

Chapter 2: User Interface	16
2.0 New Scene and Context	2
2.4 Toolbars	2
2.4.5 Preset Shortcuts	3
2.5.1 Using Widgets	7
2.6 Stack View	8
2.7 3D View – Workspace	9
2.7.1 Object Navigation Tools	9
2.7.2 View Navigation Tools	10
2.7.4 Render Preferences	12
2.7.6 Desktop Preferences	17
2.7.6a Undo/Redo	21
2.7.7 Perspective and Orthogonal Views	22
2.7.9 Workspace File and Help Menu	23
2.8 2D View – Link Editor	28
2.8.1 Link Editor Description	28
2.8.5 Encapsulating Objects	31
2.12 Other Views	32
2.13 Macro Recording and 3D Recording	34

IDEA have section for error list and not documented in original

add introduction and include reason for undo history - scripts run as series of steps, each step undo able, but maybe bad if only undo some of the steps of a script

idea - make undos for some things (predictable undo number) like align/distribute script with warning to use special undo or option to take away undos(clear history)

*jump to original chapter 2
placeholder*



informational

More Information



simple warning or something that may need to change, like a clear undo maybe unnecessary

Chapter 3 MODELING - Workspace	51
3.1 Object Tools	40
3.1.1 Object	40
3.1.6 Axis Tool	40
3.2 Point Edit Selection Tools	41
3.2.0 Mesh Editor Settings	41
3.2.1 Select By Painting	43
3.2.2 Select By Rectangle	43
3.2.3 Select By Lasso	43
3.2.11 Grow Selection	44
3.2.12 Shrink Selection	44
3.2.13 Convert Selection	44
3.2.17 Hide UnSelected Geometry	44
3.4 Sweep, Draw, Topology Tools	45
3.4.5 Mirror Modeler	46
3.4.6 Mirror Tool	47
3.4.21 Add Polygons	48
3.4.27.a Fix Bad Geometry	49
3.5 Soft Paint	51

3.11 Flatten History	49
3.12 Snapping and Distance Tools	50
3.12.1 Grid Snapping	50
3.12.2 Other Snapping Options	51
3.12.4 Point Edit Snapping	54
3.13 Primitives	50
 Chapter 5 SURFACING - Workspace	 80
5.2 UV Editor	81
5.2.1 UV Mapping Editor Tools	81
5.2.5 UV Mapping Editor Options	82
5.3 Workspace Material Editor	83

Chapter7 Lighting and Rendering 88

7.1 Lighting in Workspace (DX9)88

7.1.1 Real-time Light Types89

7.1.5 Real-time Post Processing 99

7.1.7 Real-time Render To File 101

Chapter 8 - Character Editing 104

8.1 Character Editing Introduction..... 104

8.2 The Tools.....105

8.2.3 Controlling How the Skin Reacts 105

Chapter 9 – Animation 106

9.1 Animation Introduction..... 106

9.2 The Animation Editor in detail 106

9.2.7 Animation Preferences Panel 107

9.4 Morphs 109

9.4.1 The Morph Panel..... 109

Chapter 10 – Physics 110

10.2 Physics Toolbar 111

10.2.7 Centre of Gravity and Fixation 113

Chapter 12 Collaboration 114

12.1 Access to Shared Spaces 114

12.1.6 Basics of Navigation 115

Chapter 40 UU Additions 116

Might be a good idea to mention about a single selected object and multiple selected objects
Most of the tools/scripts only work on one object at a time

note to self - looks like just opening some panels will erase undo history - search for in next pass through

"Only scripts that open a floating panel from a scene uses `RsApp.ClearHistory()`"

added quick guide after table of contents so add 9 to page numbers below:

Tip

When calling a floating panel that resides some where other then the scene, it is not necessary to add the path (from script) to the RootNode nor the PanelEditorNode attributes, if your panel frame has the correct path(s) already saved

"Protect NURBS unknown, sets a checkbox on /Scripts/Commands/DeSelectNURBS node
used ??? where ???"

If you disable Protect NURBS, all icons that run DeSelectNURBS will not unselect NURBS

Freeze Transform

UU7PDF

Images needing update

Fix Bad Geometry panel

Camera panel

First Person Navigator panel #127

Primitives

If a NURBS, Light, or Camera is selected it will run Deselects NURBS

Tube & Gear - Are not widgets and do not have Preference pre options

LMB click - Adds object at cursor location to grid

Camera

Camera Window - Opens a 3D Window with a View toolbar

Note

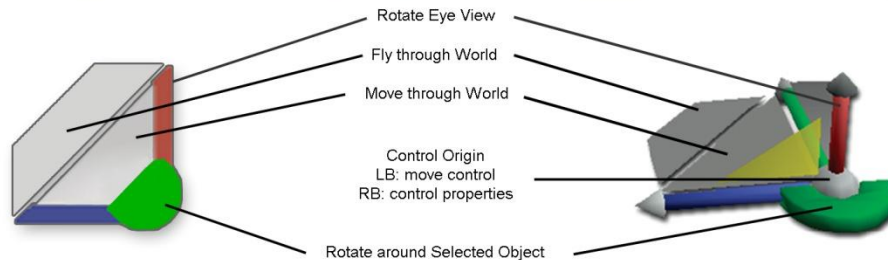
This 3D Window is the New View (Frame Window New View.RsObj) renamed to CameraFrame

just noticed quick guide pages are bigger than the rest

Workspace

View Navigation Controls

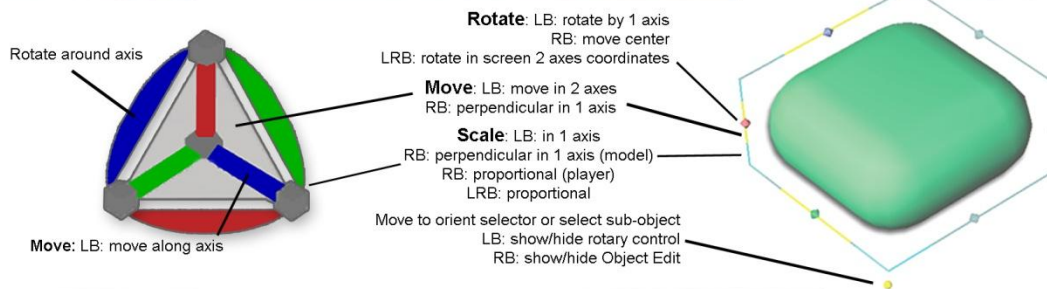
Model



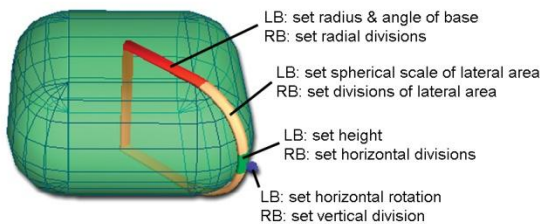
Workspace

Object Navigation Controls

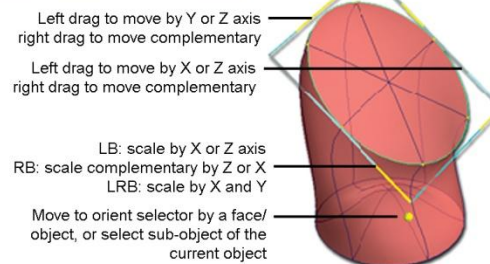
Model



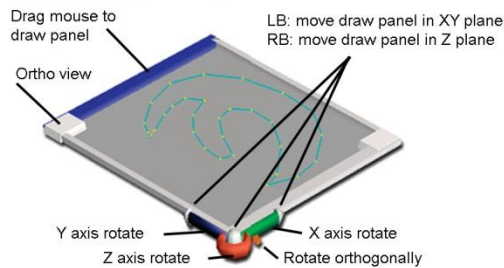
Magic Ring



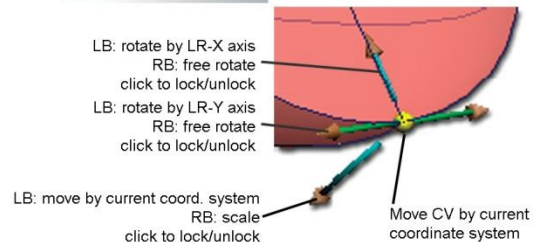
Isocurve Selector



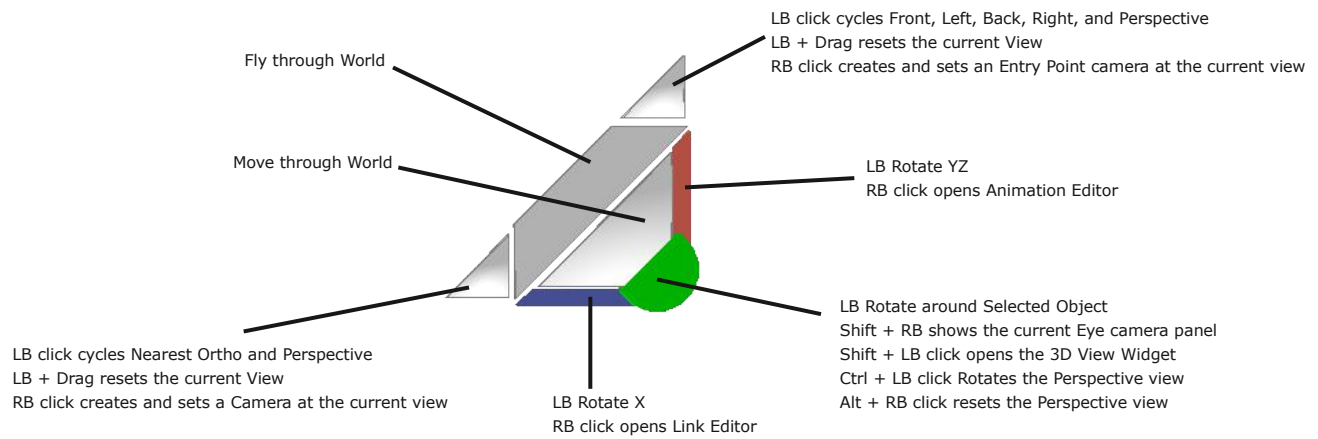
Draw Panel



CV Handles

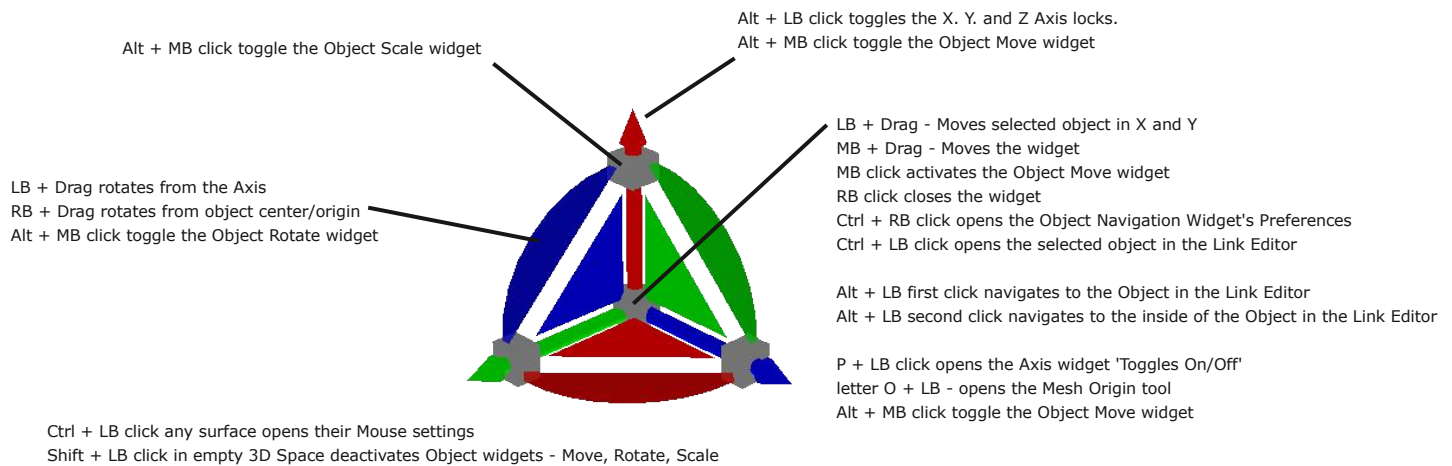


View Navigation Controls



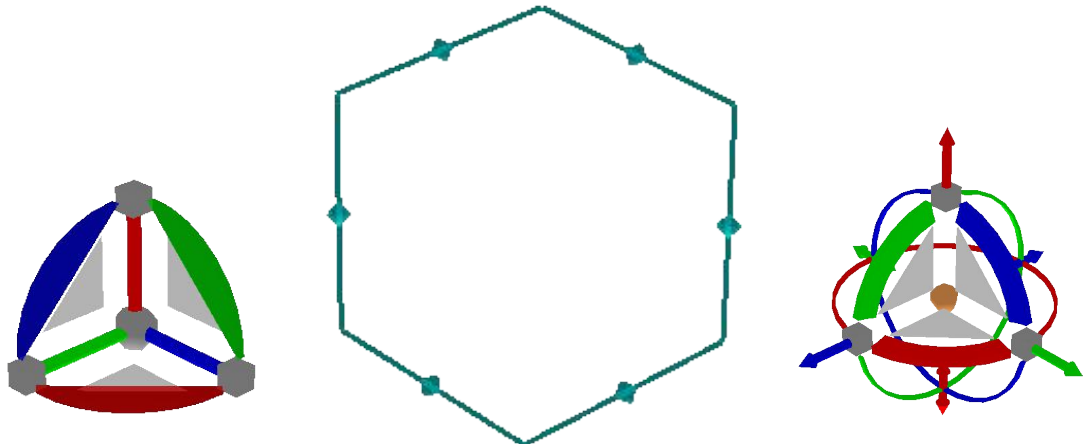
i + drag any surface = Opens the widget's Additional Shortcuts Help floating panel

Object Navigation Controls



Bars, Triangles, Cubes and Arcs

Shift + LB click = switch to the other Object Navigation Widgets
H + LB click = switch to/from the Selector Cage Widget
J + LB click = add/remove cage widget to the current widget

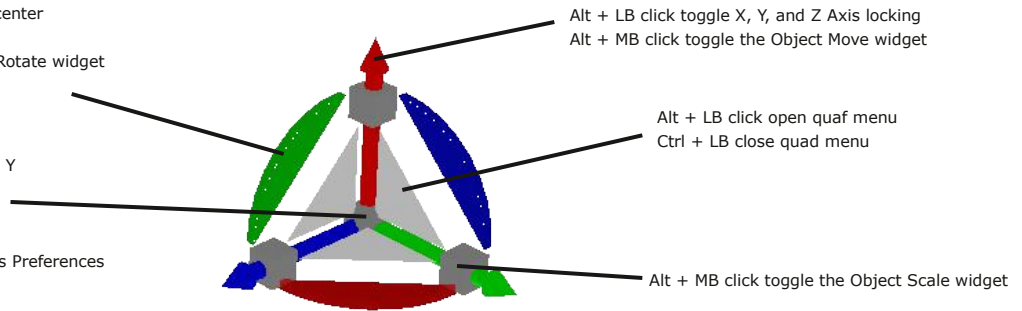


i + drag any surface = Opens the widget's Additional Shortcuts Help floating panel

Point Edit Navigation Controls

LB to rotate about the selection center
 RB to rotate about the Axis
 Alt + MB click toggle the Object Rotate widget

LB + Drag - Moves selected element in X and Y
 MB + Drag - Moves the widget
 Alt + LB click - Opens the Quad Menu
 Ctrl + LB click - Closes the Quad Menu
 Ctrl + RB click - Opens the Point Edit Widget's Preferences
 Alt + MB click toggle the Object Move widget

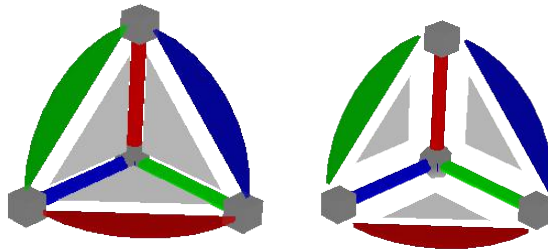


Bars, Triangles, Cubes and Arcs

Ctrl + LB click opens their Mouse settings
 P + LB click sets the Axis to the selected Face, Edge, or Vertex
 P + RB click moves and rotates the Axis to the selected Face
 P + MB click moves the Axis to object center and rotates the Axis to the selected Face
 Period + LB click - Hides UnSelected elements
 Comma + LB click - UnHides All elements
 O + LB click Toggles - Mesh Object Coordinate Mode

Shift + LB click in empty 3D Space deactivates Object widgets - Move, Rotate, Scale

Shift + LB click any surface = switch to other Point Edit Widgets

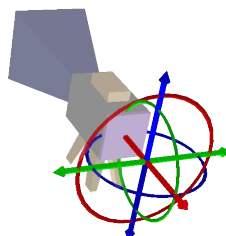
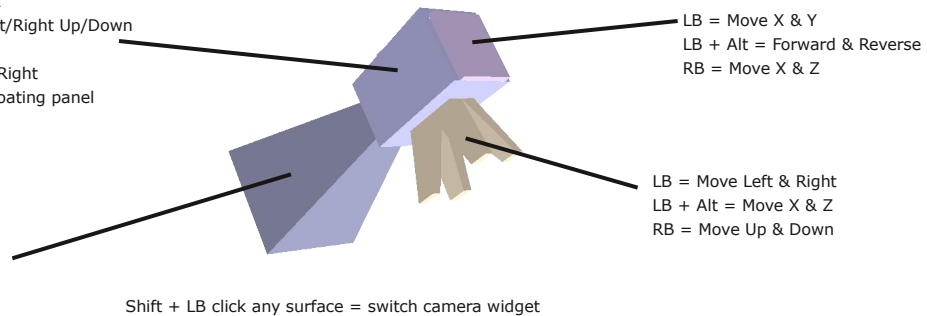


i + drag any surface = Opens the widget's Additional Shortcuts Help floating panel

Camera Controls

LB = Spin Left & Right
 ALT + LB = Rotate Left/Right Up/Down
 RB - Tilt Up & Down
 Alt + RB = Tilt Left & Right
 RB select = Camera floating panel

FOV
 LB + Drag = Adjust FOV
 LB = View from Camera
 RB = Reset FOV



Background Controls

b + i + drag = help

Wheel - Moves In and Out

Shift + Wheel - Zooms (FOV) and Moves In and Out

Ctrl + Shift + MB Drag - Zooms (FOV)

MB Drag - Rotate in X and Y

Ctrl + MB Drag - Move in X, Y, and Z

Shift + MB Drag - Look around

Ctrl + MB click - Looks At Selection

MB click - Moves the view to show the current selection or Point Edit selection

Shift + MB click - Moves the view to show all objects in the scene

Comma + LB Drag - Shows All hidden items

Period + LB Drag - Hides All Except the selected items

Default Context Controls

N + LB - 3D View - Auto Select NURBS On/Off

Ctrl + X + LB - Cut selected object

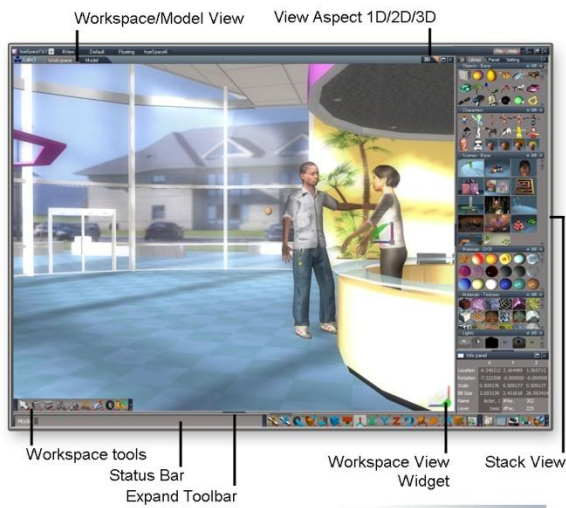
Ctrl + V + LB - 3D View - Paste last Cut object

L + LB - Lock selection

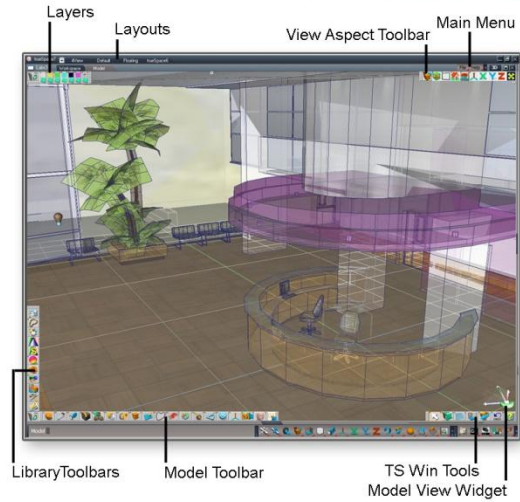
U + LB - Unlock selection

ALT + LB - Select Locked objects

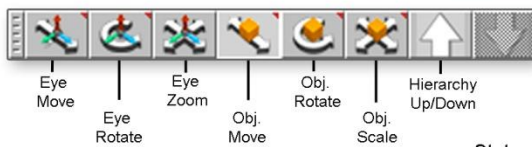
Workspace View



Model View

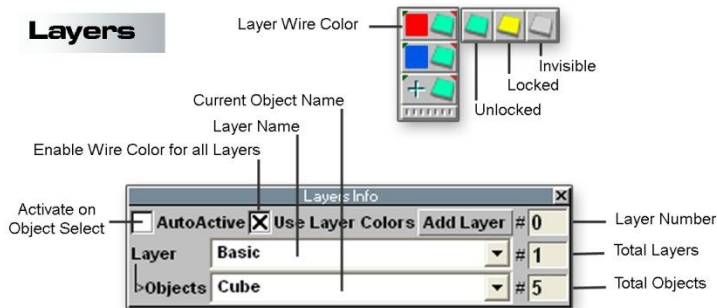


Nav Tools

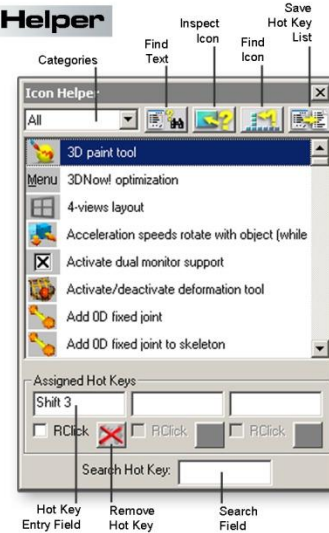


Status

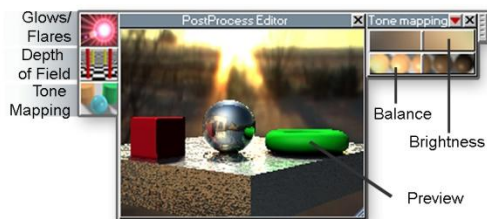
Layers



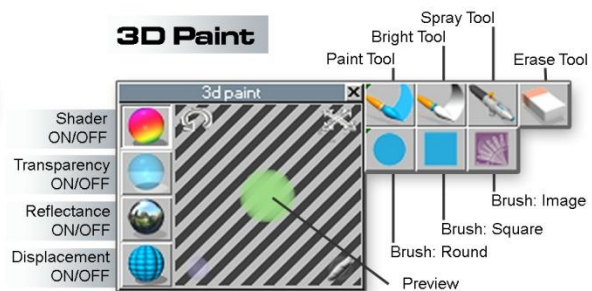
Icon Helper



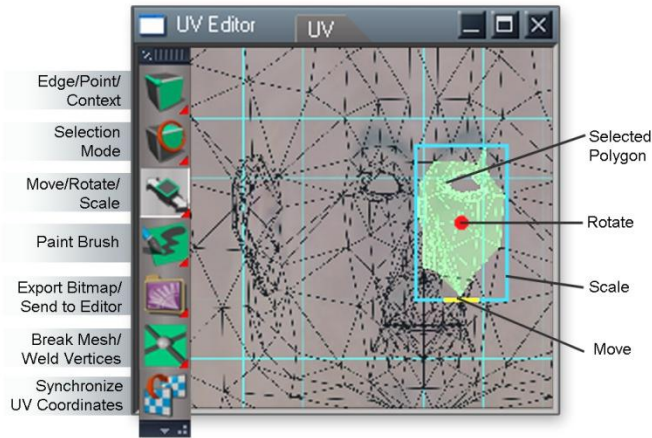
Post Process Editor



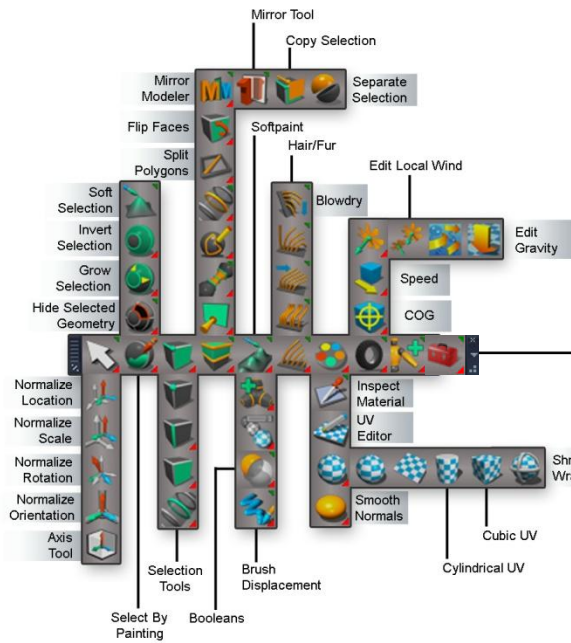
3D Paint



Workspace UV Mapping Editor



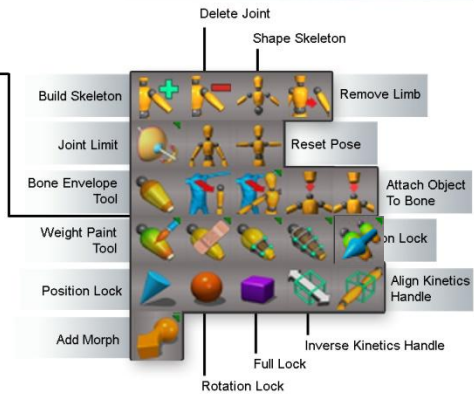
Workspace Toolbar



Preferences

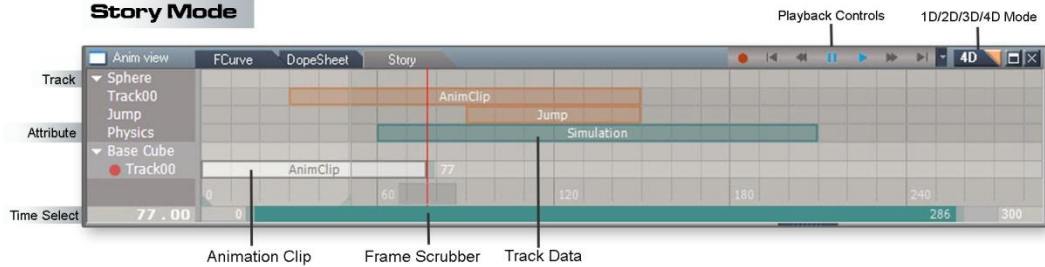


Character Animator

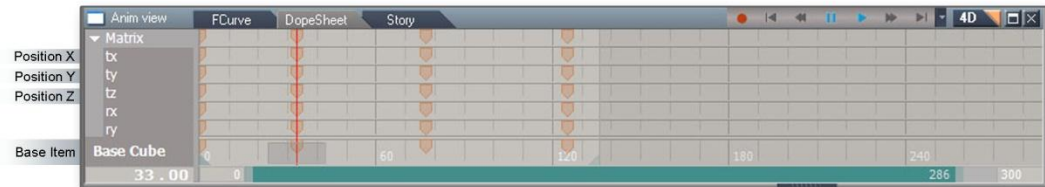


Animation Editor

Story Mode

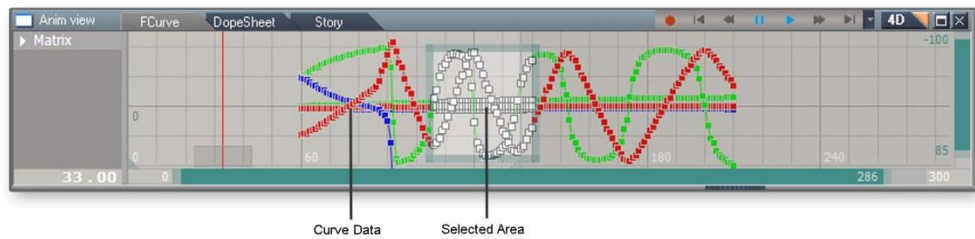


DopeSheet Mode

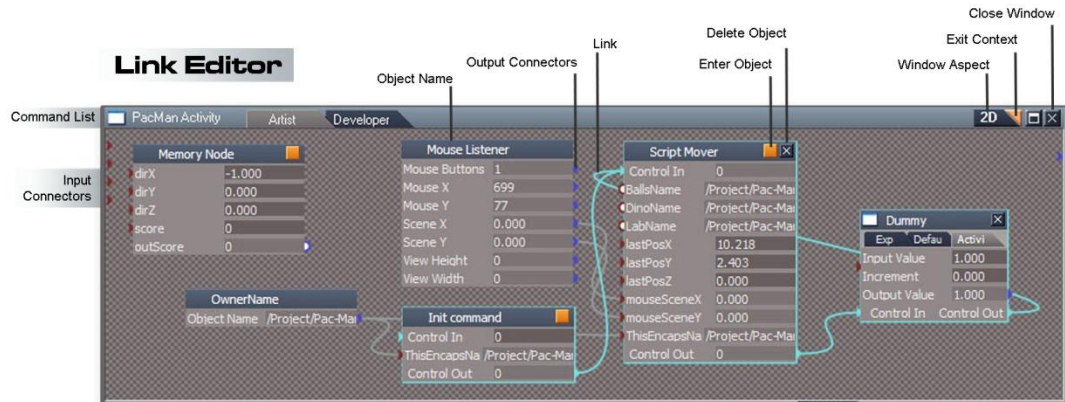


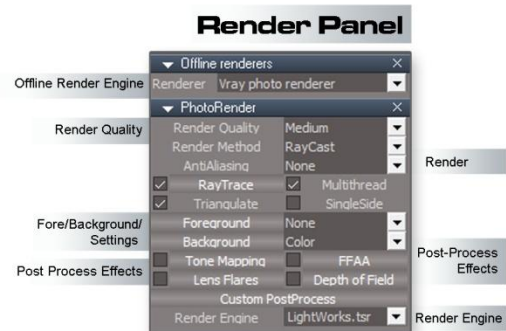
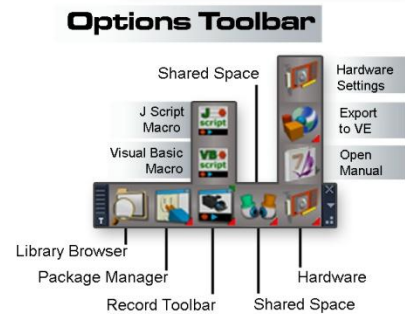
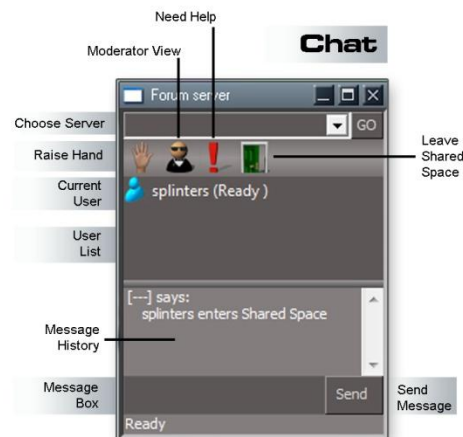
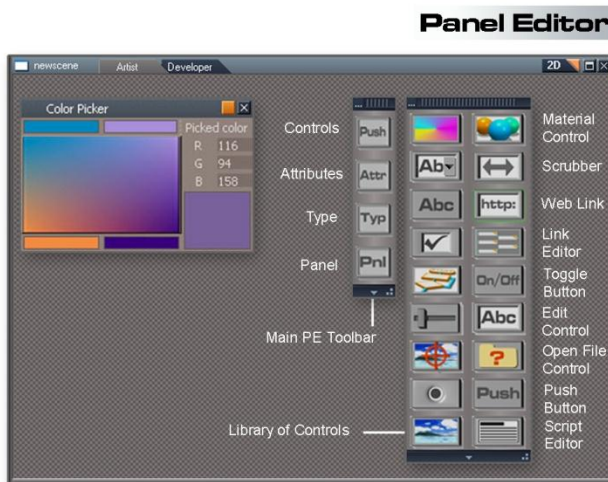
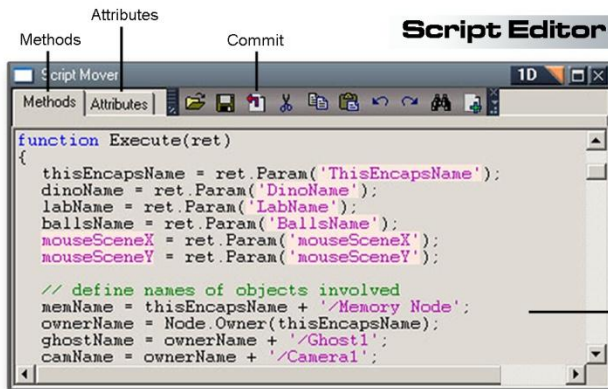
Key Frames

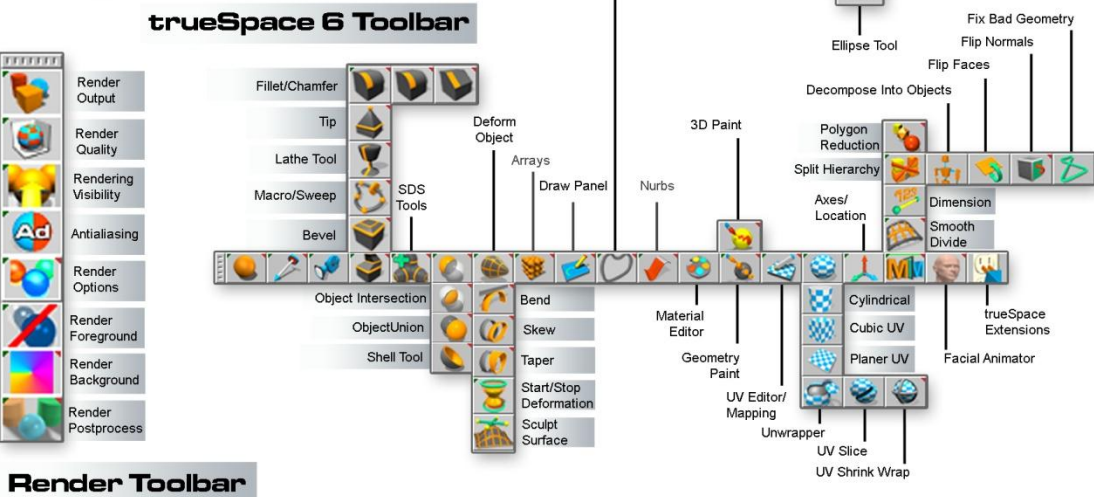
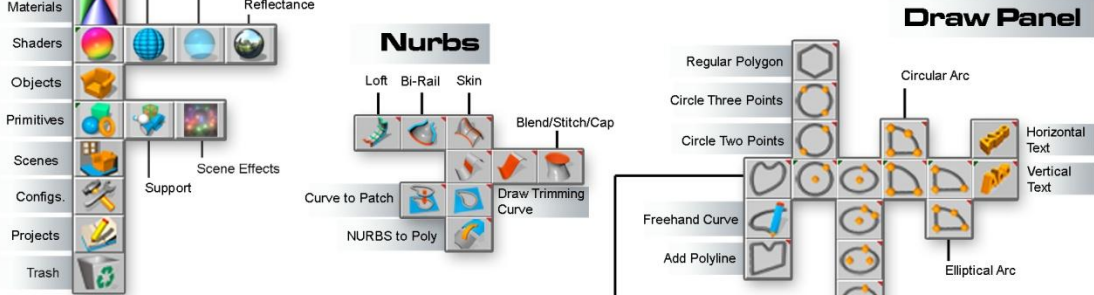
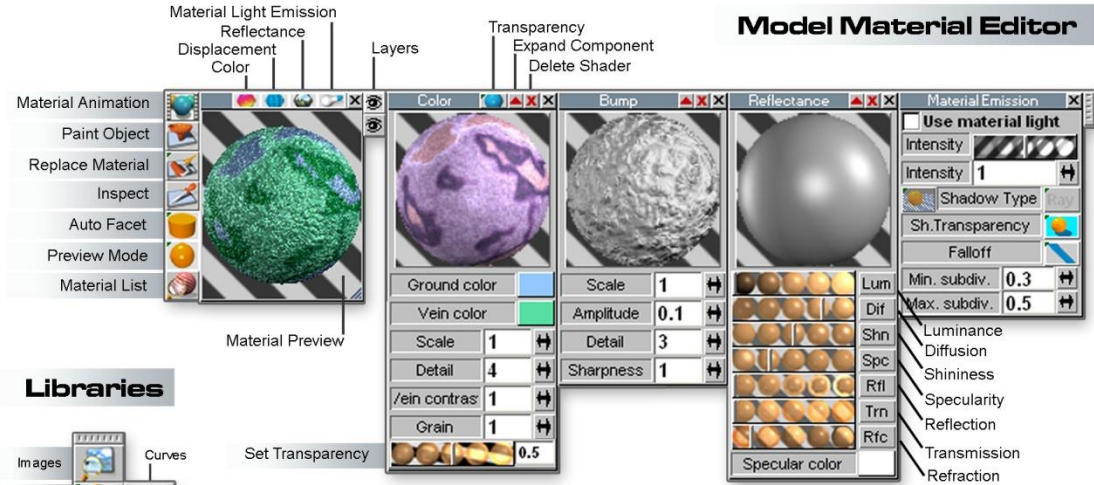
FCurve Mode



Link Editor







Render Toolbar



Stack Toolbar New Scene and Context Unofficial Update



Bottom Toolbar New Scene and Context



New Scene

This removes all objects from your Workspace and starts you off with a fresh scene. It will first prompt you to save your work by pressing no and saving it to a library or to continue and clear the scene.

RMB open link editor to the scene



Reset to Default Context

Opens a dialog to confirm the reset to default context. System reset operation.

RMB old behavior resets to default context without any warning or dialog choice.



Save current state same as file menu save using the ctx extension

2.4.5 Preset Shortcuts

trueSpace comes with a set of predefined shortcuts for Workspace, Link Editor, and some that work in every view. The following table shows the list of these predefined shortcuts.

Global Shortcuts

Key	Description
CTRL F1	3D window
CTRL F2	Link Editor
CTRL F3	Command Prompt
CTRL F4	Command History
CTRL F5	Output Console
CTRL F6	Status View
CTRL F7	Animation View
CTRL F8	Package Manager
CTRL F9	Scene View
CTRL F11	Library Browser
CTRL F12	Shared Space
SHIFT CTRL R	Reset to Default Context
SHIFT CTRL N	Generate New Space
LEFT	Select Previous object
RIGHT	Select Next object
DOWN	Select first Child object
UP	Select Parent object
SHIFT CTRL LEFT	Select Previous object & Look At
SHIFT CTRL RIGHT	Select Next object & Look At

Global Shortcuts

Key	Description
Z	Object Move tool
X	Object Rotate tool
C	Object Scale tool
A	Camera Move tool
S	Camera Rotate tool
D	Camera FOV tool
SHIFT X	X lock - On/Off
SHIFT Y	Y lock - On/Off
SHIFT Z	Z lock - On/Off
F1	World Coordinates
F2	Object Coordinates
F3	Screen Coordinates
F4	Tangent Coordinates
F5	X lock - On/Off
F6	Y lock - On/Off
F7	Z lock - On/Off
F8	Reset View

3D Window Shortcuts

Key	Description
DELETE	Delete selected object
CTRL K	Delete selected object
CTRL I	Inspect Material
CTRL R	Render to file
CTRL ~	Set the selected camera as active
CTRL 1	Switch to Perspective Eye view
CTRL 2	Switch to Top orthogonal view
CTRL 3	Switch to Bottom orthogonal view
CTRL 4	Switch to Front orthogonal view
CTRL 5	Switch to Back orthogonal view
CTRL 6	Switch to Left orthogonal view
CTRL 7	Switch to Right orthogonal view
CTRL 8	Switch Nearest Orthogonal view
CTRL 9	Switch to Isometric view
CTRL 0	Reset View
CTRL Z	Undo
CTRL SHIFT Z	Redo
CTRL C	Copy object
4	Object Move Left -X
6	Object Move Right +X
8	Object Move Forward -Y
2	Object Move Reverse +Y
Page Up	Object Move UP +Z
Page Down	Object Move Down -Z
HOME	Object Normalize Location

3D Window Shortcuts

Key	Description
7	Object Rotate Left +Z
9	Object Rotate Right -Z
1	Object Rotate Forward -X
3	Object Rotate Reverse +X
0	Object Rotate Left +Y
.	Object Rotate Right -Y
CTRL 7	Object Rotate Left +Z +45
CTRL 9	Object Rotate Right -Z -45
CTRL 1	Object Rotate Forward -X -45
CTRL 3	Object Rotate Forward +X +45
CTRL 0	Object Rotate Left + Y
CTRL .	Object Rotate Right -Y
END	Object Normalize Rotation
SHIFT LEFT	Previous Key frame
SHIFT RIGHT	Next Key frame
CTRL LEFT	Previous Frame
CTRL RIGHT	Next Frame
SHIFT HOME	Start Frame
SHIFT END	End Frame
CTRL HOME	Play
CTRL END	Pause
ESC	Unselect
TAB	Object Navigation Widget - On/Off
SHIFT + L	Workspace Layers

Point Edit Shortcuts

Key	Description
ESC	Clear selection
DELETE	Delete selected Elements
SHIFT DELETE	Collapse Loop
CTRL K	Delete
CTRL C	Copy selection
CTRL F	Form Face
TAB	Point Edit Widget On/Off
V	Select Vertices
F	Select Faces
E	Select Edges
L	Select Face Loops
T	Select Context
SHIFT I	Invert Selection
SHIFT A	Select Connected
SHIFT C	Convert Selection
SHIFT S	Smooth Selection
SHIFT O	Outline Selection
Q	Quad Divide Selection
SHIFT Q	Smooth Quad Divide
CTRL Q	Quadrify Selected polygons
M	Mirror Selection
CTRL M	Mirror Modeler
SHIFT B	Form Polygonal Bridge
/	Split polygons
SHIFT /	Merge polygons
H	Hide Selected geometry
SHIFT H	Hide Unselected geometry
U	Show All hidden geometry

Point Edit Shortcuts

Key	Description
ADD	Add SDS
SUBTRACT	Remove SDS
CTRL D	Dynamic Sweep
CTRL S	Sweep selected Face
CTRL B	Bevel tool
CTRL T	Tip selected Face
CTRL P	Add Polygons
CTRL E	Add Edges
CTRL V	Add Vertices
CTRL L	Add Loop
CTRL W	Weld geometry together
CTRL H	Heal Vertices
CTRL O	Optimize Triangulation
SPACEBAR	Open Quad toolbars
~	Default selection settings
1	Select by Painting
2	Select by Rectangle
3	Select by Lasso
4	Select by Move
5	Soft Selection
6	Select by Material
7	Select Edge Loops
8	Select Face Loops
9	Select Visible Geometry
0	Select All Geometry
-	Shrink selection
+	Grow selection

Animation Editor

Key	Description
DELETE	Delete object
CTRL C	Copy object
CTRL X	Cut object
CTRL V	Paste object
CTRL A	Select All
CTRL Z	Undo
CTRL SHIFT Z	Redo
SHIFT LEFT	Previous Key frame
SHIFT RIGHT	Next Key frame
K	Set Key frame
CTRL LEFT	Previous Frame
CTRL RIGHT	Next Frame
SHIFT HOME	Start Frame
SHIFT END	End Frame
CTRL HOME	Play
CTRL END	Pause
ESC	Stop & Start Frame

UV Editor

Key	Description
CTRL Z	Undo
CTRL SHIFT Z	REDO

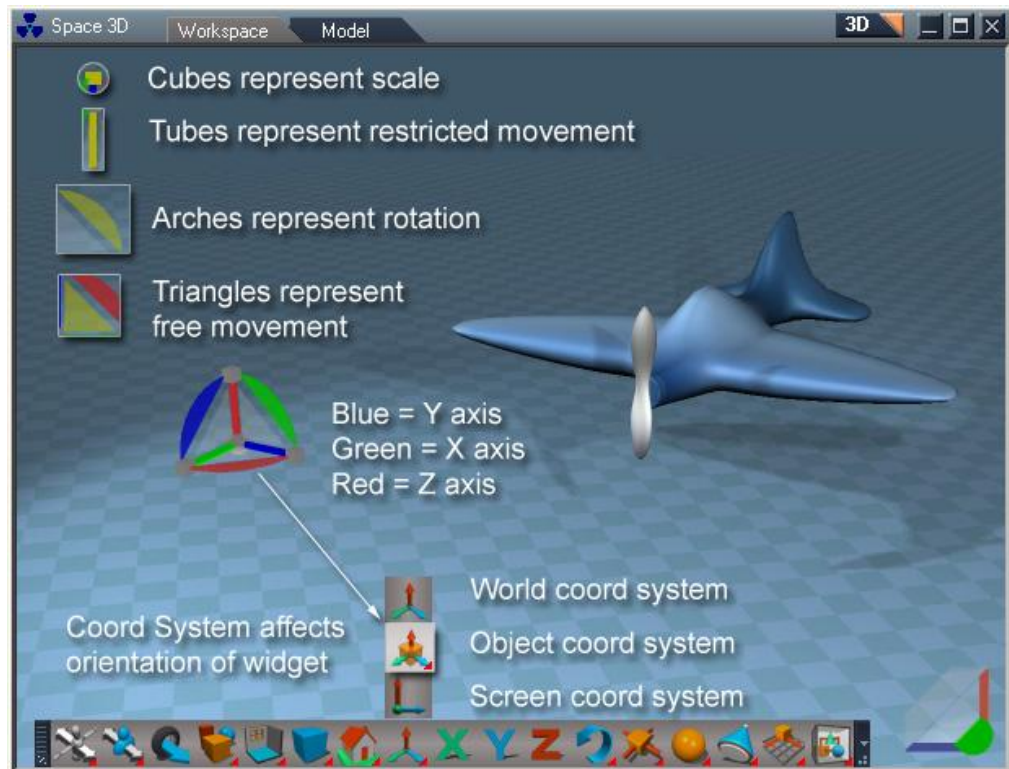
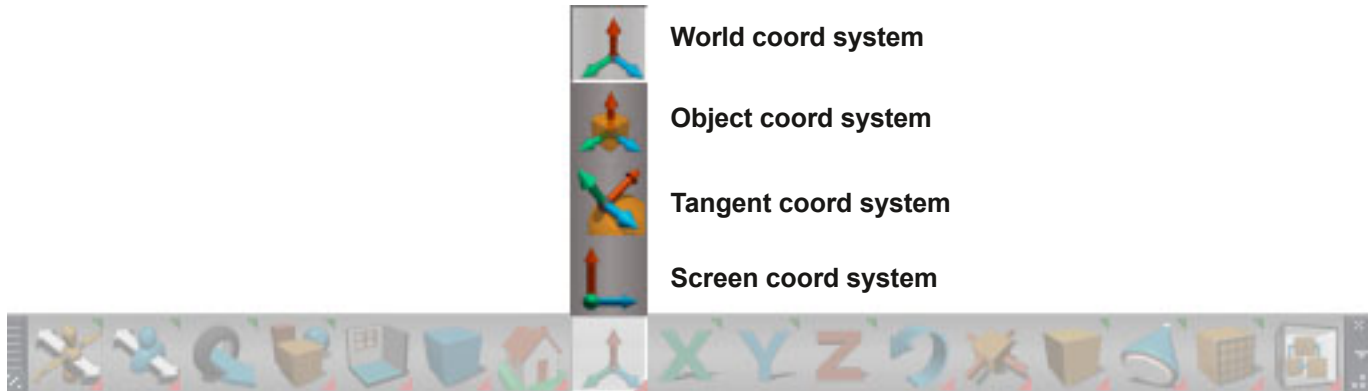
Info panel

Key	Description
CTRL Z	Undo
CTRL SHIFT Z	REDO

Link Editor

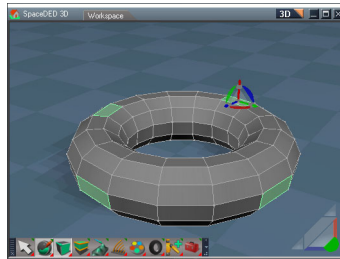
Key	Description
DELETE	Delete selected node
CTRL	Undo
CTRL SHIFT Z	Redo
CTRL Drag	Copy selected object
LEFT	Select Previous object
RIGHT	Select Next object
DOWN	Select first Child
UP	Select Parent
CTRL SHIFT LEFT	Select Previous & Center
CTRL SHIFT RIGHT	Select Next & Center
HOME	Current scene in Link Editor
NUM KEYS	
9	Maximize & Arrange All
3	Minimize & Arrange All
5	Center All
1	Zoom All
*	Iconize All
-	Minimize All
+	Maximize All
/	Arrange All
Mouse buttons	
RMB	Zoom ALL/Move to Top Left
RMB + Drag	Zoom In/Out
MMB	Center selection
MMB + Drag	Move
CTRL + MMB	Up one level
MMW	Scroll Up and Down

2.5.1 Using Widgets

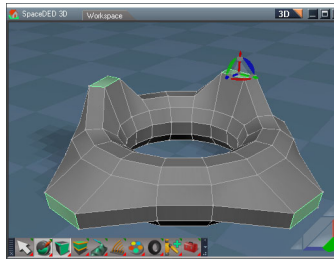




Tangent Coordinate System is useful for point edit modeling. The object navigation widget in tangent mode behaves the same as in world coord mode.
The tangent Coordinate system is not documented in the original manual.



Before move



After move

When 2 or more unconnected elements are selected the widget will be centered on one of the elements and each of the elements will move as if they each have an individual widget with the z handle aligned with the normal direction of the element and that moves with the visible widget. The elements will each move, rotate and scale individually instead of from a shared central location.

When 2 or more meshes are in point edit mode together and the selection has elements from two or more of the meshes, the rotation and scale will be centered on the widget and the elements do not move as individuals.

When a single edge or point is selected the tangent coordinate behaves the same as the object coord system.

When a single face is selected it behaves almost identically to the object coord. At some angles the widget will be slightly rotated on the z axis.

If 2 adjacent elements are selected the tangent widget is the same as object widget. This includes two points joined by an invisible triangle edge.

The object navigation widget will line up with the first selected object when in object coord mode.

2.6 Info Panel

math expressions can be used in the numeric input fields:

$+$, $-$, $*$, $/$, $\sin$, $\cos$, $\arcsin$, $\arccos$, $\ln$, $\log$, $\exp$, $\sqrt{}$, π

2.7 3D View – Workspace

2.7.1 Object Navigation Tools



Object Move RMB to exit tool.



Object Rotate RMB to exit tool.



Object Scale RMB to exit tool.



Object Look At



Object UnLook At

To use UnLook At, select the object that is to be freed then click the button to remove the Look At constraint.



will clear undo history

2.7.2 View Navigation Tools



Unofficial Update Bottom Toolbar



Unofficial Update Stack Toolbar



First Person Navigation

Camera Move

Camera Rotate

Camera FOV

Rectangle Zoom



Look At Selection



Reset View



Camera Move RMB to exit tool



Camera Rotate RMB to exit tool



Camera FOV RMB to exit tool

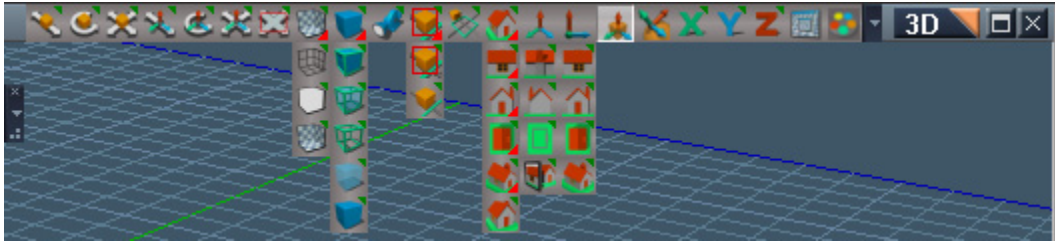


Look At Selection RMB select and look at next object.



Zoom To Selection Left-Click = Zoom to Selection / Right Click = Zoom to next object

3D Mini Toolbar



Unofficial Update 3D Mini Toolbar



Perspective View



Isometric

Perspective and Isometric include a RMB action to rotate the view in 90 degree increments.



RMB will clear undo history

dont see any reason for this



Open New 3D View



Open Material Editor



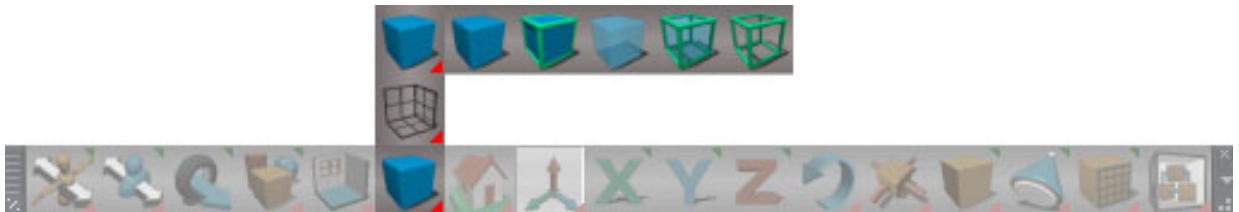
Set Camera RMB switch to perspective view.



Zoom To Selection RMB reset view.

2.7.4 Render Preferences Presets

With this icon group you can set the real-time render modes.



Render Preferences Presets



Unofficial Update Render Preferences Presets

All the buttons in the render preferences and ground display preferences change the active 3D window.

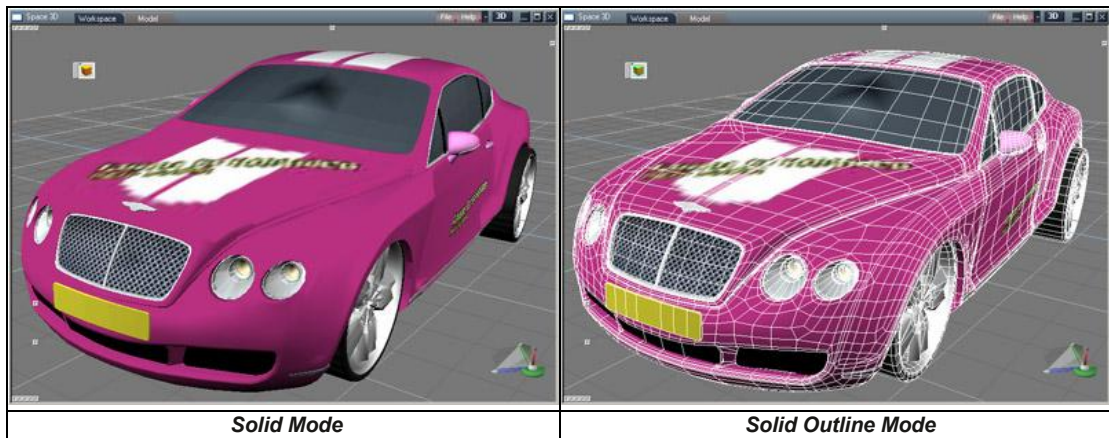
RMB will change all 3D windows.

Draw as Solid

trueSpace will render all objects in your scene as completely opaque, shaded, and preview rendered.

Draw as Solid Outline

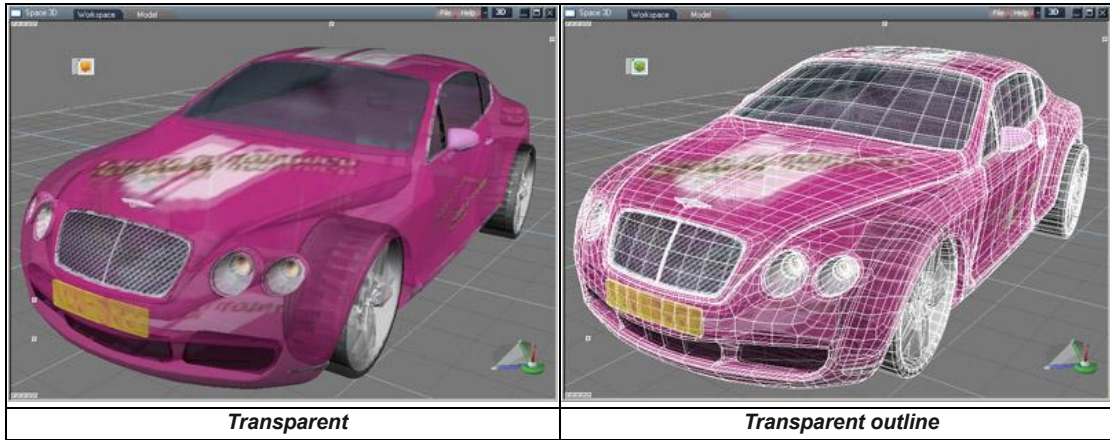
trueSpace will render the objects just as in solid mode and also outline the edges and vertices of the objects.

**Draw as Transparent**

This will allow you to partially see through objects.

Draw Transparent Outline

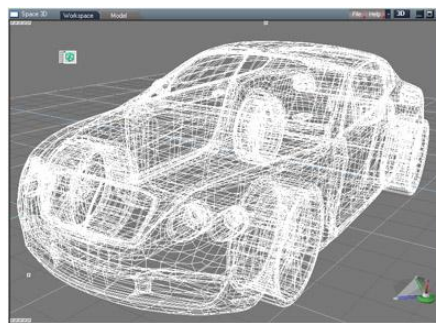
This is similar to Draw as Transparent, with the added function of highlighting all vertices and edges.



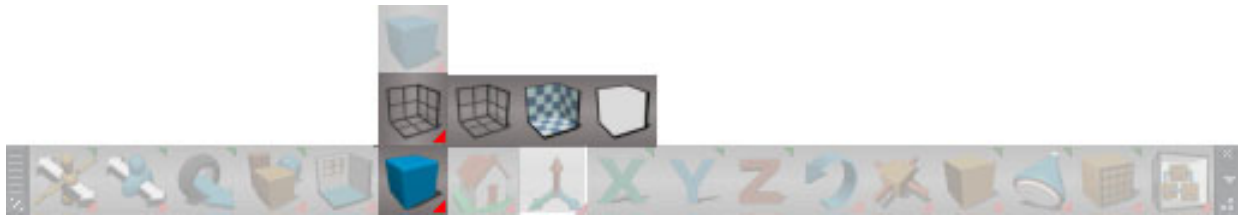
Draw as Wireframe



This will not give you a preview render of what your object will look like in the final render, but it will speed up navigation in the interface because there is less information on screen for the video card to update.



Wireframe



Ground Display Mode



Unofficial Update Ground Display Mode



Ground Solid



Ground None



Ground Wire

The Render Preferences Ground settings also has a **TwoSided** ground which is the same as solid but with a visible bottom surface.

All the buttons in the render preferences and ground display preferences change the active 3D window.
RMB will change all 3D windows.



Show Selected



Hide Selected



Show Cameras and Lights show all cameras and lights



Hide Cameras and Lights hide all cameras and lights



Show All



Hide All

RClick on the buttons opens the object render attributes panel for the first selected object.

To isolate the selected objects Hide All then Show Selected. There is no isolate selected icon button. The link editor mini toolbar has a button, "H", that has that function.



Background shortcuts

Period + LB Drag - Hide Unselected (Isolate Selected)

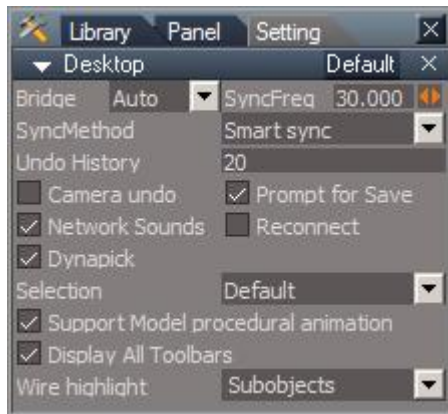
Comma + LB Drag - Shows All

[More Information](#)

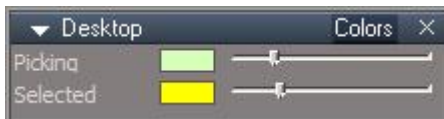


Show All, Hide All, Hide and Show Cameras and Lights can eat up many undo steps

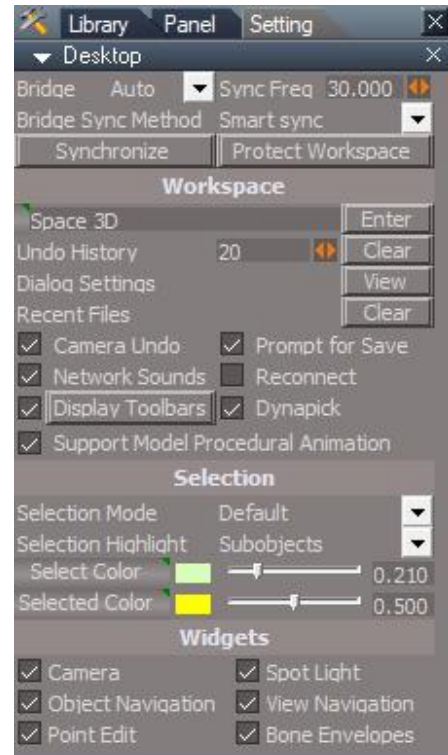
2.7.6 Desktop Preferences



Desktop Default



Colors Aspect.



Unofficial Desktop Combined Default

Synchronize - open the Synchronize panel.

Protect Workspace - open the Protect Workspace panel

Scene naming - small button LMB copies the scene name into the text input field, RMB sets the text input field to "Space 3D",

Enter - rename the scene based on the text input field.

Clear – clear undo history

View - open the dialog settings panel

Clear – clear recent files list

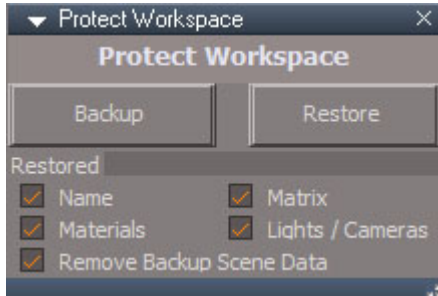
Display Toolbars button and checkbox – uncheck to only show the 3D toolbars in the active 3D window. Press the button to restore normal behavior.

Picking Select and Selected Color reset buttons – RMB to reset, LMB no effect

Picking Select: Double click to Set the selected object wire color.

Selected: Double click to Set selected object wire color.

Protect Workspace



The Protect Workspace script saves and restores workspace attributes to protect them against modelspace changes. It protects materials, object names, matrix transforms, camera fov and spotlight angle.

Backup - save data and materials nodes to temporary stores in the scene

Restore - restore the data and material nodes

Protection Options

Name - backup object names

Materials - backup object materials

Matrix - backup object transformation values

Lights/Camera - backup spotlight angle and camera fov

Remove Backup Scene Data - optionally delete the backup data when the restore is run

Usage:

Push the Backup button to backup the nodes and values

Open modelspace and do modelspace work

Close the modelspace window

Push the Restore button to retrieve the previous workspace state

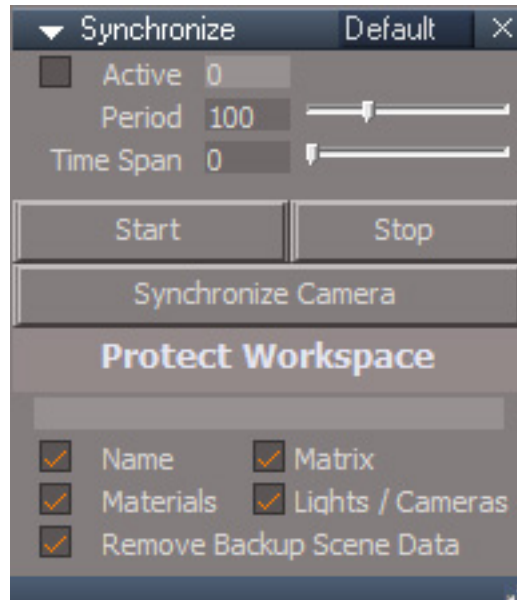


Protecting materials will destroy modelspace standalone deformations



will clear undo history during backup and restore

Synchronize - Default aspect



will clear undo history via Protect Workspace even if nothing is selected for protection

Active - indicates that the synchronize process is active

Period - controls how often the synchronization occurs

Time Span - debounce timespan which is useless for a timer controlled process

Start - opens a model view, shrinks the play range to keyframes of all the scene items, adds a SynchronizeCamera to the scene and sets the model and workspace to use the synchronize camera. The model view must not be open when pressing the start button.

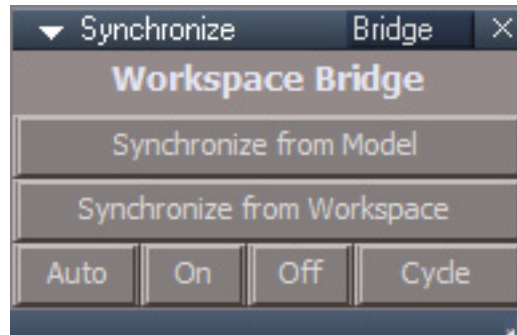
Stop - will open a dialog with a yes/no question. You must answer Yes or the process will not stop.

Synchronize Camera - adds a Synchronize camera to the scene, matches the camera to the active workspace 3D view and sets the open model view and the active workspace 3D view to use the camera.

The Protect Workspace settings section values will override the Protect Workspace node values. While the synchronize process is active.

Jump to Protect Workspace

Synchronize - Bridge aspect



Synchronize from Model is the same as turning the bridge Off then to Auto and automatically pressing the Content synchronization dialog button labelled "Sync from Model".

Synchronize from Workspace is the same as turning the bridge Off then to Auto and automatically pressing the Content synchronization dialog button labelled "Sync from Workspace". This script also fixes a bug in the trueSpace synchronize commands that causes objects to be renamed if more than one object is selected.

Off, On, Auto sets bridge switch value using buttons instead of the desktop panel dropdown. The operation is the same as the desktop panel versions except it will not run if more than one object is selected in order to bypass the trueSpace synchronize bug.

Cycle is the same as setting the bridge switch value to Off and then Auto. This will not run if more than one object is selected.

 The trueSpace synchronize bug presents itself if more than 1 object is selected when the bridge synchronize from workspace is run. The selected objects will be renamed to include a comma and number postfix. Each time the synchronize is run the number will increment. The reason for the bug is that when more than 1 object is selected in modelspace it will create a temporary Selection group object to hold the objects. Workspace cannot see the modelspace Selection object.

This version of Synchronize will be removed from the Unofficial Updates

Put last release on website as "experimental" sync script Chapter2 User Interface| 35

One thing you might want to mention about Synchronize, it is a Camera and it is necessary to be viewing from this camera from within Workspace & Model for synchronization. Adding objects from Workspace after Activating the Synchronize camera will not be Protected

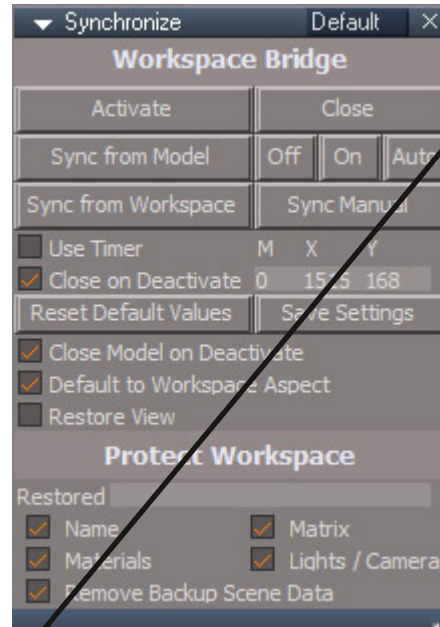
New Synchronize2 ?

wait before final update of these pages

To render workspace animations from Model all the animated items need to be selected first. Also since synchronize depends it's own camera it may be that you can only use this camera the render the animation. That's no good, this "camera" is set to disappear by default at the end of the sync, can't animate that.



Workspace aspect(default)



Default aspect(not default)

Good test shows you can change the Model view to another camera and it will still sync - verified it works. So you don't have to be viewing from the camera to synchronize as stated in red over there.

New synchronize camera button was added

Lost some notes somewhere animation from model y to file using the Animat need to turn off model a

Changes in the workspace view are not reflected in the modelspace view. You can move an object in modelspace and the same object will follow in workspace, but if you move the same object in workspace, modelspace will not follow. The Synchronize script makes modelspace follow the workspace changes. With synchronize active it is possible to render a workspace animation from inside modelspace and to combine workspace and modelspace animations into one render.

 When the Deactivate is run undo history will be erased.

 Rendering with synchronization in a floating model view may destabilize trueSpace. It is recommended to render with the main docked 3D view as the model view.

Workspace aspect

Activate will link workspace changes to modelspace. If a Model view is not open, Activate will open a new Model view. A 3D workspace view must be open before activating the synchronization.

Deactivate or **Cancel** will stop the synchronization, close the modelspace view and close the synchronize panel.

Workspace is the true default mode and runs in 100% automatic mode. Pressing any button in the Workspace Aspect will change the run time values to Workspace aspect default values. If you make changes in the Default aspect do not press any buttons in the Workspace aspect or you will lose your changes.

Default aspect

To set the Default aspect as the default behavior mode takes the following steps:

- 1.Switch to the Default aspect
- 2.Uncheck Default to Workspace
- 3.Press the Save Settings button to make the change permanent

To make workspace the default check Default to Workspace and press Save Settings to make permanent.

Activate will open a new 3D view or use an existing 3D view, convert it to a modelspace view and modelspace will become aware of workspace changes.

Deactivate will stop the synchronization, close the modelspace view and close the synchronize panel.

Close will close the synchronize panel.

Sync from Model is the same as turning the bridge Off then to Auto and automatically pressing the Content synchronization dialog button labelled "Sync from Model".

Sync from Workspace is the same as turning the bridge Off then to Auto and automatically pressing the Content synchronization dialog button labelled "Sync from Workspace".

Off, On, Auto sets bridge switch value using buttons instead of the desktop panel dropdown .

Sync Manual is the same as setting the bridge switch value to Off and then Auto .

Use Timer is for synchronizing workspace physics and procedural animations.

Close on Deactivate when checked will close the panel after the Deactivate button is pressed. The tool can be run more than once if this option is turned off.

Reset Default Values sets all controls to the Workspace aspect(default) automatic run values. It also resets it's internal camera parameters. ⓘ *This will clear the undo history.*

Save Settings saves the settings used in the default aspect.

Close Model on Deactivate when checked will close the modelspace view after the Deactivate button is pressed. The tool will not close an open modelspace view if this option is turned off.

Default to Workspace Aspect when checked will make the workspace panel the default.

Restore View when checked will restore the workspace 3D view to the state it had before synchronization.

Workspace copy, erase, undo and redo are missing from the workspace portion of the original manual.



2.7.6a Copy and Erase



Copy LMB creates a copy of the selected object(s) and arrange the new nodes in the link editor.
RMB old behavior of only copy the first selected item



LMB will clear the undo history. uu4clinton - not worth losing undo just for neat le arrangement



Erase LMB will erase the currently selected object(s) and compensates for NURBS objects. It also formally deselects to fix a ghost selection bug (tS thinks the objects still exist).
RMB old behavior, no compensation for NURBS objects or ghost selection fix

2.7.6b Undo and Redo



Undo



Redo

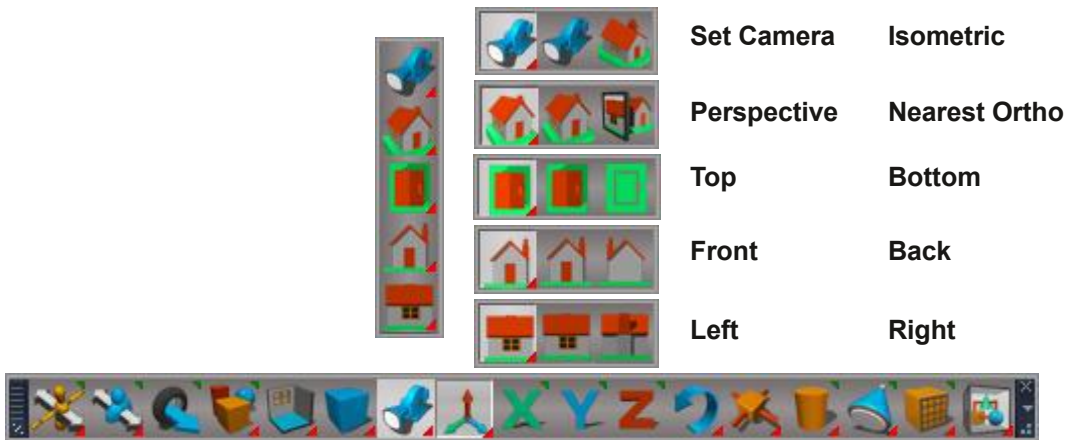
The Undo tool (CTRL+Z keyboard shortcut) reverses the last operation performed on an object. This makes it easy to try things out in trueSpace and quickly undo something that did not work out the way you planned.

If you Undo something and then change your mind, you can use the Redo icon.

Each of these tools can store multiple levels of actions. If you wish to undo the last 4 actions you performed on your object, selecting Undo 4 times will bring you back to where you were prior to those actions. If you wish to redo the changes you just made, 4 clicks on the Redo icon will restore all the changes.

2.7.7 Perspective and Orthogonal Views

You can switch the view type from perspective projection to special orthogonal projections like top-view and front-view by clicking on the appropriate icons on the Workspace tool bar.



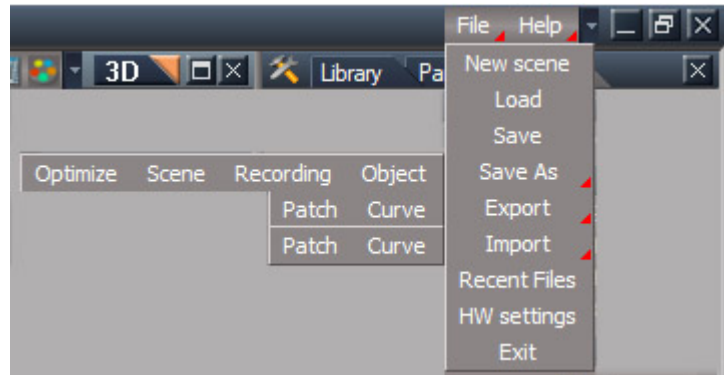
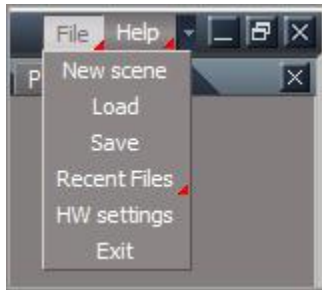
Switching the view to a different type



Unofficial Update Bottom Toolbar

In the Unofficial Update the camera view is separate from the other views.

2.7.9 Workspace File and Help Menu



Unofficial Update File Menu

Save As > Optimize

Opens the Optimize Wokspace Scene panel used to clean the scene before saving as a recording file.

Model Attributes - setup to remove connectors added to the scene and scene objects from modelspace, also setup to remove Layer Info and PhotoRender nodes from the scene.

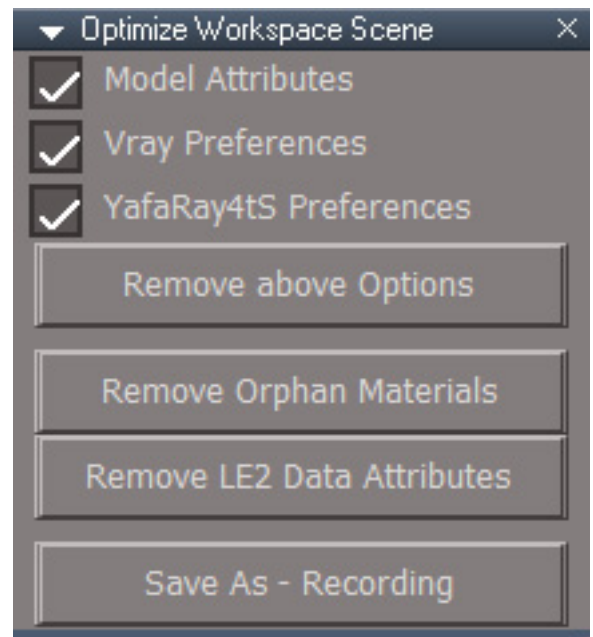
Vray Preferences - setup to remove Vray and PhotoRender nodes from the scene. Safe to use if you did not use Vray rendering for your scene.

YafaRay4tS Preferences - setup to remove the YafaRay4tS node from the scene. Safe to use if you did not use YafaRay rendering for your scene.

Remove above Options - executes the removal setup in the previous checkboxes

Remove Orphan Materials - If a mesh has multiple materials applied to it and the Separate Selection tool is used all the materials are copied which can result in orphan material nodes and connections.

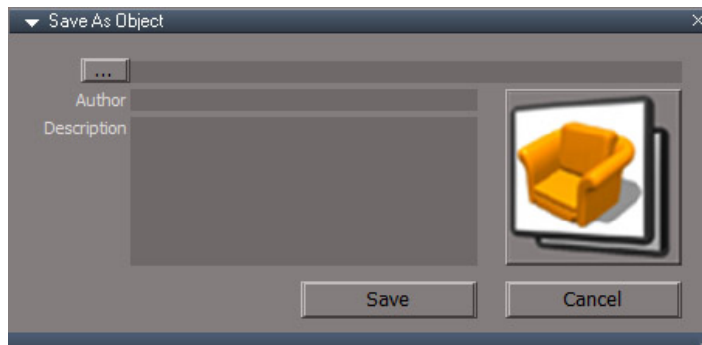
Remove LE2 Data Attributes - some scene items seem to have excessive numbers of LE2 Data connectors.



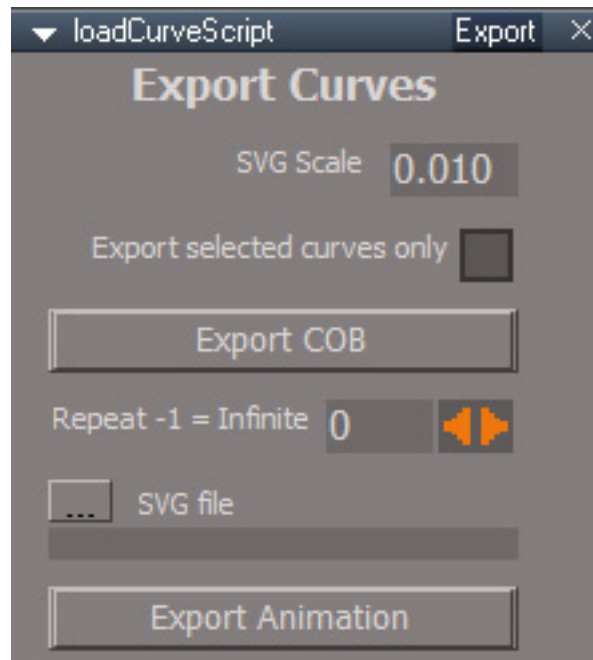
Save As - Recording - save the scene as an RsRcd file type. This has all the same information as a scene file but takes up much less file space

Save As > Scene file save as dialog with RsScn file extension as the only choice. More direct and convenient than using Save.

Save As > Recording save the scene as an RsRcd file. This format has a smaller file size than the default RsScn file format without any apparent loss of data.



Save As > Object save object file, RsObj, with extra information
... button to choose a file name
Author and **Description** optional information to add to the file
Save button to write the file to disc



Export > Curve

SVG Scale - default of 0.01 corresponds to 1cm in trueSpace translates to 1pixel in the svg file

Export selected curves only - don't export a curve unless it is part of the selection. All curves in the scene will export when unchecked.

Export COB - save in truespace modelside compatible ascii format(COB). Only curves will be exported.

Repeat - how many times to play the animation in the html file. A value of -1 means infinite repeats.

SVG file - input file to use when generating the sample html file

Export Animation - save html and CSS animation files to be used with the SVG file. Saves translation, rotation, scale and opacity(transparency) animations. Only animated items will export.

Open the html file to see the animation in a browser. The html file will have the same name as the css file created.

Import > Curve

Load curves from trueSpace scn and cob files generated from the modelside or earlier truespace versions. It also reads bezier curves from turbocad dxf files and svg format files. Most of the import options are for svg format files.

SVG Scale - default of 0.01 corresponds to 1cm in trueSpace translates to 1pixel in the svg file

Z Offset - each curve will be offset in the z direction by this amount

Import svg ellipse as polygon - imports ellipses or circles and converts them polygon meshes

Import svg line as polygon - lines and polylines imported as triangles each with only 1 edge visible

Import svg path as polygon - import curves and convert them to polygon meshes

Import svg rectangle as polygon - import rectangles as curves and convert them to polygon meshes

Close svg curve with a line - add a line from the end to the beginning of closed curves - option is only valid with non-polygon import

Seperate svg sub-paths - splits compound paths into distinct curves

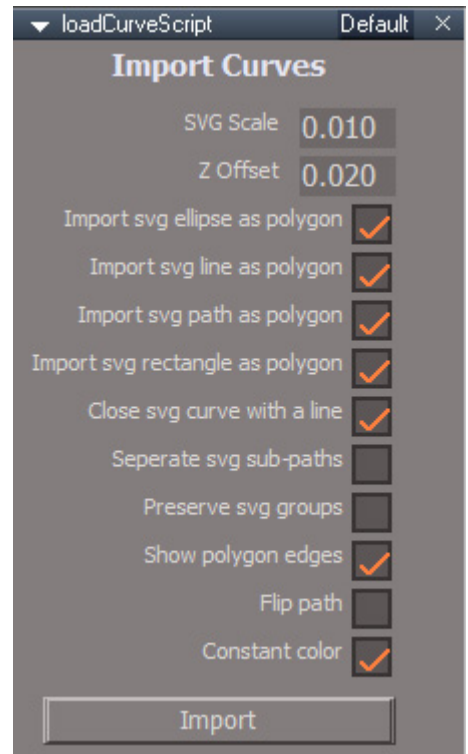
Preserve svg groups - if unchecked will ignore groups that have no transform values

Show polygon edges - items converted to polygon meshes will have edge visibility turned on

Flip path - reverses the direction of the curve resulting in a flipped normal for the polygons. not very useful since curves can go either way

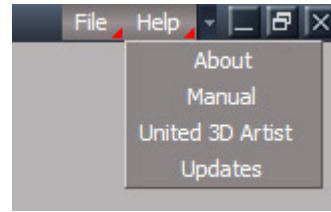
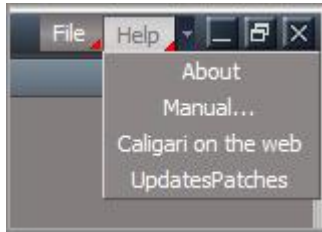
Constant color - use a constant color material for curves imported as polygons

Import - press to load a curve file.



Export > Patch save a NURBS patch as an ascii format cob file, the first selected object will export.

Import > Patch load a trueSpace cob ascii format file that contains NURBS patches



Unofficial Update Help Menu

Help: About

This displays the trueSpace splash screen with the programming credits, the version information, and the display mode in which trueSpace is running. The Unofficial Update version first shows a popup dialog with version information.

Help: Manual

This will take you to the contents page of the PDF version of the manual you are reading now.

Help: United 3D Artist

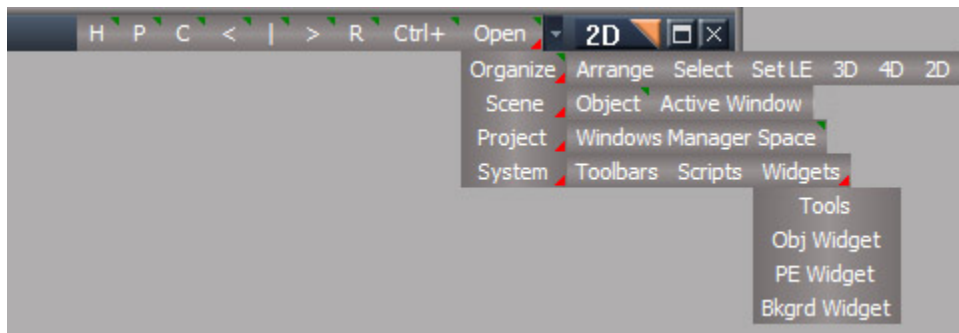
Open a web browser to the United3DArtists forum.

Help: Updates

Open a web browser to the United3DArtists trueSpace Unofficial Updates sub forum.

2.8 2D View – Link Editor

2.8.1 Link Editor Description



Unofficial Update Link Editor Mini Toolbar

Mini Toolbar

H : (3D View) LMB hide unselected, RMB show all

P : LMB select parent(owner) node, RMB open selected node in the link editor

C : LMB select first renderable child node, RMB open selected node in the link editor

< : LMB select previous renderable sibling node, RMB open selected node in the link editor

| : LMB center the selected node in the view, RMB select next renderable sibling node in the link editor and center it

> : LMB select next renderable sibling node, RMB open selected node in the link editor

R : (3D View) LMB start rectangle select tool, RMB open options panel

Ctrl+ : LMB simulate ctrl button press and hold, LMB again to end ctrl button behavior, RMB deselect

Open : RMB open the link editor to the scene

Organize : LMB minimize nodes and arrange, RMB maximize nodes and arrange

Arrange :

Select : open the Select and Alphabetize panel (see next page)

Set LE : set the currently active link editor window as the window to receive link editor commands



will clear the undo history.

3D : switch active window to a 3D aspect

4D : switch active window to a 4D animation aspect

2D : switch active window to a 2D link editor aspect

Scene : open link editor to the scene

Object : open link editor to the selected object

Active Window : open link editor to the active window

Project : open link editor to the project

Windows Manager Space : open link editor to the windows manager space

System : open link editor to the top level root

Toolbars : open link editor to the toolbar prototypes encapsulator

Scripts : open link editor to the scripts

Widgets : open link editor to the active widgets

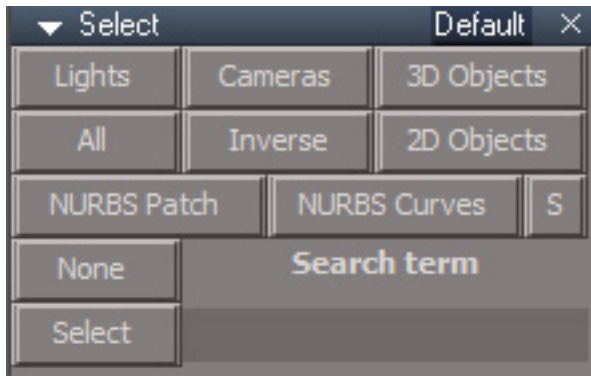
Tools : open link editor to the widgets tools

Obj Widget : open link editor to the object navigation widget

PE Widget : open link editor to the point edit navigation widget

Bkgrd Widget : open link editor to the background widget

Select



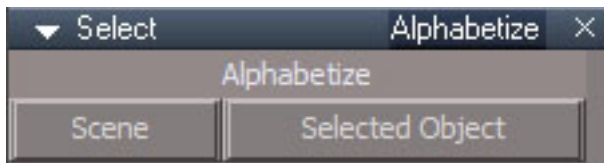
Default aspect

Select items based on their common characteristics.

By object type: Lights, Cameras, 3D Objects, 2D Objects, NURBS Patches and Curves.

Modify selection: All, None, Inverse. S=NURBS control point mesh.

Name matching: Enter a search term in the text input field and press the Select button. The search is case insensitive and the search term will be found at the start, end or in the middle of the object name..



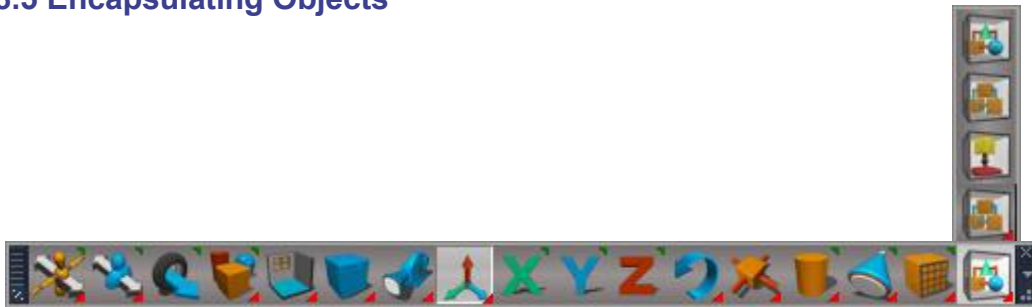
Alphabetize aspect

Place the objects in alphabetical order by a delete and restore process.

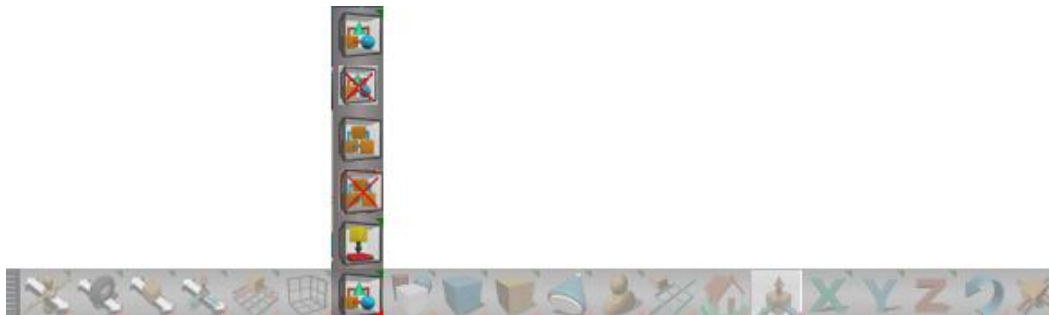
Scene : Alphabetize the scene.

Selected Object : Alphabetize the nodes inside the selected object.

2.8.5 Encapsulating Objects



Bottom Toolbar



Unofficial Update Bottom Toolbar



Encapsulate Objects



Unencapsulate Objects

The Unencapsulate tool, breaks a group apart.



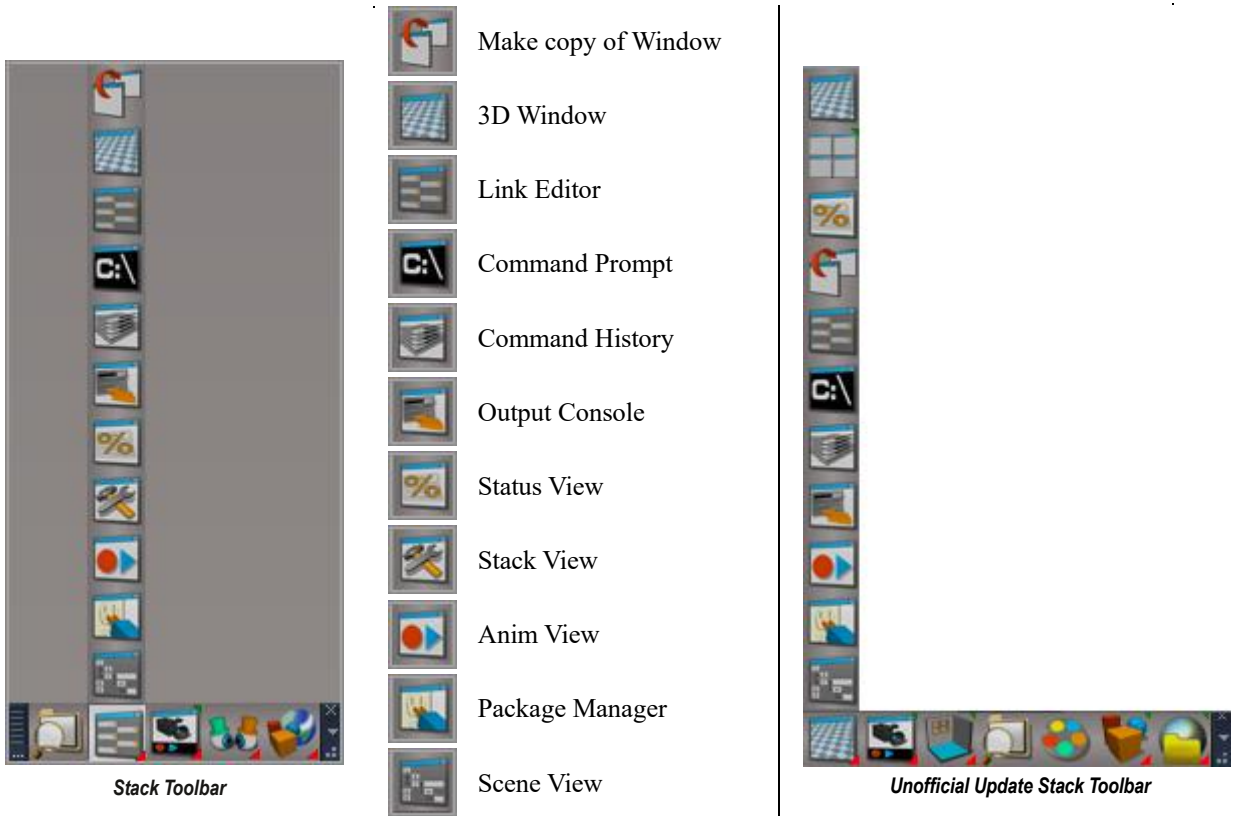
Encapsulate in 3D



Unencapsulate in 3D

The UnEncapsulate In 3D tool breaks a group apart and cleans up extra nodes that were used by the 3D group.

2.12 Other Views



Stack View - (bug) will close the stack view, not open it. The stack view can be reopened by layout change or reset default context.
This button has been removed from the Unofficial Updates.



Make copy of Window - LMB runs original command and then cleans up the result
 RMB original command



LMB will clear the undo history when run on 3D and 2D windows.



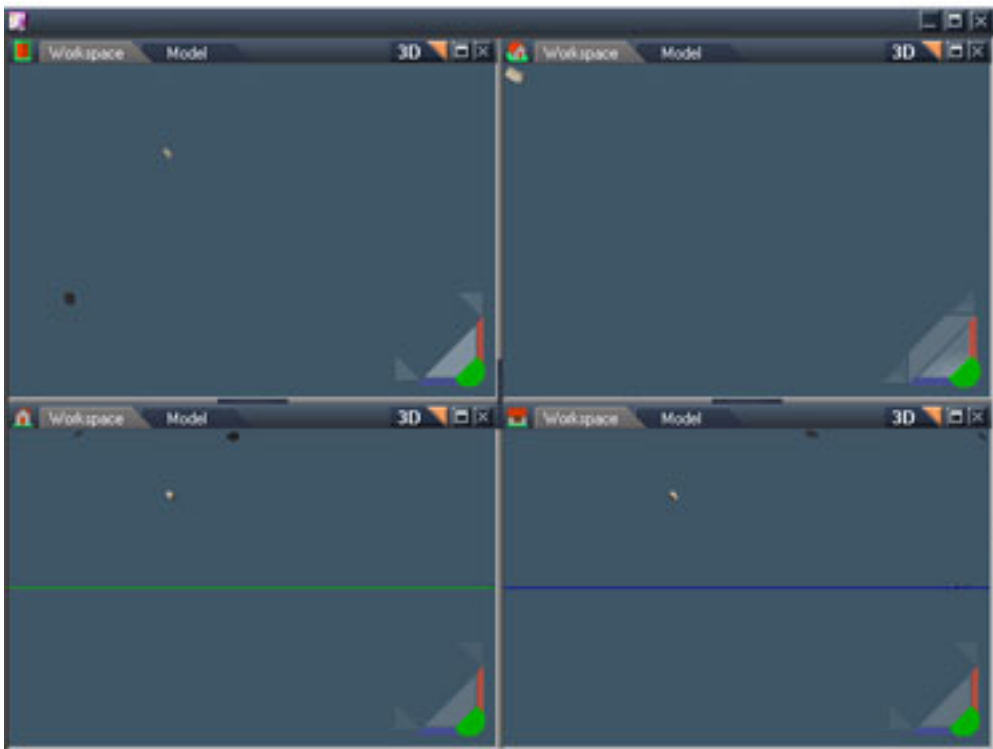
3D Window - RMB - original command plus adds Scene & Postprocess nodes



Link Editor - RMB - original command plus adds Link Editor toolbar and sets the window as the active LE window for the toolbar.



3D Window RMB and Link Editor RMB will erase undo history.



Quad Window

Opens a viewport composed of 4 3D windows in a 2 by 2 arrangement. RMB Saves Quad Window user modifications

2.13 Macro Recording and 3D Recording

2.13.1 Macro Record



Macro Record – jScript.

RMB create a blank jscript command node in the scene.



Macro Record - VBScript

RMB create a blank vbscript command node in the scene.