

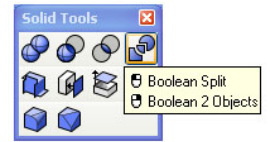
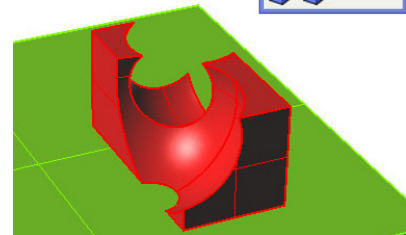
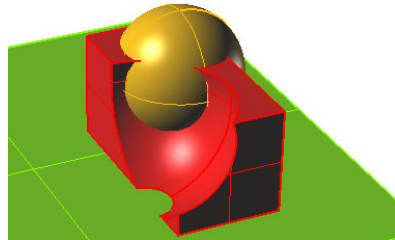
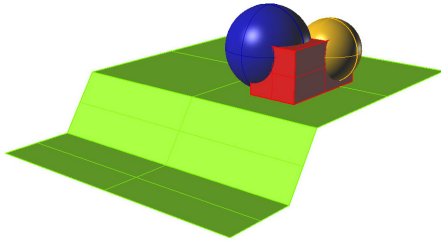
# Tutorial: Rhino to Illustrator

Alar 501\_Summer 08

based on an exercise created by Jeana Ripple

## Open Rhinoceros

1. Open the Rhino model located at G:\Alar501-SM08\examples\rhino\Double-Negative.3dm.
2. Use the *Boolean2Objects* command to subtract the spheres from the box, one at a time.
  - left-click to iterate through results (ultimately choosing Boolean Difference)



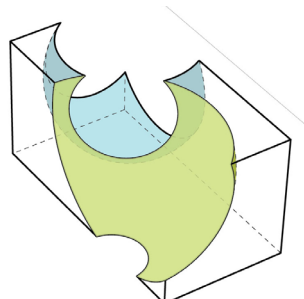
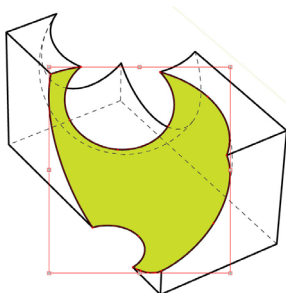
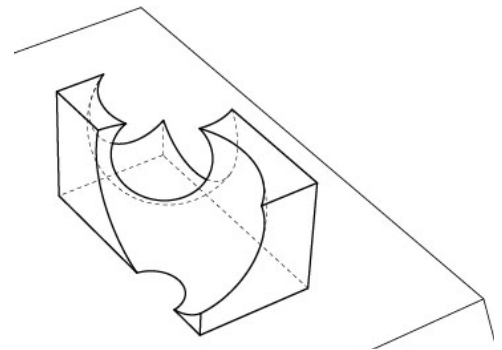
3. Adjust the perspective view so the model reads clearly and the entire ground plane fits in the viewport.

- set view > named views
  - save: “bird’s eye” > OK > Close
4. Make a hidden line drawing of your birds eye view
    - make the “birds eye” viewport active
    - curve from object > *Make2D*
    - make sure that “render hidden lines” and “maintain source layers” are checked
    - after the 2D drawing is generated, switch to the top view.
  5. Export the 2D linework
    - switch to the top view and select the linework (it should automatically be selected).
    - File > Export Selected > save as type: Adobe Illustrator (.ai)
    - Illustrator Export Options > Snapshot of current view



## Open Adobe Illustrator

1. Open the .AI file you just created
2. Turn on the “Layers” palette
  - Window > Layers
3. Scale the drawing to fit the Illustrator artboard
  - Select > All; right click > Transform > Uniform Scale 150%
4. Change the lineweight and linetype of each layer of linework
  - Click on circle to right of layer name to select all line-work on layer
  - Stroke > adjust line-weights; click on ▾ icon (Show Options)
  - For a dashed line, enter in pt value for dashes and spaces
5. Use Live Paint to color in the “cut” surfaces of the volume.
  - select each line (if selection contains multiple lines, right-click and choose “Ungroup”) around the area you want to shade;
  - choose Live Paint icon in the tools palette, and click within the selected lines. A bold red line should outline the area to be painted.
  - choose fill color in the tools palette and click to paint.
  - to make Live Paint areas transparent, select one or more and click “Expand” in the top toolbar. Right-click and choose “Ungroup”, then click outside of the selection area to deselect. Select the shaded area and adjust the opacity via the toolbar.



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## 6. Add text.

- procedure is similar to Photoshop; draw a text box, type the text, set font, size, etc via the Type palette or on the top toolbar.

## 7. Add additional linework.

- to add arrows, draw a line using the Line tool or the Pen tool. Select the line, then choose “Effect” (top toolbar) > Stylize (under Illustrator Effects) > “Add Arrowheads”
- to alter the scale of the arrowhead after the operation, choose “Window” (top toolbar) > Appearance, then double-click on “Add Arrowheads” and adjust accordingly.

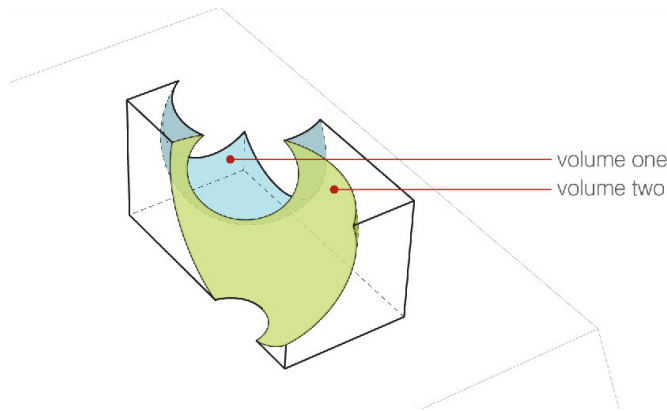
## 8. Place a raster image on the artboard.

- File > Place > choose raster file

## 9. Make a clipping mask for the raster image.

- draw desired shape (rectangle or custom shape, made using the pen tool), hold shift, and select both the shape and the image; right-click and select “Make Clipping Mask.” This retains the original image dimensions.

\* Alternately, skip steps 8-9, and save your Illustrator file as a PDF (to maintain a transparent background) and add rasters in Photoshop.



## Open Adobe Photoshop

1. Open the PDF file you just created.
  - in the “Crop To” dialogue, select “media box.”
  - set the resolution to 300 dpi,
2. Open G:\Alar501-SM08\examples\rhino\grass.jpg, and drag the image into your PDF file.
3. Use the transform controls to size the grass image to the size of your diagram.
4. Create a cropping selection area.
  - make the layer of your diagram current
  - use the magic wand to select the ground plane
  - under the “select” pulldown menu, select “inverse”
5. Crop the grass image to the ground plane.
  - make the grass image layer current
  - hit the delete key to remove the unwanted portions of the image
6. Manipulate the ground plane image

