

Instruções básicas para uso do Software Seismic Unix

Carlos H. S. Barbosa¹ & Luana N. Osório²

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¹c.barbosa@nacad.ufrj.br

²luana.n.osorio@gmail.com

Software Seismic Unix

Seismic Unix (SU) é um pacote de código aberto de softwares geofísicos mantido pelo Center for Wave Phenomena (CWP) na Colorado School of Mines (CSM).

http://web.mit.edu/cwpsu_v44r1/sumanual_600dpi_letter.pdf

Center for Wave Phenomena



Colorado School of Mines
Golden, CO 80401, USA

Software Seismic Unix

Instruções para instalação estão na página do curso!

https://github.com/luananobre/Curso_SECPET_2018

Help facilities

% suhelp

CWP PROGRAMS: (no self-documentation)

ctrlstrip	downfort	fcatt	isatty	maxints	pause	t	upfort
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PAR PROGRAMS: (programs with self-documentation)

a2b	h2b	randvel3d	subset	vel2stiff
a2i	hti2stiff	rayt2dan	swapbytes	velconv
addrvl3d	hudson	rayt2d	thom2hti	velpertan
b2a	i2a	recast	thom2stiff	velpert
cellauto	ibm2float	refRealAziHTI	transp3d	verhulst
cpftrend	kaperture	refRealVTI	transp	vtlvz
cshotplot	linrort	regrid3	tvnmoqc	wkbj
dzdvd	lorenz	resamp	unif2aniso	xy2z
farith	makevel	rossler	unif2	z2xyz
float2ibm	mkparfile	smooth2	unif2ti2	
ftnstrip	mrafxzwt	smooth3d	unisam2	
ftnunstrip	pdfhistogram	smoothint2	unisam	
grm	prplot	stiff2vel	utmconv	

press return key to continue

Help facilities

% farith

FARITH - File ARITHmetic -- perform simple arithmetic with binary files

farith <infile >outfile [optional parameters]

Optional Parameters:

in=stdin input file

out=stdout output file

in2= second input file (required for binary operations)
 if it can't be opened as a file, it might be a scalar

n=size_of_in, fastest dimension (used only for op=cartprod is set)

isig= index at which signum function acts (used only for
 op=signum)

scale= value to scale in by, used only for op=scale)

bias= value to bias in by, used only for op=bias)

op=noop noop for out = in
 neg for out = -in
 abs for out = abs(in)
 scale for out = in *scale
 bias for out = in + bias
 exp for out = exp(in)
 sin for out = sin(in)
 cos for out = cos(in)
 log for out = log(in)
 sqrt for out = (signed) sqrt(in)
 sqr for out = in*in
 degrad for out = in*PI/180
 raddeg for out = in*180/PI
 pinv for out = (punctuated) 1 / in
 pinvsqr for out = (punctuated) 1 /in*in
 pinvsqrt for out = (punctuated signed) 1 /sqrt(in)
 add for out = in + in2
 sub for out = in - in2

Help facilities

% unisam2

```
UNISAM2 - UNIformly SAMple a 2-D function f(x1,x2)

unisam2 [optional parameters] <inputfile >outputfile

Required Parameters:
none
Optional Parameters:
x1=          array of x1 values at which input f(x1,x2) is sampled
... Or specify a uniform linear set of values for x1 via:
nx1=1        number of input samples in 1st dimension
dx1=1        input sampling interval in 1st dimension
fx1=0        first input sample in 1st dimension
...
n1=1         number of output samples in 1st dimension
d1=          output sampling interval in 1st dimension
f1=          first output sample in 1st dimension
x2=          array of x2 values at which input f(x1,x2) is sampled
... Or specify a uniform linear set of values for x2 via:
nx2=1        number of input samples in 2nd dimension
dx2=1        input sampling interval in 2nd dimension
fx2=0        first input sample in 2nd dimension
...
n2=1         number of output samples in 2nd dimension
d2=          output sampling interval in 2nd dimension
f2=          first output sample in 2nd dimension
...
method1=linear =linear for linear interpolation
               =mono for monotonic bicubic interpolation
               =akima for Akima bicubic interpolation
               =spline for bicubic spline interpolation
method2=linear =linear for linear interpolation
               =mono for monotonic bicubic interpolation
```

Help facilities

% ximage

XIMAGE - X IMAGE plot of a uniformly-sampled function $f(x_1, x_2)$

ximage n1= [optional parameters] <binaryfile

X Functionality:

Button 1	Zoom with rubberband box
Button 2	Show mouse (x1,x2) coordinates while pressed
q or Q key	Quit
s key	Save current mouse (x1,x2) location to file
p or P key	Plot current window with pswigb (only from disk files)
a or page up keys	enhance clipping by 10%
c or page down keys	reduce clipping by 10%
up,down,left,right keys	move zoom window by half width/height
i or +(keypad)	zoom in by factor 2
o or -(keypad)	zoom out by factor 2

... change colormap interactively

r	install next RGB - colormap
R	install previous RGB - colormap
h	install next HSV - colormap
H	install previous HSV - colormap
H	install previous HSV - colormap

(Move mouse cursor out and back into window for r,R,h,H to take effect)

Required Parameters:

n1 number of samples in 1st (fast) dimension

Optional Parameters:

d1=1.0	sampling interval in 1st dimension
f1=0.0	first sample in 1st dimension
n2=all	number of samples in 2nd (slow) dimension

Help facilities

% xwigb

XWIGB - X WIGgle-trace plot of $f(x_1, x_2)$ via Bitmap

xwigb n1= [optional parameters] <binaryfile

X Functionality:

Button 1	Zoom with rubberband box
Button 2	Show mouse (x1,x2) coordinates while pressed
q or Q key	Quit
s key	Save current mouse (x1,x2) location to file
p or P key	Plot current window with pswigb (only from disk files)
a or page up keys	enhance clipping by 10%
c or page down keys	reduce clipping by 10%
up,down,left,right keys	move zoom window by half width/height
i or +(keypad)	zoom in by factor 2
o or -(keypad)	zoom out by factor 2
l	lock the zoom while moving the cursor
u	unlock the zoom
1,2,...,9	Zoom/Move factor of the window size

Notes:

Reaching the window limits while moving within changes the zoom factor in this direction. The use of zoom locking(l) disables it

Required Parameters:

n1 number of samples in 1st (fast) dimension

Optional Parameters:

d1=1.0 sampling interval in 1st dimension

Help facilities

% xmovie

XMOVIE - image one or more frames of a uniformly sampled function $f(x_1, x_2)$

xmovie n1= n2= [optional parameters] <fileoffloats

X Functionality:

Button 1	Zoom with rubberband box
Button 2	reverse the direction of the movie.
Button 3	stop and start the movie.
q or Q key	Quit
s or S key	stop display and switch to Step mode
b or B key	set frame direction to Backward
f or F key	set frame direction to Forward
n or N key	same as 'f'
c or C key	set display mode to Continuous mode

Required Parameters:

n1=	number of samples in 1st (fast) dimension
n2=	number of samples in 2nd (slow) dimension

Optional Parameters:

d1=1.0	sampling interval in 1st dimension
f1=0.0	first sample in 1st dimension
d2=1.0	sampling interval in 2nd dimension
f2=0.0	first sample in 2nd dimension
perc=100.0	percentile used to determine clip
clip=(perc percentile)	clip used to determine bclip and wclip
bperc=perc	percentile for determining black clip value
wperc=100.0-perc	percentile for determining white clip value
bclip=clip	data values outside of [bclip,wclip] are clipped
wclip=-clip	data values outside of [bclip,wclip] are clipped

Help facilities

% psimage

PSIMAGE - PostScript IMAGE plot of a uniformly-sampled function $f(x_1, x_2)$ with the option to display a second attribute

psimage n1= [optional parameters] <binaryfile> >postscriptfile

Required Parameters:

n1 number of samples in 1st (fast) dimension

Optional Parameters:

d1=1.0 sampling interval in 1st dimension
f1=0.0 first sample in 1st dimension
n2=all number of samples in 2nd (slow) dimension
d2=1.0 sampling interval in 2nd dimension
f2=0.0 first sample in 2nd dimension
perc=100.0 percentile used to determine clip
clip=(perc percentile) clip used to determine bclip and wclip
bperc=perc percentile for determining black clip value
wperc=100.0-perc percentile for determining white clip value
bclip=clip data values outside of [bclip,wclip] are clipped
wclip=-clip data values outside of [bclip,wclip] are clipped
 bclip and wclip will be set to be inside
 [lbeg,lend] if lbeg and/or lend are supplied
threecolor=1 supply 3 color values instead of only two,
 using not only black and white, but f.e. red,
 green and blue
brgb=0.0,0.0,0.0 red, green, blue values corresponding to black
grgb=1.0,1.0,1.0 red, green, blue values corresponding to grey
wrgb=1.0,1.0,1.0 red, green, blue values corresponding to white
bhls=0.0,0.0,0.0 hue, lightness, saturation corresponding to black
ghls=0.0,1.0,0.0 hue, lightness, saturation corresponding to grey
whls=0.0,1.0,0.0 hue, lightness, saturation corresponding to white
bps=12 bits per sample for color plots, either 12 or 24
dis=1.0 factor by which to scale d1 before imaging

Thank you for your time.

Thank you
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Overleaf Template.