.

If the current selection is a block of text, it is copied to the Windows clipboard in "plain" text format.   Most Windows programs that handle text can paste-in plain text.

Top Draw uses an internal clipboard to speed up cut-and-paste operations between *Top Draw* drawings. Shape and text data are kept on the internal clipboard in internal format.

If you exit and restart *Top Draw*, the contents of the internal clipboard are destroyed so the data cannot be pasted in internal format.

Paste

The **Edit|Paste** command copies the contents of the clipboard into the <u>current drawing</u> at the <u>Selection Point</u> or the <u>text caret</u>.   The result of this command depends on the clipboard contents:

If the clipboard contains *Top Draw* shape data, it is placed in the drawing at the Selection Point.

If the clipboard contains Metafile data, it is converted to *Top Draw* internal format and placed in the current drawing at the Selection Point.

If the clipboard contains <u>Bitmap</u> or DIBitmap data, it is placed in the current drawing at the Selection Point in bitmap format.

If the clipboard contains *Top Draw* text data and the text caret is active, the text is added at the caret position, preserving original formatting.

If the clipboard contains plain text and the text caret is active, the text is added at the caret position in the same format as the preceding text.

Paste Special
Object Linking and Embedding

The **Edit|Paste Special** command lets you link to or embed objects from other applications in *Top Draw* drawings.   Or, you can select a particular format to use when pasting picture data into a *Top Draw* drawing.

To Embed an object:

Select the data format ending with "**Object**" and click the **Embed** button.

To Link to a file from another application:

Select the data format ending with   "**Object**" and click the **Link** button.

To Paste picture data in a particular format:

Select the desired format and click the **Paste** button.   Metafile Picture is often the best choice, but Bitmap format is sometimes preferred for very complex pictures where redraw speed is an issue.

Delete

The **Edit|Delete** command removes the <u>current selection</u> from the drawing.

If the current selection is one or more shapes, the shapes are deleted.

If the current selection is a block of text, the block of text is deleted.

Insert Page

The **Edit|Insert Page** command inserts a new blank page in front of the current page.

Delete Page

The **Edit|Delete Page** command removes the current page and all of its contents from the document.

Copy Style

The **Edit|Copy Style** command copies the style of the <u>current selection</u> to the <u>Default Style</u>.

If the current selection is a shape, the Line, Fill, and Texture Styles are copied to the Default Style.

If the text is selected, the Character, Paragraph, and <u>Line Text</u> Styles at the <u>text caret</u> position are copied to the Default Style.

Set Style

The **Edit|Set Style** command sets the style of the <u>current selection</u> from the <u>Default Style</u>.

If the current selection is a shape, the Line, Fill, and Texture Styles are set from the Default Style.

If text is selected, the Character, Paragraph, and <u>Line Text</u> Styles of the text are set from the Default Style.

Duplicate

The **Edit|Duplicate** command adds a duplicate of the currently selected objects(s) to the drawing.   The duplicate is offset slightly from the original.

To change the horizontal and vertical duplication offsets use the Options|Select Tool command.

Select All

The **Edit|Select All** command selects all of the objects in the <u>current drawing</u>.   This is useful for resizing, moving, or copying an entire drawing.   To deselect all selected objects, use the **Edit|Deselect All** command or press the **ESC** key.

Deselect All

The **Edit|Deselect All** command deselects all of the objects in the <u>current drawing</u>.   This is a good way to make sure nothing is selected if you want to change a <u>default style</u> or insert text at the <u>Selection Point</u>.

View Menu

Redraw Now

Wireframe

Zoom

Style Bar

Status Line

Rulers

Ruler Grid

Guidelines

Notes

Paragraph Marks

Snap to Grid

Snap to Guidelines

Ruler Setup

Redraw Now

The **View|Redraw Now** command redraws the currently <u>selected</u> object(s).   If nothing is selected, the entire drawing is redrawn.   This command is useful for cleaning up an object after <u>node</u> editing, or cleaning up stray marks that occasionally appear on a drawing.

Wireframe
Wireframe View On/Off
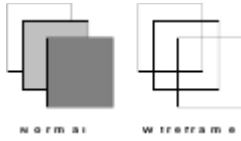
The **View|Wireframe** command turns the wireframe view on/off. In wireframe view, only the outlines of objects are drawn.   This is useful when performing <u>node</u> editing in a complex area of a drawing, or for speeding up redrawing on slower computers.

To toggle displaying of the current Fill and Texture Style sample in the Style Bar, click in the sample box.

Zoom

The **View|Zoom** command can be used to zoom the drawing image to a specified zoom scale, to fit the <u>current selection</u> to the window, or to fit the drawing page to the window.

To zoom to a specified zoom scale, <u>click on</u> the **Percent** radio button and enter a zoom percentage value (40% to 800%), or use the up and down arrows to change the value, then click on **OK**.

To fit the drawing page to the window, click on the **Fit Page to Window** radio button, then click on **OK**.

To fit the currently selected objects to the window, click on the **Fit Selection to Window** radio button, then click on **OK.**

Style Bar
Show/Hide the Style Bar

The **View|Style Bar** command shows/hides the Style Bar.   Hide the **Style Bar** when you need a little extra space on the screen for your drawing, and you don't need the command shortcuts and style status information provided on the **Style Bar**.
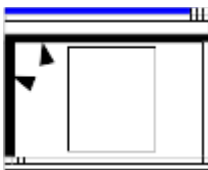
Status Line
Show/Hide the Status Line

The **View|Status Line** command shows/hides the Status Line. Hide the **Status Line** when you need a little extra space on the screen for your drawing, and you don't need the status information provided on the **Status Line**.

Rulers
Show/Hide Rulers

The **View|Rulers** command shows/hides the rulers for the current drawing.   Hide the rulers when you need a little extra space on the screen for your drawing, and you don't need the rulers for keeping track of object locations in the drawing.

Ruler Grid
Show/Hide Ruler Grid

The **View|Ruler Grid** command shows/hides the ruler grid for the current drawing.   Hide the grid when you want to work with a "clean piece of paper".   The snap grid may be enabled or disabled whether or not the ruler grid is visible.

Guidelines
Show/Hide Guidelines

The **View|Guidelines** command shows/hides any guidelines in the current drawing.   Guideline snap is disabled when the guidelines are hidden.

Notes
Show/Hide Notes

The **View|Notes** command shows/hides any <u>notes</u> in the <u>current drawing</u>.   Hide notes when you need to print a drawing without the notes showing up in the printed output or when you need to get them out of the way while working on a drawing.

Paragraph Marks
Show/Hide Paragraph Marks

The **View|Paragraph Marks** command shows/hides paragraph marks in text.   Show paragraph marks when you need to figure out where the paragraph marks actually are, i.e., to distinguish between automatic word wrap and a paragraph break.

Snap to Grid
Snap Grid On/Off

The **View|Snap To Grid** command turns the <u>snap grid</u> on/off.   With snap on, the mouse is forced to stay on the grid and jumps from gridline to gridline.   With snap off, the mouse moves smoothly.

Turn the snap grid on so that you can easily align objects or make them the same size with little effort. Turn the snap grid off so that you can move and size objects smoothly and make small adjustments.

Snap to Guidelines
Guideline Snap On/Off

The **View|Snap To Guidelines** command turns <u>guideline</u> snap on/off.   Turn <u>guideline</u> snap on so that you can use guidelines for aligning drawing objects.   Turn guideline snap off to move objects smoothly and make small adjustments near a guideline.

Ruler Setup

The **View|Ruler Setup** command can be used to set the ruler units, the ruler origin, ruler mark spacing, visible grid line spacing and style, snap grid spacing, and snap grid on/off.   It can also be used to create custom rulers with new units, mark spacing, size, and associated grid style.

More:

Set Ruler and Ruler Grid Options

Creating Custom Rulers and Grids

Set Ruler and Ruler Grid Options

The **View|Ruler Setup** dialog **General** tab is used to configure the rulers or ruler grid by modifying the option(s) of interest:

Ruler Origin

Enter the desired ruler origin positions in current units relative to the center of the page.   Or, use the arrow buttons to increment/decrement the origin position values.   The red dots in the gray rectangle to the left of the **Cancel** button show the current origin position relative to the page.   The printed page is represented as a white rectangle.

To quickly set the origin to a corner of the page or the center of the page, click the mouse in the corresponding area of the white rectangle that represents the printed page.

Snap Grid Spacing

Select the desired snap grid spacing from the list provided for either the **Horizontal** or **Vertical** grid.   Or, type in a value if the desired spacing is not in the list.

Horizontal = Vertical

When the **Horizontal = Vertical** box is checked, changes to either the Horizontal or Vertical snap grid spacing will affect both settings.   Uncheck this box to allow independent settings for Horizontal and Vertical snap grid spacing.

Snap Grid On

Click on the **Snap Grid On** checkbox to turn on the snap grid (checkmark visible).   Click again to turn off the snap grid (checkmark not visible).

See also: View|Snap To Grid

Track Mouse

Click on the **Track Mouse** checkbox to control the mouse tracking display.   When this box is checked, a dashed line tracks the mouse position in both rulers.   Otherwise, no dashed line will appear.

Track Selected Object

Click on the **Track Selected Object** checkbox to control the object tracking display.   When this box is checked, a magenta bar tracks the size and position of the selected object(s).   Otherwise, no magenta bar will appear.

Extend Grid To Rulers

Click on the **Extend Grid To Rulers** checkbox to control the visibility of the ruler grid between the edge of the white rectangle that represents the printed page and the rulers.   When this box is checked, the grid is visible all the way to the rulers.   Otherwise, the grid stops at the edge of the page.

Creating Custom Rulers and Grids

The **View|Ruler Setup** dialog **Customize** tab is used to create custom rulers and grid styles, or modify existing ones.

Style Name

When the Horizontal or Vertical button is pressed, **Style Name** identifies a particular horizontal or vertical ruler/grid style.   When the Both button is pressed, the name identifies the combined horizontal/vertical style.   The combined style name appears on the **Units Button** pop-up menu for each defined style.   To modify an existing style, don't change the name.   To create a new style, enter a unique name for the ruler/grid style.

Units

The **Units** selection determines the units used for major divisions of the ruler.

Width

The **Width** setting determines the overall size of the ruler relative to the current ruler font size (*see* **Options|Display**).   For fatter rulers, use a larger value.   For narrower rulers, use a smaller value.

Scale

The **Scale** setting determines how a unit on the ruler corresponds to the printed page.   This is useful, for example, in CAD and landscape drawings where you want one inch on the printed page to correspond to a yard (or some other value) on the rulers.

Tick Marks

Ruler tick marks are defined in terms of levels.   Each level is a subdivision of the next level up.   For each level you specify the number of **Divisions** of the previous level, the **Length** of the tick mark as a percentage of the total ruler width, and the **Grid Style** of the ruler grid lines that appear at the same spacing as the tick mark.

The **Divisions** setting at the first level is usually one (1), meaning that there is one tick mark per major unit.   Higher levels usually have longer tick marks than lower levels, with 100% being typical for the first level.

If fewer than six levels are needed, set **Divisions** to 0 for the unused lower levels.

Horizontal, Vertical, Both

A style can be used for both rulers (recommended), or different ruler styles can be used for the horizontal and vertical axis.   Care must be taken to make sure the Grid Styles correspond at each level, or the ruler grid will not be visible.

Save

After modifying an existing ruler/grid style or creating a new one, click on the **Save** button to store it for later reuse.   Otherwise, the style will only be defined for the current drawing.   To save a style with different horizontal and vertical ruler styles, the horizontal and vertical style names *must* be different.

Custom rulers settings are stored in the file `RULERS.DAT`.   Although this file can be edited directly, it is not recommended.

Arrange Menu

Forward

To Front

Backward

To Back

Group

Merge

Ungroup
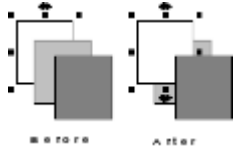
Flip/Rotate

Transform

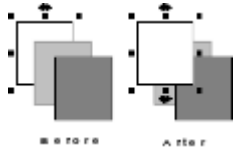Align

Set Spacing

Lock

Unlock

Hide

Show All

Forward

The **Arrange|Forward** command moves the selected object(s) one position forward in the drawing.
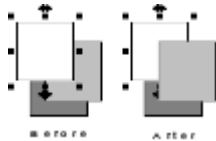
If an object is at the front of the layer it belongs to, it is moved to the back of the next higher layer, if there is one.   If it is already at the front of the drawing, it is not moved.

To Front

The **Arrange|To Front** command moves the selected object(s) to the front of the drawing, i.e., to the front of the front layer.

Backward

The **Arrange|Backward** command moves the selected object(s) one position backward in the drawing.

If an object is at the back of the layer it belongs to, it is moved to the front of the next lower layer, if there is one.   If it is already at the back of the drawing, it is not moved.

To Back
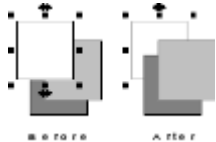
The **Arrange|To Back** command moves the selected object(s) to the back of the drawing, i.e., to the back of the back layer.

Group
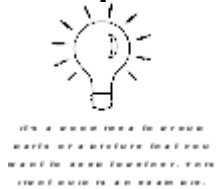
The **Arrange|Group** command forms the selected objects into a group so they act as a single object for moving, sizing, and other operations.

Groups are useful for keeping the parts of a completed figure together.   For example, all predefined shapes on the Shapes Palette that have more than one part are defined as groups.

Groups can be grouped like any other object, so it is possible to have multiple levels of grouping.

Grouping does not change the appearance of the grouped objects, but it may change the front/back position of the grouped objects relative to objects outside of the group since the group itself must occupy a single front/back position in the drawing.
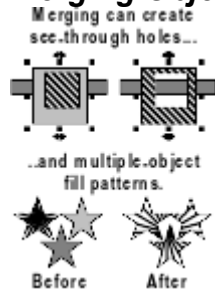
The Arrange|Ungroup command breaks apart groups.
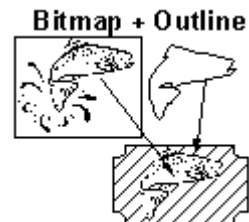
Merge

Merging Objects

The **Arrange|Merge** command forms the selected objects into a merged group.   A merged group is just a like a regular group except that a merged group has a single style and, when filling a merged group, the outlines of the merged objects are treated as a single outline.

The style of the top (front) selected object is used as the initial style of the merged group.   The style can be changed at any time using the usual style commands.

Merging can be used to create objects with see-through holes, and to make a fill pattern extend across multiple objects, as shown in the examples.

The Arrange|Ungroup command breaks apart merged groups.

Cropping a Bitmap

A special form of the **Arrange|Merge** command can be used to crop a bitmap to an outline.   This can be used to make parts of the bitmap transparent.   The outline can be a polyline, bezier curve, or a group of polylines and/or bezier curves.   To crop a bitmap:

1. Select the bitmap and the outline.   Exactly two objects must be selected and the bitmap must be under the outline.

2. Perform the **Arrange|Merge** command.

Ungroup

The **Arrange|Ungroup** command breaks selected Grouped or Merged objects back into individual objects.   If there are multiple levels of grouping or merging, **Ungroup** only breaks the top level.

Objects must be ungrouped to change the style, size, or relative position of an individual object.   Node editing can be performed *without* ungrouping.

Flip/Rotate

The **Arrange|Flip/Rotate** command displays the following sub-menu:

Flip Horizontal	Flip (mirror) selected object(s) left <-> right.
Flip Vertical	Flip (mirror) selected object(s) top <-> bottom.
Rotate Left	Rotate selected object(s) 90 degrees counter-clockwise.
Rotate Right	Rotate selected object(s) 90 degrees clockwise.

This is the "before" picture for the following **Flip/Rotate** examples.

Flip Horizontal

Use this command to flip the selected object(s) horizontally.

Flip Vertical

Use this command to flip the selected object(s) vertically.

Rotate Left

Use this command to rotate the selected object(s) 90 degrees counter-clockwise.
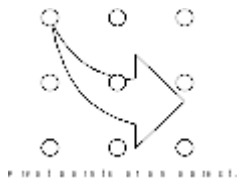
Rotate Right

Use this command to rotate the selected object(s) 90 degrees clockwise.

Transform

The **Arrange|Transform** command can be used to precisely move, resize, reflect, slant, rotate and duplicate drawing objects.

To transform the selected object(s) follow the instructions for the transform(s) of interest:

Relative To:

A reference point on the selected object(s) is used for all transformations.   The default reference point is the center of rotation of the object.   Other reference points are defined relative to an imaginary rectangular box just big enough to contain the object(s).   You can select a corner or the center of one of the four edges of the box.

Move (Relative)

To move an object relative to its current location, enter the desired offsets in the horizontal and vertical directions.   Positive numbers will move the object right and up, negative will move it left and down.
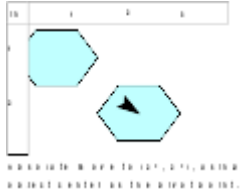
Move (Absolute)

To move an object to an absolute location as indicated by the rulers, enter the desired horizontal and vertical position values and make sure both **Absolute Move** checkboxes are checked.   The reference point determines what point on the object will be placed at the given screen location (the default is the center of rotation of the object).

To move to an absolute position horizontally and a relative position vertically (or vice-versa), just check *one* of the **Absolute Move** checkboxes

This is the "before" picture for the following **Transform** examples.

Resize

To resize an object, enter the desired horizontal and vertical scales.   An object is resized around the pivot point, i.e., the pivot point remains stationary while the rest of the object shrinks or grows.

Mirror (Flip)

To mirror horizontally, set the horizontal **Resize** scale to -100%.

To mirror vertically, set the vertical **Resize** scale to -100%.

Slant

To slant an object horizontally or vertically, enter desired angles. Positive numbers will slant the object clockwise, negative counterclockwise.   An object is slanted around the pivot point, i.e., the pivot point remains stationary while the rest of the object is slanted.

Rotate

To rotate an object, enter the desired angle of rotation.   Positive numbers will rotate the object clockwise, negative counterclockwise.   An object is rotated around the pivot point, i.e., the pivot point remains stationary while the rest of the object is rotated.

Duplicate

You can duplicate a transform any number of times.   The transform is repeatedly applied to the last result, so you can create interesting spirals, flowers, nested shapes, and more.

To duplicate a transform, <u>click on</u> the **Duplicate** checkbox and enter the desired number of repetitions.

Hint: You can create quite a mess if you use large repeat values along with Resize scales > 100% and/or large move offsets.   Start small until you get a feel for what is happening.

Defaults

Click the Defaults button to reset the Transform parameters to their original default values (which leave the selected object as is).
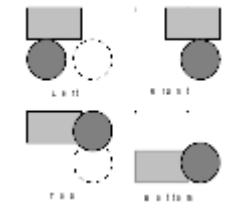
Align

The **Arrange|Align** command can be used to precisely align drawing objects to each other and/or to the center of the page.   Objects can be aligned horizontally, vertically, or both.   This command can also be used to align *both* left and right (and/or top and bottom) edges, making the object widths (and/or heights) match.

To align the selected objects:
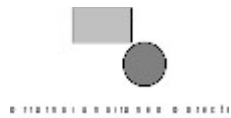
This is the "before" picture for the following **Align** examples.   The original location is indicated by a dashed outline in the examples.

To Align Edges
Click on the **Left**, **Right**, **Top**, or **Bottom** checkbox, depending on which edge you want to align, then click the **OK** button.
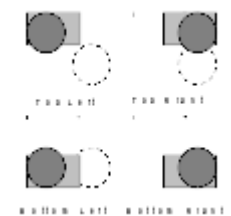
When aligning edges, all objects are aligned with the outermost object.   For example, when aligning left edges, all objects are aligned with the one whose left edge is the farthest to the left.
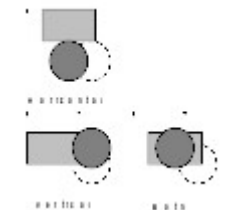
To Align Centers
Click on the **Horizontal Center**, **Vertical Center**, or both **Center** checkboxes, depending on how you want the objects aligned, then click the **OK** button.

When aligning centers, all objects are aligned to the midpoint between the leftmost and rightmost (or topmost and bottom most) edges of all of the selected objects.

To Align Corners
Click on the **Top** or **Bottom** *and* **Left** or **Right** checkboxes, depending on which corner you want to align, then click the **OK** button..

As when aligning edges, objects are aligned to the outermost edges associated with the corner.
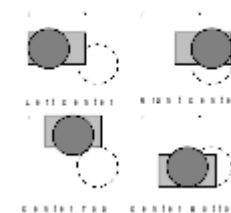
To Align an Edge and a Center
Click on **Horizontal Center** checkbox and **Top** or **Bottom**, or click on the **Vertical Center** checkbox and **Left** or **Right**, depending on how you want the objects aligned, then click the **OK** button.

Edges and centers are aligned as described previously, and shown in the example.
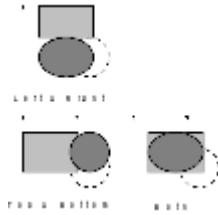
To Match Sizes

To match sizes horizontally, click on both the **Left** *and* **Right** checkboxes, then click the **OK** button.

To match sizes vertically, click on both the **Top** *and* **Bottom** checkboxes, then click the **OK** button.

The size of the widest/tallest object is used as the final size. Smaller objects are stretched to the final size.   When matching sizes, objects are repositioned as when aligning to centers.
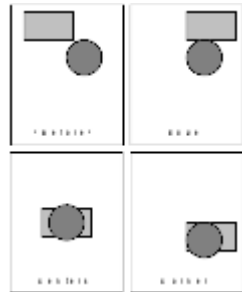
To Align to the Center of the Page

Click the **Align To Center Of Page** checkbox, click the desired edge(s) or center(s) to align to the center of the page, then click the **OK** button.   If *no* edges or centers are selected, then the centers of the selected object(s) are aligned to the center of the page.

The center of the page point acts like another object being aligned, only it won't move.   The selected edges, centers, or corners of the selected objects are moved to line up with it.

A few representative examples are shown to the left.

Set Spacing

The **Arrange|Set Spacing** command can be used to precisely set the spacing of drawing objects. Spacing can be horizontal or vertical with respect to either edges or centers.

To set the spacing of the selected objects:
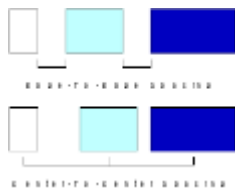
1. Select Axis

Select **Horizontal** to set spacing "across" and **Vertical** to set spacing "up and down".

2. Select Measurement Method

Select **Edge-To-Edge** to get an even amount of white space between objects, select **Center-To-Center** to get consistent object spacing regardless of object size (see example to the left).

3. Select Distance

Select **Space Evenly** to get even spacing while leaving the end objects where they are.   Enter a distance to get objects spaced a particular distance apart.
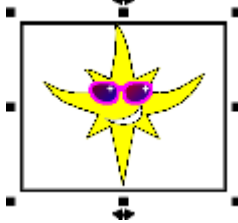
Lock

The **Arrange|Lock** command "locks" the selected objects so that they cannot be selected in the normal way, nor can they be edited. This is handy when working in a cluttered area of a drawing to temporarily prevent repeated selection of the "wrong" object.

To select a locked object for unlocking, hold down the **Ctrl** key while clicking on the object.   When a locked object is selected, special selection handles are displayed (see example on the left).

To unlock the object, use the Arrange|Unlock command.

See the Format|Layers command for a more sophisticated method of managing complex drawings.

Unlock

The **Arrange|Unlock** command undoes the effect of the Arrange| Lock command.

To select a locked object for unlocking, hold down the **Ctrl** key while clicking on the object.

Hide

The **Arrange|Hide** command makes the selected objects disappear.   They cannot be selected or edited, and will not appear when the area of the drawing where the were is redrawn.   This is handy when working in a cluttered area of a drawing to temporarily prevent repeated selection of the "wrong" object, or to temporarily prevent repeated redraws of an object that takes a while to redraw.

To make the hidden objects reappear, use the Arrange|Show All

See the Format|Layers command for a more sophisticated method of managing complex drawings.

Show All

The **Arrange|Show All** command undoes the effect of all previous <u>Arrange|Hide</u> commands.

Format Menu

[Custom Colors](#)

[Line Style](#)

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Custom Colors

The **Color** dialog is used to choose custom colors for style elements and to switch color palettes.   It can be accessed from the **Line Style**, **Fill Style**, and **Texture Style** dialogs, and from the **Style Bar** color buttons (with a second click).

More:

Selecting a Custom Color

Selecting a Palette Color

Customizing a Color Palette

Loading a Color Palette

Saving a Color Palette

Selecting a Custom Color

There are three ways to select a custom color in the <u>Color</u> dialog:

      1. Using the Color Wheel and Luminance samples.

      2. Using Red/Green/Blue values.

   3. Using Hue/Saturation/Luminance values.

These three methods are closely related. Picking a color one way causes the indicators for the other two to be updated. The **Color** sample box shows the selected color. The **Solid** sample box shows the nearest color of the 16 basic Windows colors.
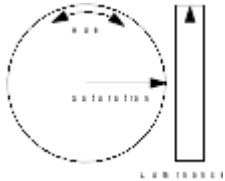
1. Using the Color Wheel and Luminance Samples

Pick a color by clicking *inside* the color wheel. The angle around the color wheel corresponds to a hue value. The distance from the center corresponds to the saturation value, with pure colors on the outside, and gray at the center.

Pick a lightness/darkness (luminance value) for the color by clicking *inside* the Luminance sample box.
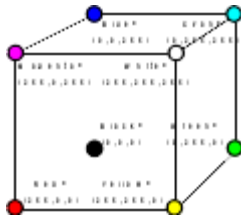
2. Using Red/Green/Blue Values

Windows uses RGB values internally. Each value ranges from 0 to 255. A particular color is represented by three numbers as (red, green, blue). RGB is an *additive* color model, so it works the opposite of mixing paints. For example, yellow is red=255 plus green=255, or (255,255,0). White is (255,255,255), black is (0,0,0), grays are other sets of equal values. RGB colors are often associated with the corners of a cube, as shown to the left.

Increase/decrease RGB values until you get the color you want.

3. Using Hue/Saturation/Luminance Values

The HSL color model corresponds directly to the color wheel layout as discussed above. Increase/decrease HSL values until you get the color you want.

Note: A computer display cannot produce every color. For example, you can't get a really good bright orange. It's not *Top Draw*, it's physics.

Selecting a Palette Color

To select a palette color in the <u>Color</u> dialog, scroll the palette up and down until you see the color you want, then <u>click on</u> it.

The standard color palette is arranged with pure colors near the top, and less saturated, more organic, and darker colors towards the bottom. Eight hues are arranged from left to right.

The **Color** sample box shows the selected color. The **Solid** sample box shows the nearest color of the 16 basic Windows colors.

Customizing a Color Palette

A *Top Draw* color palette can hold 256 colors.   Only 128 are set in the standard color palette.   You can fill in the remaining 128, or redo the whole thing, using the <u>Color</u> dialog.

Before you start redefining the standard palette, it would be a good idea to make an extra copy of the file `topdraw.pal` in another directory or on a floppy.   You can switch color palettes by loading a different palette file.

To change a palette color:

1a. Scroll to and select the palette entry to modify by clicking on it.

2a. Select a color as described in <u>Selecting a Custom Color</u>.

- or -

1b. Select a color as described in <u>Selecting a Custom Color</u>, or click the **Clear** checkbox to erase an entry.

2b. Hold down the **Shift** key and select the palette entry to modify.

 -then -

3. <u>Click on</u> the **Modify Palette** button.

4. Click on **OK** in the confirmation <u>dialog box</u>.

Repeat these four steps to add other colors.   Click on **OK** when done to make the new palette colors available.   The color changes are not saved permanently to the palette file until you exit *Top Draw*.

Loading a Color Palette

Two color palettes come with *Top Draw*: `TOPDRAW.pal`, and `gray.pal.` To select one of these palettes, or a palette that you created, <u>click on</u> the **Load** button then choose the desired palette file in the **Open File** dialog.

Saving a Color Palette

To save a modified color palette under a new file name, <u>click on</u> the **Save As** button then choose the desired file name and directory in the **Save File As** dialog.

Note: If you modify a color palette it is automatically saved when you exit *Top Draw*.   The **Save As** button is provided to make it easy to create palettes with new names.

Line Style

The **Format|Line Style** command is used to set the Line Style of the selected object(s), or of the Default Style if nothing is selected.

The **Tail**, **Pen**, and **Head** buttons shows enlarged views of the current **Tail, Pen,** and **Head** Shape(s). The **Line Sample** box shows an example of a line using the current Line Style settings at the same zoom scale as the current drawing.

The **Pen** shape determines the shape of the ends of a line without arrows, and determines the shape of dashes in a dashed line.   The **Tail** and **Head** shapes can be arrow heads or tails.

The scrollable list of shapes, and the **Size**, **Width** and **Angle** values are associated with either the **Tail, Pen**, or **Head** shape, depending on which button is currently pressed.

Line Style options can be modified in any order.   Set the options indicated for the desired Line Style:

More:

Ordinary Colored Lines

Dashed Lines

Arrow Heads and Tails

Calligraphic Pens

Rotating Pens

Automatic Line and Arrow Sizing

Making New Pens and Arrowheads

Ordinary Colored Lines

To make ordinary colored lines using the Line Style dialog:

1. Click on the **Default** button to reset the line style to a plain black line with no arrow head or tail.

2. Set the pen **Size** to the desired line thickness.

3. Pick a color from the color palette, or click on the **Other** button and use the Color dialog to choose a custom color.

## Dashed Lines

To make dashed lines using the Line Style dailog:

1. Select a dash style from the list of **Dashes**.

2. Increase/decrease the **Dash Length** as desired.

3. Click on the **Pen** button.

4. Select a Pen Shape from the scrollable list.

5. Set the pen **Size**, **Width,** and **Angle** as desired. Details of the pen shape can be seen only when the **Size** is set to a reasonably large value.

Arrow Heads and Tails
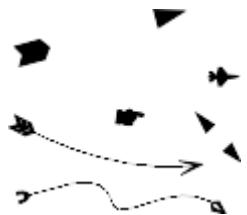
A line can have zero, one, or two endings. Both endings can be either a head or a tail depending on the shape you pick. Line endings are chosen using the Line Style dailog.

To add an arrow head:

1. Click on the **Head** button.

2. Select an arrow head shape from the scrollable list.

3. Set the arrow head **Size** and **Width** as desired.

To add an arrow tail:

1. Click on the **Tail** button.

2. Select an arrow tail shape from the scrollable list.

3. Set the arrow tail **Size** and **Width** as desired.

Calligraphic Pens

To create calligraphic effects using the Line Style dailog, use a big, skinny, angled, non-rotating pen:

1. Click on the **Pen** button.
2. Select a pen shape from the scrolling list.
3. Set the pen **Size** to a suitably large value.
4. Set the pen **Width** to a small value (10 to 20%).
5. Set the pen **Angle** as desired.
6. Make sure the **Rotating Pen** checkbox is not checked.

To change the line color, pick a color from the color palette, or click on the **Other** button and use the Color dialog to choose a custom color.

Some interesting effects can be achieved by making calligraphic lines that are also dashed.   Calligraphic lines can also have arrowheads and tails.

Rotating Pens

Rotating pens can be used to create unique effects not possible with other drawing programs.   The most interesting results are achieved by using a wide dashed line with a rotating pen.

To create rotating pen effects using the Line Style dailog:

1. Click on the **Pen** button.
2. Select a Pen Shape from the scrollable list.
3. Set the pen **Size** to a suitably large value.
4. Set the pen **Width** as desired.
5. Set the pen **Angle** as desired (usually 0).
6. Set **Dashes** and **Dash Length** as desired.
7. Make sure the **Rotating Pen** checkbox is checked.

Add an arrowhead and tail, and change the color if desired.

Automatic Line and Arrow Sizing

Often it is desirable to have the line width and arrow size increase when the associated object is enlarged, and decreased when the object is reduced (e.g. Shape Palette shapes).   To achieve this effect, turn on the **Resize Line with Shape** and **Resize Arrows with Line** options.

When creating block diagrams, it is often desirable to have a standard line width and arrow size regardless of the size of the shape being drawn.   In this case, the automatic sizing options should be off.

Making New Pens and Arrowheads

Pens are stored in a symbol file called `pens.tds` in the *Top Draw* directory. Arrowheads and tails are stored in a symbol file called `arrows.tds` in the *Top Draw* directory. Pen and arrowhead symbols are drawn just like any other shape, then added to a symbol file using the Shape Palette (see Customizing a Shape Set).

General Guidelines for Pen and Arrowhead Symbols

1. Always use the default Line Style, namely 0 point, black, elliptical pen, non-rotating, non-dashed.

2. Always use the default Fill Style, namely solid white, and with no texture.

3. The initial size of the symbol you draw doesn't matter, but *keep it simple*.

4. When adding your symbol to the symbol file, give it a unique descriptive name.
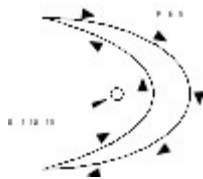
Special Rules for Pens

1. Pens must consist of a set of closed shapes. The outline of each closed shape must be drawn in a clockwise direction to get the expected result. If drawn counterclockwise, it will look inside-out when used in a line.

2. Set the origin (the center of rotation) near the center of the pen shape, or the center of the set of shapes. The origin point is where the pen "attaches" to the line.
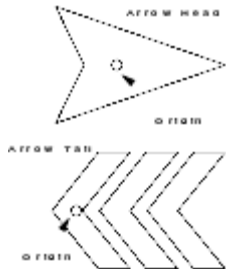
Special Rules for Arrows Heads and Tails

1. Arrow heads must be drawn pointing to the right.

2. Arrow tails must be drawn pointing to the left.

3. Set the origin (the center of rotation) vertically centered in the arrow head or tail, and towards the left side of the shape. The origin point determines the vertical position of the arrowhead with respect to the line endpoint, and is where the "shaft" ends.

4. The rightmost point on the shape determines the horizontal position of the arrowhead with respect to the line endpoint.

Fill Style

The **Format|Fill Style** command is used to set the Fill Style of the selected object(s), or of the Default Style if nothing is selected.

Fill Styles only apply to closed shapes. You can change the Fill Style of open shapes, but nothing visible

will happen until the shape outline is closed (e.g. by typing `Ctrl+Shift+O`).

A Fill Style can be one of several Solid, Gradient, or <u>Bitmap</u> styles.

More:

Choosing a Solid Fill Style

Solid styles are all generated by an 8x8 <u>pixel</u> brush.   The brush may be "null", which produces a transparent object, a single solid color, a two color <u>bitmap</u> (not necessarily black and white), or a sixteen color bitmap.   An editing utility is provided for creating custom two and sixteen color bitmap brushes.

To specify a transparent fill style:

1. Set the Brush Type to **No Fill (Transparent)**.

2. Click **OK**.

To specify a solid color fill style:

1. Set the Brush Type to **Solid Color**.

2. Choose a color in the Color Palette, or <u>click on</u> the **Color** button to choose a custom color in the **Color** dialog.

3. Click **OK**.

To specify a two or sixteen color brush fill:

1. Set the Brush Type to **2 or 16 Color Brush**.

2. Choose a brush pattern in the Brush Palette.

3. Choose a color in the **Custom** Brush Colors, then choose a new color in the Color Palette to modify the color of the brush.   Repeat for other brush colors if desired.

4. Click **OK**.

To create a custom brush:

1. Set the Brush Type to **2 or 16 Color Brush**.

2. Choose a brush pattern in the Brush Palette.

3. Click on the **Edit Brush** button.   The following <u>dialog box</u> will appear:

4. Choose a pixel color in the **Colors** box.

5. Click on the pixels that you wish to set to the selected color in the **Brush** box.   A sample of the pattern is displayed in actual size on the right side of the dialog box.

6. Repeat steps 4 and 5.   Click **OK** when done.

Choosing a Gradient Fill Style

To select a Gradient Fill Style, first select a **Gradient Type** (**Linear,   Conical, Radial,** or **Square**) by clicking on the appropriate icon.   Then, set the **Options** of interest:
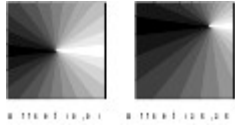
### Horizontal and Vertical Offset

The center point for **Radial** and **Conical** fill can be moved relative to the object center.   The offsets are specified as a percentage of the object bounding rectangle width/height.   Increase the offsets to move the center right/up.   Decrease the offsets to move the center left/down.   Click in the sample box to set the center point according to the <u>mouse cursor</u> position.

Angle

 The angle of **Linear**, **Conical,** and **Square** fill can be changed to represent a particular lighting angle or other effect.   Increase the angle to rotate the fill pattern clockwise, decrease it to rotate counter-clockwise.

Note: The gradient fill will rotate when the associated object is rotated.
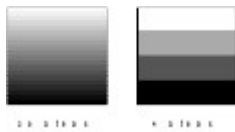
Gradient Steps

The number of color steps can be changed for all types of gradient fill.   For smoother looking transitions, but slower drawing, increase the number of steps.   For abrupt transitions or striped effects, decrease the number of steps.
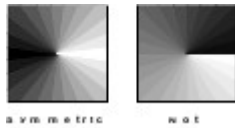
Symmetric

The symmetric option applies only to the **Conical** fill style.   When this option is on, the color range is used twice in a symmetric fashion - once clockwise for 180 degrees and once counterclockwise for 180 degrees.   When this option is off, the color range is applied clockwise for 360 degrees.

Gradient Colors

The Color Pointers (triangular buttons) determine the location and number of color transitions in the gradient fill.

To change the color of a Color Pointer**,** first <u>click on</u> the Color Pointer button.   Then, select a color for that Color Pointer in the Color Palette.   To select a custom color, click on the **Color** button and use the <u>Color</u> dialog.

To add a Color Pointer, click inside the upper portion of the **Gradient Colors** box.   To move a Color Pointer, press the triangular button and drag it to a new location.   To remove a Color Pointer, drag it outside of the **Gradient Colors** box.

The first and last Color Pointers cannot be moved or deleted.

Choosing a Bitmap Fill Style

Bitmaps can be used for a nearly infinite variety of fill designs. Any bitmap in any of the file formats recognized by *Top Draw* can be used.   Any paint program, such as the Paintbrush utility supplied with Windows, can be used to create new bitmaps. Bitmaps exported from *Top Draw* can also be used.

File

A bitmap file is selected by clicking on the file button and using a standard file chooser dialog box.

Save Options

For maximum portability of a drawing file, choose **Save copy of bitmap in drawing**.   A copy of the fill bitmap will be saved in the drawing file.

For minimum drawing file size, choose **Save bitmap file name in drawing**.   Note that if the drawing file is moved to another computer, a copy of the bitmap file must also be moved and placed in the same directory as before.

Fill Type
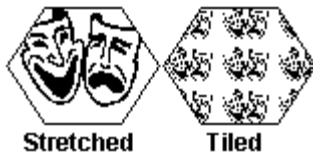
Stretched   Tiled

A bitmap can either be stretched so that a single copy of the bitmap fills the shape, or tiled so that multiple copies of the bitmap fill the shape.

Note: Stretched bitmap fill can be used to crop a bitmap to a shape.   But, to obtain more control over the bitmap position relative to the shape, a merged group should be used (*see* Cropping a Bitmap).

Tile Options

50% Row Offset

The tile **Width** and **Height** settings determine the size of the tiled bitmaps.   The **Row Offset** setting determines the horizontal offset of successive tile rows.   A Row Offset of 0 produces vertical columns.   A Row Offset of 50% is shown on the left.

Texture Style

The **Format|Texture Style** command is used to set the Texture Style of the selected object(s), or of the Default Style if nothing is selected.

Texture Styles only apply to closed shapes.   You can change the Texture Style of open shapes, but nothing visible will happen until the shape outline is closed (e.g. by typing `Ctrl+Shift+O`).

To set Texture Style:

1. Choose a **Texture Type** (**None, Pattern,** or **Tile**) by clicking on the appropriate radio button.

    If you chose **None**, no other options apply.   Click **OK**.

2. Select a particular **Pattern** or **Tile** texture from the list provided.

3. Set the Texture Style attributes of interest:
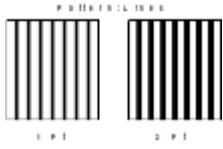
Line Size/Symbol Size

For Pattern textures, this setting controls the width of the pattern lines.   Most Pattern textures a single line width.   For Tile textures, this setting controls the width and height of the tile symbol.

Increase for wider lines, decrease for narrower lines.
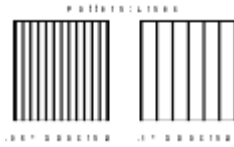
Spacing

For Pattern textures, this setting controls the distance between pattern lines.   For Tile textures, this setting controls the spacing between the tile symbols.

Increase for wider spacing, decrease for narrower spacing.
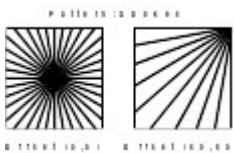
Origin Offset

For row/column textures, this setting controls the row/column starting location and is specified in current units.   For circular or radial textures, this setting controls the center point of the circle and is specified as a percentage of the object bounding rectangle width/height.

Increase the offsets to move the center right/up.   Decrease the offsets to move the center left/down.
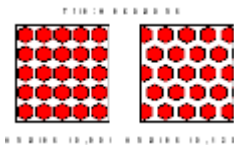
Line Angles

For row/column textures, this setting controls the angle of the rows and columns.
Note: The texture will rotate when the associated object is rotated.
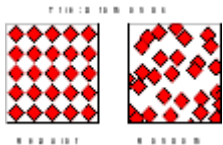
Random

Turn this setting on to randomize the distance between pattern lines or tile symbols.   Turn this setting off for regular spacing.

Colors

Most pattern textures have one color (except for Crosshatch). Tile textures have two: **Color 1** for the outline, and **Color 2** for the middle of the tile shape.   The fill color(s) can also be set.

To set a texture or fill color, click on the appropriate color radio button, then scroll to and click on the desired color in the color palette.

To select a custom color, click on the **Other** button and use the Color dialog.

Defaults

Click on the **Defaults** button to reset the Size, Spacing, Origin, Angle, and Color settings to the original default values for the selected Pattern or Tile texture.

Character Style

The **Format|Character Style** command is used to set the Character Style of the <u>selected text</u>, or of the <u>Default Style</u> if no text is selected.

Set the Character Style attributes of interest:

Arial
`Courier New`
Times New Roman

<u>Font</u>
To change fonts, select a new one from the drop-down list.   <u>True Type</u> fonts provide the best results.   Vector fonts are also listed.

6 Point
8 Point
10 Point
12 Point
14 Point

Points
To change the font size, select a new size for the drop-down list, or enter the desired size in the edit box.

A "point" is a unit of measure used in typesetting. 1 point = 1/72 inch.

Bold
Italic
~~Strikethrough~~
<u>Underline</u>

Style
Set the desired style option(s) by clicking on the appropriate checkbox(es).

Narrow
Normal
Wide

Character Width
To change the character width, select a width from the drop-down list, or select Custom from the drop-down list and enter the desired width in the edit box.

condensed
Normal
Expanded

Spacing
To change the amount of space between characters, select a spacing value from the drop down list, or enter the desired spacing in the edit box (positive values for expanded, negative for condensed).

Note: Negative spacing values may cause the characters to overlap.

super_{script}
sub^{script}

Super/Subscript
To change the relative vertical position of characters, select the desired position from the drop down list, or enter the desired offset in the edit box (positive values for superscript, negative for subscript).

Color
To set the color of selected text, <u>click on</u> the <u>Style Bar</u> **Fill Color 1** button and select a color in the **Style Bar Color Palette**.

Paragraph Style

The **Format|Paragraph Style** command is used to set the Paragraph Style of <u>selected</u> <u>Paragraph Text</u>, or of the <u>Default Style</u> if no text is selected.   Set the Paragraph Style attributes of interest:
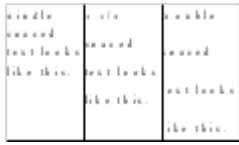
Line Spacing

To set the spacing between lines in a paragraph, select a standard spacing from the drop down list, or select **Custom** from the drop down list and enter a value in the edit box.   Custom spacing is specified as a percentage of the line height.

For a single line of text, like a label, the spacing must be set to Single for vertical alignment to work properly.

Alignment

To set the **Horizontal** and **Vertical** alignment of text within the bounding shape, select the desired alignment style from the drop down list.
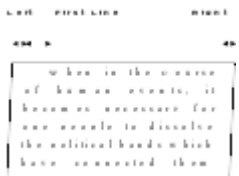
Indentation

To set the **Left** and **Right** indentation of lines within the bounding shape, enter the desired values.   To set the indentation of the **First** line relative to the **Left** indentation, enter the desired offset.

Indentation is measured from either the top or the bottom of the characters, whichever is closer to the container outline.   So, the apparent indentation will be greater when the sides are highly angled.

Spacing

To set the **Top** and **Bottom** margins of the text within the top and bottom of the container, enter the desired values.

To set the spacing **Between** paragraphs, enter the desired value.

When text is vertically aligned to the Top, the **Top** spacing value determines where the first line of text will appear, and the **Bottom** spacing value determines the "cut-off" point for making extra text disappear.   The reverse applies for Bottom aligned text.   For vertically centered text, the **Top** and **Bottom** spacing values determine where the vertical center of the container is, and the top and bottom cut-off points.

Hint: Increase the top/bottom spacing value if a word is broken because the container is too narrow at the top or bottom.
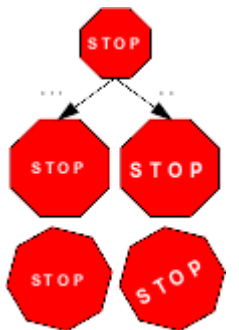
Size/Rotate Text with Shape

Paragraph Text can be sized and rotated as the container shape is sized and rotated (box checked), or not (box unchecked).   This option is *on* by default for newly created "free" and "attached" Paragraph Text, off for "boxed" paragraph text.

When this option is off, the middle selection handles on each side are hollow.   When this option is on, they are solid black (normal).

The example shows the effects of sizing and rotating a shape with

this option off (left side) and on (right side).

Shortcut: Type **Ctrl+H** to toggle size/rotate text with shape on/off for the selected object.

Note: Avoid extreme slanting and avoid any stretching when this option is on.   Use Line Text converted to Bezier curves when text must be slanted or stretched (see Line Text and Format|Text to Curves).

Hint: Rotated text pasted into another application via the clipboard or imported via a WMF format file should only be scaled *proportionally* because the text angle will not change as it does in *Top Draw*.

Automatic Container Resize

Automatic container resizing is off by default for Boxed Paragraph Text and Attached Paragraph Text.   It is on by default for Free Paragraph Text.   For manual control over container size, turn these options off.   Container resizing takes effect after typing new text or changing the style of text.

Line Text Style

The **Format|Line Text Style** command is used to set the Line Text Style of selected Line Text, or of the Default Style if no text is selected.

Set the Line Style attributes of interest:

Align

Line text can be aligned with either character tops or character bottoms towards the associated line by clicking on the appropriate radio button.

To increase the distance between the text and the line, increase the offset value.   To decrease the distance, decrease the offset value.   If a negative offset is used, the text will appear on the line, or possibly on the opposite side of the line.

Angle

For line text characters that rotate with the associated line (character bottoms always parallel to the line), click on the **Rotate with line** radio button.

The **Stretch/squeeze** option can then be set.   With this option off, characters may overlap on the inside of a curve or spread far apart on the outside of a curve.   With this option on, the part of the character away from the line will be stretched on the outside of curves, and squeezed on the inside of curves.

To make line text characters maintain a constant angle for a
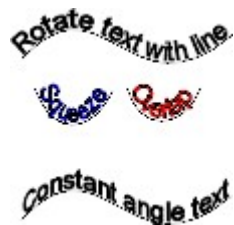
"ribbon" effect, click on the **Constant** radio button.   The character angle can then be set to the desired value.

Text To Curves

The **Format|Text To Curves** command is used to convert the selected Line or Paragraph Text to curves. This is useful for additional control over character shape and placement.

The result of converting text to curves is a group consisting of a shape for each of the characters and in the case of Line Text, the line.   Characters are either a bezier curve, or a merged group of bezier curves. To edit individual characters, ungroup the group and use the usual bezier curve editing techniques.

Note: This command converts *all* of the Text in the selected object to curves.   It cannot be used to convert just part of the text.

Page Setup

The **Format|Page Setup** command is used to set the page size and orientation for the <u>current drawing</u>. To setup the drawing page:

1. Choose a page **Orientation** by clicking on either the **Portrait** or **Landscape** radio button.

2. Choose a **Page Size** from the drop down list, or select **Custom** from the drop down list and enter the **Width** and **Height** for the page.

Layers

The **Format|**<u>Layers</u> command is used to add, delete, arrange, and set the edit and show modes of layers in the <u>current drawing</u>.   By dividing a complex drawing into layers, you can easily control which parts of the drawing can be edited, which are visible, and which are printed.

The number and name of the current layer are shown in the <u>Status Line</u>.   New drawing objects are always added to the front of the current layer.   The layer that the currently selected object belongs to is also shown in the **Status Line**.   To move existing drawing objects between layers, use the <u>Arrange| Forward</u> and <u>Arrange|Backward</u> commands, or <u>Edit|Cut</u> and <u>Edit|Paste</u> along with the <u>Layers Buttons</u>.

Configure the layers of a drawing as follows:

More:

<u>Layer Edit Mode</u>

<u>Layer Show Mode</u>

<u>Printing Selected Layers</u>

<u>Locking a Layer</u>

<u>Hiding a Layer</u>

<u>Adding a Layer</u>

<u>Naming a Layer</u>

<u>Moving a Layer</u>

<u>Combining Layers</u>

<u>Deleting a Layer</u>

Layer Edit Mode

<u>Click on</u> the appropriate **Edit** mode radio button to control which <u>layers</u> can be edited:
- **Single Layer**   Only objects in the current layer
- **Behind Current**   Only objects in or behind the current layer.
- **All**   All drawing objects can be edited.

Note: The **Edit** mode depends on the **Show** mode - only visible layers can be edited.

Layer Show Mode

<u>Click on</u> the appropriate **Show** mode radio button to control which <u>layers</u> are displayed:
- **Single Layer**   Only objects in the current layer
- **Behind Current**   Only objects in or behind the current layer.
- **All**   All drawing objects are displayed.

Printing Selected Layers

Normally, all <u>layers</u> are printed.   If one layer represents a pre-printed form or contains annotations not needed in the final result, you can choose not to print that layer by unchecking the **Print** checkbox for that layer.

Locking a Layer

Setting the **Layer Edit Mode** to **Current Layer** provides a convenient mechanism for locking all except the current layer.   To selectively lock an individual layer, check the **Lock** checkbox for that layer.   When a layer is locked in this fashion, the objects in the layer cannot be edited except when the layer is the current layer.

Hiding a Layer

Setting the **Layer Show Mode** provides a convenient mechanism for display only the current layer or layers behind the current layer.   To selectively hide an individual layer, check the **Hide** checkbox for that layer.   When a layer is hidden in this fashion, the objects in the layer will be hidden except when the layer is the current layer.

Adding a Layer

To add a new layer:

1. Select the layer you want the new layer to go in front of by clicking on   its label (Front, 2, 3, ... , Back).   All other <u>layers</u> should be deselected.

2. <u>Click on</u> the **Insert** button.

Naming a Layer

To name a layer, edit the text in the **Name** field.

Moving a Layer

To move a layer in front of or in back of another layer:

1. Select the layer you want to move by clicking on its label (Front, 2, 3, ... , Back).   No other layers should be selected.

2. Click on the **Forward** or **Back** button to change the layer position.

Combining Layers

To combine two or more <u>layers</u>:

1. Select the layers you want to combine by clicking on the layer labels (Front, 2, 3, ... , Back) while holding down the **Shift** key.   All other layers must be deselected.

2. <u>Click on</u> the **Combine** button.

Combining layers moves the drawing objects from two or more layers into a single layer, and deletes the extra layers.   Objects are moved into the front-most layer of those selected.
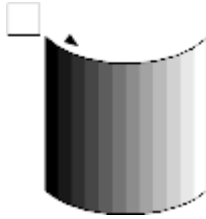
Deleting a Layer

To delete a layer:

1. Select the layer you want to delete by clicking on its label (Front, 2, 3, ... , Back).   No other layers should be selected.

2. Click on the **Delete** button.

Warning! Deleting a layer deletes all of the drawing objects in it!

Convert To Curves

The **Format|Convert To Curves** command converts any selected polyline or ellipse objects to Bezier curve objects.   This is useful when you want to create smooth curves in an object that was initially created as a polyline

The example shows a rectangle that was converted to Bezier curves then given a rounded top and bottom by setting node attributes to make the handles show up and using the Node Tool to move the handles.

Related Commands:

To control how closely a Bezier curve tracks a polyline during conversion, set the **Bezier Curve Tracking** parameter using the Options|Lines & Curves command.

Convert To Polylines

The **Format|Convert To Polylines** command converts any selected Bezier curve or ellipse objects to polyline objects.   This is useful when you want to create jagged edges in an object that was initially created as a Bezier curve.

The example shows an ellipse that was converted to a polyline, then made to look "pointy" by editing the polyline nodes.

Related Commands:

To control the number of points in the resulting polyline, set the **Bezier Curve Resolution** parameter using the Options|Lines & Curves command.

The number of points also depends on the current zoom scale. Zoom in for more points, out for fewer points.

Simplify Polyline

The **Format|Simplify** Polyline command simplifies any selected polyline objects by removing points that fall in the middle of nearly straight edges.   This is useful when you want to reduce the number of points used to represent a polyline in order to simplify editing.

Related Commands:

To control how closely the simplified polyline tracks the original, set the **Simplifier Tracking** parameter using the Options|Lines & Curves command.

Node Menu

Add

Delete

Join

Break

Align

Attributes

Add

The Node|**Add** command adds a new node to a polyline or Bezier curve.   New nodes can be used to make new corners or curves in a line.

To add a node:

1. Select the line to be modified with the Node Tool.

2. Position the point of the **Node Tool** on the line where you want the new node to go and click the left mouse button to set the Selection Point.

3. Perform the **Node|Add** command, or type **Ins** (Insert key).

Hint: If the **Add** command is grayed in Step 3, the Selection Point is either too far from the line, or you selected an existing node.

Delete

The Node|**Delete** command deletes nodes from a polyline or Bezier curve.   Deleting nodes will smooth or straighten a line.

To delete a node:

1. Select the line to be modified with the Node Tool.

2. Select the node to be deleted with the **Node Tool**.

3. Perform the **Node|Delete** command, or type **Del** (*Delete* key).

Note: When deleting a node in a Bezier curve, *Top Draw* adjusts the handles of the adjacent nodes to keep the curve in *roughly* the same place.

Join
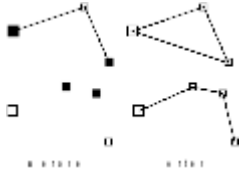
The Node|**Join** command connects two endpoints together.   If the endpoints are from the same line, the line becomes closed (upper example).   If the endpoints are from different lines, the lines become connected (lower example).

To join two nodes:

1. Select the line(s) to be modified with the Node Tool.

2. Select exactly two end nodes to be joined.

3. Perform the **Node|Join** command, or type **Alt+J**.

Hint: If the **Join** command is grayed in Step 3, either the wrong number of nodes is selected, or the nodes are not endpoints.

Break

Before   After
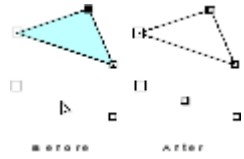
The Node|**Break** command breaks a line at a selected node, or at the Selection Point.   If a closed line is broken, it becomes an open line (upper example).   If an open line is broken, it becomes two lines (lower example).   The nodes at the break point are moved a little so that the node highlighting is visible.

To break a line:

1. Select the line to break with the Node Tool.

2. Position the point of the **Node Tool** on the line where you want to break it and click the left mouse button to set the Selection Point or select a node.

3. Perform the **Node|Break** command, or type **Alt+B.**

Hint: If the **Break** command is grayed in Step 3, either the Selection Point is too far from the line, or no node is selected.

Align
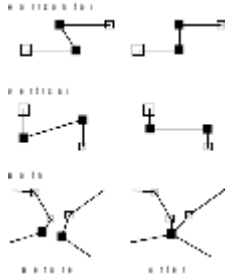
The Node|**Align** command aligns the selected nodes horizontally and/or vertically, and aligns Bezier curve node handles as well.

By aligning nodes, you can make part of an outline horizontal or vertical and align nodes in different outlines to each other.

You can also make parts of two outlines "match" by aligning corresponding nodes both horizontally and vertically, and aligning handles if the outlines are Bezier curves.

To align nodes:

1. Select the object(s) containing nodes to be aligned with the Node Tool.
2. Select the nodes to be aligned with the **Node Tool**.
3. Perform the **Node|Align** command to display the **Align Nodes** dialog.
4. Click on the desired alignment options.
5. Click **OK** to align the selected nodes.

Attributes

The Node|**Attributes** command is primarily for setting Bezier curve node handle attributes, but it can also be used to set the location of both polyline and Bezier curve nodes.   To determine the type of an object, select it and read the Status Line.

To set node attributes:

1. Select the object(s) containing the node(s) to be modified with the Node Tool.

2. Select the nodes to be modified with the **Node Tool**.

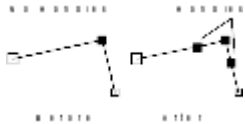3. Perform the **Node|Attributes** command, or double click on a selected node, to display the **Node Attributes** dialog.

4. Set the desired attribute options (see discussion below).

5. Click on **OK** to modify the selected node(s).

Curve Before/Curve After

A Bezier curve node may have zero length handles.   If both nodes on a curve segment have zero length handles, that segment is a straight line.   To make the handles show up so you can bend the segment, click on **Curve Before** (for the handle towards the start node), and/or **Curve After** (for the handle away from the start node).   When in doubt, click both checkboxes on.

Note: You must select the node again after setting the attribute(s) to make the handles show up.

Same Angle

The curve passing through a node may be smooth, or it may form a corner (or "cusp").   To ensure that the curve will be smooth, set the **Same Angle** option on.   To allow a corner at the node, set the **Same Angle** option off.

When the **Node Tool** is used to move a node handle that has the **Same Angle** attribute on, the opposite handle for the same node will automatically move to maintain a smooth curve through the node.   If there is only one handle, the handle will stay aligned with the opposite line segment.   If the **Same Angle** attribute is off, the opposite handle does not move.

Same Length

The curve passing through a node may have different curvatures on opposite sides of the node if the handles are different lengths. To ensure that the curves are symmetric near the node, set the **Same Length** option on.   This will automatically set the **Same Angle** option on if it isn't already.   It will also automatically set the **Curve Before** and **Curve After** options on if they aren't already. To allow asymmetric curves, set the **Same Length** option off.

When the **Node Tool** is used to move a node handle that has the **Same Length** attribute on, the opposite handle for the same node

will automatically move to maintain the same angle *and* same length.

Note: The curve segments on either side of a node with the **Same Length** attribute won't *really* by symmetric unless the adjacent nodes and near node handles on either side of it are in mirror-image locations as well.

Location
Set the location of the selected node(s) entering the desired location in ruler coordinates.   If one node is selected, the location will be used as a new absolute location for the node.   If more than one node is selected, the location will be used as an offset to the current node locations.

Options Menu
Display
Color Palette
Select Tool
Draw Tool
Zoom Buttons
Lines & Curves
Bitmaps
Fast Redraw

Display
Set Display Options

The **Options|Display** command lets you customize the appearance of several aspects of the *Top Draw* user interface:

Button Sizes

Buttons come in three sizes.   The main reason for this is so that the buttons will fill up roughly the same amount of space on the screen in 640x480, 600x800, and 1024x768 display modes.   The **Small** size is the default for standard 640x480 VGA displays, **Medium** is the default for 600x800, and **Large** is the default for 1024x768 (or higher) super VGA displays.   To use a different button size, <u>click on</u> the radio button for the desired size and click **OK**.

Note: Top Draw maintains *three* button size settings, one for each of three display resolution ranges.   If you change display modes, you will have to set the button sizes for that mode separately.

Colors

So you don't like battleship gray all over your screen?   Change it.   Click on the color sample box for the display element that you want to change. This will cause the <u>Color</u> dialog to be displayed.   Select a color in the usual way.

Hint: When picking the color for a screen element that contains black text, try to use a light color that is not "grainy" looking.

Fonts

You can customize the <u>font</u> used for displaying text on the <u>Style Bar</u>, the <u>Rulers</u>, and the <u>Status Line</u>. Changing the font size also changes the size of the window that contains it, since the window is sized so that the text will fit (within limits).   So, if you want skinnier rulers or a taller **Status Line**, change the font.

To change a display font:

1. Click on the button for the display element that you want to change.   This will cause the **Font** dialog to be displayed.

2. Select the desired font, font style, and size.   You can type a number in the edit box to select font sizes that do not appear in the list.

3. Click **OK** to exit the **Font** dialog.

4. Click **OK** to exit the Display Options dialog.

Color Palette
Changing the Default Color Palette

To change the color palette used in the **Style Bar** and several shape style dialogs, select a new palette file (`"PAL"` extension).   The default *Top Draw* palette file is `TOPDRAW.PAL`.

New palette files can be created using the Color Dialog.

Select Tool
Set Select Tool Options

The **Options|Select Tool** command lets you customize the Select Tool in several different ways.

The following options can be modified:

Control Angle Step

If you hold down the **Ctrl** key while rotating an object with the **Select Tool**, the object will jump between certain angles. The **Control Angle Step** setting determines the angular distance between steps. You can set it to any value. Values that divide evenly into 90 are recommended.

Nudge Step

You can move the selected object(s) and nodes horizontally and vertically using the arrow keys. The **Nudge Step** setting determines how far the object or node moves with each key press. Increase **Nudge Step** to move objects farther and faster. Decrease **Nudge Step** to move objects more precisely using the arrow keys.

Contact Distance

When you press the left mouse button while using the **Select Tool**, *Top Draw* checks to see if there is an object nearby to select. The **Contact Distance** setting determines how close the mouse must be to an object to be considered "touching". Increase this value in order to more easily "grab" an object. Decrease it in order to more precisely select the right object in a cluttered area of the drawing.

This setting doesn't make much difference for filled objects since you can grab them anyplace that is filled in. It makes the most difference when grabbing thin lines, or outlines of unfilled objects, or when working in the wireframe display mode.

Start Move

When you press the left mouse button with the mouse cursor over on an object while using the **Select Tool**, sometimes you are starting a move, and sometimes you are selecting the object for a later command. The **Start Move** setting determines how far the mouse can move while the left button is down before *Top Draw* starts to move the object. If you notice a lot of inadvertent moves, increase this value. If the object seems to "stick" too much before a move begins, decrease this value.

Guideline *Snap*

When an object is moved close enough to a guideline, it jumps into contact with it. The **Guideline Snap** setting determines how close an object must be to a guideline to be snapped into contact. Increase this value if the guidelines don't seem "sticky" enough. Decrease it if they seem too sticky.

Max Outline Points

When a simple object or object control point is grabbed using the **Select Tool**, its outline appears and the nodes are highlighted. When a complex object is grabbed, a bounding rectangle appears and the nodes are not highlighted.

The **Max Outline Points** setting determines how complex the outline can be before a rectangle is used instead. Increase this value if you have a fast computer and outlines redraw quickly when you move an object with the **Select Tool**. This will allow you to see the full outline of more complex objects during a move. Decrease this value if you have a slow computer and outline redraw is noticeable or node highlighting takes a long time.

Duplicate Offsets

When the selected object(s) are duplicated, the new copies appear a short distance away from the originals in the drawing.   The   **Horizontal Offset** and **Vertical Offset** settings determine how far and in what direction from the original the duplicate will appear.   You can set these to whatever value you like. Avoid making the offset so large that the duplicates are placed way off the drawing page.

Draw Tool
Set Draw Tool Options

The **Options|Draw Tool** command lets you customize the Draw Tool in several different ways.   The first group of options control how the **Draw Tool** behaves while you are drawing new lines.   The second set controls conversion of new input.

The following options can be modified:

Freehand Point Spacing

When you move the mouse while drawing a freehand line with the **Draw Tool,** *Top Draw* waits until the mouse has moved at least some minimum distance before adding another point to the line.   The **Freehand Point Spacing** setting determines how far the mouse must move before the point is added. Increase this setting to get smoother looking freehand lines.   Decrease it for more precision and detail

Join/Close Distance

When you start drawing a line with the **Draw Tool**, *Top Draw* looks to see if you there is an existing line in the drawing to connect the new line to.   When you end drawing a line with the **Draw Tool**,   *Top Draw* looks to see if you have created a closed shape, or if there is an existing line in the drawing to connect to.

The **Join/Close Distance** setting determines how close another endpoint must be to the new endpoint to be connected.   Increase this setting to make it easier to connect to existing lines or make closed shapes. Decrease this setting for more precise control over what gets connected.

Control Angle Step

When creating a straight line segment with the **Draw Tool**, you can hold down the **Ctrl** key to force the line to fall on only certain angles.   The **Control Angle Step** setting determines how closely spaced those angles are.   You can set it to any value.   Numbers that divide evenly into 90 are recommended.

Note: This is the same parameter as the **Select Tool Options Control Angle Step**.   Changing either one changes both.

Single/Multiple Segment

Use the **Single Segment** setting (the default) to draw a lot of short freehand lines or single straight lines. Release the left mouse button to finish a line.

Use the **Multiple Segment** setting to draw long lines consisting of multiple freehand and straight line segment combinations.   Double click or hold down the **Shift** key to finish a line.

Note: To temporarily switch to the opposite mode while drawing a line, hold down the **Shift** key.

Grid Freehand Input

Turn this option on to get a chunky or block effect when drawing freehand lines.   When this option is on, freehand points are forced to fall on snap grid lines.   For normal drawing, turn it off.

Simplify Polyline

To reduce the number of points used to represent a new shape, turn on the **Simplify Polyline** option. Before a new line is added permanently to the drawing, points that fall on the middle of a nearly straight line will be removed.   This is usually a good idea unless you need an extremely detailed outline.   If you want to keep every input point, turn this option off.

See Also:

- The Format|Simplify Polyline command.

- The **Simplifier Tracking** parameter in the <u>Line & Curve Options</u> dialog dialog.

Convert To Curves

To add a new line to the drawing as a <u>Bezier curve</u>, turn this option on.   To add the new line as a polyline, turn this option off.

See Also:

- The <u>Format|Convert To Curves</u> command.
- The **Bezier Curve Tracking** parameter in the <u>Line & Curve Options</u> dialog.

Select New Line

New lines are normally selected.   If you find the selection handles are getting in the way, uncheck the **Select New Line** checkbox.

Zoom Buttons
Set Zoom Button Functions

The **Options|Zoom Buttons** command lets you customize the operation of the zoom buttons.   Each zoom button has two functions, one for the left mouse button and one for the right.

To swap the left/right function assignments for a zoom button, click on either of the "off" radio buttons associated with the zoom button.

Lines & Curves
Set Line and Curve Conversion and Display Options

The **Options|Lines & Curves** command lets you control conversion of new polylines and Bezier curves, and control <u>Bezier curve</u> display.

To following parameters can be modified:

Simplifier Tracking

The <u>polyline</u> simplifier is used when new lines are created with the <u>Draw Tool</u> and the <u>Simplify Polyline</u> option is on, and when the <u>Format|Simplify Polyline</u> command is used.   The simplifier reduces the number of points used to represent a polyline by removing points in the middle of "nearly" straight lines.

The **Simplifier Tracking** setting determines how close to a nearly straight line a point must be to be removed.   Increase this value to get fewer points in the result, but a looser match to the input.   Decrease it to get a closer match to the input,   but more points in the result .

Bezier Curve Tracking

Polylines are converted to Bezier curves when new lines are created with the <u>Draw Tool</u> and the <u>Convert To Curves</u> option is on, and when the <u>Format|Convert To Curves</u> command is used.   The Bezier curve does not exactly match the original polyline since corners and straight lines are smoothed and rounded.

The **Bezier Curve Tracking** setting determines how closely the Bezier curve tracks the input polyline.   Increase this value to get smoother output, but a looser match to the input.   Decrease it to get a closer match to the input, but a less smooth result.

Bezier Curve Resolution
Increase this setting for faster redraw, but draft quality output (visible corners in rounded objects).   Set to 1 for best quality output.

Bitmaps
Set Bitmap Options

The **Options|Bitmaps** command lets you control how bitmaps are imported and exported:

<u>Bitmap</u> *Import Resolution*

The Bitmap Import Resolution determines how large an imported bitmap will be when initially displayed. A lower resolution causes the bitmap to be displayed in a larger size.   It is often desirable to set the bitmap resolution so that it corresponds to your printer resolution.

Lock Imported Bitmap Size

The imported bitmap size can be locked in order to preserve the bitmap resolution.   This is desirable if

you want the bitmap resolution to correspond to your printer resolution.

Link Imported Bitmaps To Original Files

Normally, a copy of an imported bitmap is saved in the drawing file.   A bitmap can be imported as a link to a file in order to save disk space, or to enable updates to the bitmap to be reflected in drawings that use it (e.g. for a corporate logo).

Link Library

If the filename associated with a linked bitmap does not specify a complete path, *Top Draw* searches in several places for the file: 1) the directory for the drawing file that contains the reference to the bitmap, 2) the **Link Library** directory, and 3) the *Top Draw* directory.

Export Driver

Several drivers are available for exporting bitmaps.   Each has certain limits.   The Screen driver (in most cases) is limited to exporting bitmaps smaller than the current display size and at the same or lower bits per pixel.   The DIB driver works for most drawing sizes at 8 bpp or less.   It may not work on some computers.   The LEADDIB driver works for most drawing sizes but produces poor quality dithered output. The best driver to choose depends on the type of drawing and type of output desired.   Try each to determine which gives the best results.

Fast Redraw
Fast Redraw On/Off

The **Options|Fast Redraw** command lets you get faster screen updates at the expense of using additional memory.   The extra memory is for a <u>bitmap</u> that is used to draw objects more quickly "behind the scene".   The actual memory required depends on the current display resolution and number of colors.   The same bitmap is used to capture the background when editing text.   With **Fast Redraw** off, there will be a white background behind the text while editing.

If there is a checkmark by the **Fast Redraw** command in the Options menu, **Fast Redraw** is already on (it is initially on by default).

Using **Fast Redraw**:

1. Turn the option on by performing the **Options|Fast Redraw** command.

2. If you get an error message, you don't have enough memory.   No further action is required.   If you add memory to your system, or close some other applications, you can try again.

3. If you don't get an error message, check available memory using the **Help|About** *Top Draw* <u>About Top Draw</u> command.   If you still have some elbow room, leave the **Fast Redraw** option on. If not, turn it off by performing the **Options|Fast Redraw** command again.

Top Draw will remember the setting.   Just set it once, and forget it.

Window Menu

Tile

Cascade

Arrange Icons

Close All

Switch To Drawing

Tile

The **Window|Tile** command resizes and arranges all of the currently open drawing windows side by side.   If there are many open windows, they are arranged in columns and rows.

Cascade

The **Window|Cascade** command resizes and arranges all of the currently open drawing windows.   The windows are overlapped so that each title bar is visible.

Arrange Icons

The **Window|Arrange Icons** command lines up the icons for all minimized drawing windows.

Close All

The **Window|Close All** command closes all of the drawing windows.

Switch To Drawing

The file names of the currently open windows are listed at the bottom of the **Window Menu**.   To switch to another drawing, select the one you want from the list.

If there are more than nine open drawings, the last entry in the **Window Menu** will be **More Windows**. To select a window that is not one of the first nine, select **More Windows**, pick the window you want in the scrollable list presented in the **Select Window** dialog, then click **OK**.

Help Menu

Contents

Search

How To Use Help

Tutorial

Windows

Tools

Menus

Keys

Registering

Technical Support

About Top Draw

Contents

The Help|Contents command displays a detailed table of contents for **Top Draw** **Help**.   You can click on a topic name to jump to that topic.   To get to the Contents topic quickly from anywhere in **Top Draw** **Help**, click on the **Contents** button in the Windows Help button bar.

Search

The **Help|Search** command displays the Search dialog for finding a topic in the *Top Draw* on-line Help. The Search dialog is a standard part of the Windows Help system.   Type in a keyword or select a topic from the list provided, then <u>click on</u> **Show Topics**.   Select a topic, then click on **Go To** to read the help information on that topic.

How To Use Help

The **Help|How To Use Help** command provides instruction on using the Help system.   It is provided as part of Windows.   This is a good place to start if you are a new Windows user or you are unfamiliar with Windows Help.

Tutorial

The Help|Tutorial command displays the tutorial topic of the **Top Draw** **Help** system.   This is a good place to start if you are just learning how to use *Top Draw*.

Windows

The Help|Windows command provides information about each of *Top Draw's* subwindows.   Look here for information about the **Style Bar**, **Status Line**, **Drawing Window**, and other windows.

Tools

The Help|Tools command provides information about each of *Top Draw's* tools, i.e., that column of buttons on the left hand side of the screen that are involved with most interactive editing functions.

Look here for information on the Select Tool, Node Tool, Text Tool, Draw Tool, Shapes Tool, Notes Tool , Zoom Buttons, and Layer Buttons.

Menus

The Help|Menus command provides information about each of the *Top Draw* menu commands.   Look here to find out what a particular menu command does.

Keys

The Help|Keys command provides information about *Top Draw* keyboard commands.   Look here for information about keystroke equivalents of menu commands,   and keyboard-only commands.

Registering

The Help|Registering command provides information about how and why   to register your copy of *Top Draw*.

Technical Support

The Help|Technical Support command provides information about using the technical support services available to *Top Draw* users.   Look here if you encounter a problem while using *Top Draw* for information on how to make best use of the technical support services.

About *Top Draw*

The **Help|About *Top Draw*** command displays information about:

1. The program version.

2. The registered user name.

3. The program distributor.

Click **OK** when you are done reviewing the information.

Menu Command Accelerators

The following keyboard commands can be used to execute the associated menu commands.   Note that keypresses are also listed in menus to the right of the menu command name as a reminder.

Key Press	Command
File Menu	
F3	Save
Alt + F4	Exit
Edit Menu	
Ctrl + Z	Undo
Ctrl + Shift + Z	Redo
Ctrl + X	Cut (alternate key press: Shift+Delete)
Ctrl + C	Copy (alternate key press: Ctrl+Insert)
Ctrl + V	Paste (alternate key press: Shift+Insert)
Delete	Delete (alternate key press: Backspace)
Ctrl + S	Copy Style
Shift + Ctrl + S	Set Style
Ctrl + D	Duplicate
View Menu	
Alt + R	Redraw Now
Ctrl + W	Wireframe
Alt + Z	Zoom
Alt + G	Snap To Grid (toggles)
Arrange Menu	
Ctrl + F	Forward
Shift + Ctrl + F	To Front
Ctrl + B	Backward
Shift + Ctrl + B	To Back
Ctrl + G	Group
Ctrl + M	Merge
Shift + Ctrl + G	Ungroup
Ctrl + T	Transform
Ctrl + A	Align
Alt + S	Set Spacing

Key Press	Command
Node Menu	
Insert	Insert
Delete	Delete (alternate key press: Backspace)
Alt + J	Join
Alt + B	Break
Window Menu	
Shift + F4	Tile
Shift + F5	Cascade
Help Menu	
Shift + F1	Contents

Tool Keyboard Commands

The following keyboard commands can be used to activate or switch between *Top Draw* tools:

Key Press	Function
Ctrl + Space Bar	**Toggle** between **Select Tool** and most recently used other tool.
Alt + 1	Switch to **Select Tool**
Alt + 2	Switch to **Node Tool**
Alt + 3	Switch to **Text Tool**
Alt + 4	Switch to **Draw Tool**
Alt + 5	Switch to **Shapes Tool**
Alt + 6	Switch to **Notes Tool**
Alt + 7	**Zoom In** (left mouse button command)
Alt + Shift + 7	**Zoom In** (right mouse button command)
Alt + 8	**Zoom To Fit** (left mouse button command)
Alt + Shift + 8	**Zoom To Fit** (right mouse button command)
Alt + 9	**Zoom Out** (left mouse button command)
Alt + Shift + 9	**Zoom Out** (right mouse button command)
Alt + L	**Layer Down**
Alt + Shift + L	**Layer Up**

Drawing Keyboard Commands

The following keyboard commands and command modifiers are available during the indicated drawing operations.

Key Press	Function
←	Nudge selected object/**node** left.
→	Nudge selected object/node right.
	Nudge selected object/node up.
↓	Nudge selected object/node down.
Bksp	Erase last line segment while drawing a line with the **Draw Tool.**
Ctrl	When sizing - make width equal height.
	When rotating - rotate in steps.
	When editing **ellipse** node - make chord.
Shift	When sizing - size from the center.
Alt	When sizing - size proportionally

Additional Function Keyboard Commands

The following keyboard commands are for functions not found in the *Top Draw* menus.   In fact, the keyboard command is usually the only way to perform the function.

Key Press	Function
Page Up	Go to previous page.
Page Down	Go to next page.
ESC	Deselect all selected objects.
ESC	Interrupt long screen redraw.
F1	Context sensitive help.
Ctrl + A	Align object edges to snap grid.
Ctrl + O	Open selected object outline.
Ctrl + Shift + O	Close selected object outline.
Ctrl + P	Re-center the selected object center of rotation.
Tab	**Select Tool**: Select next object forward in layer or group.

	Node Tool: Select next node in object outline.
Shift+ Tab	**Select Tool**: Select previous object in layer or group.
	Node Tool: Select previous node in object outline.

Text Editing Keyboard Commands

Typing Text

New text is added by typing the desired characters.   In *insert* mode, the <u>text caret</u> is a vertical line and a new character is inserted at the text caret.   In *overwrite* mode the text caret is a box and a new character replaces the character currently highlighted by the text caret.   The text caret moves to the right as new text is entered.

To toggle between insert and overwrite mode, press the **Insert** key.

Moving the Text Caret

Arrow Key	Function
Left	Left one character.
Right	Right one character.
Up	Up one line.
Down	Down one line.
Ctrl+Left	Left one word.
Ctrl+Right	Right one word.
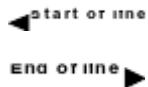
<u>Edit Key</u>	<u>Function</u>
Home	Start of line.
End	End of line.
Page Up	Start of paragraph.
Page Down	End of paragraph.

Line Text Arrow Key Functions

In <u>Line Text</u>, the following functions are associated with the arrow keys:
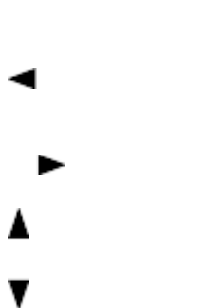
Arrow Key	Function
Left	Left one character. If at the start of the text, shift the text left along the line.
Right	Right one character. If at the end of the text, shift the text right along the line.
Up	Increase vertical offset from line.
Down	Decrease vertical offset from line.

Deleting Text

If a block of text is selected when you type new text, paste new text,   press the delete or backspace key, or underline perform the **Edit|Delete** command the selected text is deleted.

The following keys can also be used:

Key	Function
Backspace	Delete character to left of text caret.
Delete	Delete character to right of text caret.

Changing Text Styles

Character Styles

Key Press	Function
Ctrl + B	**Bold** selected text (toggles)
Ctrl + I	*Italicize* selected text (toggles)
Ctrl + U	Underline selected text (toggles)

Paragraph Styles

Key Press	Function
Ctrl + E	Center
Ctrl + J	Justify
Ctrl + L	Left Align
Ctrl + R	Right Align
Ctrl + 1	Single Space
Ctrl + 5	1 1/2 Space
Ctrl + 2	Double Space
Ctrl+ H	Size/rotate text with object (toggle on/off).

Glossary of Terms

Arc

Bezier Curve

Bit

Binary Number

Bitmap

Bitmap Brush

Bits-Per-Pixel

Byte

Click On

Current Drawing

Current Selection

Default Style

Dialog Box

Drawing Program

Arc

Part of a circle or ellipse.

Bezier Curve

A Bezier curve is a type of smoothly curving line.   Each curve segment is defined by two nodes, which are the segment endpoints, and two handles which determine how far and in what direction the curve segment is bent near each <u>node</u>.

Bit

A "binary digit".   A bit can store one of two possible values, usually denoted by "0" and "1" and is the fundamental unit of information.

Binary Number

A number that is represented as a sequence of binary digits or "bits".   In binary, you count 0, 1, 10, 11, 100, etc.   The number of bits available determines the number of possible values.   Four bits can represent numbers from 0..15, eight bits can represent numbers from 0..255.

Bitmap

A bitmap is a two-dimensional grid of colored dots or "pixels".   Pictures are created by assigning a color to each dot.   Common ways of creating bitmaps include "paint" programs, "screen grabber" programs, and scanners.

Bitmap Brush

A bitmap pattern that is repeated in rows and columns to fill an area.   In Windows 3.1, bitmap brushes are always 8x8 pixels.

Bits-Per-Pixel

The number of bits used to represent each pixel in a bitmap.   Each pixel is a binary number.   When more bits are used to represent a pixel, more colors can be represented, but more storage space is consumed.

Byte

Eight bits, which can represent 256 different values.

Click On

To "click on" an object on the screen: 1) Move the <u>mouse cursor</u> over the object.   2) Press and release the left mouse button.

Current Drawing

The current drawing is the drawing that is currently being edited.   It is the only visible drawing if the drawing window is maximized, the topmost drawing window if the drawings are cascaded, and the active drawing window if the drawings are tiled.

Current Selection

The current selection is either: a) one or more drawing objects; or b) a block of text.   The **Select Tool** is normally used for selecting drawing objects.   The **Text Tool** or **Notes Tool** is used to select a block of text.

Default Style

The Default Style is used to set object style attributes whenever new objects are created.   Default Style attributes are displayed in the **Style Bar** when there is no <u>current selection</u>.

Dialog Box

A pop-up window typically used to enter values or select alternatives for a set of related options or parameters.   Also referred to as a "dialog".

Drawing Program

A program used to edit vector or object-oriented drawings, in contrast to a Paint Program that is used to edit bitmapped images pixel-by-pixel.

Ellipse

A flattened circle.

Font

A typeface.   A font contains the actual shapes that are used to represent text, numbers, punctuation, and special markings.

Freeware

Copyrighted software that is freely distributed with explicit permission from the author.   The author may specify restrictions on how a freeware program is distributed and used.   See also: Shareware.

Guideline

A guideline is a tool for interactively aligning drawing objects.   Guidelines appear in a drawing as solid light blue horizontal or vertical lines.   A guideline is "pulled from a ruler" by pressing the left mouse button while the <u>mouse cursor</u> is in the ruler, moving to the desired position in the drawing, and releasing the left button.

Layers

Parts of a drawing which may be imagined as transparent sheets of plastic.

Line Text

Text that is attached to and follows a shape outline.   Line Text is created by clicking on an open shape with the **Text Tool**.

Moirè Patterns

Interference patterns that result when a high-frequency image (e.g. a bitmap fill pattern) is displayed at a lower than optimal resolution.

Mouse Cursor

The mouse cursor is the shape on the screen that moves as you move the mouse.   The shape of the mouse cursor depends on the window that the mouse is in and the function being performed.

Node

A node is an endpoint of a <u>polyline</u> or <u>Bezier curve</u> line segment.   A polyline node is simply a point.   A Bezier curve node has two "handles" that control the curvature of attached curve segments.

OLE

Object Linking and Embedding.   A Windows feature that enables two or more applications to work together and share files.   A link is a pointer from a file in one application to a file that may be from a different application.   Linking helps save space on your hard drive and keep multiple views of a file consistent.   Embedding allows data from one application to be contained in a file from another application.   Embedding lets you keep all parts of document in a single file even if the parts come from several different applications.

Origin Point

In Top Draw, the origin point is the center of rotation when an object is rotated with the **Select Tool**.   The origin point is also used for determining how a shape used as a pen, arrow head, or arrow tail, aligns to the line it is on.   When an object is selected with the **Select Tool**, the origin point of an object is marked by a "+" with a circle around it.

Paint Program

A program used to edit bitmapped images pixel-by-pixel, in contrast to a Drawing Program that works with vector or object-oriented drawings.

Paragraph Text

Multiple-line/multiple-paragraph text that is attached to and appears inside of a (possibly invisible) shape. Paragraph Text is created and edited with the Text Tool.

PCX

The standard file extension for ZSoft's PC Paintbrush <u>bitmap</u> format.   The PCX format supports 1, 4, 8, and 24 <u>bit</u> per <u>pixel</u> images.

Perform

To perform a menu command: 1) Move the <u>mouse cursor</u> over the menu name in the **Menu Bar**. 2) Press the left mouse button. The menu will appear.   3) While holding the left mouse button down, move the mouse cursor over the command name in the menu.   4) Release the left mouse button.

Pixel

A "picture element".   A pixel is a single dot of color.   Your computer display is composed of a rectangle of pixels, as are laser, dot-matrix, and ink-jet printer output.   Bitmaps are used to store images as a rectangle of pixels.

Polyline

A polyline is a type of line constructed from simple straight line segments connected end-to-end.   Each straight line segment is defined by two nodes, which are the segment endpoints.

Polygon

A closed shape constructed from simple straight line segments connected end-to-end. Each straight line segment is defined by two nodes, which are the segment endpoints.

Ruler Origin

The ruler origin is the point that is at the zero position on both the horizontal and vertical rulers.   When the <u>mouse cursor</u> is positioned at the ruler origin, the coordinates displayed on the **Status Line** will be (0.00, 0.00).

Selection Point

The selection point is the point on the drawing where the left mouse button was last clicked.   It is marked by a bright pink "+".   It is used to mark the current position for pasting, importing, and <u>node</u> operations.

Shareware

Copyrighted software that is freely distributed with explicit permission from the author so that potential customers may evaluate it.   The author may   specify limits on how the software is distributed and how long a potential customer may evaluated it without purchasing a "registered" copy.

Text Caret

The text caret is the blinking line or box that appears when the text tool is used to create new text or is clicked in a selected object.   The text caret marks the point where new text will be placed when you start typing.

True Type

A standard <u>font</u> representation.   True Type fonts define character shapes by their outlines rather than as a set of pixels, making smooth scaling possible.

Vector Graphics

Vector graphics are defined in terms of object outlines.   This type of drawing is also sometimes referred to as "object oriented" in contrast to bitmaps which are "pixel oriented".   Object outline and fill styles can be changed, as well as object size and position, at any time during creation of a drawing.

Windows Metafile

A file format for storing drawings that consists of Windows drawing commands.   A metafile can contain underline vector graphics, bitmaps, and text.   The usual file extension for Windows Metafiles is WMF for Windows 3.1 and earlier, and EMF for Windows 95 enhanced metafiles.

We welcome comments and suggestions about how to improve *Top Draw*!

We don't like bugs either!   Please help us help you by following these guidelines.

On-line documentation files can be found in your *Top Draw* directory.

If you prefer, you can just read the instructions in the *Top Draw* Install <u>dialog box</u> after Step 3.

If installing from a hard drive or CD-ROM, all files must be in the same directory.

The **install** program will only create one new directory level.

You will double-click this icon to launch *Top Draw* from the Program Manager.

Decompressing and copying the files only takes a few minutes.

The **How To Use Help** command in the **Help Menu** provides an introduction to Windows Help.

Use the **New** command in the **File Menu** to open a new file.

A dialog box is sometimes referred to as simply a "dialog".

The page setup can be changed at any time. But, it is often more convenient to set it when you start a new drawing.

<u>Layers</u> can be added, moved, renamed, or deleted at any time.

Selecting a directory works the same as in the Windows File Manager.

Selecting a directory works the same as in the Windows File Manager.

If the file already exists, you will be given the opportunity to change your mind before it is overwritten.

Selecting a directory works the same as in the Windows File Manager.

Selecting a directory works the same as in the Windows File Manager.

If the file already exists, you will be given the opportunity to change your mind before it is overwritten.

The number of copies is saved between prints.

The print scale is saved between prints.

Title page options are saved between prints.

The Windows Control Panel can be used to install or uninstall printers.