

STOS Td Commands

Displaying objects

Td SCREEN HEIGHT <i>n</i>	Set the screen height for 3D drawing
Td REDRAW scr	Draw all currently visible 3D objects
Td CLS scr	Clear the 3D display area quickly

Loading and removing objects

Td DIR folder\$	Set the object directory name
Td LOAD file\$	Load the object <i>file</i> \$
Td CLEAR ALL	Remove any loaded objects

Invoking objects

Td OBJECT <i>n</i> ,name\$, <i>x,y,z,A,B,C</i>	Create an object instance based on <i>name</i> \$
Td KILL <i>n</i>	Remove an object

Moving objects

Td MOVE <i>n,x,y,z</i>	Move absolute
Td MOVE REL <i>n,dx,dy,dz</i>	Move relative
Td MOVE X/Y/Z <i>n,string</i> \$	Apply a movement string
Td FORWARD <i>n,d</i>	Move an object forwards

Reading an object's position

=Td POSITION X/Y/Z(<i>n</i>)	Return an object's X,Y or Z in world coordinates
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Changing an object's attitude

Td ANGLE <i>n,A,B,C</i>	Set an object's attitude
Td ANGLE REL <i>n,dA,dB,dC</i>	Rotate an object relative to its current attitude
Td ANGLE A/B/C <i>n,angle</i> \$	Apply a rotation string
Td FACE <i>n1,n2</i>	Point <i>n1</i> at <i>n2</i>
Td FACE <i>n,x,y,z</i>	Point <i>n</i> at (<i>x,y,z</i>) in world coordinates

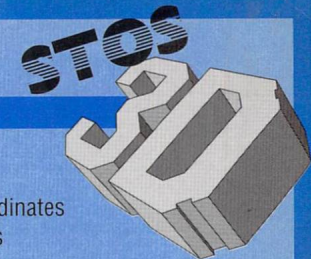
Reading an object's attitude

=Td ATTITUDE A/B/C(<i>n</i>)	Return attitude angle A,B or C
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Bearing and range

=Td BEARING A/B/R(<i>n1,n2</i>)	Compute bearing and range between <i>n1</i> and <i>n2</i>
=Td BEARING A/B/R(<i>n,x,y,z</i>)	Compute bearing and range between <i>n</i> and (<i>x,y,z</i>)
=Td RANGE(<i>n1,n2</i>)	Compute distance between <i>n1</i> and <i>n2</i>
=Td BEARING A/B/R(0)	Return last calculated A,B or R

STOS Td Commands



Converting between coordinate systems

=Td SCREEN X/Y(<i>x,y,z</i>)	Convert (<i>x,y,z</i>) in world coordinates to screen coordinates
=Td SCREEN X/Y(0)	Return last calculated screen coordinates
=Td WORLD X/Y/Z(<i>n,x,y,z</i>)	Convert (<i>x,y,z</i>) in local coordinates into world coordinates
=Td WORLD X/Y/Z(0)	Return last calculated world coordinates
=Td VIEW X/Y/Z(<i>n,x,y,z</i>)	Convert (<i>x,y,z</i>) in world coordinates to local coordinates
=Td VIEW X/Y/Z(0)	Return last calculated local coordinates

Checking an object's visibility

=Td VISIBLE(<i>n</i>)	Returns 1 if an object is visible or 0 if not
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Collision detection and zones

Td SET ZONE <i>n,zone,x,y,z,r</i>	Define a zone
Td DELETE ZONE <i>n, zn</i>	Remove a defined zone
=Td COLLIDE(<i>n1,n2</i>)	Returns <i>n2</i> if collision occurred, -1 otherwise
=Td COLLIDE(<i>n</i>)	Returns number of collided object, -1 if no collision
=Td ZONE X/Y/Z/R(<i>n,z</i>)	Returns the centre coordinates and radius of a zone

Animation

Td ANIM REL <i>n,p,x,y,z,finished_flag</i>	Apply a relative change to a point in local coordinates
Td ANIM <i>n,p,x,y,z,finished_flag</i>	Sets a point's position in local coordinates
=Td ANIM POINT X/Y/Z(<i>n,pn</i>)	Return the position of point <i>pn</i> of object <i>n</i> in local coordinates

Surface animation

Td SURFACE <i>name1,b1,f1 to n2,b2,f2,rt</i>	Copy a surface detail
Td SURFACE POINTS <i>p0,p1,p2,p3</i>	Set surface detail anchor points

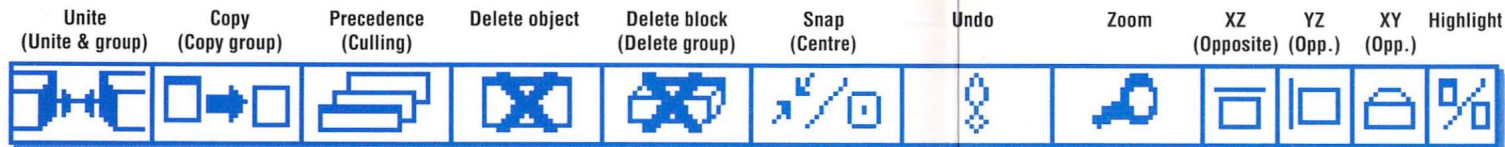
Backgrounds

Td BACKGROUND <i>bank, offset, screen, x,y, width, height</i>	Define a background
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Miscellaneous

Td INIT bytes	Define size of memory bank reserved for 3D
=Td ADVANCED <i>n</i>	Returns the address of an object's structure

Object Modeller tools



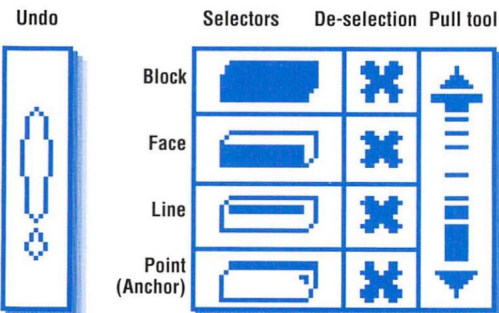
Primary Commands

File (Quick)
Info
Reset
Quit

Colour Combination

Red
Green
Blue

Block Level Commands



Groups

Add block to group (Turn objects into group)
Delete block from group (Clear)

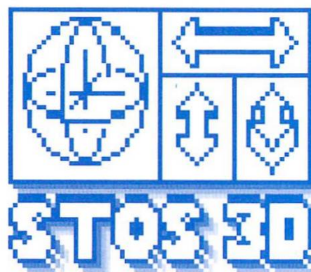
Face slide
Face normal
Face rotation

Move XY plane
Move in Z axis
Horizontal symmetry
Set rotation
Axis rotation
Vertical symmetry

Horizontal stretch
Vertical stretch
3 axis stretch

Movement Tools

Rotation tool (Redefine axis)
Stepped movements (Smooth movements)



Surface Toolbox

Select virtual colours (Swap virtual colours)



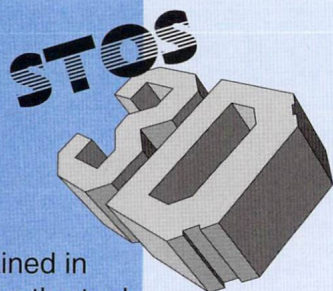
Draw lines
Delete lines
Transfer to face



Surface Attitude
Surface Removal
Grid Clear



Edit face
Line undo
Quit surf. detail



To select an operation contained in brackets, click on the tool using the **right** mouse button.