Glossary

angular dimension

A dimension that measures the sweep angle of an arc, the angle between an origin and a line, the angle between two lines, or the angle among three key points.

annotation

Text, graphics, or symbols that give you more information about a drawing.

- (A) Leader line
- (B) Break line
- (C) Terminator
- (D) Annotation

associative

A condition in which an element is related to another element.

attribute

A user-defined property or parameter assigned to an element, object, or document. A parameter refers to variables in a symbol document that drive dimensional values. You can display attributes with the Attribute Viewer.

background sheet

A component of a drawing sheet. The background sheet is used for graphics that you want to display on more than one drawing, such as a border, title block, logo, or raster background picture (watermark). A background sheet can be displayed and printed along with any working sheet it is attached to.

balloon

A type of annotation that consists of a closed shape that contains text. A balloon defines individual parts in assemblies and field notes on drawings.

diameter dimension

A dimension that measures the diameter of a circle or arc.

dimension

A control that assigns and maintains a dimensional value to an individual element or establishes a dimensional relationship among multiple elements. A label with text, lines, and arrows graphically represents a dimension.

dimensional value

The text that indicates the value of a dimensional measurement, such as distance, length, or angle.

document data

Annotations, such as dimensions, text boxes, callouts, balloons, and centerlines, that are used to describe design data.

driven dimension

A dimension with a value that depends on the value of other dimensions or elements.

driving dimension

A dimension with a value that controls the size, orientation, or location of an element.

element

A simple, selectable unit in a drawing. You can select geometric elements, dimensions, annotations, objects placed in the drawing through OLE, and so forth. The type of element that can be selected is determined by command context.

embed

A method for inserting information from a source document into the active document. Once embedded, the information becomes part of the active document; if changes are made to the source document, the updates are not reflected in the active document.

end point

The end of an element.

fill

A pattern or solid color placed inside a closed boundary.

free space

An area that is not on or inside an element or object on a drawing sheet.

FreeForm

A drawing tool that allows you to use the mouse to sketch curves. As you press and hold the mouse button and drag the pointer across the drawing sheet, a rough sketch of your design appears. When you release the mouse button, the software turns your sketch into smooth curves.

FreeSketch

A drawing tool that allows you to use the mouse to sketch lines, arcs, circles, and rectangles. As you press and hold the mouse button and drag the pointer across the drawing sheet, a rough sketch of your design appears. When you release the mouse button, the software recognizes the shapes in your sketch and turns them into a precise drawing.

from point

The starting point for an action. For example, when you rotate elements, the from point determines where you want the rotation to begin.

handle

Solid or hollow squares that are displayed at significant positions on a geometric element when you select the element. You can manipulate an element with a handle.

help lines

The dashed coordinate axes displayed by PinPoint. The help lines extend from the target point to the current pointer location. They are dynamically updated as you move the cursor. You can turn the help line display on or off.

horizontal relationship

A relationship that specifies that the end points of a line, or two key points, are level with each other along the *x* axis.

hyperlink

Colored and underlined text or a graphic that you click to go to a file, a location in a file, an HTML page on the World Wide Web, or an HTML page on an intranet. Hyperlinks can also go to Gopher, telnet, newsgroup, and FTP sites.

intent zone

A quadrant divided into four pie-shaped wedges that determines the behavior of an element's relationship to either a circle or arc. Intent zones allow you to specify where you want to draw an element in relation to an arc or circle. For example, as you draw an arc, you can change the arc's direction by moving the cursor to a different position within the intent zone. You can define the size of the intent zone by specifying the number of pixels in it.

isometric drawing

A drawing represented as the object or element is actually projected on a plane of projection: a 3D drawing represented in 2D.

key point

A recognizable point on an element. Key points include vertices, mid points, center points, and so forth.

layer

A logical grouping of elements or objects on a drawing sheet. You can have several layers in a drawing sheet.

linear dimension

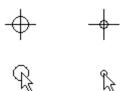
A dimension that measures the linear distance between two or more elements, the length of a line, or the arc length of an arc.

link

The connection between an inserted image or object, known as the source document, and the active document. Changes made in the source document are reflected in the active document when the active document is updated.

locate zone

A circular area at the center of the crosshair cursor or at the end of the arrow cursor. The locate zone specifies how close the cursor must be to an element you want to recognize or select. You can define the size of the locate zone with the SmartSketch command on the Tools menu.



lock

A relationship that makes the position of an element or key point, or the value of a driving dimension, stationary.

macro

A sequence of actions or commands that can be named and stored. When you run the macro, the software performs the actions or runs the commands. You can create the macros in Visual Basic or other OLE-aware programming applications. Some of the OLE-aware programming applications are VBA (inside of Excel), Visual C++ Delphi, Visual Basic, and so forth.

modification

The act of changing the size, position, or orientation of an element by modifying the element or its handles.

object

- 1. Information that can be linked or embedded into an OLE-compliant product.
- 2. A group of elements that represent a real-world object. An object can also be made up of a single element.

OLE

The way Microsoft uses the Common Object Modeler (COM). It is a mechanism to make data work independently.

parallel relationship

A relationship that specifies that the orientation of one line is identical to that of another line.

parameter

An attribute assigned to an element or object, usually a numerical value representing a dimension. A parameter is a mechanism to change a property. A parameter refers to variables in a symbol document that drive dimensional values. Parameters appear as bold characters in the Attribute Viewer.

parametric symbol

A symbol that contains geometry constrained together using relationships, with driving dimensions that are defined as adjustable parameters.

perpendicular relationship

A relationship that specifies that the orientation of a line or end point of an arc is at a right angle to the orientation of another line, arc, circle, or curve.

PickQuick

An automatic software tool that allows you to select an element when several elements overlap. When you place the pointer over a set of overlapping elements, three small circles appear at the bottom right of the cursor. When you click, a small toolbar with the number of selectable elements appears. You can move the pointer over the numbers; and, when the element that you want highlights, you can click on the corresponding number to select it.

PinPoint

A tool that allows you to place, move, and modify elements with precision, relative to a reference point.

pointer

The screen device that you use to select elements, commands, and other items in the software.

property

A unique characteristic of an element, object, symbol, or document. You can display document properties in the Windows Explorer or by clicking Properties on the File menu or Edit menu.

Properties for elements or objects have three different types, as defined on the Properties dialog box:

- Style properties, as specified on the Format tab. Style properties affect the format of the element.
- Size properties, as specified on the Info. Size properties affect characteristics of the element, such as the length.
- User-defined properties, as created on the User tab. User-defined properties
 are usually in the form of a text notation, such as cost, manufacturer, and so
 forth You can change user-defined properties, but these changes have no affect
 on the appearance of the element or object.

For example, a valve symbol's style properties can include color, line style, and width. Other user-defined properties stored with the symbol can include the manufacturer, cost, or material. User-defined properties are displayed in the Attribute Viewer when you select the valve symbol.

relationship

A condition that exists for an individual element or between elements. You can establish relationships as you place new elements or between elements already on the drawing sheet. If Maintain Relationships is set, then the relationship controls the modification behavior of the related elements. For example, if two lines have a parallel relationship, they remain parallel when one of the lines is moved.

SmartSketch recognizes potential relationships as you draw. Relationship handles are placed on related elements to represent maintained relationships.

relationship handle

A graphic used to represent a geometric relationship between elements, key points, and dimensions, or between key points and elements. The relationship handle shows that the designated relationship is being maintained.

Command	Relationship Handle
Colinear	0
Connect	□ •
Concentric	©
Equal	=
Horizontal/Vertical	·· •
Tangent	0
Symmetric	×
Parallel	//
Perpendicular	٦
Lock	•

relationship indicator

A graphic that is displayed at the pointer when the software recognizes a SmartSketch relationship.

Relationship	Relationship Indicator
Endpoint	/
Midpoint	-
Intersection	×
Horizontal	
Vertical	İ
Point On Element	4
Perpendicular	コ
Parallel	/
Tangent	\nearrow
Center	⊛

Select Tool

A tool that allows you to select elements before you run a command on them.

selection set

A single selected object or a group of selected objects.

shortcut menu

A menu that gives you quick access to commands that are related to the item you are working with. The commands available on the shortcut menu depend upon the selected element or active command. To activate the shortcut menu, click the right mouse button.

Smart Label

A label that is associated to the attributes on an element or object. Smart Labels are created with the tools on the Symbol Authoring Tools toolbar.

style

1. The appearance of geometry and annotations on the drawing sheet. For example, an element's color and line weight, the font used in a text box, and so forth.

2. A collection of formats or properties that you name and store as a group. When you apply a style to a selected item, the software applies all the formats or properties in the style to the element. The style types include: fill, dimension, line, and text.

style resource document

Any .IGR or .RSC document that contains styles native to that document. A template or document can reference several style resource documents. These styles are copied into the current document when the styles are actually applied to elements or annotations in the document.

style type

A type of style that is based on the type of element that the style affects. The style types include: fill, dimension, line, and text.

sweep angle

The angle that defines the length of an arc.

symbol

A document placed in a drawing. You can override and edit the properties and style of the symbol. A document can be linked, or embedded.

tangent relationship

A relationship between an arc or circle and another geometric element. The elements share a common point that is not intersecting.

target point

The origin for coordinate measurements displayed by PinPoint. You can position the target point anywhere on the drawing sheet.

template

A default set of properties that defines what a new document will look like. You can use a template to set standards for a group of users or to define your own preferences.

terminator

A graphic symbol, such as an arrow or dot, placed at the end of a leader.

text box

A rectangular element that contains text or symbols; you can place text boxes on drawing sheets.

toolbar

Toolbars are graphic menus with buttons that allow you to quickly access commands. You can define custom toolbars or use the toolbars delivered with the software.

user-defined property

A type of property created on the User tab of the Properties dialog box for the element or object. User-defined properties are usually in the form of a text notation, such as cost, manufacturer, and so forth You can change user-defined properties, but these changes have no affect on the appearance of the element or object.

For example, user-defined properties stored with a valve symbol can include the manufacturer, cost, or material. User-defined properties are displayed in the Attribute Viewer when you select the valve symbol.

vertical relationship

A relationship that specifies that the end points of a line, or two key points, are level with each other along the *y* axis.

window

An area defined by a standard border and buttons that is used to display information in an application.

Index

	AutoCAD • 285
Α	_
ActiveCGM • 237	C
ActiveX	cells
documents • 234	MicroStation • 266
add-ins • 244	CGM • 237
autosave • 256	chamfers
software • 245	placing • 156
address • 16	changing
angular dimensions • 186	associative elements • 144,
annotations	146, 147, 152, 153, 154,
adding to drawings • 201	155, 156, 158
formatting • 210, 212, 213	display order • 171
arcs	drawings • 144, 146, 147, 148,
drawing • 95	152, 153, 154, 155, 156,
areas	158
measuring • 189	circles
arguments • 185, 192, 193,	drawing • 95
195	closed boundaries
assistance • 16, 234, 235	formatting • 217
associative elements • 144,	connectors
146, 147, 152, 153, 154,	elements • 93
155, 156, 158	symbols • 87 coordinate dimensions • 187
attributes	
labels • 137, 205	copying documents • 222, 224
using • 139	elements • 148
AutoCAD • 14, 17, 18	information • 226
blocks • 285	creating
documents • 278	documents • 23
axis	layer groups • 172, 173, 177,
dimension • 183	266
	crosshatching • 217
В	curves
	drawing • 97
background sheets	customizing
managing • 248	menus • 240
balloons	software • 240
adding to drawings • 201	toolbars • 240
bearing • 191	cutting
blocks • 18	documents • 222, 224

elements • 146 information • 226	circles • 95 curves • 97
D	elements • 90 ellipses • 95 freeform shapes • 97
deleting	lines • 92, 106, 112, 167
elements • 146	rectangles • 96
diameter dimensions • 186	SmartSketch • 102
dimensions • 182	squares • 96
angular • 186	using intent zones • 105
axis • 183	with PinPoint • 18, 166, 167
changing existing elements •	drawing sheets
162	managing • 248
coordinate • 187	overview • 248
diameter • 186	templates • 23
driving • 162	drawing tools • 102, 105
formatting • 210, 212, 213	drawings
groups • 187	.CGM • 237
linear • 186	adding annotations to • 201
not-to-scale • 182	isometric • 99
placing • 18, 182	modifying • 144, 146, 147,
radial • 186	148, 152, 153, 154, 155, 156, 158
direct modification • 144, 146,	symbols • 18
147, 148, 152, 153, 154,	views • 17, 19, 175
155, 156, 158	driving dimensions • 162
display criteria	drop points • 121
setting • 172, 173, 177, 266	drop points 121
display order	-
changing • 171	E
displaying	editing
elements • 172, 173, 177, 266	drawings • 144, 146, 147, 148,
layers • 172, 173, 177, 266	152, 153, 154, 155, 156,
objects • 172, 173, 177, 266	152, 153, 154, 153, 150,
distances	elements
measuring • 189	applying relationships to • 107,
documents	158
ActiveX • 234	changing shape of • 152
copying • 222	connectors • 93
creating • 23	copying • 148
cutting • 222, 226 embedding • 222, 224, 226	cutting • 146
finding • 23	deleting • 146
importing • 226	displaying • 172, 173, 177, 266
linking • 222, 224, 226	drawing • 90
managing • 23	extending • 156
opening • 254	formatting • 210, 212, 213
pasting • 222	grouping • 169
printing • 252	mirroring • 154
properties • 23, 24	placing annotations on • 201
revising • 23	placing chamfers • 156
saving • 254	placing fillets • 156, 157 repeating • 91
saving as templates • 25, 254	rotating • 153
saving automatically • 256	scaling • 155
saving to .CGM • 255	selecting • 142, 144, 152, 169
sending • 255	trimming • 156
drag points • 121	undoing • 91
drawing • 20	ellipses
arcs • 95	ompoed .

drawing • 95 embedding • 222, 224	hyperlinks • 236
documents • 226	
engineering fonts • 204	•
Excel • 15	images • 229
working with • 226	inserting into documents • 229
expressions • 185, 192, 193,	ImageScape • 229
195	importing
extending	documents • 222, 224
elements • 156	installing
external reference files • 18	software • 19
	Intellimouse
F	using • 178
	intent zones • 105
file properties • 23	Internet
files	accessing • 234
importing • 222, 224	publishing • 234
opening • 254	Internet Explorer • 234
printing • 252	intranet
saving • 254 fillets	using • 234
placing • 156, 157	isometric
filling • 217	drawings • 99
fills	
placing • 217	L
filters	labels • 137, 205
selection • 142	reports • 85, 136
setting • 172, 173, 177, 266	layer groups
finding	creating • 172, 173, 177, 266
documents • 23	using • 172, 173, 177, 266
fonts • 204	layers
formatting	displaying • 172, 173, 177, 266
annotations • 210, 212, 213	leaders
closed boundaries • 217	adding to drawings • 201
dimensions • 210, 212, 213	learning
	104111119
elements • 210, 212, 213	SmartSketch • 14
freeform shapes	•
freeform shapes drawing • 97	SmartSketch • 14
freeform shapes	SmartSketch • 14 line types • 210
freeform shapes drawing • 97	SmartSketch • 14 line types • 210 linear dimensions • 186 lines drawing • 92, 106, 112, 167
freeform shapes drawing • 97	SmartSketch • 14 line types • 210 linear dimensions • 186 lines drawing • 92, 106, 112, 167 lines,drawing • 112
freeform shapes drawing • 97 functions • 185, 192, 193, 195 G	SmartSketch • 14 line types • 210 linear dimensions • 186 lines drawing • 92, 106, 112, 167
freeform shapes drawing • 97 functions • 185, 192, 193, 195 G graphics	SmartSketch • 14 line types • 210 linear dimensions • 186 lines drawing • 92, 106, 112, 167 lines,drawing • 112 linking • 222, 224 documents • 226
freeform shapes drawing • 97 functions • 185, 192, 193, 195	SmartSketch • 14 line types • 210 linear dimensions • 186 lines drawing • 92, 106, 112, 167 lines,drawing • 112 linking • 222, 224 documents • 226 links • 236
freeform shapes drawing • 97 functions • 185, 192, 193, 195	SmartSketch • 14 line types • 210 linear dimensions • 186 lines drawing • 92, 106, 112, 167 lines,drawing • 112 linking • 222, 224 documents • 226 links • 236 locate zones • 102, 142
freeform shapes drawing • 97 functions • 185, 192, 193, 195 G graphics web • 237 grids • 85, 168 grouping	SmartSketch • 14 line types • 210 linear dimensions • 186 lines drawing • 92, 106, 112, 167 lines,drawing • 112 linking • 222, 224 documents • 226 links • 236
freeform shapes drawing • 97 functions • 185, 192, 193, 195 G graphics web • 237 grids • 85, 168 grouping elements • 169	SmartSketch • 14 line types • 210 linear dimensions • 186 lines drawing • 92, 106, 112, 167 lines,drawing • 112 linking • 222, 224 documents • 226 links • 236 locate zones • 102, 142
freeform shapes drawing • 97 functions • 185, 192, 193, 195 G graphics web • 237 grids • 85, 168 grouping elements • 169 groups	SmartSketch • 14 line types • 210 linear dimensions • 186 lines drawing • 92, 106, 112, 167 lines,drawing • 112 linking • 222, 224 documents • 226 links • 236 locate zones • 102, 142
freeform shapes drawing • 97 functions • 185, 192, 193, 195 G graphics web • 237 grids • 85, 168 grouping elements • 169	SmartSketch • 14 line types • 210 linear dimensions • 186 lines drawing • 92, 106, 112, 167 lines,drawing • 112 linking • 222, 224 documents • 226 links • 236 locate zones • 102, 142 lock handles • 121
freeform shapes drawing • 97 functions • 185, 192, 193, 195 G graphics web • 237 grids • 85, 168 grouping elements • 169 groups dimension • 187	SmartSketch • 14 line types • 210 linear dimensions • 186 lines drawing • 92, 106, 112, 167 lines,drawing • 112 linking • 222, 224 documents • 226 links • 236 locate zones • 102, 142 lock handles • 121
freeform shapes drawing • 97 functions • 185, 192, 193, 195 G graphics web • 237 grids • 85, 168 grouping elements • 169 groups	SmartSketch • 14 line types • 210 linear dimensions • 186 lines drawing • 92, 106, 112, 167 lines,drawing • 112 linking • 222, 224 documents • 226 links • 236 locate zones • 102, 142 lock handles • 121 M macros creating • 240
freeform shapes drawing • 97 functions • 185, 192, 193, 195 G graphics web • 237 grids • 85, 168 grouping elements • 169 groups dimension • 187	SmartSketch • 14 line types • 210 linear dimensions • 186 lines drawing • 92, 106, 112, 167 lines,drawing • 112 linking • 222, 224 documents • 226 links • 236 locate zones • 102, 142 lock handles • 121 M macros creating • 240 mailing address • 16
freeform shapes drawing • 97 functions • 185, 192, 193, 195 G graphics web • 237 grids • 85, 168 grouping elements • 169 groups dimension • 187 H handles • 142	SmartSketch • 14 line types • 210 linear dimensions • 186 lines drawing • 92, 106, 112, 167 lines,drawing • 112 linking • 222, 224 documents • 226 links • 236 locate zones • 102, 142 lock handles • 121 M macros creating • 240 mailing address • 16 maintaining
freeform shapes drawing • 97 functions • 185, 192, 193, 195 G graphics web • 237 grids • 85, 168 grouping elements • 169 groups dimension • 187 H handles • 142 symbols • 121	SmartSketch • 14 line types • 210 linear dimensions • 186 lines drawing • 92, 106, 112, 167 lines,drawing • 112 linking • 222, 224 documents • 226 links • 236 locate zones • 102, 142 lock handles • 121 M macros creating • 240 mailing address • 16 maintaining relationships • 108, 109, 158,
freeform shapes drawing • 97 functions • 185, 192, 193, 195 G graphics web • 237 grids • 85, 168 grouping elements • 169 groups dimension • 187 H handles • 142	SmartSketch • 14 line types • 210 linear dimensions • 186 lines drawing • 92, 106, 112, 167 lines,drawing • 112 linking • 222, 224 documents • 226 links • 236 locate zones • 102, 142 lock handles • 121 M macros creating • 240 mailing address • 16 maintaining

documents • 23	documents • 222, 224, 226
manipulating	patterns
elements • 171	creating • 148
measuring	phone number • 16
areas • 189	PickQuick • 142
distances • 189	PinPoint • 18, 166, 167
menus	drawing with • 18, 167
customizing • 240	placing
Microsoft Office	dimensions • 18, 182
working with • 226	fills • 217
MicroStation • 14, 19, 20	symbols • 18
cells • 266	pointer
documents • 260	using feedback • 102
mirror handles • 121	precision drawing • 18, 166,
mirroring	167
elements • 154	printing
modifying	documents • 252
drawings • 144, 146, 147, 148,	programming
152, 153, 154, 155, 156,	macros • 240
158	SmartSketch • 15
moving	properties
elements • 171	document • 23
	documents • 24
N	_
not to cools	R
not-to-scale	1.1.1
dimensions • 182	radial dimensions • 186
	raster images • 229
0	rectangles
abject handles • 142	drawing • 96
object handles • 142	relationship handles • 102,
objects	108
displaying • 172, 173, 177, 266 selecting • 142	relationship indicators • 102
Office applications	relationships • 144, 146, 147,
working with • 222, 224, 226	148, 152, 153, 154, 155,
Office compatible • 226	156
OLE	applying to existing elements
linking and embedding • 222,	158
224	drawing with • 107
on-line Help • 14, 18, 20	maintaining • 108, 109, 158,
opening	184
documents • 254	reordering
options	elements • 171
selecting • 142	repeating
order	elements • 91
of elements • 171	reports • 85, 136
overview • 2	revising documents • 23
2.61.110.11	rotate handles • 121
P	
Г	rotating
panning	elements • 153
Intellimouse • 178	0
paper and model units • 196	S
parametric handles • 121	coving
pasting	saving documents • 254, 256

scaling	drop points • 121
drawing sheets • 248	editing • 124
elements • 155	handles • 121
Select Tool • 142, 144, 152,	labels • 121
169	manipulating • 130
selecting	mirroring • 127
elements • 142, 144, 152, 169	placing • 18, 120
objects and elements • 142	rotating • 128 scaling • 126
selection	shortcut menu • 121
filters • 142	using • 18
options • 142	system requirements • 4
sets • 142	dydidiii requiremente i
sending	-
documents • 255	Т
setting	tables
display criteria • 172, 173, 177,	variables • 185, 192, 193, 195
266	
filters • 172, 173, 177, 266	technical support • 16, 234
units of measure • 24	templates • 23, 26
sheets	creating • 25, 254
managing • 248	text
sketching • 90, 95	adding to drawings • 201
Smart Labels • 137, 205	toolbars
SmartSketch • 17, 18, 19, 20,	customizing • 240
102	tools
AutoCAD • 17	drawing • 105, 106
examples • 110, 112, 167	PinPoint • 18, 166, 167
learning • 14	select • 142, 144, 152, 169
MicroStation • 19	ToolTips
overview • 2	symbols • 121
programming • 15	training • 14
programming • 240	trimming
squares	elements • 156
drawing • 96	
styles • 213	U
elements • 210, 212	
support • 234	undoing
symbol authoring	elements • 91
blank colors • 296	units
connectors • 300	model • 196
display properties • 299	paper • 196
growing • 297	units of measure
handles • 301	setting • 24
parametric symbols • 297	
planning symbols • 294	V
programs • 298	<u>-</u>
scales • 302	Variable Table • 192, 193,
Smart Text • 303	194, 195, 226
text • 303	variables • 185, 192, 193, 195
Symbol Explorer	viewing
overview • 118, 119	grids • 168
symbols • 18	Intellimouse • 178
behavior • 121	views • 176
connectors • 87	drawings • 17, 19, 175
creating • 117	Visual Basic • 240, 241
drag points • 121	
drawings • 18	

W

web gallery • 235
web pages
linking • 236
windows • 176, 178
Word
working with • 226
zones
intent • 105

World Wide Web publishing • 234

Z

zones intent • 105