



Group Codes in Numerical Order

The following table gives the group code or group code range accompanied by an explanation of the group code value. In the table, "fixed" indicates that the group code always has the same purpose. If a group code isn't fixed, its purpose depends on the context. For information about abbreviations and formatting used in this table, see [Formatting Conventions in This Reference](#).

<i>Group codes by number</i>	
Group code	Description
-5	APP: persistent reactor chain
-4	APP: conditional operator (used <i>only</i> with ssget)
-3	APP: extended data (XDATA) sentinel (fixed)
-2	APP: entity name reference (fixed)
-1	APP: entity name. The name changes each time a drawing is opened. It is never saved (fixed)
0	Text string indicating the entity type (fixed)
1	Primary text value for an entity
2	Name (attribute tag, block name, and so on)
3-4	Other text or name values
5	Entity handle; text string of up to 16 hexadecimal digits (fixed)
6	Linetype name (fixed)
7	Text style name (fixed)
8	Layer name (fixed)
9	DXF: variable name identifier (used only in HEADER section of the DXF file)
10	Primary point; this is the start point of a line or text entity, center of a circle, and so on DXF: X value of the primary point (followed by Y and Z value codes 20 and 30) APP: 3D point (list of three reals)
11-18	Other points DXF: X value of other points (followed by Y value codes 21-28 and Z value codes 31-38) APP: 3D point (list of three reals)
20, 30	DXF™: Y and Z values of the primary point
21-28, 31-37	DXF: Y and Z values of other points
38	DXF: entity's elevation if nonzero
39	Entity's thickness if nonzero (fixed)
40-48	Double-precision floating-point values (text height, scale factors, and so on)
48	Linetype scale; double precision floating point scalar value; default value is defined for all entity types
49	Repeated double-precision floating-point value. Multiple 49 groups may appear in one entity for variable-length tables (such as the dash lengths in the LTYPE table). A 7x group always appears <i>before</i> the first 49 group to specify the table length
50-58	Angles (output in degrees to DXF files and radians through AutoLISP and ObjectARX applications)
60	Entity visibility; integer value; absence or 0 indicates visibility; 1 indicates invisibility
62	Color number (fixed)
66	"Entities follow" flag (fixed)
67	Space—that is, model or paper space (fixed)
68	APP: identifies whether viewport is on but fully off screen; is not active or is off

69	APP: viewport identification number
70–78	Integer values, such as repeat counts, flag bits, or modes
90–99	32-bit integer values
100	Subclass data marker (with derived class name as a string). Required for all objects and entity classes that are derived from another concrete class. The subclass data marker segregates data defined by different classes in the inheritance chain for the same object. This is in addition to the requirement for DXF names for each distinct concrete class derived from ObjectARX (see Subclass Markers)
102	Control string, followed by "{<arbitrary name>" or "}". Similar to the xdata 1002 group code, except that when the string begins with "{", it can be followed by an arbitrary string whose interpretation is up to the application. The only other control string allowed is "}" as a group terminator. AutoCAD does not interpret these strings except during drawing audit operations. They are for application use
105	Object handle for DIMVAR symbol table entry
110	UCS origin (appears only if code 72 is set to 1) DXF: X value; APP: 3D point
111	UCS X-axis (appears only if code 72 is set to 1) DXF: X value; APP: 3D vector
112	UCS Y-axis (appears only if code 72 is set to 1) DXF: X value; APP: 3D vector
120–122	DXF: Y value of UCS origin, UCS X-axis, and UCS Y-axis
130–132	DXF: Z value of UCS origin, UCS X-axis, and UCS Y-axis
140–149	Double-precision floating-point values (points, elevation, and DIMSTYLE settings, for example)
170–179	16-bit integer values, such as flag bits representing DIMSTYLE settings
210	Extrusion direction (fixed) DXF: X value of extrusion direction APP: 3D extrusion direction vector
220, 230	DXF: Y and Z values of the extrusion direction
270–279	16-bit integer values
280–289	16-bit integer values
290–299	Boolean flag value
300–309	Arbitrary text strings
310–319	Arbitrary binary chunks with same representation and limits as 1004 group codes: hexadecimal strings of up to 254 characters represent data chunks of up to 127 bytes
320–329	Arbitrary object handles; handle values that are taken "as is." They are not translated during INSERT and XREF operations
330–339	Soft-pointer handle; arbitrary soft pointers to other objects within same DXF file or drawing. Translated during INSERT and XREF operations
340–349	Hard-pointer handle; arbitrary hard pointers to other objects within same DXF file or drawing. Translated during INSERT and XREF operations
350–359	Soft-owner handle; arbitrary soft ownership links to other objects within same DXF file or drawing. Translated during INSERT and XREF operations
360–369	Hard-owner handle; arbitrary hard ownership links to other objects within same DXF file or drawing. Translated during INSERT and XREF operations
370–379	Lineweight enum value (AcDb::LineWeight). Stored and moved around as a 16-bit integer. Custom non-entity objects may use the full range, but entity classes only use 371–379 DXF group codes in their representation,

	because AutoCAD® and AutoLISP both always assume a 370 group code is the entity's lineweight. This allows 370 to behave like other "common" entity fields
380–389	PlotStyleName type enum (AcDb::PlotStyleNameType). Stored and moved around as a 16-bit integer. Custom non-entity objects may use the full range, but entity classes only use 381–389 DXF group codes in their representation, for the same reason as the Lineweight range above
390–399	String representing handle value of the PlotStyleName object, basically a hard pointer, but has a different range to make backward compatibility easier to deal with. Stored and moved around as an object ID (a handle in DXF files) and a special type in AutoLISP. Custom non-entity objects may use the full range, but entity classes only use 391–399 DXF group codes in their representation, for the same reason as the lineweight range above
400–409	16-bit integers
410–419	String
420–427	32-bit integer value. When used with True Color; a 32-bit integer representing a 24-bit color value. The high-order byte (8 bits) is 0, the low-order byte an unsigned char holding the Blue value (0-255), then the Green value, and the next-to-high order byte is the Red Value. Converting this integer value to hexadecimal yields the following bit mask: 0x00RRGGBB. For example, a true color with Red==200, Green==100 and Blue==50 is 0x00C86432, and in DXF, in decimal, 13132850
430–437	String; when used for True Color, a string representing the name of the color
440–447	32-bit integer value. When used for True Color, the transparency value
450–459	Long
460–469	Double-precision floating-point value
470–479	String
999	DXF: The 999 group code indicates that the line following it is a comment string. SAVEAS does not include such groups in a DXF output file, but OPEN honors them and ignores the comments. You can use the 999 group to include comments in a DXF file that you've edited
1000	ASCII string (up to 255 bytes long) in extended data
1001	Registered application name (ASCII string up to 31 bytes long) for extended data
1002	Extended data control string ("{" or "}")
1003	Extended data layer name
1004	Chunk of bytes (up to 127 bytes long) in extended data
1005	Entity handle in extended data; text string of up to 16 hexadecimal digits
1010	A point in extended data DXF: X value (followed by 1020 and 1030 groups) APP: 3D point
1020, 1030	DXF: Y and Z values of a point
1011	A 3D world space position in extended data DXF: X value (followed by 1021 and 1031 groups) APP: 3D point
1021, 1031	DXF: Y and Z values of a world space position
1012	A 3D world space displacement in extended data DXF: X value (followed by 1022 and 1032 groups) APP: 3D vector
1022, 1032	DXF: Y and Z values of a world space displacement
1013	A 3D world space direction in extended data DXF: X value (followed by 1022 and 1032 groups)

	APP: 3D vector
1023, 1033	DXF: Y and Z values of a world space direction
1040	Extended data double-precision floating-point value
1041	Extended data distance value
1042	Extended data scale factor
1070	Extended data 16-bit signed integer
1071	Extended data 32-bit signed long
