

How to load a picture in DS9:

Open DS9 Then select file open and select your image. Once you upload the image you should play around with all of the settings to make the picture look the best it possibly can. If it looks good, it could look even better.

What to do after you load an image: (Scale)

There are numerous tools you can use to display the picture. Most of the time when you load an image you won't really see it. You can easily fix that by finding scale. Experiment with the scales a bit until you get it just right.

What to do after you load an image: (Frame)

If you want to view more than one picture side by side, open your first image and then click Frame. If you would like to compare another picture click tile then click new for every picture you want to add. Click on the box you would like to add the picture to then go to file click open and select the image you want. It should show both pictures on the same screen. It is important to match the pictures to make sure each star is in the same position in each frame. You can match the image by using Frame (on the drop down menu), Match, then WCS that stands for World Coordinate system. It's a lot like Latitude and Longitude only it's measured RA and DEC. Another way to view the pictures is select the blink option, which will toggle the pictures from one to the other. Other buttons that may be helpful if you are using the singles mode can be found under frame are First, Previous, Next, and Last. These will also help compare pictures without so much blinking. Finally if you don't like a picture you can delete it by clicking the delete button.

What to do after you load an image: (Zoom)

Another tool found in DS9 that might help someone compare pictures is zoom. Through zoom you are able to get a better look at one specific area or the whole image. When you click on zoom you have the option of zooming it to fit, zoom 1/8, 1/4, 1/2, 1, 2, 4, and 8 or manually by clicking the negative and positive sign.

What to do after you load an image: (Color)

After you upload your image you can click the button that says color. We suggest you experiment with the color until you find one suits the image.

How to Make a Color Image in DS9

Open up SAOImage DS9 program. Click on "frame" then click "New RGB" (If needed, put the box out of the way so that you can always go right back to it when you are on your next picture.) Next, click on any color that you want from the RGB box. Click inside the DS9 box, then click "File", then "Open". You will see files of pictures for your DS9 color picture. Find "My mosaics", then click to open any photo from CG4 or SA101. (If you pick CG4 images for example, you will need to use the same pictures from the CG4 file.) Double click on the photo you choose and it will open on DS9. Once it has opened, click on "Scale", then click on "Histogram". Now you need to go back to the RGB box and choose another color. Repeat steps 4-7 for the last 2 colors. (Remember, the images can't be the same you used previously.) When you are finished putting the color photos on DS9, all colors Red, Green, and Blue should

be covering each other. Now you have your color photo! If you want to adjust the colors different from what the picture looks like, you can! All you have to do,(on a Mac) is to click on a color from the RGB box, then go down to where there is a row of the colors on the bottom of the color picture. Then, click and hold the “Apple” button and the mouse button at the same time. Move the color bar side to side to change the color from visible to invisible. Repeat with the other 2 colors.

(This part is not included yet....Below is Kevin's text)

How to Load a Regions File:

1. Select the text from: # Region file format: DS9 version 4.0 to the end of list.
2. Copy and paste into a text editor on your computer.
3. Name the file with a .reg at the end (e.g. YSO_candidate.reg)
4. Save on your computer.
5. Select regions in DS9.
6. Load the file you just set up.
7. To change the file, you can wipe out line (like the ones on the galaxy)
8. You can change colors or shapes by changing the words in the file.
 - colors:** red, yellow, green, blue, cyan, magenta, white, black
 - shapes:** box, circle, polygon, ellipse