#### Basics

Command	Menu	Keyboard/	Toolbar	Comment		
FITS File Commands						
Open File	File > Open	Жo	P 1	Replaces currently displayed buffer		
Open File (New Buffer)	Buffer > New from file	☆ 光 N		Creates another buffer		
Save File	File > Save as FITS	쁐 s				
Reload File	File > Reload	₩ R	$\overline{\mathbf{c}}$	Reloads currently displayed buffer		
Show FITS Header	File > Display File Header		<u> </u>	"Header Display" dialog with key/values searching and editing		
			Buffer Commands			
New	Buffer > New	ЖN		Creates blank image 256x256 pixels		
Duplicate	Buffer > Duplicate current	ЖD				
Delete	Buffer > Delete current	Жw		"buffer1" cannot be deleted		
Blink	Buffer > Blink Buffers			"Blink Buffers" dialog		
			Other File Commands			
Import Text File	File > Import			Imports text file as either text or numbers "Import File" dialog		
Save Image	File > Save as image	î		Export image – 18 formats (†)		
Сору	Edit > Copy	ж с	<b>D</b>	Copies image to clipboard (†)		
Сору	Edit > Copy	Ж с	<b>D</b>	Copies spectrum to clipboard (§)		
Print	File > Print		¢.	Prints image (†)		
Notes: + - 2D and 3D data only. § - ID (spectrum) data only. Formatted as x,y tab-delimited pairs on mutiple lines						
Image Control – Brightness/Contrast, Zoom, Scale, Range, Colormaps						
Brightness & Contrast	Options > Image Display	MLB (*)				
Zoom	Zoom > % values/ Fit		<u>오</u> 600% <u>&gt;</u> 오			
Scale	Scale > Linear/ Logarithmic/ Square Root		✓ Linear Logarithmi Square root			
Range			0 6.686	Options are Minmax, quantiles, manual		
			minmax ᅌ Linear ᅌ			





Command	Menu	Keyboard/ Mouse	Toolbar	Comment	
Colormap	Colormap			Default is "bb" – more colormaps available on list.	
Image Control – 2D Image Only					
View as Image	View > Image	MLB		On image, click and drag; up/down brightness, left/right contrast (cf. Brightness & Contrast above).	
View as Contour	View > Contour	MLB		On image, click and drag; up/down increases/decreases number of contour levels.	
View as Wiregrid	View > Wiregrid	MLB		On image, click and drag; up/down tilt, left/right rotate.	
View as Table	View > Table			Mouse can select single cells, cell range, row, column, full table, similarly to Excel.	
		Im	age Control – 3D Cube Only		
Layer display			858	Manual entry or scroll bar. Options are Single/ Average/ Median/ Linemap	
Play/pause movie					
View as 3D cube	View > 3D Cube			MLB – brightness/contrast. MRB – tilt/rotate.	
Linemap	Options > Cube Display				
Linemap	Cube display mode option Linemap	C, X, V		Select centre/ left continuum/ right continuum	
Image Control – 1D Spectrum Only					
X-axis range selection		MLB		Click and drag.	
X-axis range selection			1 3765.7690429688 🗘	Manual pixel or wavelength range.	
			7060.8171308041 3501 3		
Y-axis range selection			7.292e-16 5.152e-15	Manual min/max range display.	
Reset ranges		MRB (¶)		Option Zoom Out	
X-axis range delete		В		Drag over range, set to "inf" = 1/0	
Notes: * MLB – Mouse left click ¶ MRB – Mouse right click					

Shortcut Keys					
Кеу	Display State	Function			
	All	Open File (New Buffer)			
光 D (^ D)	All	Duplicate Buffer			
光 N (^ N)	All	New Buffer			
光 0 (^ 0)	All	Open File			
光 R (^ NR	All	Reload File			
光 S (^ S)	All	Save File			
光 w (^ w)	All	Delete Buffer			
A	Cube Image	Save spectrum as ASCII			
F	Cube Image	Save spectrum as FITS			
S/C/X/R	Cube Image	MD (§) - Spectral extraction – source / continuum / delete / remove			
C/X/V	Cube Spectrum	MD - Linemap Centre / Continuum1 / Continuum2			
L	Image, Cube Image	Lock/Unlock Position			
	Image, Cube Image	Save Image			
光 C (^ C)	Image, Cube Image	Copy Image to Clipboard			
D	Image, Cube Image	MD - Distance (angular)			
G	Image, Cube Image	2D gaussian fit (image)			
М	Image, Cube Image	Mark Positions			
Р	Image, Cube Image	MD - Distance (pixels)			
光 C (^ C)	Spectrum	Copy X,Y Values to Clipboard			
В	Spectrum	MD - Set spectral region to "inf"			
D	Spectrum	De-blend line - 1D gaussian/lorentzian fit (spectral line)			
D/G/L/F	Spectrum – Gaussfit Mode	De-blend range / Gauss estimate / Lorentz Estimate / Fit			
§ MD – mouse drag without click					
光 - Mac command key, ^ - Windows Ctrl key					



#### Pop-up Menus – Mouse Right Click

Option	Display State	Function
Zoom out	Spectrum, Cube Spectrum	Resets X /Y ranges
Plot Style: Lines	Spectrum, Cube Spectrum	Points are connected by straight lines
Plot Style: Histogram	Spectrum, Cube Spectrum	Points are connected by histogram steps
Save spectrum as ASCII	Spectrum, Cube Image	Saves spectrum (either on cursor or source/continuum extraction) in ASCII format
Save spectrum as FITS	Spectrum, Cube Image	As above, but in FITS format
Copy spectrum to new buffer	Cube Image	As above, but to a new buffer
Save image as FITS	Cube Image	Currently displayed layer for cube
Copy image to new buffer	Cube Image	As above, but to a new buffer
Save source/continuum mask	Image, Cube Image	Saves a FITS file with same X/Y dimensions with values source = 1, continuum = -1, other = 0
New 2xn buffer from	Image, Cube Image	Creates new buffer, dimension 2 x n (n = no. of pixels marked as source or continuum), displayed as a
source/continuum mask		table.
Load source/continuum	Image, Cube Image	Loads mask (created by "Save source/continuum mask") and applies it to current image, setting
mask		source/continuum pixels
Radial profile from this	Image, Cube Image	Creates radial profile at cursor position (uses function radialprofile)
position		
Lock position	Cube Image	Locks spectrum display at cursor (equivalent to "L" key)
Use as standard star	Cube Image	Creates a "standard star" spectrum (with buffer name "buffer_standardstar"), using the standard
		spectral apertures (single / circular / circular-annular). This is used when "Divide Std" is checked on Cube
		Spectrum.