

# AutoCAD® cheat sheet

**Francesco Bianconi**

*Department of Engineering  
Università degli Studi di Perugia  
Via Goffredo Duranti, 93 – 06125 Perugia (Italy)  
bianco@ieee.org*

Up-to-date with AutoCAD 2022 (some commands may not work with previous versions). Last revised on October 18, 2022.


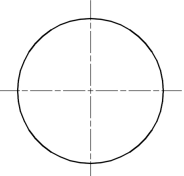
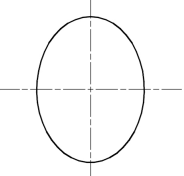
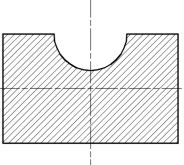
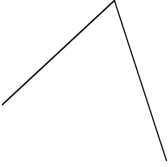
## Contents

<b>1</b>	<b>Reference systems and coordinate insertion</b>	<b>2</b>
<b>2</b>	<b>Commands for creating graphical objects</b>	<b>2</b>
<b>3</b>	<b>Commands for editing graphical objects</b>	<b>4</b>
<b>4</b>	<b>Commands for dimensioning and style management</b>	<b>7</b>
<b>5</b>	<b>Comandi per l'inserimento del testo e delle annotazioni</b>	<b>8</b>
5.1	Inserimento di caratteri speciali . . . . .	9
5.2	Inserimento di caratteri speciali attraverso font gdt . . . . .	9
<b>6</b>	<b>Comandi per il controllo del sistema, dell'interfaccia utente e delle proprietà degli oggetti</b>	<b>10</b>
<b>7</b>	<b>Principali scorciatoie da tastiera</b>	<b>12</b>

## 1. Reference systems and coordinate insertion

Reference system	Insertion mode	
	Cartesian	Polar
Global (WCS)	$*x,y$	$*\rho < \theta$
User (UCS)	$x,y$	$\rho < \theta$
Local	$@x,y$	$@\rho < \theta$

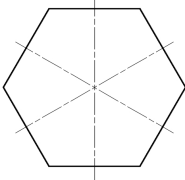
## 2. Commands for creating graphical objects

Command	Action	Main parameters
<code>_arc</code>	 Creates a circular arc.	<b>C</b> : Accepts the centre as the first input (instead of the starting point).
<code>_circle</code>	 Creates a full circle.	<b>D</b> : Accepts the diameter instead of the radius. <b>3P</b> : Generates a circle based on three points. <b>2P</b> : Generates a circle based on two diametrically opposite points. <b>T</b> : Generates a circle tangent to three objects.
<code>_ellipse</code>	 Creates a full ellipse or an elliptical arc.	<b>A</b> : Generates an elliptical arc (instead of a full ellipse). <b>C</b> : Generates an ellipse or an elliptical arc starting from the centre.
<code>_hatch</code>	 Hatches a closed region	
<code>_line</code>	 Generates a single line or a polyline.	<b>C</b> : Closes the polyline (only active when there the polyline has at least three points).



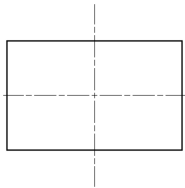
`_point`  Generates one point.

---

`_polygon`  Generates an inscribed or circumscribed regular polygon.

**C**: Generates a circumscribed polygon.  
**I**: Generates an inscribed polygon.

---

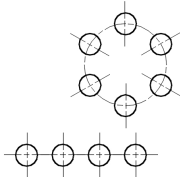
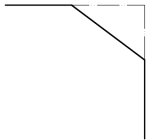
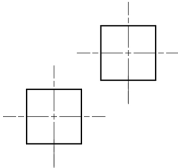
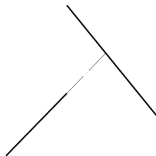
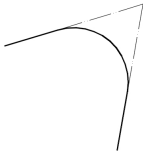
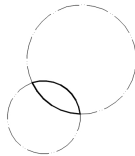
`_rectang`  Generates a rectangle.

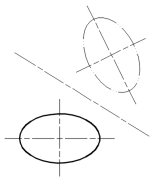
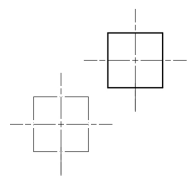
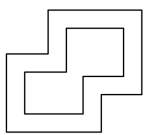
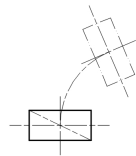
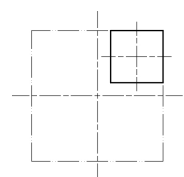
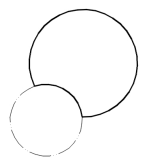
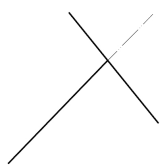
**C**: Defines the dimensions of the chamfers (for a rectangle with chamfered vertices).  
**R**: Defines the radius of the fillets (for a rectangle with rounded vertices).  
**Q**: Defines the width and height of the rectangle.

---



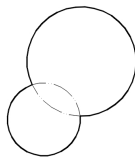
### 3. Commands for editing graphical objects

Command	Action	Main parameters
<code>_arrayclassic</code> 	Creates copies of objects along a linear or circular array.	
<code>_chamfer</code> 	Chamfers two rectilinear edges. The two edges (or their extensions) must intersect.	<b>D</b> : Sets the chamfer distance from the intersecting point of the first and second object. The input order reflects the order whereby the entities are selected.
<code>_copy</code> 	Creates copies of objects.	<b>S</b> : Sets the displacement vector
<code>_erase</code>	Deletes the selected objects (same effect as pressing <b>[Cancel]</b> ).	
<code>_explode</code>	Splits an object into separate parts (opposite effect than <code>_join</code> ).	
<code>_extend</code> 	Extends objects to meet the edges of other objects.	
<code>_fillet</code> 	Fillets the edges of two 2D objects by creating an arc of given radius. The two edges (or their extensions) must intersect	<b>RA</b> : Sets the fillet radius.
<code>_intersect</code> 	Returns the intersection (Boolean AND) between two closed objects. The objects must be previously converted into regions through <code>_region</code> .	

<code>_join</code>		Joins lines, polylines, splines and adjacent arcs (opposite effect than <code>_explode</code> ).	
<code>_mirror</code>		Mirrors objects across a given axis.	<b>N</b> : Keeps the source objects (creates a copy). <b>S</b> : Removes the source objects.
<code>_move</code>		Moves objects.	<b>S</b> : Sets the displacement vector.
<code>_offset</code>		Offsets an object at a specified distance.	
<code>_rotate</code>		Rotates objects.	<b>C</b> : Keeps the original objects (creates a copy).
<code>_scale</code>		Applies a scale transform.	<b>C</b> : Keeps the original objects (creates a copy).
<code>_subtract</code>		Returns the difference (Boolean XOR) between two closed objects. The objects must be previously converted into regions through <code>_region</code> .	
<code>_trim</code>		Trims objects to meet the edges of other objects.	

---

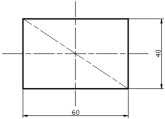
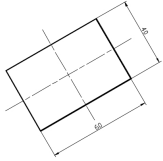
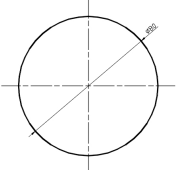

`_union`




Returns the union (Boolean OR) between two closed objects. The objects must be previously converted into regions through `_region`.

---

# 4. Commands for inserting dimensions and managing their style

Command	Action	Main parameters
<code>_dimlinear</code>	 A diagram showing a rectangle with a horizontal dimension line below it, labeled '60', and a vertical dimension line to its right, labeled '40'. The dimension lines are parallel to the rectangle's edges.	Creates a linear dimension parallel to one of the axes of the UCS.
<code>_dimaligned</code>	 A diagram showing a rectangle rotated at an angle. Two dimension lines are shown: one aligned with the longer side of the rectangle, labeled '60', and another aligned with the shorter side, labeled '40'.	Creates a linear dimension that is aligned with the origin points of the extension lines.
<code>_dimdiameter</code>	 A diagram of a circle with a horizontal centerline. A dimension line passes through the center, with arrows pointing to the circle's edge. The dimension is labeled with the diameter symbol $\phi$ and the value '60'.	Creates a diameter dimension with a diameter symbol ( $\phi$ ) in front of it.
<code>_dimradius</code>	 A diagram of a quarter-circle arc. A dimension line is drawn from the center of the arc to its edge, with an arrow pointing to the edge. The dimension is labeled with the radius symbol 'R' and the value '60'.	Creates a radius dimension with a radius symbol (R) in front of it.
<code>_dimstyle</code>		Opens the window that allows to manage the dimension style.

## 5. Comandi per l'inserimento del testo e delle annotazioni

Comando		Funzione	Principali parametri
<code>_mtext</code>	Testo multilinea	Inserisce del testo multi- linea.	<b>A</b> : imposta l'altezza del carattere. <b>G</b> : modifica l'ancoraggio del testo e/o adatta la larghezza del carattere (vedi <code>_text</code> ). <b>SP</b> : imposta lo spazio tra i caratteri.
<code>_qleader</code>		Genera una freccia.	
<code>_text</code>	Testo	Inserisce del testo a riga singola.	<b>G</b> : modifica l'ancoraggio del testo e/o adatta la larghezza del carattere. Al- cune possibili opzioni: <ul style="list-style-type: none"><li>• <b>AS</b> (ancoraggio in alto a sinistra)</li><li>• <b>AC</b> (ancoraggio in alto al centro)</li><li>• <b>AD</b> (ancoraggio in alto a destra)</li><li>• <b>MS</b> (ancoraggio in mezzo a sinistra)</li><li>• <b>MC</b> (ancoraggio in mezzo al centro)</li><li>• <b>MD</b> (ancoraggio in mezzo a destra)</li><li>• <b>BS</b> (ancoraggio in basso a sinistra)</li><li>• <b>BC</b> (ancoraggio in basso al centro)</li><li>• <b>BD</b> (ancoraggio in basso a destra)</li><li>• <b>T</b> (adatta la larghezza del carattere alla lunghezza complessiva della linea di testo).</li></ul>

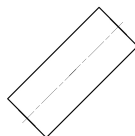


\_tolerance



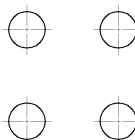
Genera simboli per tolleranze geometriche.

\_centerline



Disegna l'asse mediano tra due rette parallele.

\_centermark



Disegna gli assi di una circonferenza.

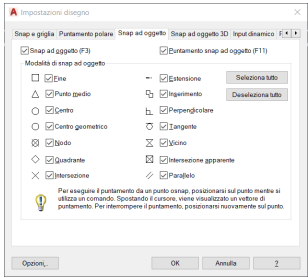
### 5.1. Inserimento di caratteri speciali

Denominazione	Simbolo	Sequenza AutoCAD	Sequenza Unicode
Diametro	∅	%%c	\U+00B0
Esigenza d'inviluppo	ⓔ	–	\U+24BA
Gradi	°	%%d	\U+2205
Più o meno	±	%%p	\U+00B1
Quadrato	□	–	\U+25A1

### 5.2. Inserimento di caratteri speciali attraverso font gdt

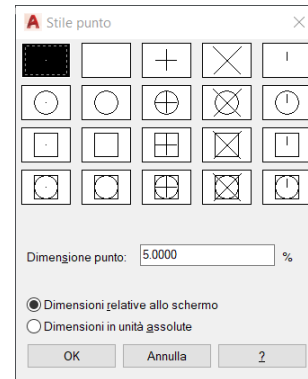
Denominazione	Simbolo	Sequenza AutoCAD
Diametro	∅	n
Quadrato	□	o
Lamatura	└┐	v
Svasatura	▽	w
Profondità	⌞	x
Conicità	⤵	y
Massimo materiale	Ⓜ	m
Minimo materiale	Ⓛ	l

# 6. Comandi per il controllo del sistema, dell'interfaccia utente e delle proprietà degli oggetti

Comando	Funzione	Principali parametri
<code>_dynmode</code>	Attiva/disattiva la modalità input dinamico.	<b>1</b> : attiva la modalità input dinamico. <b>0</b> : disattiva la modalità input dinamico.
<code>_layer</code>	Apri la finestra che permette la creazione, rimozione e modifica delle proprietà dei layer.	
<code>_matchprop</code>	Assegna ad uno o più oggetti le proprietà dell'oggetto sorgente (equivalente a copia formato di Microsoft Word).	
<code>_navbardisplay</code>	Attiva/disattiva la visualizzazione della barra di navigazione.	<b>1</b> : attiva la visualizzazione della barra di navigazione. <b>0</b> : disattiva la visualizzazione della barra di navigazione.
<code>_orthomode</code>	Attiva/disattiva la modalità disegno ortogonale.	<b>1</b> : attiva la modalità disegno ortogonale. <b>0</b> : disattiva la modalità disegno ortogonale.
<code>_osnap</code>	Apri la finestra che permette la gestione degli snap ad oggetto.	
<code>_polarmode</code>	Attiva/disattiva la modalità disegno ad angoli predefiniti.	<b>1</b> : attiva la modalità disegno ad angoli predefiniti. <b>0</b> : disattiva la modalità disegno ad angoli predefiniti.

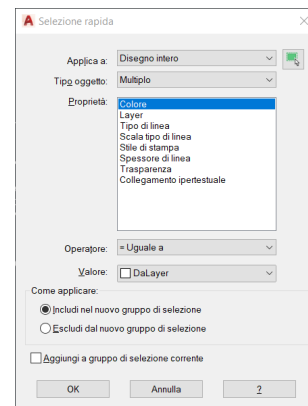
`_ptype`

Attiva la finestra per la modifica dello stile punti



`_qselect`

Attiva la finestra di selezione rapida di oggetti



`_regen`

Rigenera l'intero disegno. Ricalcola le posizioni e la visibilità di tutti gli oggetti contenuti nella finestra corrente.

`_redraw`

Rigenera la visualizzazione nella finestra corrente.

`_ucs`

Sposta il sistema di riferimento utente (UCS).

`_ucsicon`























Attiva/disattiva la visualizzazione del sistema di riferimento utente (UCS).

**ON** : visualizza l'icona UCS.  
**OF** : disattiva la visualizzazione dell'icona UCS.  
**OR** : visualizza l'icona in corrispondenza dell'origine (0,0,0) dell'UCS corrente.

`_units`

Permette di impostare le unità di misura del disegno e la precisione (numero di cifre decimali) delle dimensioni lineari ed angolari.

## 7. Principali scorciatoie da tastiera

Tasto	Funzione/i
	Cancella gli oggetti selezionati.
 + 	Attiva/disattiva lo snap a griglia.
 + 	Apri un disegno esistente.
 + 	Chiude il programma.
 + 	Elimina l'ultima operazione eseguita.
 + 	Ripristina l'ultima operazione eseguita (annulla l'annullamento).
 + 	Visualizza/nasconde la riga dei comandi.
	Esce da un comando. Deseleziona tutti gli oggetti selezionati.
	Termina un comando, l'inserimento di un parametro o la selezione di oggetti all'interno di un comando. Ripete l'ultimo comando eseguito.
	Attiva/disattiva gli snap ad oggetto.
	Attiva/disattiva la modalità di disegno 'ortogonale'.
	Attiva/disattiva la modalità di disegno 'puntamento polare'.
	Attiva/disattiva il puntamento ad oggetto (linee di riferimento).
	Attiva/disattiva la modalità di 'input dinamico'.
 , 	Premuto assieme al tasto sinistro del mouse permette di rimuovere (deselezionare) uno o più oggetti da un insieme di selezione.