

# Batch Rendering

## Using Maya's Render Command Line

*3Delight* renders can be launched using Maya's **Render** command line with the '**-r 3delight**' option. If no additional parameters are provided on the command line, rendering will occur using the *Render Settings* that is active in the render settings window when the scene was saved.

The options contained in the *Render Settings* can be overridden using the command line interface. The following command is useful to list the parameters specific to the *3Delight* for Maya plug-in:

```
Render -r 3delight -help
```

Here is a description of the available parameters (refer to [Render Settings](#) for more information about the effect of each options):

Render Settings Selection	
<b>-rendersettings</b> <string>	Specifies the name of the <i>Render Settings</i> to render with. Multiple <i>Render Settings</i> can be specified using a comma-separated list of names. Specifying <code>all</code> will sequentially render all <i>Render Settings</i> defined in the scene. Examples:  <b>-rs ?</b>
<b>ex 1:</b> Render -r 3delight -rendersettings settings1  <b>ex 2:</b> Render -r 3delight -rendersettings settings1,settings2  <b>ex 3:</b> Render -r 3delight -rendersettings all	
<b>i</b> Because this option defines which render settings will be edited by subsequent flags, it should be specified immediately after the ' <b>-r 3delight</b> ' option.	
Mode	
<b>-export</b> <string>	Export to the specified NSI file instead of rendering the images. The <string> parameter specifies the NSI filename to create.
Scene Elements (maybe remove all these options?)	
<b>-cam</b> <string> <b>not listed with -help</b>	Select <string> as the camera to be rendered.
<b>-objects</b> <string> <b>not listed with -help</b>	Set the objects set to render. Specify an empty string to render all visible objects.
<b>-lights</b> <string> <b>not listed with -help</b>	Set the lights set to render. Specify an empty string to render all visible lights.
Frame Range	
<b>-animation</b> <boolean>	Toggle the rendering of the specified frame sequence (animation) on or off.
<b>-start</b> <int> <b>-s float ?</b>	Set the first frame to render. This implicitly sets <b>-animation</b> to true.
<b>-end</b> <int> <b>-e float ?</b>	Set the last frame to render. This implicitly sets <b>-animation</b> to true.

<code>-inc &lt;int&gt;</code>	Set the frame increment. This implicitly sets <code>-animation</code> to true.
<b>Image Resolution and Crop</b>	
<code>-x &lt;int&gt;</code>	Set the X resolution of the rendered image.  <small>not listed with -help</small>
<code>-y &lt;int&gt;</code>	Set the Y resolution of the rendered image.  <small>not listed with -help</small>
<code>-par &lt;float&gt;</code>	Specify the pixel aspect ratio of the rendered image.  <small>not listed with -help</small>
<code>-crop &lt;boolean&gt;</code>	Controls if the specified crop window is used for rendering.
<code>-cropmin &lt;float&gt; &lt;float&gt;</code>	Set the top right corner position of the crop window in X and Y, respectively. This implicitly sets <code>-crop</code> to true.
<code>-cropmax &lt;float&gt; &lt;float&gt;</code>	Set the bottom left corner position of the crop window in X and Y, respectively. This implicitly sets <code>-crop</code> to true.
<b>Quality (maybe remove all these options except pixel/shading samples?)</b>	
<code>-pixelsamples &lt;int&gt;</code>	Set the number of pixel samples to use.
<code>-shadingsamples &lt;int&gt;</code>	Set the number of shading samples to use.
<code>-pixelfilter &lt;int&gt;</code>  <code>-pixelfilter &lt;string&gt; ?</code>	Set the pixel filter type. The following values are available: <ul style="list-style-type: none"><li>• '0' Gaussian filter</li><li>• '1' Mitchell filter</li><li>• '2' Catmull-rom filter</li><li>• '3' Sinc filter</li><li>• '4' Box</li><li>• '5' Triangle</li></ul>
<code>-filterwidth &lt;float&gt;</code>	Set the pixel filter width.
<code>-maxdistance &lt;float&gt;</code>  <code>-maxdistance &lt;int&gt; ?</code>	Defines the maximum distance a ray can travel.
<code>-motionblur &lt;boolean&gt;</code>  <code>-motionBlur &lt;boolean&gt; ?</code>	Toggle motion blur on or off.
<b>Additional options not yet implemented</b>	

-overrides	Enable the use of the <i>Overrides</i> options from the <i>Render Settings</i> (by default they are always ignored during batch rendering).
<b>Performance</b>	
-cpus <int>	Define the number of threads to use. The default is to use all available threads.
-texturememory <int>	Set the size of the texture memory cache, in megabytes.
-netcache <boolean> <small>maybe remove this and use netcache size instead (as in 3delight.config)</small>	Toggle the use of network cache on or off. (Use to override the setting in the <a href="#">3delight.config</a> configuration file.)
-netcachedirectory <string>	Set the network cache directory. (Use to override the setting in the <a href="#">3delight.config</a> configuration file.)
-netcachesize <int>	Set the network cache size, in gigabytes. (Use to override the setting in the <a href="#">3delight.config</a> configuration file.)
<b>Progress</b>	
-progress <boolean>	Toggle output of the rendering progress into the "shell".
<b>MEL Scripts</b>	
-prerender <string>	MEL script executed before rendering.
-postrender <string>	MEL script executed after rendering.
-preframe <string>	MEL script executed before each frame.
-postframe <string>	MEL script executed after each frame.

## Using 3Delight's **renderdl** Command Line

Offline rendering can also be launched using 3Delight's standalone renderer **renderdl** — provided the scene have been exported to a NSI File. To render a file named `file.nsi`, just type:

```
renderdl file.nsi
```

To read more about about the **renderdl** command line, refer to [Rendering NSI file](#).