

## **LinkMotion and Rhino4.0Beta:**

**Install LinkMotion driver software, check all settings, and finally launch Rhino application.**

### **Important notes:**

**Zero or thinnest line width and No fill are the most important things to remember when you are designing a file for Vector or line output. Line type of output is required by rotary tool machines like engraving, routing, and CNC. Do not fill shapes with bit maps for any line or vector output. Raster or bitmap fills are used by laser machines. It is important to remove fill when you import scanned files.**

**Solustan's LinkMotion driver tests the primary function of accepting hair lines (vector lines) generated by popular application software packages for job design. It is important for the user to learn the job design software and to make sure that the jobs are properly prepared for successful execution of a job.**

**Do not check Design Using Plate Size feature in LinkMotion Material properties.**

**Solustan's liability is limited to the purchase price of the LinkMotion driver software.**

It is necessary for the user to acquire the application that will be used for the job design. There are many books of various levels available for all these popular applications. This document is simply a guideline to point the user in the right direction. We welcome feedback from our users. Share your findings with us and we will include them here for all users benefit.

Following are helpful details for a user of Rhino design software:

### **(1) How to do basic setup in Rhino?**

Launch **Rhino 4.0** application.

Go to the **File menu** and select **New**.

Now you will see a window that will have different units to select from. Since Link Motion Supports **Inch, mm and cm** it is necessary to select from those three.

Now you will see four sections with title **Top, Perspective, Front and Right**. Simply double click on the **Top** and you should see an enlarged view of the top area.

Select the **Zoom Dynamic Tool**. Bring this tool inside the **red and green line area**. Click on the left mouse button and drag the mouse to see your approximate table size on the screen. Select the **Pan(Looks like Hand) tool**. Bring this tool inside the red and green line area and it will let you drag this area with a left mouse button anywhere on the screen.

User can also setup the page by typing the word '**layout**' and **Enter key**.

You will see a dialog box name New page layout. Here Printer selection should have Your Machine name. In Size select **Table size**. Select the **margin boundary** and **Click on the Delete key** on the keyboard. Now start designing the job.

It is easier to work with Snap to be active before you start designing for specific size objects. If you wish to make this snap active simply click on the word **Snap at the bottom bar** with your arrow tool and it will become active.

Now start your design work and place it within your table size. Make sure all shapes have **0 line width**.

Simple example is to go to the **Curve menu**. Select **Rectangle and select Corner to Corner**. Enter **0,0** in the Command bar. Press Enter key. Enter Width of the page in the Command bar and press Enter key. Now enter Height of the page in the Command bar and press the Enter key. This will create your page size.

View menu has the Page Layout but it is not functional under the Beta version 4.0.

**Hatch fill** works well with LinkMotion application.

**Hide Objects and Show Objects** button work very well for sending only selected objects to the machine. Simply select an object that you do not wish to output and click on the Hide button and it should not be visible on the screen. Now it will not output that shape.

**Colors for Objects:** Select the **Object** first. Now select the **Object Properties tool**. Here select the color in the **Color** section.

Curve>Offset curve>Distance allows you to create offset for actual output for the tool you are using.

#### **Text:**

Select **Text tool** and enter your text.

Select **name of the Font** you wish to use. Any true type fonts loaded in the windows work with Rhino's software and you can output that with success.

Under **Create** select the button for **Curves** for vector output.

Select the **text height** and click on **OK**. Place this text by simply clicking where you want to place it.

Go to the **File menu** and select **Print**.

Print Setup dialog box should show up. Following settings are necessary here for LinkMotion driver.

**Destination:** Select the printer driver with **your machine name**.

**Portrait or Landscape:** Select **Portrait or Landscape** depending on your table size.

Select **number of copies** you wish to output.

**Output Color:** Print Color, Display Color, Black and White

**Print Color:** If you check this button and your design has different colors it should output at a speed declared in LinkMotion's material properties with respect to those colors.

**Display Color:** This is not effective for LinkMotion.

**Black and White:** Colors are ignored if you select this.

**Vector Output (Fast) button should be checked.**

**View and Scale:** Units, View

**Units:** Make sure correct unit is selected.

**View:** Make sure to select **Top** view in the scroll down area.

**View/Layout, Extents, Window:**

Always use **Window button**. Now click on the **rectangle Window... button**.

You will go back to your design screen and you will see a transparent gray screen of printable area (your table size). Go to **Command bar for Print Window** on top of the screen and click on **Move**.

Now you can bring your cross cursor within that transparent screen and drag it with left mouse button.

Place it to your 0,0 table size. (We place it where the red and the green line meet at the bottom left)

You can make your printable area where you wish on the screen.

**Scale:** In the scroll down menu select **1:1**. All other settings are not important for LinkMotion.

It is important to check that **Default Line Width is 0.0**

**Margins and Position:** In the scroll down menu select **Margins**. Make sure that **0.0** is selected for all four margins position - **Top, Left, Bottom, and Right**.

Remaining default settings work with LinkMotion.

Now click on the **Print button** and it should output your design file.

Print by Layers does not seem to be supported in this version.

You do not have the control over the order of your output from this software.