C028 NGC 6791 ImagesPlus 6 workflow of Chuck Kimball's data from the DSLR_Astro_Image_Processing group.

Step 1 ArcSinH with color decompression for the initial stretch.

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First adjust the Power & BkGd. Weight sliders to the left and make sure there is no clipping.



Now set nth Power Xⁿ pre-stretch scale and adjust the Exponent slider to the right to shape the histogram.

Step 2 Flatten the image by removing the convex background automatically using Multi Scale Decomposition.



Consolidate 50 detail levels using a 151x151 Gauss using the Multi Scale Decomposition tool.



Flattened image top center with removed convex background image shown at bottom center. Close the ArcSinH stretched image with vignetting and also close the convex background image. Use the flattened image for further processing.

Step 3 Increase blue star color using the Selective Mask Tool to select blue stars then Additive Color Balance in Lab mode to increase blue.



Selective Color Mask creates a blue star mask. Check Select Hue then click on a blue star, adjust, then press Save As-Copy Mask.



Additive Color Balance in Lab mode with blue star mask is used to increase blue stars.

Step 4 Increase yellow-red star color using the Selective Mask Tool to select yellow-red stars then Additive Color Balance in Lab mode to increase yellow and red.



Selective Color Mask creates a yellow-red star mask. Check Select Hue then click on a yellow star, adjust, then press Save As-Copy Mask.



Additive Color Balance in Lab mode with yellow star mask is used to increase yellow stars.

Step 5 Histogram Contrast Stretch to lighten the image and also start to bring out the faint background clouds.



Uniform histogram contrast increase. Adjust the Brightness slider towards the right to increase brightness.





Smooth background in the luminance range [0, 7058] with feather radius 2277.

Step 7 Sharpen stars using Multi Resolution Sharpening.



Sharpen stars in the luminance range [12704, 36296] with feather radius 1169.

Step 8 Increase saturation in Lab mode.



Step 9 Use HSL saturation curve to reduce the low saturation magenta core of some of the brighter blue and yellow stars.



To select the hue choose Select Hue in the HSL mode list then Check S Range and click on the magenta core of a bright star. Adjust the saturation curve down in the low saturation towards bottom left.

Step 10 Histogram Contrast Stretch applied again to brighten stars and also the faint background cloud.



Step 11 Clone out dust mark using an image created from the background near the dust mask.



Use Clone Copy to select a region of the background without stars then set Clone Paste and click on the dust mark until it is gone. Final full scale C028 NGC 6791 image shown below.

