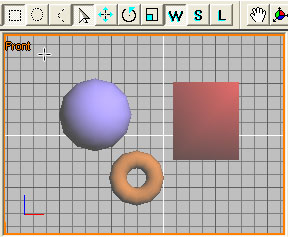
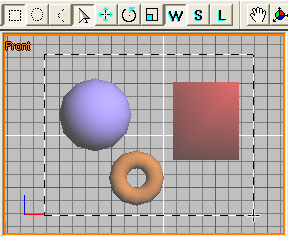
LR3D BASICS

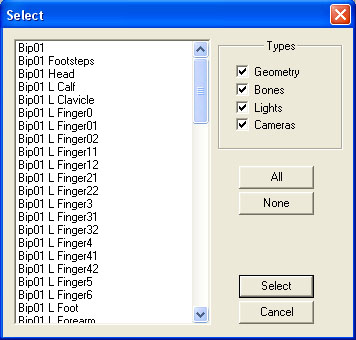
1)SELECTING,MOVE,ROTATE,SCALE,PIVOT,COORD SYSTEMS   
2)CONTROL PANEL   
3)WORKING MODES   
4)PLUGINS

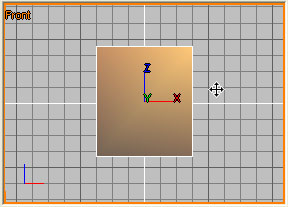
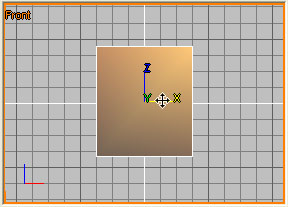
**1) SELECTING,MOVE,ROTATE,SCALE,PIVOT,COORD SYSTEMS:**

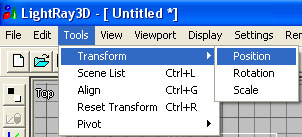
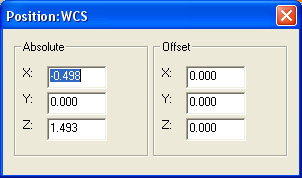
**SELECTING:**   
  
You can select single object with Select,Move,Rotate,Scale tool.Just click on object.   
For multi-selection you must use Select tool.Set the selection mode to:Rectangle,Circle,Contour.Click and drag.   
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**\*NOTE:UseÂ Ctrl to add to selection, Shift to remove from selection.Selected objects will have aÂ white bounding box.**

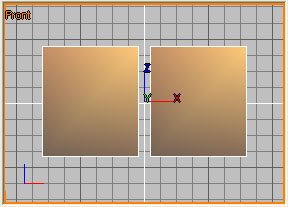
Also you can use theÂ Scene List dialog for selecting.   
bas17.jpgToolbar   
Menu

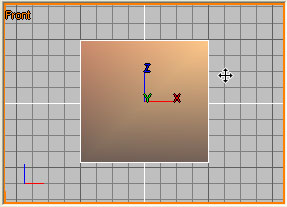
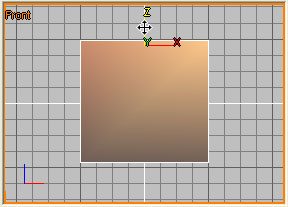
The Scene List:   
  
Â

**MOVE,ROT,SCALE:**   
In order to move,rotate,scale selected objects you should put the cursor over one of the three coloured axes.   
(Object(s) must be selected first).   
---   
When the tripod's color changes to yellow left click and drag along axis direction.

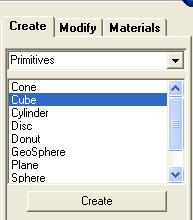
You can also use the Pos,Rot,Scale dialog toÂ numerically perform these actions.   
Go toÂ Menu->Tools->Transform and choose one of pos,rot,scale dialogs.   
OR from ToolbarÂ bas8.jpg   
TheÂ coord sys supported 'till now(v1.3.2) is WORLD(see coord systems below).You can setÂ absolute values and offset.   
  
Once you have altered a value click inside another edit box control in the dialog or press Enter to apply the changes.The object(s) and views will be updated too.

**PIVOT:**   
The tripod is placed at the xyz origin(0,0,0) of the object's LOCAL coord system.

If multiple objects selected the origin will be placed to the center of all.

Usually, objects created inside LR3D(not those imported) are centered to 0,0,0.If you need to move the local origin(pivot) you can do it by pressing the toolbar button "Lock geometry".bas13.jpg   
Now, Move,Rot,Scale will operate only on the pivot(tripod).   
---   
Press again the button when finished.NOTE:Pivoting applies to mesh,shape only.

**COORD SYSTEMS:**   
Use the toolbar buttons W,S,L to change the coord system that Pos,Rot,Scale operate.   
W(world): axes will always be aligned to scene's x,y,z axes(like grid).bas5.jpg   
S(screen): axes will be aligned to screen even if viewport is rotated.bas6.jpg   
L(local): axes will be aligned to object's orientation(rotation).bas7.jpg   
(Local will work for single selection only)   
Expiriment a bit and you'll understand how to use coords.

**2) CONTROL PANEL:**   
If you've been working with 3DSMax, you'll find LR3D's user interface easy to understand.The control panel consists of three tab dialogs: CREATE-MODIFY-MATERIALS.From there you'll have control over different objects in scene,create new ones and assign materials to them.   


**CREATE:** You select the object you want to create, press the 'Create' button and then click-drag in views to create new objects.Objects' size and other properties can be altered ONLY while in Create mode.   
**PLUGINS-SDK NOTE:** Plugins that create objects will be listed in this tab dialog's object list.

**MODIFY:** You select the object(s) you want to modify or edit their properties/elements, and go to 'Modify Tab Dialog'.A new child dialog will be there if only one object is selected.To have all dialog's controls viewable click-drag on dialog when the cursor image changes into a wide open hand.You cannot edit if more than one objects are selected.If a modifier plugin can be applied to the object(s) -usually meshes- the 'Modify' button will be enabled.If enabled and you want to modify, press this button and another child dialog will appear.Set/alter this dialog's values and press the 'Apply' button.Watch the objects.Are you satisfied with the modification? If you are just press again the 'Modify' button to move out of this modifier.If you're not go to Menu->Edit->Undo OR the toolbar's Undo button and the object(s) will be restored.Set/alter the values again and press 'Apply'.   
**PLUGINS-SDK NOTE:** Plugins that modify objects -i.e. Skew,Bend etc.- will be listed in this tab dialog's object list.

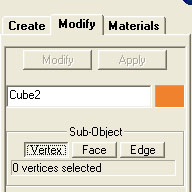
**MATERIALS:** From here you can load images,set materials' ambient,diffuse,specular etc. values and assign them to objects.You select the object(s) you want to set material to andÂ  press the 'Assign' button(the green V one).The red X button will reset the material.The 'X on a sphere' button will reset the object's material.   
**NOTE 1:** You can copy materials by right clicking in one slot and dragging it into another slot.Kinda grabbing it and placing it.   
Also you can right click in one slot(the destination one) and a dialog will pop-up listing all other materials.Choose the source one and press 'Copy'.This way is better because there are only four slots and dragging between materials slots is not always possible.   
**NOTE 2:** MeshÂ faces can have different materials assigned.Having a mesh selected go to 'Modify' tab dialog.Press 'Face' to get into sub-object editing state.Now you can select the faces you want.Go to 'Materials' and set the material.

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**3) WORKING MODES:**

TOOLBAR BUTTONS: Move,Rotate,Scale etc.   
bas16.jpg

OBJECTS' EDIT DIALOGS(Modify): You're into a working mode when the button you press stays pressed and expects you perform an action.For instance when you press 'Assign To Bone' button in 'EditSkin' you must select a bone via SceneList or by clicking on one.Trying to scale won't have any effect.Getting out of this working mode needs pressing the button again.   


SUB-OBJECT MODES(Elements): Some objects' -i.e.meshes,shapes- elements such as vertices/points,faces,edges can be edited.Only one object must be selected for editing its elements.The dialog appears in the 'Modify' tab dialog.Press the button of the elements type you want to edit(i.e. Verts/Faces/Edges).The button stays pressed.Now all your actions(select,move,rotate,scale etc.) will affect the elements not the object.   


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**4) PLUGINS:**

**Plugins are loaded and found in:**   
Create Tab Dialog: Plugins that create objects will be listed in this tab dialog's object list.   
Modify Tab Dialog: Plugins that modify objects will be listed in this tab dialog's object list.   
Menu->Import/Export: Plugins that import/export will be listed in the dialog's 'File Types' drop down list(file description/extension).

**GENERAL**   
Plugins are seperated in STD and USER ones.The STD are those developed by the author and ship with the distribution of LR3D.The USER are third-party ones or those the author developed after a version released.You must put them into the correct folders in order to work.Folders:"StdPlugs" and "Plugs".Also some of them come with a Readme file.PLEASE read these files because they include useful information.IfÂ  loading a plugin fails a dialog will pop up to inform you.Plugins can have many classes doing different things.This meens a plugin can import and also export in one dll.Kinda having two or more plugins in one dll.   
Here's a list of errors and their explanation:

Notes:   
??? stands for the plug's name.   
If a user plugin is installed in stdplugs folder won't be loaded.

Message:   
Can't load library - ???.dll   
Explanation:   
A handle to the plugin couldn't be obtained.File I/O error.This may not be a valid dll file.RARE case.

Message:   
???.dll - Invalid classtype.Not Loading Class.   
Explanation:   
a)If the plugin exists in 'Plugs' folder move it in 'StdPlugs' folder.It's a std type.   
b)Unknown plugin class.Valid classtypes: Create plugin,Modify plugin,Imp/Exp plugin.The developer of the plugin is responsible for this.

Message:   
???.dll - Invalid library.Can't find hook funcs.Not loading.   
Explanation:   
The developer of this plugin hasn't included some basic functions needed by the application to load the dll.

Message:   
???.dll - Library contains obsolete class.Not Loading Class.   
OR   
Obsolete library.Not Loading.   
Explanation:   
This plugin or plugin's class is developed for previous LR3D versions.

Message:   
???.dll - Library contains newer class.Not Loading Class.   
OR   
Newer library.Not Loading.   
Explanation:   
This plugin or plugin's class is developed for a newer LR3D version.  
  
Prometheus