AUTODESK.
Authorized Developer

SmartDraft 26 Help

Revised: 1/16/2026

Version: 26.0.0

Welcome to SmartDraft 26 Help

SmartDraft Suite

For AutoCAD and BricsCAD
Suite is our comprehensive set of AutoCAD® and BricsCAD® productivity enhancements. Suite provides tools for labeling plan and profile design, site layout, managing block (symbol) libraries, point placement and labeling, and many general drafting enhancements. These tools are tailored to civil engineers, surveyors, mapping professionals, and drafting professionals.

SmartDraft Survey

For AutoCAD and BricsCAD
Survey is a subset of SmartDraft Suite which focuses on surveyors and mapping professionals. Survey provides tools to label and modify labels of lines and curves with bearings, distances, deltas, radii, tangents, etc. Survey also offers tools to place and label points, create closure reports, and write legal descriptions from polylines or parcels, as well as tools for planview layout.

SmartDraft PConnect

For AutoCAD and BricsCAD
PConnect is an easy to use and superior point-connection tool designed to combine the best features of attributed point coding with an easily controlled, yet powerful, 2D and 3D line control language. PConnect's enhanced suffix codes give the operator increased flexibility and the ability to produce automated linework and layering. PConnect can use your company's specific description keys, combined with its suffix codes, to create robust geometry from surveyed data collected in the field. The linework is drawn on specified layers as defined by a Description Key Style file.

SmartDraft Construction Notes

For AutoCAD and BricsCAD
SmartDraft Construction Notes tools automates the process of placing construction notes and creating a construction notes table or list. Use reference symbol only, leaders with reference symbol, multiple leader with reference symbol, leaders with text, or leader, reference symbol, and text Once the construction note reference symbols are placed, a construction notes table can be created from the symbols.

SmartDraft HEC-RAS Tools

For AutoCAD Civil 3D and Land Desktop Only
HEC-RAS Tools provide an excellent set of tools for exchanging data between Civil 3D and HEC-RAS. Create a HEC-RAS data file from section lines, an alignment, and a surface. Create section lines at specified stations along an alignment. Import a HEC-RAS floodplain line into Civil 3D. Draw HEC-HAS Cross Section in Civil 3D. And more.

SmartDraft 26 Help

Special thanks to:

All the people who contributed to this document.

Version: 26.0.0

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Part I

1 Welcome

SmartDraft® 26 *Ignite Your Productivity!*

http://www.smartdraft.com

Help file version: 26.0.0

Last updated: 1/16/2026

SmartDraft® is designed to make AutoCAD®, AutoCAD Civil 3D®, AutoCAD Map 3D®, and BricsCAD® more productive for civil engineers, mapping professionals, and surveyors. It is the result of extensive research and development, combined with many years of experience in the engineering field. ***SmartDraft! Ignite your productivity.***

For support:

See Support Information

1.1 Credits

Credits

To build the installation/setup program, we used:

Inno Setup, an installer for Windows programs. © 1997-2010 Jordan Russell. All rights reserved.
Internet: http://www.jrsoftware.org/

To create the Help file and Manual, we used:

Help & Manual, © 2019 EC Software GmbH. All rights reserved.
Internet: http://www.ec-software.com/

1.2 SmartDraft Supports and Requirements

Supports and disk space requirements:

* AutoCAD Civil 3D 2020 - 2027 * or
* AutoCAD Map 3D 2020 - 2027 * or
* AutoCAD 2020 - 2027 * or
* BricsCAD Pro v24 - v26 *
* BricsCAD Pro for BricsCAD surfaces, and gradings, alignments, 3d alignments, vertical alignments, and vertical alignment views.
* BricsCAD Pro v24 - v26 Civil points reading, processing, and creation.
* Monitor resolution of at least 1080 x 1024
* 310 MB free disk space for installation

Commands support the AutoCAD versions, and BricsCAD versions listed above unless stated otherwise on the command page.

Supports:

* Microsoft Windows 11®

***Does Not* Support:**

* Any version of AutoCAD LT®
* Any version of AutoCAD 2019 based products or prior.
* Any version of BricsCAD v23 or prior.

Part II

2 Contact Us

2.1 Contact Us

SmartDraft, Inc.

https://smartdraft.com/

For more information, comments, or suggestions, please contact us.

For support:

See Support Information

Evaluation Version

You may install, access, and for the purpose of commercial evaluation and demonstration, without cost, for a period of thirty (30) days. If you want to continue using the SmartDraft software after thirty (30) days, you must purchase a license(s) per the License Agreement. Additionally, functional limitations apply, as set forth in Section 7 of the license Agreement.

Purchasing these tools

A license must be purchased per the License Agreement.

For pricing information, contact:

E-mail: sales@smartdraft.com

2.2 Support Information

Display Information about SmartDraft, necessary for support

The primary method of product support is via e-mail. We reply to your request as soon as possible.

E-mail: support@smartdraft.com

When requesting support, please provide the following information to help us serve you more quickly:

- Copy and paste the SmartDraft support information to an email to assist in SmartDraft support
- A description of the problem. e.g. When using the <command name or alias>, I receive the error <xyz> when selecting a <object type, point, typing, etc...).
- A copy of the file(s), Xref(s), or project files needed to test the problem using your data.
- Indicate in the file, the area, or objects you selected when the error occurred.

Command entry: **smartinfo**

Dialog Box Options

Clipboard	Copy the SmartDraft support information to the Clipboard. Use to copy information into an email.
Email	Open your email client with our support email and subject added (if one is installed).
Close	Close the dialog

Part III

3 Customization

3.1 Customization Templates (Overview)

SmartDraft uses Customization Templates as a means to organize and maintain standard settings for associated drawings. These templates determine the basic drawing settings, such as decimal precision, dimension variables, text styles, and other settings. Likewise, they determine global settings, such as layer names and properties, block libraries, new drawing settings, and labeling styles. Template data files include the layer database, labeling styles, make layer list, point layer list, profile layer list, template description file, new drawing settings, special linetypes, user defined blocks, and block and AutoLISP Manager files. Also, templates allow user defined blocks to be substituted for the blocks used by SmartDraft and supplied during installation. Template data files are managed using the Customization Template Manager, Labeling Style Manager, Labeling Table Style Manager, and Block and Detail Manager.

Customization Templates

- Multiple drawings can be associated to the same template, even drawings from different projects.
- All drawings associated to a template share the same global settings such, as the layer database, new drawing settings, and user defined blocks.
- A drawing can only be associated to one template, but the associated template can be changed at any time using Drawing Setup.
- A drawing stays associated to the template originally assigned to it as long as the template remains in the Customization Template folder. If the associated template is deleted, moved, or renamed, SmartDraft uses the data files in the template named "DEFAULT."
- A new drawing is associated to the current User Customization Template. Each operator can set his own User Customization Template via User Options.
- The New Drawing Settings are copied to the drawing so they can be modified independently of any other drawing associated to the same template.
- Whenever you associate or reassociate a drawing to a Customization Template, the New Drawing Settings are copied to the drawing.
- The Customization Template's file location path is set using Program Options and by default is the sub-folder **\TEMPLATE** in SmartDraft's installation folder. When a new template is created, a sub-folder is created in the Customization Template location. For example, if you create a new template named **Water Department**, then the template folder will be **...\TEMPLATE\Water Department**.
- It is not recommended to use Windows Explorer to create Customization Template folders. Use the Customization Template Manager to ensure the proper data files are copied into the new template.
- To rename a template folder, use Windows Explorer. Do not rename a template folder once operators start associating drawings to it.
- The files created by the Customization Template Manager can be password protected. See Password Setup.

The Customization Template Manager is used to edit the following files:

Type:	File name:	
Template Description	project.ini	
Layer Database	layer.txt	See Layer Database Overview
Make Layer List	laycr.cly	See Layer Make
Offset Street Layer List	laycr.oly	See Offset Street
Profile Layer List	laycr.ply	See the Profile Layer list of the Profile Setup Options
Point Layer List	laycr.tly	See Point Options
New Drawing Settings	drawing.ini	

User Defined Blocks	*.dwg	See User Defined Blocks
Files located in the sub-folder <Template Name>\LABELS		
Area Table Styles	*.asy	See Area Table Style Manager
Coordinate Table Styles	*.csy	See Coordinate Table Style Manager
Alignment Station and Offset Label Style	*.aosy	See Alignment Station and Offset Labels
PBlock Style	*.bsy	See PBlock Style Manager
Description Key Styles	*.dsy	See PConnect Description Key Style Manager
Templates	*.zsy	See PConnect Template Manager
Elevation Label Styles	*.esy	See Elevation Label
Planview Label Manual Styles	*.nsy	See Planview Label Manual
Labeling Styles	*.lsy	See Labeling Style Manager
Labeling Table Styles	*.tsy	See Labeling Table Style Manager
Offset Street Styles	*.osy	See Offset Street
Offset Street Fillet Styles	*.fsy	See Offset Street Fillet
Legal Description Options Styles	*.lgl	See Legal Description Options Style Manager

The Block Manager is used to edit the following files:

Block Manager	*.bdb
Details on Planview TB	details.bdb
Design Tools Blocks	design.bdb
Field and Courts	fields.bdb
Miscellaneous Utility Blocks	utmisc.bdb
Planview Blocks	planview.bdb
Profile Blocks	profile.bdb
Sewer Blocks	sewer.bdb
Storm Drain Blocks	storm.bdb
Traffic Blocks	traffic.bdb
Water Blocks	water.bdb

The Block and Detail Manager and Block and Detail Category File Manager

Folder Variable File	BKeeper.ini

Borders Toolbar

Improvement	border1.bdb
Grading	border8.bdb
Water	border6.bdb
Sewer	border7.bdb
Mapping	border2.bdb
Miscellaneous	border5.bdb

The AutoLISP Manager is used to edit the following files:

AutoLISP Manager	*.ldb
Grading Tools	grade.ldb

Load customization template linetypes using Load Linetypes:

Custom Linetypes	custom linetypes

3.2 Network Options

SmartDraft can be installed on a network drive and shared with all operators in an office (Site License Required). We recommend this installation method for companies with many operators. When SmartDraft is installed on a network drive, common customization templates can be shared with all operators on the network. Also, the default customization template, and default user options can be set. The CAD Manager can password protect the Program Options and Customization Template Manager.

Advantage of network installation:

- Can use site license to authorize all operators from a single location.
- Can update the program from a single location.
- Can set default customization template name.
- Can set default user options.

Site (Network) License:
Copy the provided license file (smartdraft12.lic) to SmartDraft's installation folder. The default installation folder is drv:\Program Files\SmartDraft. When this file is located on a network drive, it will provide the serial number and authorization to any operator loading the smartsuite.cuix menu.

Network Installation Note:

Customization Templates are located in SmartDraft's installation sub-folder \template. To create and maintain customization templates, the operator must have read and write access to this folder and its sub-folders. The ... \template folder can be moved and/or renamed. If the folder location is moved and/or renamed, the "Customization Template" path must be edited to reflect the correct folder. Use Program Options to edit the "Customization Template" path. This path is saved in the SmartDraftSetup.ini file in SmartDraft's installation folder.

Example of the customization template line in the SmartDraftSetup.ini file:

[Program]

TemplateFdlr=C:\PROGRAM FILES\SMARTDRAFT\TEMPLATE customization template folder location is after the =

Additional Network information:

To password protect SmartDraft's customization settings: See Password Setup.

To set up default network options: See Program Options.

To set up new customization templates or files within the template: See Customization Template Manager.

3.2.1 Password Setup

Add or change the password protection for customization templates, program setup, and default user options.

When you password-protect SmartDraft, no one can access the customization template manager, program options, or network defined default user options unless they know the password.

Note: Password is case sensitive.

Command entry: **smartpw**

Dialog Box Options

Current: If there is a current password, type it to allow a new password to be entered.
New: Type a new password.
Confirm: Type the new password again to confirm.

3.2.2 Creating strong passwords

To help keep your SmartDraft customization templates more secure, you should use a strong password.

For a password to be strong, it should:

- Be at least seven characters long. Because of the way passwords are encrypted, the most secure passwords are seven or 14 characters long.
- Contain characters from each of the following three groups:

Group	Examples
Letters (uppercase and lowercase)	A, B, C... (and a, b, c...)
Numerals	0, 1, 2, 3, 4, 5, 6, 7, 8, 9
Symbols (all characters not defined as letters or numerals)	` ~ ! @ # $ % ^ & * ( ) _ + - = { } | [ ] \ : " ; ' < > ? , . /

- Include at least one symbol character in the second through sixth positions.
- Be significantly different from prior passwords.
- Not contain your name or user name.
- Not be a common word or name.

Passwords can be the weakest link in a computer security scheme. Strong, hard-to-guess passwords are important because the tools and computers that people use to guess passwords continue to improve. Network passwords that once took weeks to guess can now be guessed in hours.

Password-guessing software uses one of three approaches: intelligent guessing, dictionary attacks, and automation that tries every possible combination of characters. Given enough time, the automated method can guess any password. However, it can still take months to guess a strong password.

3.3 Open Drawing Folder

Open Windows File Explorer to the folder of the current drawing

Command entry: **odf**

3.4 SmartDraft Tab

Display the SmartDraft Ribbon tab in the current workspace

Note: Does not display SmartDraft Ribbon tab if the current workspace is read-only.

Supports:

AutoCAD Products:	Yes
BricsCAD:	No

Command entry: **smarttab**

Command: **smarttab**
Unloading: <menuname>
Reloading: <menuname>

3.5 Change SmartDraft Menus

Change SmartDraft within AutoCAD

The following commands provide tools to change between SmartDraft menus after SmartDraft one of the SmartDraft menus has been loaded.

If the SmartDraft Ribbon tab is not displaying see SmartDraft Tab.

Command entry:

SmartSuite	Change to the SmartDraft Suite cuix which includes the optional tools PConnect, and HEC-RAS.
SmartSurvey	Change to the SmartDraft Survey cuix which includes the optional tool PConnect.
SmartCnote	Change to the SmartDraft Construction Notes cuix.

Once the menu has changed, we recommend closing and reopening AutoCAD / BricsCAD..

3.6 Customization Guide Appendix

Customization Layer and Block Guide.

This document lists the layer indexes and/or blocks associated to each SmartDraft command.

This document will help with customizing SmartDraft more quickly.

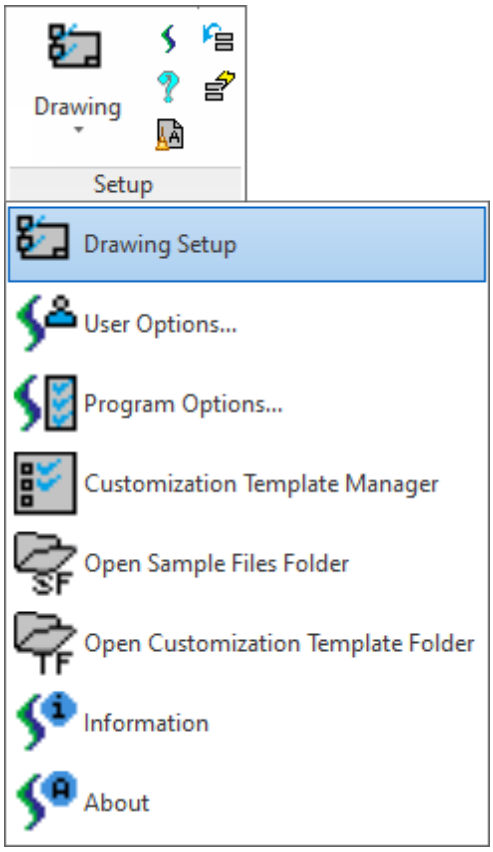
Use this information when modifying the Layer Database or creating user defined blocks.

Use the Customization Template Manager to modify or print the Layer Database, Make Layer, Profile Layer, Point Layer, and Offset Street lists.

Setup Panel
Grading Panel
HEC-RAS Panel
Inquiry Panel
Labeling Panel
Labeling Override Tools Toolbar
Layer Panel
Layout Panel
Planview Panel
Points Panel
Polylines Panel
Profile Panel
Text Panel
View Panel

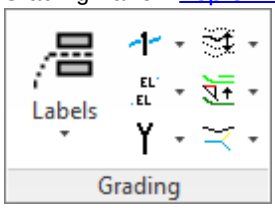
Details for each command on the panels:

Setup Panel - Top of Page



No layer indexes or block names for this panel.

Grading Panel - Top of Page

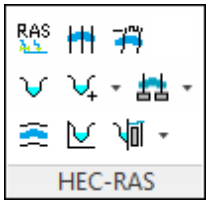


Command	Index(es)	Block name(s)	Style
Elevation Flag Manual	80 - Proposed 81 - Existing 80 - Demo Leader 354 - Proposed, Demo 279 - Existing	G-LABEL-X.dwg G-LABEL-X-A (Annotative)	Planview Small
Elevation Label	Text 80 - Proposed 81 - Existing 80 - Demo	G-LABEL-X.dwg G-LABEL-X-A (Annotative)	Planview Small

	Leader		
	354 - Proposed, Demo		
	279 - Existing		
Elevation Label - Lot Line Text	80 - Proposed	G-LABEL-LLX.dwg	Planview Small
	81 - Existing	G-LABEL-LLX-A (Annotative)	
	80 - Demo		
Label Slope Manual	80 - Proposed	G-SLPX.dwg	Planview Small
	81 - Existing	G-SLPX-A (Annotative)	
	80 - Demo		
Label Slope (One Point)	80 - Proposed	G-SLPX.dwg	Planview Small
	81 - Existing	G-SLPX-A (Annotative)	
	80 - Demo		
Label Slope (Two Point)	80 - Proposed	G-SLPX-2.dwg	Planview Small
	81 - Existing	G-SLPX-2-A (Annotative)	
	80 - Demo		
Spot Elevation	320 - Proposed	SPOT-EL.dwg	
	321 - Existing	SPOT-EL-A (Annotative)	
	320 - Demo		
Interpolate	301 - All types	INTERP.dwg	
Interpolate Contours	320 - Proposed	SPOT-EL.dwg	
	321 - Existing		
	320 - Demo		
Calculate Slope	Spot	SPOT-EL.dwg	
	320 - All types		
	Slope		Planview Small
	80 - Proposed		
	81 - Existing		
	80 - Demo		
Calculate Elevation			
	Spot	SPOT-EL.dwg	
	320 - All types		
	Point	POINT.dwg	
	Point layer set in point options		
	Text		Planview Small
	Current layer		
Label Contours	78 - Proposed		Planview Small

	79 - Existing	
	78 - Demo	
Adjust Elevation		
Edit Object's Elevation		
Slope Symbol	292 - Proposed	
	293 - Existing	
	294 - Demo	
Toe of Slope	289 - Proposed	
	290 - Existing	
	291 - Demo	
FL Arrow	302 - All types	G-FLAR.dwg
		G-FLAR-A.dwg (Annotative)
Daylight	303 - All types	G-DL.dwg
Cut / Fill	319 - All types	G-CF.dwg
Brow Ditch	295 - All types	G-BD.dwg

HEC-RAS Panel - Back to Customization Guide Appendix



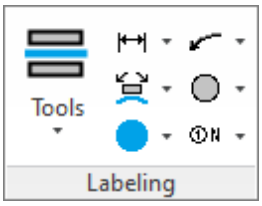
Command	Index(es)	Block name(s)	Style
HEC Application Loader			
Create Sample Lines or Polylines along an alignment	214 - For all types		
Sample Lines Tool	Uses the Sample Line Style		
Create HEC-RAS Data			
Add Sections to a HEC-RAS Project			
Add River / Reach to a HEC-RAS Project			
Create HEC-RAS Planview Sections Lines and Labels	213 - For all types	PV-XSL.dwg	Planview Small
Create HEC-RAS Floodplain Lines	215 - For all types		
Create HEC-RAS Cross Sections	208 - Section Grid Text	P-HGL.dwg	
	209 - Section Grid Lines		
	210 - Section Labels		

	211 - Section Ground		
	212 - Water Surface		
Create HEC-RAS Water Surface Profile	Uses the Profile Style		
Label HEC-RAS Water Surface Profile	Leader of Label		
	217 - All types	P-SLABEL.dwg	
	Text of Label		
	281 - For all types		Profile Small

Inquiry Panel - Back to Customization Guide Appendix

Command	Index(es)	Block name(s)	Style type
Distance			
Measure Angle			
ID Points			
Inverse Points			
ID Elevation			
Length (Add)			
List			
Area	75 - Proposed		Planview Small
	76 - Existing		
	75 - Demo		
If index 75 / 76 are not defined	55 - Proposed		Planview Small
	56 - Existing		
	55 - Demo		
Area by Point	Same as above		
If Polyline to remain	Current layer		
List Object			
Tangency Report			

Labeling Panel - Back to Customization Guide Appendix



Command	Index(es)	Block name(s)	Style type
Labeling	68 - Text		Planview Small
	73 - Leader		
Labeling Tags Tool			
Create Labeling Table			
73 - Leader			
65 - Table Lines	68 - Text		Planview Small

Command	Index(es)	Block name(s)	Style
Arc Leader	73 - Proposed		
	74 - Existing		
	73 - Demo		
Straight Leader	73 - Proposed		
	74 - Existing		
	73 - Demo		
Add Continuation Symbol	Layer of selected object	D-CTS.dwg	
		D-CTS-A (Annotative)	
Add Arrowhead	73 - Proposed	SM_ARR.dwg	
	74 - Existing	SM_ARR-A (Annotative)	
	73 - Demo		
Create a Break Symbol	Layer of selected object	D-B.dwg	
		D-B-A (Annotative)	
Pipe Crossing Symbol	Layer of selected object	D-PX.dwg	

Command	Index(es)	Block name(s)	Style
Radial Bearing	68 - All types	G-LABEL-X.dwg	Planview Small
		G-LABEL-X-A (Annotative)	
ALTA Labels	68 - All types		Planview Small

Command	Index(es)	Block name(s)	Style
Rotate along Arc			
Change Bearing Direction			
Change Label Direction			
Reposition Labels			

Change Labeling Precision

Scale Labels

Command	Index(es)	Block name(s)	Style type
Circle	55 - Proposed 56 - Existing 55 - Demo	D-C1.dwg D-C1-A (Annotative)	Planview Small
Square	Same	D-S1.dwg D-S1-A (Annotative)	Planview Small
Triangle	Same	D-T1.dwg D-T1-A (Annotative)	Planview Small
Hexagon	Same	D-H1.dwg D-H1-A (Annotative)	Planview Small
Keyhole	Same	D-KH1.dwg D-KH1-A (Annotative)	Planview Small
Diamond	Same	D-D1.dwg D-D1-A (Annotative)	Planview Small
Oval	Same	D-O1.dwg D-O1-A (Annotative)	Planview Small
Pentagon	Same	D-P1.dwg D-P1-A (Annotative)	Planview Small
Star	Same	D-ST1.dwg D-ST1-A.dwg	Planview Small
Rectangle	Same	D-R1.dwg D-R1-A.dwg	Planview Small

Command	Index(es)	Block name(s)	
Crow's Feet - Automatic	61 - All types	Arrow in left	
		D-AL, D-AL2, and D-AL3	Position 1, 2, and 3
		Arrow in right	
		D-AR, D-AR2, and D-AR3	Position 1, 2, and 3
		Arrow out left	
		D-ALO, D-AL2O, and D-AL3O	Position 1, 2, and 3
		Arrow out right	
		D-ARO,D-AR2O, and D-AR3O	Position 1, 2, and 3

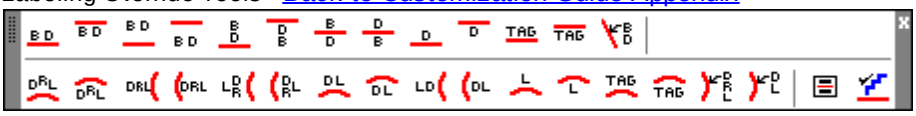
		No arrow left	
		D-ALN, D-AL2N, and D-AL3N	Position 1, 2, and 3
		No arrow right	
		D-ARN, D-AR2N, and D-AR3N	Position 1, 2, and 3
Crow's Feet - Erase			
Crow's Feet - Manual	Same as Automatic	Same as Automatic	
Directional Arrow	61 - All types	D-A.dwg	Break type
		D-A1.dwg	No break

Command	Index(es)	Block name(s)
Solid Circle	166 - Proposed	FM-M1.dwg
	167 - Existing	FM-M1-A (Annotative)
	168 - Demo	
Half Circle	Same	FM-M2.dwg
		FM-M2-A (Annotative)
Open Circle	Same	FM-M3.dwg
		FM-M3-A (Annotative)
Double Circle	Same	FM-M4.dwg
		FM-M4-A (Annotative)
Double Circle Solid	Same	FM-M12.dwg
		FM-M12-A (Annotative)
Cross Circle	Same	FM-M10.dwg
		FM-M10-A (Annotative)
Solid Square	Same	FM-M5.dwg
		FM-M5-A (Annotative)
Open Square	Same	FM-M6.dwg
		FM-M6-A (Annotative)
Double Square	Same	FM-M7.dwg
		FM-M7-A (Annotative)
Double Square Solid	Same	FM-M13.dwg

		FM-M13-A (Annotative)
Square Circle Solid	Same	FM-M14.dwg
		FM-M14-A (Annotative)
Cross Square	Same	FM-M11.dwg
		FM-M11-A (Annotative)
Solid Triangle	Same	FM-M8.dwg
		FM-M8-A (Annotative)
Open Triangle	Same	FM-M9.dwg
		FM-M9-A (Annotative)
Triangle Circle Solid	Same	FM-M15.dwg
		FM-M15-A (Annotative)

Command	Index(es)	Block name(s)	Style
Dimension	61 - All types		Dimension Text
Dimension Truncate	61 - All types		Dimension Text
Dimension with Prompt	61 - All types		Dimension Text
Dimension without Leader	61 - All types		Dimension Text
Dimension Outside	61 - All types		Dimension Text
Dimension Arc	61 - All types		Dimension Text
Dimension Text - Alternate Units	61 - All types		Dimension Text

Labeling Override Tools - Back to Customization Guide Appendix



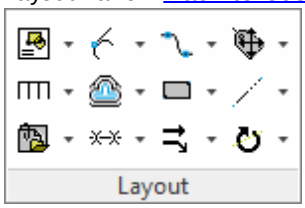
Uses current label style's settings.

Command	Index(es)	Block name(s)	Style
Labeling Style Manager	Per Style		
Labeling Table Style Manager	Per Style		

Layer Panel - Back to Customization Guide Appendix

No layer indexes or block names for this panel.

Layout Panel - Back to Customization Guide Appendix



Command	Index(es)	Block name(s)	Style
Change Length			
Change Angle			
Line Tangent to Arc	Current layer		
Line Tangent Two Arcs	Current layer		
Line Perpendicular	Current layer		
Line Bisect	Current layer		
Line By Turned Angle	Current layer		
Arc Tangent to Line	Current layer		
Reverse Curves	Current layer		
Lot Lines	5 - Proposed		
	6 - Existing		
	7 - Demo		
Cul-De-Sac	Right-of-way		
	17 - Proposed		
	18 - Existing		
	19 - Demo		
	Curb		
	26 - Proposed		
	27 - Existing		
	28 - Demo		
	Centerline		
	23 - Proposed		
	24 - Existing		
	25 - Demo		
Knuckle	Right-of-way		
	17 - Proposed		

	18 - Existing		
	19 - Demo		
	Curb		
	26 - Proposed		
	27 - Existing		
	28 - Demo		
Driveway Wing	237 - Proposed		
	238 - Existing		
	239 - Demo		
Pedestrian Ramp	46 - Proposed		
	47 - Existing		
	48 - Demo		

Command	Index(es)	Block name(s)	Style
Parking Spaces	32 - Proposed		
	33 - Existing		
	34 - Demo		
Parking Spaces along Polyline	Same as above		
Parking Spaces Count	Same as above or Current	D-SPC.dwg, TC-HC.dwg, and TC-HCS.dwg	
Laterals along Alignment	55 - Proposed		
	56 - Existing		
	55 - Demo		

Command	Index(es)	Block name(s)	Style
Offset Multiple			
Offset Current			
Offset Block			
Offset Street	Per layers in laycr.oly		
Offset 3D Polyline			

Command	Index(es)	Block name(s)	Style
Rectangle	Current layer		
Rectangle / Shadow Box	Current layer		

Command	Index(es)	Block name(s)	Style
Open Xref			
Xref Attach	276 - If <X> is in the name, the Xref will be substituted in its place. The default is X-<Xref filename>		

Xref Overlay	276 - If <X> is in the name, the Xref will be substituted in its place. The default is X-<Xref filename>		
Xref Overlay2	276 - If <X> is in the name, the Xref will be substituted in its place. Default is Xref.		
Xref Overlay Multiple	276 - If <X> is in the name, the Xref will be substituted in its place. The default is X-<Xref filename>		
Xref Match XCLIP			
Xref Color Screen			

Command	Index(es)	Block name(s)	Style
Chainlink Fence	254 - Proposed	D-X.dwg	
	255 - Existing		
	256 - Demo		
Circle Symbol Fence	269 - Proposed	D-O.dwg	
	270- Existing		
	271 - Demo		
Retaining Wall	251 - Proposed		
	252 - Existing		
	253 - Demo		
Retaining Wall	251 - Proposed	D-RW.dwg	
	252 - Existing		
	253 - Demo		
Demolition Symbol	77 - All types	D-DEMO.dwg	
Abutment Symbol	20 - Proposed	FM-ABR.dwg	
	21 - Existing		
	22 - Demo		

Command	Index(es)	Block name(s)	Style
Arrows	52 - Proposed		
	53 - Existing		
	54 - Demo		
Word Signs	52 - Proposed		
	53 - Existing		
	54 - Demo		
Caution Signs	49 - Proposed		

	50 - Existing	
	51 - Demo	
Warning Signs	49 - Proposed	
	50 - Existing	
	51 - Demo	
Regulatory Signs	49 - Proposed	
	50 - Existing	
	51 - Demo	
Barricade	272 - Proposed	TC-B.dwg
	273 - Existing	
	274 - Demo	
Cone	49 - Proposed	TC-D.dwg
	50 - Existing	
	51 - Demo	
Stop Sign	49 - Proposed	I-S3.dwg
	50 - Existing	
	51 - Demo	
Street Sign	49 - Proposed	I-S1.dwg
	50 - Existing	
	51 - Demo	
Guard Post	49 - Proposed	I-S2.dwg
	50 - Existing	
	51 - Demo	

Command	Index(es)	Block name(s)	Style
Fillet 3 Limits	Layer of first selected object		

Planview Panel - Back to Customization Guide Appendix

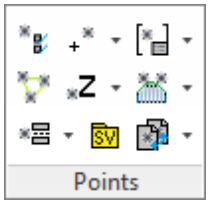
Command	Index(es)	Block name(s)	Style
Label Alignment Stationing	66 - All types	I-STA.dwg	Planview Small
Label Alignment Stations and Offsets	80 - Proposed	PV-LABEL1-X.dwg	Planview Small
	81 - Existing		
	80 - Demo		

Alignment Station Intersection Label	80 - Proposed	PV-LABEL-X.dwg	Planview Small
	81 - Existing		
	80 - Demo		
Laterals along Alignment	Current layer		
Planview Label Manual	80 - Proposed	PV-LABEL-X.dwg	Planview Small
	81 - Existing		
	80 - Demo		
Create 3D Polyline from Profile	206 - All types		
Endpoint Ticks	Layer of selected object	D-TM.dwg	
Label Coordinates	69 - All types		Planview Small
North Arrow	165 - All types	D-N.dwg	
		D-N-A.dwg (Annotative)	
		D-N1.dwg	
		D-N1-A.dwg (Annotative)	
		D-N2.dwg	
		D-N2-A.dwg (Annotative)	
		D-N3.dwg	
		D-N3-A.dwg (Annotative)	
Barscale	55 - Proposed	D-BS-4.dwg (4 units)	
	56 - Existing	D-BS-3.dwg (3 units)	
	55 - Demo	D-BS-2.dwg (2 units)	
		D-BS-1.dwg (1 units)	
Cross Section Label	67 - All types	D-SEC.dwg	
	57 - All Types	D-SEC-A.dwg (Annotative)	Planview Medium
		D-SEC-X.dwg	
		D-SEC-X-A.dwg (Annotative)	
Detail Notes	67 - All types	D-SEC-L.dwg	Planview Medium
		D-SEC-L-A.dwg (Annotative)	
Text of note	55 - Proposed		Planview Small
	56 - Existing		
	55 - Demo		
Grid Tick and Label	163 - All types	D-GTIC-X.dwg	Planview Small
		D-GTIC-X-A.dwg (Annotative)	
Grid Label Display Update			

Grid Label Reposition

Command	Index(es)	Block name(s)	Style
List Alignment Stations and Elevations			
Crossing Alignments Stations and Elevations			

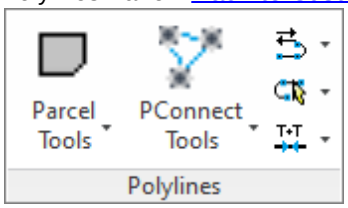
Points Panel - Back to Customization Guide Appendix



Command	Index(es)	Block name(s)	Style
Point Options			
Manual	Point layer set in options	POINT.dwg	
	Default		
	340 - All types		
Coordinates	Point layer set in options	POINT.dwg	
Setbacks	Point layer set in options	POINT.dwg	
Along objects	Point layer set in options	POINT.dwg	
Station and Offset	Point layer set in options	POINT.dwg	
Traverse	Point layer set in options	POINT.dwg	
	Linework to current layer		
Connect Points by Polyline	Current layer		
Coordinate Table	70 - All types		Planview Small
Point Elevation			
Point Label	Text		Planview Small
	80 - Proposed		
	81 - Existing		
	80 - Demo		
	Leader		
	354 - All types		
Survey Working Folder			
Label Northing and Easting Difference	69 - All types	G-LABEL-NEX.dwg	Planview Small
Point Merge			
Description Find and Replace			
Zoom To			

Points List Available			
Select by Range or All			
Point Import	Point layer set in options	POINT.dwg	
Point Export			
Point to Spot Label	320 - Proposed	SPOT-EL.dwg	Planview Small
	321 - Existing		
	320 - Demo		
Delete Point Group			

Polylines Panel - Back to Customization Guide Appendix



Parcel Tools

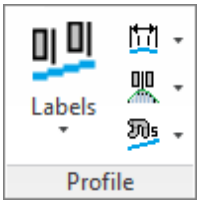
Command	Index(es)	Block name(s)	Style
Create an Area Table	70 - Text	Planview Small	
	65 - Table lines		
Define a Parcel			
Label Parcel	64 - Lot number	Planview Small	
	75 - Proposed	Planview Small	
	76 - Existing		
	75 - Demo		
If index 75 / 76 are not defined	55 - Proposed	Planview Small	
	56 - Existing		
	55 - Demo		
Create Reports			

PConnect Tools
Create layer per the Description Key File.

Polylines Tools
No layer indexes or block names for this panel except below

Command	Index(es)	Block name(s)	Style
Create 3D Polyline	206 - All types		
Create Polyline with Arcs - Tree or Brush Line	Current layer		

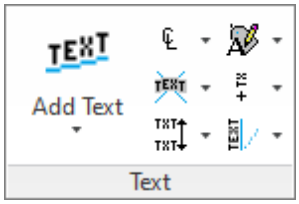
Profile Panel - Back to Customization Guide Appendix



Command	Index(es)	Block name(s)	Style
Station and Elevation	Text / Leader	P-LABEL.dwg	Profile Small
	175 - Proposed	D-PDM.dwg - Datum Metric	
	176 - Existing	D-PD.dwg - Datum Feet	
	175 - Demo		
	178 - All types		Profile Large
	Profile lines		
	Layer per profile layer setup and selection		
Distance and Elevation or Slope	Same as above	P-LABEL.dwg	Profile Small
Digitize	Same as above	P-LABEL.dwg	Profile Small
Profile: Station Label	Same as above	P-LABEL.dwg	Profile Small
Profile Label along the Alignment	66 - All types	I-STAPRF.dwg	
Create Alignment Labels along the Profile	Text / Leader		Profile Small
	175 - Proposed		
	176 - Existing		
	175 - Demo		
Profile File from Points along Alignment			
Angle, Draw, Inquire, Label, and Pipe	Draw - Current		Profile Small
	Pipe - Layer of selected object		
Pipe Cut Away	Layer of selected object		
Pipe Crossing	Text / Leader		Profile Small
	175 - Proposed	D-PDM.dwg - Metric	
	176 - Existing	D-PD.dwg - Feet	
	175 - Demo		
	Pipe		
	Layer per profile layer setup		
Curb Return	Text / Leader		Profile Small
	175 - Proposed		

	176 - Existing		
	175 - Demo		
	Profile lines		
	Layer per profile layer setup and selection		
Label Cross Sections	175 - Proposed	P-LABEL.dwg	Profile Small
	176 - Existing		
	175 - Demo		
Arc Leader	175 - Proposed	SM_ARR.dwg	
	176 - Existing		
	175 - Demo		
Straight Leader	175 - Proposed	SM_ARR.dwg	
	176 - Existing		
	175 - Demo		
Profile Text	175 - Proposed		Profile Small
	176 - Existing		
	175 - Demo		
Profile Dimension	175 - Proposed		Profile Small
	176 - Existing		
	175 - Demo		
Profile Calculator			

Text Panel - Back to Customization Guide Appendix



No layer indexes or block names for this panel except below.

Text Styles - Back to Customization Guide Appendix

Command	Index(es)	Block name(s)	Style type
Small Text	55 - Proposed		Planview Small
	56 - Existing		
	55 - Demo		
Medium Text	57 - Proposed		Planview Medium
	58 - Existing		
	57 - Demo		
Planview Large	59 - Proposed		Planview Large
	60 - Existing		
	59 - Demo		

FD Filled Text	322 - All types	Filled
S Shadow Text	321 - All types	Shadow
Dashed Text	323 - All types	Dashed
SN Street Name	63 - All types	Planview Medium
L# Lot # Large	64 - All types	Planview Large
L# Lot # Shadow	64 - All types	Shadow
Text Symbols on Line	See Block Manager for info	
Text Mathematics	55 - Proposed 56 - Existing 55 - Demo	Planview Small

Masking: The masking object is placed on the layer of the object being masked.

View Panel - Back to Customization Guide Appendix

No layer indexes or block names for this panel except below.

Command	Index(es)	Block name(s)	Style
Viewport Make	280 - All types		

3.6.1 Customization Guide Appendix Extra

Customization Layer and Block guide.

This documents the layer indexes and/or blocks associated to each SmartDraft Extra command. The document will help you customization SmartDraft more quickly. Use this information when modifying the database or creating user defined blocks.

Toolbars:
Block Manager Tools
Border Tools
Miscellaneous Tools
Planview Labeling Tools
Plants Tools
Profile Tools
Sewer Tools
Storm Drain Tools
Water Tools

Details for each command on a toolbar

Border Toolbar - Top of Page

Opens Block Manager

Block Manager Toolbar - Top of Page

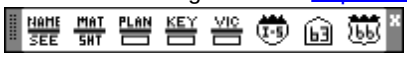
Opens Block Manager

Miscellaneous Toolbar - Top of Page

Command	Index(es)	Block name(s) or Style
Light with arm	148 - Proposed 149 - Existing 150 - Demo	SL-2.dwg
Light without arm	148 - Proposed 149 - Existing 150 - Demo	SL-1.dwg
Dashed Light with arm	148 - Proposed 149 - Existing 150 - Demo	SL-4.dwg
Dashed Light without arm	148 - Proposed 149 - Existing 150 - Demo	SL-3.dwg
Gas valve	157 - Proposed	G-V.dwg

	158 - Existing	
	159 - Demo	
Gas service symbol	157 - Proposed	G-M.dwg
	158 - Existing	
	159 - Demo	
Gas vault	157 - Proposed	None
	158 - Existing	
	159 - Demo	
Powerpole	160 - Proposed	D-PP.dwg
	161 - Existing	
	162 - Demo	
Guypole	160 - Proposed	D-GP.dwg
	161 - Existing	
	162 - Demo	
Electric vaults	151 - Proposed	None
	152 - Existing	
	153 - Demo	
Telephone pole	154 - Proposed	T-P.dwg
	155 - Existing	
	156 - Demo	
Telephone manhole	154 - Proposed	T-MH.dwg
	155 - Existing	
	156 - Demo	
Telephone vault	154 - Proposed	None
	155 - Existing	
	156 - Demo	

Planview Labeling Toolbar - Top of Page



Command	Index(es)	Block name(s) or Style
Street and See Sheet	Street Name	Medium Text
	63 - All types	
	Sheet text	Small Text
	55 - All types	
Matchline	59 - Proposed	Large Text
	60 - Existing	
	59 - Demo	
	164 - For Matchline Line	
Planview Description	59 - Proposed	D-PH.dwg
	60 - Existing	

	59 - Demo	
Key Map Header	55 - All types	Small Text
	59 - All types	Large Text
Vicinity Map Header	55 - All types	Small Text
	59 - All types	Large Text
Interstate	55 - All types	D-INTER.dwg
State	55 - All types	D-STATE.dwg
US	55 - All types	D-US.dwg

Plants Toolbar - Top of Page

Command	Index(es)	Block name(s) or Style
Tree symbols	304 - Proposed	D-TREE.dwg
	305 - Existing	
	304 - Demo	
Palm tree symbol	304 - Proposed	D-PALM.dwg
	305 - Existing	
	304 - Demo	
Tree line	304 - Proposed	None
	305 - Existing	
	304 - Demo	
Brush line	306 - Proposed	None
	307 - Existing	
	306 - Demo	

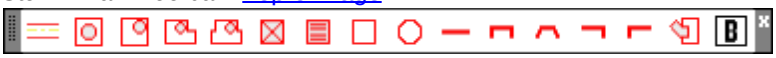
Profile Toolbar - Top of Page

Command	Index(es)	Block name(s) or Style
Curb Return Label	178 - All types	D-PH.dwg - Profile Large
	175 - Proposed	D-SC.dwg - Profile Small
	176 - Existing	
	175 - Demo	
Profile Stationing Label	175 - Proposed	Profile Medium
	176 - Existing	
	175 - Demo	
Profile Elevation Label	175 - Proposed	Profile Medium
	176 - Existing	
	175 - Demo	

Sewer Toolbar - Top of Page

Command	Index(es)	Block name(s) or Style
Sewer service symbol	55 - Proposed	D-C1.dwg
	56 - Existing	
	55 - Demo	
Manhole	118 - Proposed	S-MH.dwg
	119 - Existing	
	120 - Demo	
Cleanout	118 - Proposed	S-CO.dwg
	119 - Existing	
	120 - Demo	
Plug	118 - Proposed	S-P.dwg
	119 - Existing	
	120 - Demo	

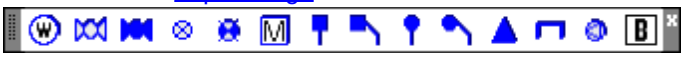
Storm Drain Toolbar - Top of Page



Command	Index(es)	Block name(s) or Style
Offset pipe edges	142 - Proposed	None
	143 - Existing	
	144 - Demo	
Manholes	145 - Proposed	SD-A4.dwg
	146 - Existing	
	147 - Demo	
Curb Inlets	145 - Proposed	SD-B.dwg
	146 - Existing	
	147 - Demo	
Curb Inlet with one wing	145 - Proposed	SD-B1.dwg
	146 - Existing	
	147 - Demo	
Curb Inlet with two wings	145 - Proposed	SD-B2.dwg
	146 - Existing	
	147 - Demo	
Catch Basin	145 - Proposed	SD-F.dwg
	146 - Existing	
	147 - Demo	
Catch Basin	145 - Proposed	SD-G.dwg
	146 - Existing	

	147 - Demo	
Area Drains	145 - Proposed	SD-CB.dwg
	146 - Existing	
	147 - Demo	
Cleanouts	145 - Proposed	SD-CO.dwg
	146 - Existing	
	147 - Demo	
Straight Headwall	145 - Proposed	SD-SHW.dwg
	146 - Existing	
	147 - Demo	
U Headwall	145 - Proposed	SD-UHW.dwg
	146 - Existing	
	147 - Demo	
Winged Headwall	145 - Proposed	SD-WHW.dwg
	146 - Existing	
	147 - Demo	
L right headwall	145 - Proposed	SD-LLHW.dwg
	146 - Existing	
	147 - Demo	
L left headwall	145 - Proposed	SD-LRHW.dwg
	146 - Existing	
	147 - Demo	
Junction Structure 2	145 - Proposed	SD-LRHW.dwg
	146 - Existing	
147 - Demo		

Water Toolbar - Top of Page



Command	Index(es)	Block name(s) or Style
Water service symbol	55 - Proposed	D-C1.dwg
	56 - Existing	
	55 - Demo	
Hydrants	124 - Proposed	W-FH.dwg
	125 - Existing	
	126 - Demo	
Hydrants	124 - Proposed	W-FH1.dwg
	125 - Existing	
	126 - Demo	
Values	124 - Proposed	W-GV.dwg
	125 - Existing	

	126 - Demo	
Values	124 - Proposed	W-GV1.dwg
	125 - Existing	
	126 - Demo	
Water meter	124 - Proposed	W-M.dwg
	125 - Existing	
	126 - Demo	
Air Release Valve	124 - Proposed	W-ARV.dwg
	125 - Existing	
	126 - Demo	
Air Release Valve	124 - Proposed	W-ARV1.dwg
	125 - Existing	
	126 - Demo	
Blow Off Valve	124 - Proposed	W-BO.dwg
	125 - Existing	
	126 - Demo	
Blow Off Valve	124 - Proposed	W-BO1.dwg
	125 - Existing	
	126 - Demo	
Thrust Block	124 - Proposed	W-TB.dwg
	125 - Existing	
	126 - Demo	
Plug	124 - Proposed	W-P.dwg
	125 - Existing	
	126 - Demo	
Check Valve	124 - Proposed	W-CV.dwg
	125 - Existing	
	126 - Demo	

3.7 Layer Database Overview

SmartDraft's automatic layer making feature can increase drafting productivity by reducing the time it takes to learn and remember your company's layering standard. It can automatically create a layer before inserting a block, or drawing an object. It assists in creating multiple drawings with consistent layer names, colors and linetypes. If you work with multiple agencies or consultants, which require their own layering standards, Customization Templates are used to accommodate this need.

Layer database

- The layer database stores the layer name, color, linetype, lineweight, plot style, plot/no plot, and description of each layer used by SmartDraft commands.
- A different layer database is stored within each Customization Template.
- Layers can have three types, such as proposed, existing, demolition/vacate.
- Commands in SmartDraft are associated to the layer database via a unique layer index. Use the Customization Guide Appendix to find the index associate to a SmartDraft command.
- Before making changes to the layer database, first find the associated index number and modify the associated layer properties.
- Changing or removing layer index numbers will cause undesired results.
- To edit and maintain the layer database file, use the Customization Template Manager and select the Layer Database setting.
- Discipline specific layers are displayed in the Layer Make, Profile Setup Options, and Point Options commands. The Layer List Manager maintains these layer lists.
- Currently the layer database file is a standard text (ASCII) file.
- It is not recommended to use a text editor to modify the layer database, unless extreme caution is used to maintain the proper format of the file.
- To incorrectly edit the layer database file with a text editor could cause undesired results.

Layer Database Format

- The layer database file is a text (ASCII) file located in the customization template folder.
- The file name of the layer database is LAYER.TXT.
- The first two lines of the file contain header and version information.
- Do not edit the first two lines of the layer database file.
- Layer Index: A unique identifier used by SmartDraft commands to access a layer name and its properties.
- Indexes 1 through 354 are reserved for SmartDraft.
- Do not change or remove layer database index numbers between 1 and 354.
- Add non-command specific layers starting at the layer database index number 355.
- The first 5 characters are the layer database index number field.
- Characters 6 to 37 are the layer name field. If the layer name ***current*** is used, any command using the specified layer index will place new objects on the current layer.
- Characters 38 to 41are the layer color field.
- Valid color numbers are 1 through 255.
- Characters 42 to 73 are the linetype field.
- The specified linetype must be defined in either the ACAD.LIN or SMART.LIN file which is located in the Customization Template folder.
- Characters 74 to 105 are the description field.
- Characters 106 to 110 are the plot field.
- Characters 111 to 113 are the lineweight field.
- Characters 114 to 145 are the plot style field.

Layer Database example

1-5	6-38	39-41	42-73	74-105	106-110	111-113	114-145
Index	Name	Color	Linetype	Description	Plot	Lineweight	Plot Style

1	0	7	CONTINUOUS	Layer 0	Yes	0	Normal
2	CURB	3	CONTINUOUS	Curb	Yes	0	Normal
3	EX-CURB	11	CONTINUOUS	Existing Curb	Yes	0	Normal
4	DEMO-CURB	7	CONTINUOUS	Demo of curb	Yes	0	Normal

Note: The default layer database was designed for plotting using the colors from the pen chart below. If your company modified the default layer database file, this pen width chart may not apply to you.

Color Number	Pen Width (mm)	Weight Screen (%)	Note
1	0.25	100%	
2	0.35	100%	
3	0.50	100%	
4	0.70	100%	
5	1.00	100%	
6	0.25	100%	
7	0.25	100%	
8	0.25	100%	
9	0.25	30%	
10	0.35	30%	
11	0.50	30%	
12	0.70	30%	
13	1.00	30%	
14	0.25	30%	
157	0.25	0%	Masking color

3.7.1 Layer Database Index

Layer Database Index: A unique identifier, within the layer database file, used by SmartDraft commands to access a layer name and its properties.

Dialog Box Options

Layer Index List

List box: List of all the layers in the layer database and their assigned layer database index number.
Filter: Filter the list of layers in the list box by description. Enter a value to filter the list.
Proposed: Select button to assign the selected layer's index number to the proposed layer value.
Existing: Select button to assign the selected layer's index number to the existing layer value.
Demolition: Select button to assign the selected layer's index number to the demolition layer value.

Proposed, Existing and Demolition are Layer Types. When SmartDraft creates a layer, it reads the layer database index number associated with the current layer type. To enter or select a layer database index number, it must already exist in the layer database file.

3.8 Layer Database Manager (Enter Data)

Modify the layer names and properties of the layer database entering the name and properties.

Also see: Layer Database Manager (Match Layer)

Edit and maintain the layer database file within a Customization Template. See Layer Database Overview for additional information about the layer database.

Note: See Customization Guide Appendix for information on which layer indexes are assigned to which commands.

SmartDraft menu ▸ Options ▸ Customization Template Manager ▸ highlight Layer Database (Enter Data) and select Edit...

Dialog Box Options

Layer Database Manager (Enter Data)

Template Name

Name: Name of the customization template selected.

Description: Description of the current customization template.

Search

Edit Box: Enter the text to search for within the layer database

Search: Select the Search button to location the entered text within the layer database.

Output

Print: Print the layer database file to the Window's current default printer.

Layers

List Box: The list of layers defined in the layer database file. Select a layer from the list to edit its properties or select the New button to add a new layer.

Properties within the layer database:

Index: A unique identifier used by SmartDraft commands to access a layer name and its properties. The properties for a specific index can be modified, but the index must remain the same for SmartDraft commands to create the layer with the desired properties.

Name: The layer name created when a command accesses the layer database. Enter the desired layer name. The layer name has been limited to 31 characters in the database. If the layer name ***current*** is used, any command using the specified layer index will place new objects on the current layer.

Color: The color associated to the layer. To modify the color, select the Color button to display the Select Color dialog box.

Linetype: The linetype associated to the layer. Select the desired linetype from the list. The list is made up of all the linetypes defined in the custom linetype file and the ACAD.LIN file.

Lineweight: The lineweight associated to the layer. Select the desired lineweight from the list.

Plot Style: The plot style associated to the layer. Enter a value valid named plot styles. Note:

Plot: Controls whether the layer will be plotted. If set to No, AutoCAD does not plot the layer even if the layer is visible.

Description: A description associated to the layer, not used by AutoCAD. Used for reference and a note field.

Buttons

Apply: Save the changes back to the list of layer properties.

Color: Select to display the Select Color dialog box and change the color value.

New: Select to add a new layer to the end of the layer database file. A new unique index number will be created. This new layer will not be used by predefined commands.

Delete: Delete the selected layer from the layer database. Layers with index numbers from 1 to 354 are reserved for SmartDraft and cannot be deleted.
Guide: Select the Guide button to open the help file displaying the Customization Guide Appendix
Save: Select to save changes back to the layer database file.
Discard: Select to discard any changes made.

3.9 Layer Database Manager (Match Layer)

Modify the layer names and properties of the layer database by matching a layer index to a layer in the current dwg or dwt.

Also see: Layer Database Manager (Enter Data)

Edit and maintain the layer database file within a Customization Template. See Layer Database Overview for additional information about the layer database.

Note: See Customization Guide Appendix for information on which layer indexes are assigned to which commands.

SmartDraft menu ▸ Options ▸ Customization Template Manager ▸ highlight Layer Database (Match Layer) and select Edit...

Dialog Box Options

Layer Database Manager (Match Layer)

Template Name
Name: Name of the customization template selected.
Description: Description of the current customization template.
Search
Edit Box: Enter the text to search for within the layer database
Search: Select the Search button to location the entered text within the layer database.
Drop-List: Select "In Database" to search the layer database, or "In Drawing" to search the drawing layers
Layers
Layer Database Layers List
List: The list of layers defined in the layer database file. Select a layer from the list to match the properties of the selected layer from the Drawing Layers List.
The **Index** is the unique identifier used by SmartDraft commands to access a layer name and its properties.
See Customization Guide Appendix for information on which indexes correspond to which commands.
Name: The layer name created when a command accesses the layer database.
Description: A description associated to the layer. Used for help the user identify a layer to a SmartDraft command.
Status: Indicates if a layer in the layer database is found in the current drawing and if the properties match.
- `-` Layer name not found in the drawing.
- `Found` Layer name found in the drawing, but the properties do not match.
- `Match` Layer name found in the drawing and the properties match.

Drawing Layers List
List: The list of layer name the current drawing or dwt. Select a layer from the list to match layer name and properties to the selected Layer Database index.
Guide: Select the Guide button to open the help file displaying the Customization Guide Appendix

Match: Select the Match button to apply the selected drawing Layer name and properties to the selected Layer Database Index.

Buttons

Save: Select to save changes back to the layer database file.

Discard: Select to discard any changes made.

3.10 Layer List Manager

Determine which discipline specific layers from the layer database will be displayed in the Make Layer, Profile Setup Options, and Point Options commands. These lists associate a text description with the layer database index number for the proposed, existing, and demolition layer type.

Make layer list

Modify the list of layers displayed in the Layer Make command.

Profile layer list

Modify the list of layers displayed in the Profile Layer drop down list in the Profile Setup Options command.

Point layer list

Modify the list of layers displayed in the Point Options command.

Offset Street layer list

Modify the list of layers displayed in the Offset Street command.

SmartDraft menu ▸ Program Setup ▸ Customization Template Manager ▸ highlight the layer list type and select Edit...

Dialog Box Options

Layers: A list of the layers currently defined in either the Make, Profile or Point layer list file.

New: Display a dialog box to create a new layer definition to the Layers list.

Edit: Display a dialog box to modify the highlighted layer definition in the Layers list.

Delete: Remove the highlighted layer from the Layers list.

Print: Print the layer list file to the Window's current default printer.

Note: See Layer Database Overview for details on customizing SmartDraft's layering feature.

3.10.1 Layer List Add or Edit

Dialog to create a new or edit an existing layer in the description list.

Dialog Box Options

Description: Enter the description to be displayed in the Layers list. The description has been limited to 31 characters.

Layer Indexes:

Proposed: Specify the layer database index number for the *PROP* layer type.

Existing:	Specify the layer database index number for the *EXIST* layer type.
Demolition:	Specify the layer database index number for the *DEMO* layer type.
Layer Index	Display the layers and layer database index numbers defined in the layer database file.

3.11 Custom Linetypes

The custom linetype file contains all the custom linetypes supplied with SmartDraft. It is a standard **AutoCAD** linetype file and name SMART.LIN.

If you have your own custom linetypes and want to use them with the automatic layer creation tools, they must be added to this file or the ACAD.LIN. This file is located in the root sub-folder of the customization template.

3.12 New Drawing Settings

Drawing settings stored in the Customization Template, which are copied into the drawing.

These values are saved in the DRAWING.INI file, which is stored within the Customization Template folder. These settings are copied into the drawing so they can be modified independently of any other drawing associated to the same template.

SmartDraft menu ▸ Options ▸ Customization Template Manager ▸ highlight New Drawing Settings and select Edit...

Dialog Box Options

New Drawing Setup

Horizontal Enter the Horizontal Scale. This value controls the height of text, block insertion scale and arrow head size for these tools.

Architectur Specify if the listed commands honor architectural units. See Architectural Scale table.

Unit Type: Specify if the drawing units are Imperial or Metric.

Angle Type: Specify the output Angle Type.

Angular Specify the Angular Precision.

Linear Specify the Decimal, Linear Precision.

Add Linear Distance Commas Check this option to add commas to linear distances for distance labels and command prompts.

Coordinate Specify the Coordinate Precision.

Elevation Specify the Elevation Precision.

Station Specify the position of the station delimiter.

Readability Specifies the angle counter clockwise off straight up at which label text flips 180 degrees to remain plan readable. Minimum -25.0 to 25.0.

Dimstyle Specify the dimension variables of SmartDraft's dimstyles. See Dimstyle Variables

Text Style: Specify the pre-defined text style values used throughout SmartDraft. See Text Styles.

Create Annotative Blocks / Styles: Specify if the blocks inserted by SmartDraft commands or the styles created by SmartDraft will be annotative or not.

3.13 User Defined Blocks

Block(s) defined, created, or modified by the operator to be substituted for the blocks used throughout SmartDraft and supplied during the installation.

Note: See Customization Guide Appendix for information on the block name assigned to each command.

User Defined Blocks

- Must have the same name as block used by SmartDraft.
- If the original block used by SmartDraft contains attributes, the user defined block must have the same number of attributes, and the attributes must be in the same order as the original block.
- When SmartDraft inserts a block, it checks the drawing to see if the block is already inserted. If so, it uses the block definition in the drawing. If the block has not already been inserted, it checks for a user defined block in the associated Customization Template, otherwise it uses the supplied blocks.
- The supplied blocks are located in the installation sub-folder \SYM.
- Do not change the supplied block in the original location. At times these blocks are updated and during the installation of the update, any changes you make could be lost.

SmartDraft menu ▸ Options ▸ Customization Template Manager ▸ highlight User Defined Blocks and select Edit...

Dialog Box Options

Block Names

Supplied Blocks:	List of supplied blocks in the \SYM folder. These blocks can be copied to a Customization Template and used as the base for User Defined Blocks.
User Defined Blocks:	List of User Defined Blocks in the Customization Template.
Copy:	Copy the selected Supplied Block(s) to the current Customization Template.
Open:	Open the selected User Defined Block.
Delete:	Delete the selected User Defined Block.

To create a User Define Block:

1. Find the name of the block SmartDraft uses. See Customization Guide Appendix for information on the block name assigned to each command.
2. Copy the supplied block from the Supplied Blocks list to the current Customization Template folder.
3. Open the user defined block via the User Defined Blocks Manager option of the Customization Template Manager. Edit as desired using the above rules and save the changes.

Examples:

Change the north arrow used by North Arrow

1. The north arrow block name is D-N.
2. Open the User Defined Blocks Manager.
3. Copy D-N.DWG from the Supplied Blocks list to the current Customization Template.
   or rename your current north arrow block to D-N.DWG and move it to the desired template folder.
4. Open D-N.DWG from the User Defined Blocks Manager option of the Customization Template Manager, edit as desired and save changes.
5. Confirm the drawing is associated to the correct Customization Template using Drawing Setup.
6. Use the Redefine Blocks command or command alias **RB** to update the block definition in the current drawing.

7. Type: **NA** at the command prompt to start the North Arrow command. If the D-N block is not already in the drawing, the user defined north arrow will be used.

Change the perpendicular tick mark placed at the endpoints of lines, arcs, and polylines used by Endpoint Ticks.

The Endpoint Ticks command places the tick on the same layer as the selected object. The supplied endpoint tick block appears to be the same color as the selected object because the original tick block was created on layer 0 and color of the tick is set to byblock.

For this example, Modify the endpoint tick to be white no matter on which layer it is inserted.

1. The endpoint tick block name is D-TM.
2. Open the User Defined Blocks Manager.
3. Copy D-TM.DWG from the Supplied Blocks list to the current Customization Template.
4. Open D-TM.DWG from the User Defined Blocks Manager option of the Customization Template Manager. Double-click on the line object to open the Properties command. Change the color to White (7) and save changes.
5. Confirm the drawing is associated to the correct Customization Template using Drawing Setup.
6. Use the Redefine Blocks command or command alias **RB** to update the block definition in the current drawing.
7. Type: **TM** at the command prompt to start the Endpoint Ticks command and select an object. If the D-TM block is not already in the drawing, the user defined endpoint tick will be used.

3.14 Monoplex.shx Font

SmartDraft comes with a custom font file named **MONOPLEX.SHX**. This font's characters look like those of AutoCAD's simplex.shx, but each character is evenly spaced like AutoCAD's monotxt.shx. This font is used so columns of numbers will line up correctly.

Includes the standard special characters:

Degree	%%D
Plus/Minus	%%P
Start/Stop Underline	%%U
Start/Stop Overscore	%%O
Diameter Symbol	%%C

Special added characters:

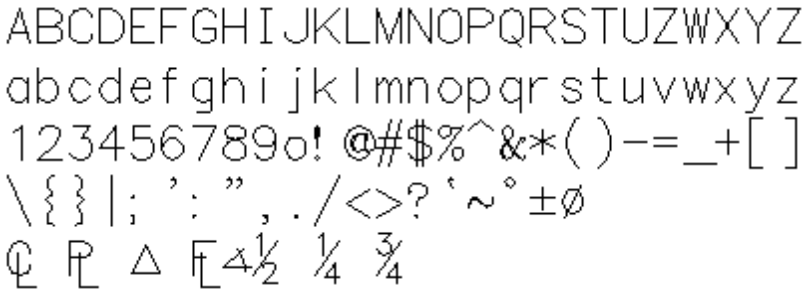
C/L	%%130
P/L	%%131
Delta Symbol	%%132
F/L	%%133
Angle Point Symbol	%%134
1/2	%%171
1/4	%%172
3/4	%%173

Unicode has been added to monoplex.shx as of 11/2/2002. The following special Unicode characters have been added:

When using the MTEXT command, use these codes.

C/L	\U+2104
P/L	\U+214A
Delta Symbol	\U+0394
F/L	\U+E101
Angle Point Symbol	\U+2220
1/2	\U+00BC
1/4	\U+00BD
3/4	\U+00BE

Subscript on	\U+00DE
Subscript off	\U+00DD
Superscript on	\U+00E4
Superscript off	\U+00E3



3.15 Coordinate Table Style Manager

Create and modify coordinate table styles to be used with the Coordinate Table **command.**

SmartDraft menu ▸ Options ▸ Customization Template Manager ▸ highlight Coordinate Table Styles and select Edit...

Dialog Box Options

Name:	A list of the currently defined coordinate table styles. Select the coordinate table style to edit.
Save As:	Save the current coordinate table settings to a new style.
Lock:	Set the current table style (Name: above) as read-only. Lock a style if you desire to avoid accidental modification. See Unlock Customization Template Files to remove the lock.
Delete:	Delete the current coordinate table style. **Note:** Cannot delete the "default" or a locked style. Deleting a style cannot be undone.
Rename:	Rename the current table style.
Table Setup:	Specify the title text, text styles, text heights, and layers to be used to create the table.
Title Text:	Enter a text string to be used as the table title.
Justify	Specify the text justification for the Title text. Options are Left, Center, and Right.
Style:	All text styles defined in the current drawing are listed with five special selections of *current*, * Type a style name*, or Preset Small, Medium, and Large Text. *current* uses the style current when the table command starts. Preset Small, Medium, or Large Text style uses the style Small, Medium, or Large defined by this software. *Type a style name* allows the operator to type any text style, even if it does not exist in the current file.
Title:	Specify the text style to use for the Title text.
Header:	Specify the text style to use for the Header text.
Data:	Specify the text style to use for the Data text values.
Height:	Specify the height for the selected text style for the Title, Header and Data text. **Note:** The specified height will be multiplied by the horizontal scale to create the actual height of the style.
Layer:	Specify the layer for the Title, Header, and Data text. Also specify the layer for the Table Lines. Select *Type a Layer Name* to specify a layer not in the current drawing. If the layer does not exist in the drawing being labeled, the command will create the layer with the color white, and the linetype continuous. Selecting either "Preset Coordinate Text" or "Preset Leader" will use the layer defined in the layer data base for that select.
Table Values:	Specify the data values, header text, , justification, and column width to be used to create the table. Note: Up to 10 columns can be defined.
Value:	Specify the data value type for the defined column. Options are Northing, Easting, Elevation, Description (Full), Description (Raw), and Prompted Note.
Header:	Specify the header text used with the value specified above.
Justify:	Specify the text justification for the data in the defined column. Options are Left, Center, and Right.
Width:	Specify the width of the column. Options are 8 - 30. The number is the width of one text character of the selected text style. Remember to specify enough characters to hold the selected data type. If the data value is too long, it will extend into the next column.
Buttons:	
Apply:	Apply any changes made to current style.
Close:	Exit Labeling Table Style Manager without saving changes.

3.16 Area Table Style Manager

Create and modify area table styles to be used with the Area Table command.

SmartDraft menu ▸ Options ▸ Customization Template Manager ▸ highlight Area Table Styles and select Edit...

Dialog Box Options

Name:	A list of the currently defined area table styles. Select the area table style to edit.
Save As:	Save the current area table settings to a new style.
Lock:	Set the current area table style (Name: above) as read-only. Lock a style if you desire to avoid accidental modification. See Unlock Customization Template Files to remove the lock.
Delete:	Delete the current area table style. **Note:** Cannot delete the "default" or a locked style. Deleting a style cannot be undone.
Rename:	Rename the current table style.
Table Setup:	Specify the title text, text styles, text heights, and layers to be used to create the table.
Title Text:	Enter a text string to be used as the table title.
Title Justify	Specify the text justification for the Title text. Options are Left, Center, and Right.
Data Text:	Enter a text string to be used as the Area Type column header. e.g. LOTS or parcels.
Data Justify:	Specify the text justification for the Data header text. Options are Left, Center, and Right.
Data Width:	Specify the width of the Area Type column. Options are 8 - 30. The number is the width of one text character of the selected text style. Remember to specify enough characters to hold the selected data type. If the data value is too long, it will extend into the next column.
Style:	All text styles defined in the current drawing are listed with five special selections of *current*, * Type a style name*, or Preset Small, Medium, and Large Text. *current* uses the style current when the table command starts. Preset Small, Medium, or Large Text style uses the style Small, Medium, or Large defined by this software. *Type a style name* allows the operator to type any text style, even if it does not exist in the current file.
Title:	Specify the text style to use for the Title text.
Header:	Specify the text style to use for the Header text.
Data:	Specify the text style to use for the Data text values.
Height:	Specify the height for the selected text style for the Title, Header and Data text. **Note:** The specified height will be multiplied by the horizontal scale to create the actual height of the style.
Layer:	Specify the layer for the Title, Header, and Data text. Also specify the layer for the Table Lines. Select *Type a Layer Name* to specify a layer not in the current drawing. If the layer does not exist in the drawing being labeled, the command will create the layer with the color white, and the linetype continuous. Selecting either "Preset Coordinate Text" or "Preset Leader" will use the layer defined in the layer data base for that select.
Table Values:	Specify the data values, header text, , justification, and column width to be used to create the table. Note: Up to 10 columns can be defined.
Value:	Specify the data value type for the defined column. Options are Northing, Easting, Elevation, Description (Full), Description (Raw), and Prompted Note.
Header Feet:	Specify the header text when the drawing is set to Feet.
Header Meters:	Specify the header text when the drawing is set to Meters.
Justify:	Specify the text justification for the data in the defined column. Options are Left, Center, and Right.
Width:	Specify the width of the column. Options are 8 - 30. The number is the width of one text character of the selected text style. Remember to specify enough characters to hold the selected data type. If the data value is too long, it will extend into the next column.
Buttons:	
Apply:	Apply any changes made to current style.
Close:	Exit Labeling Table Style Manager without saving changes.

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