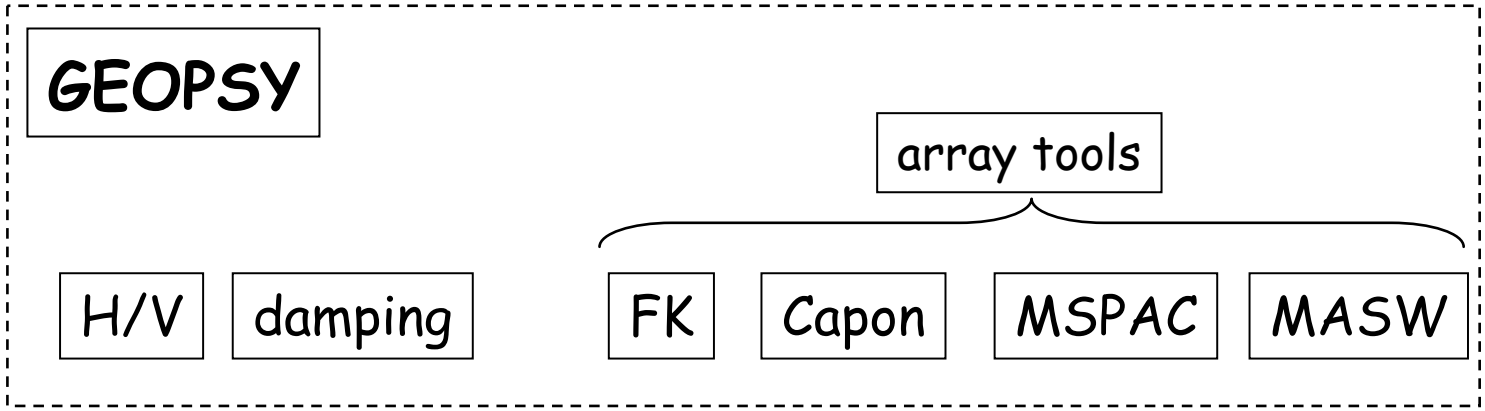
Using Ambient Vibration Array Techniques for Site Characterization

A survival kit for Sesarray graphical tools: *FIGUE*

Tutorial

February 21st-26th , 2010, Thessaloniki, Greece

PACKAGES



figue

figures

gp tools

Dispersion curves
Ellipticity curves
Autocorr. Curves
...

Post-processing

max2curve

spac2disp

Warran GPS

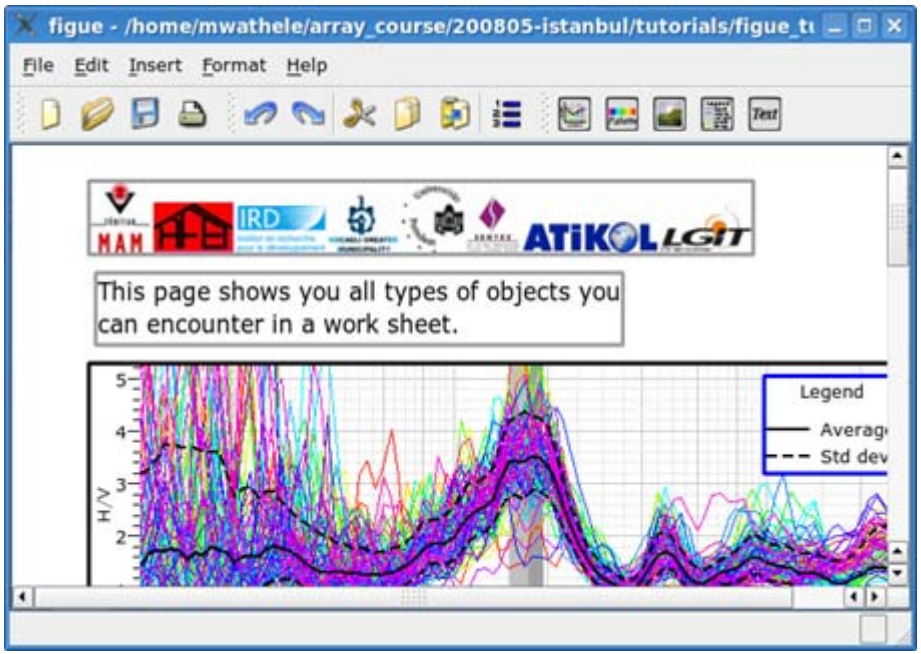
Array response

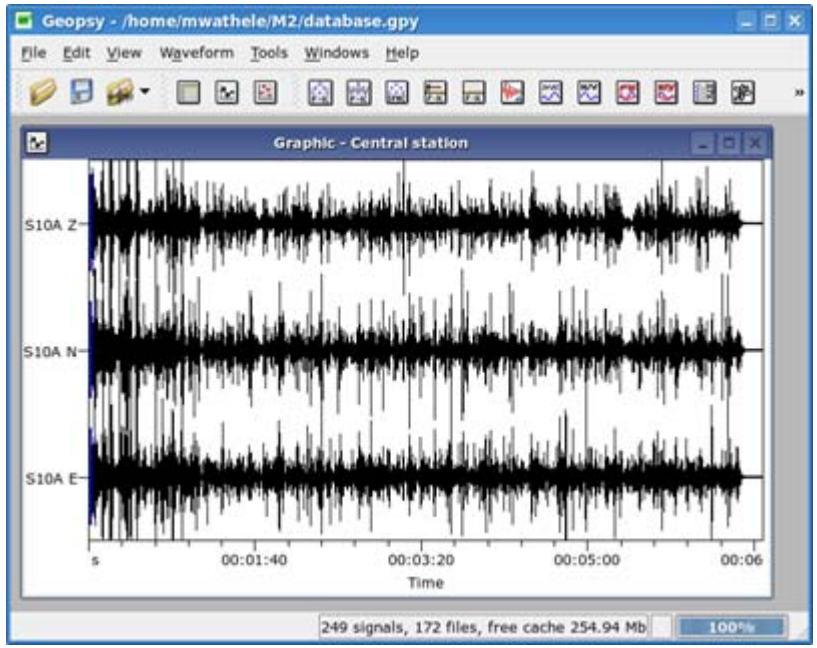
DINVER

inversion

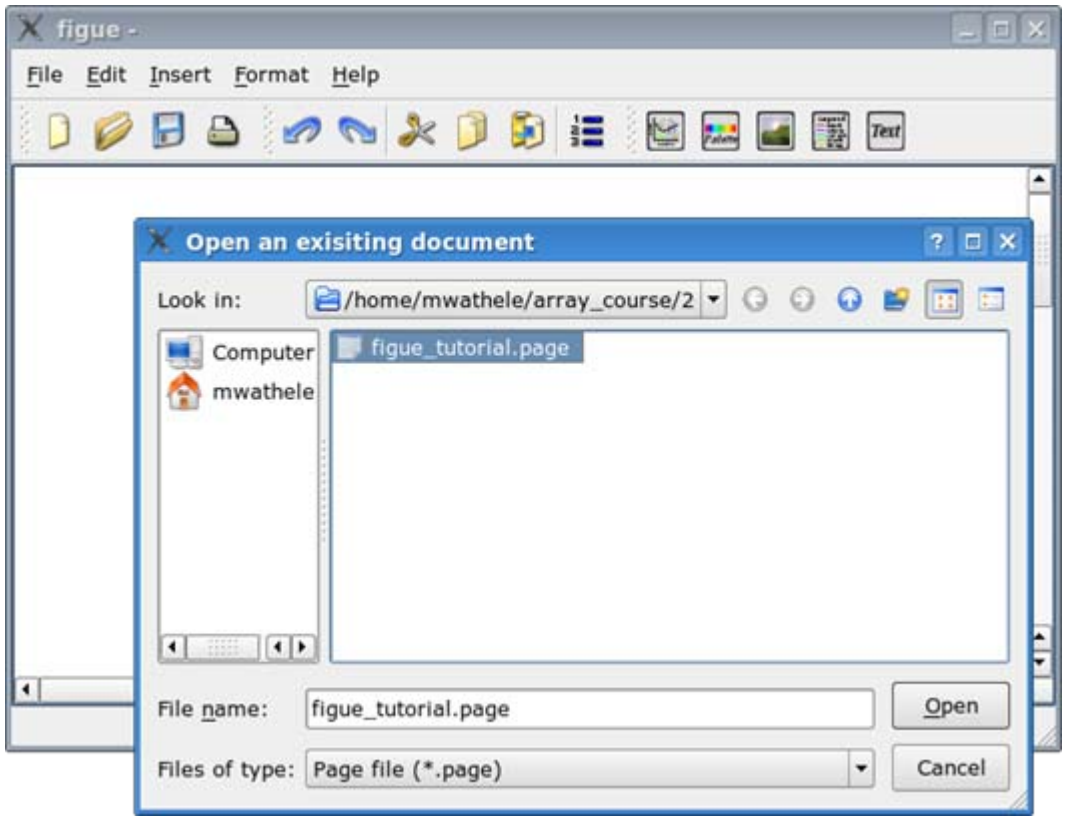
Objects inside a sheet or objects alone

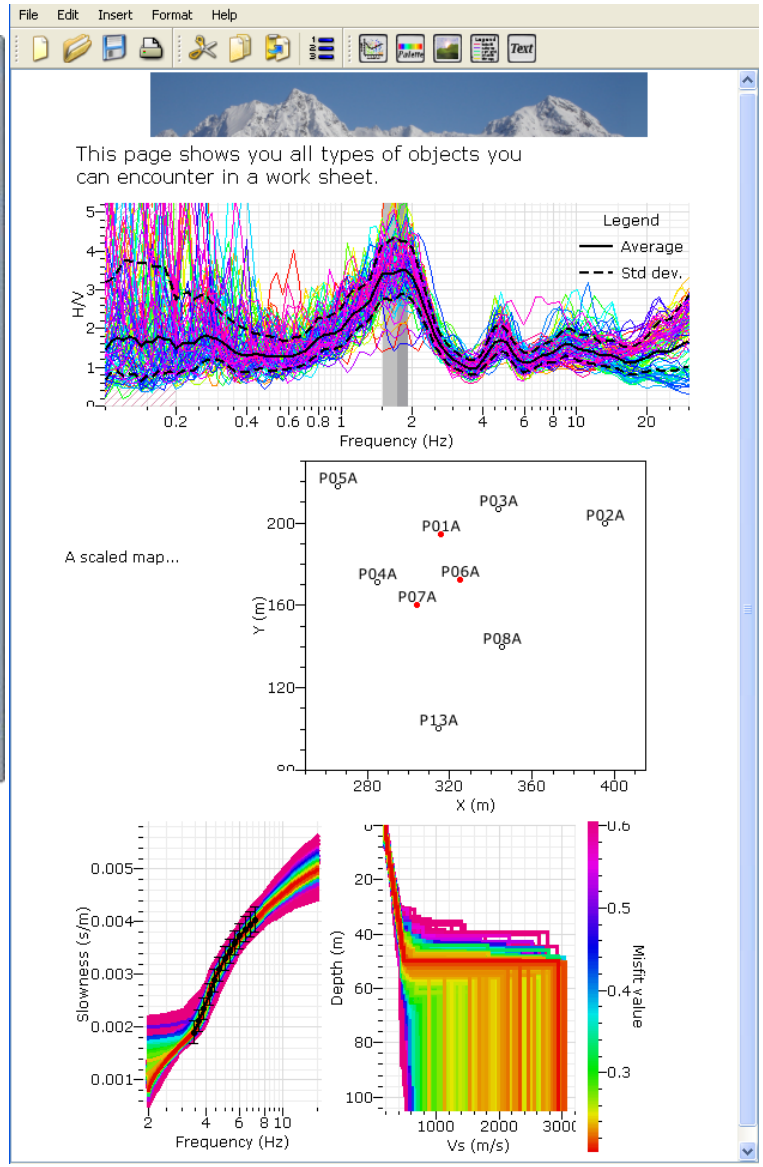
"What you see is what you get"





Sheet example: exercise with figue





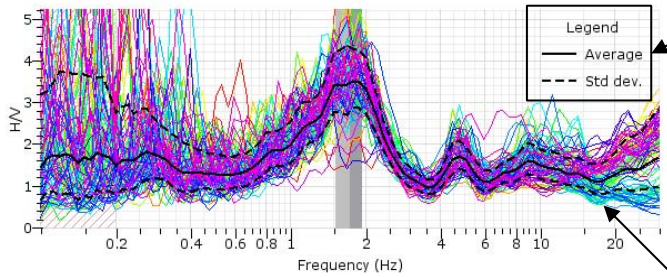
Image

Text

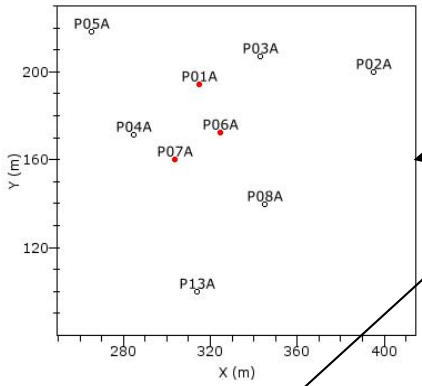
This page shows you all types of objects you can encounter in a work sheet.

A scaled map...

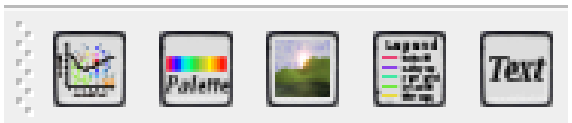
Legend



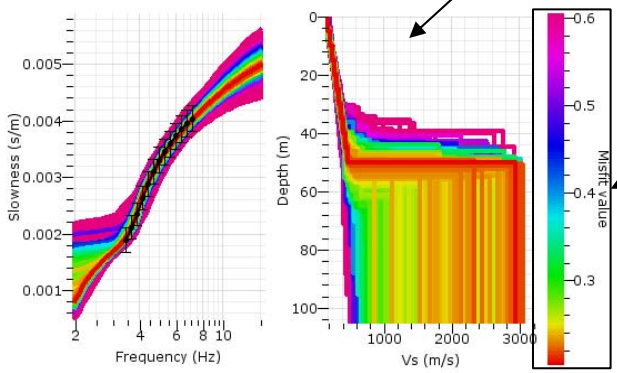
2D plots



Types of objects

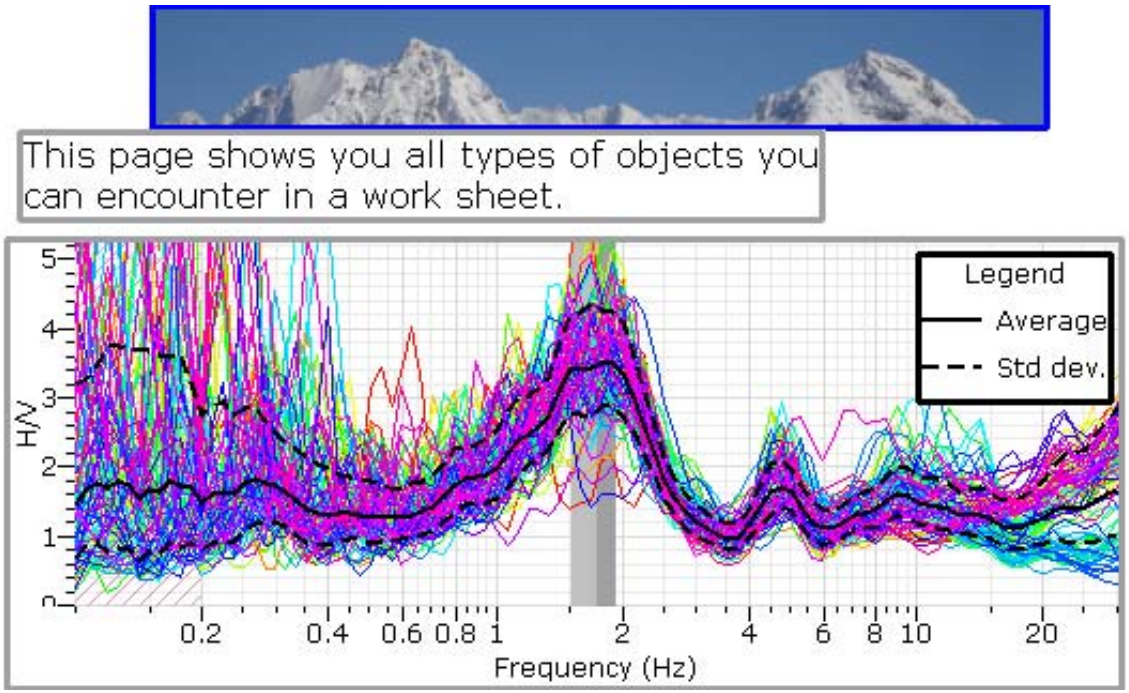


Palette



Selection of objects in a sheet

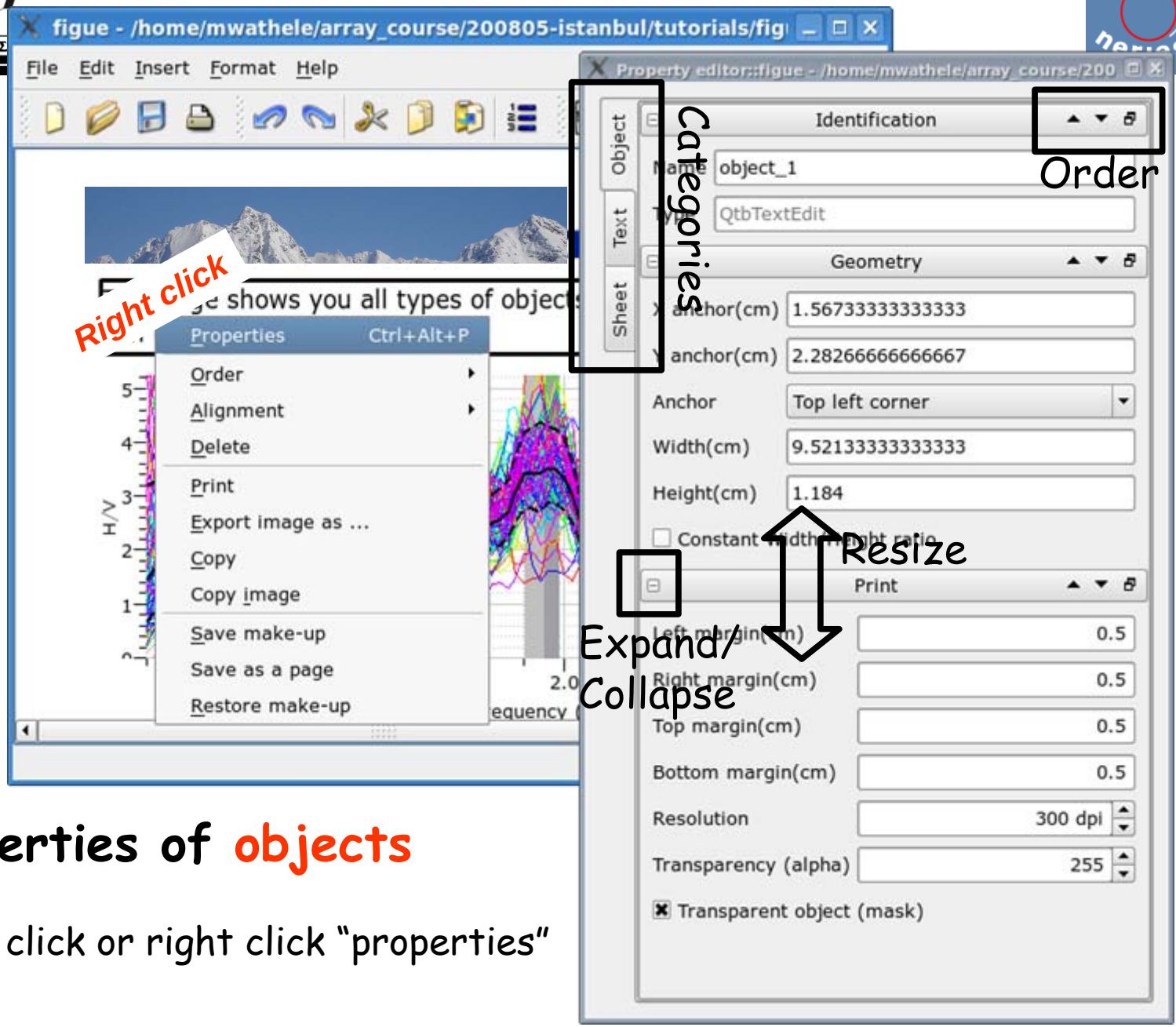
Blue: hoover, object is not selected but will be if mouse is clicked
Black: selected and active object (only one active at a time)
Gray: selected object, part of a multiple selection, not active



Key strokes:

TAB
go to next object and make it active

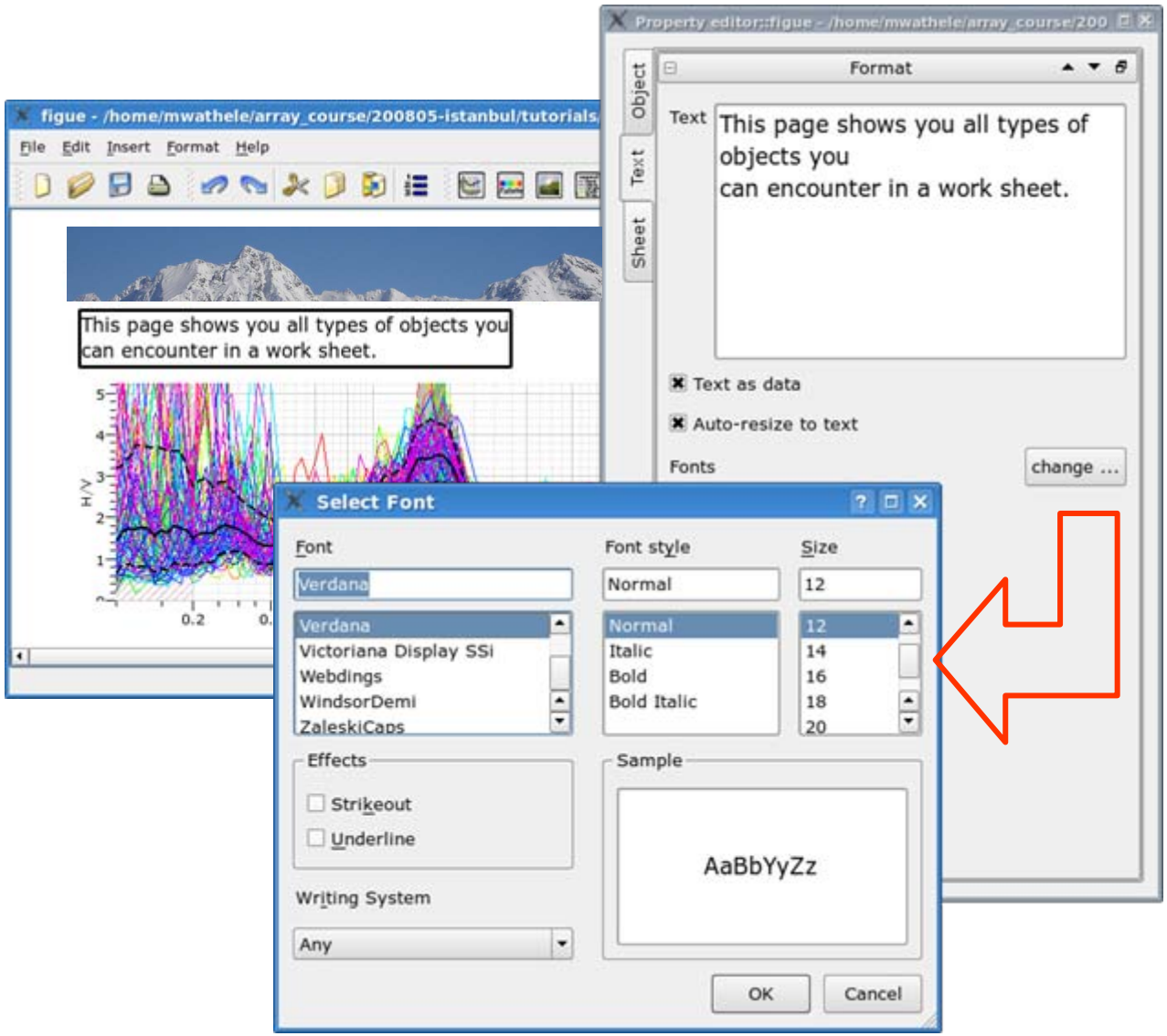
SHIFT
multiple selection



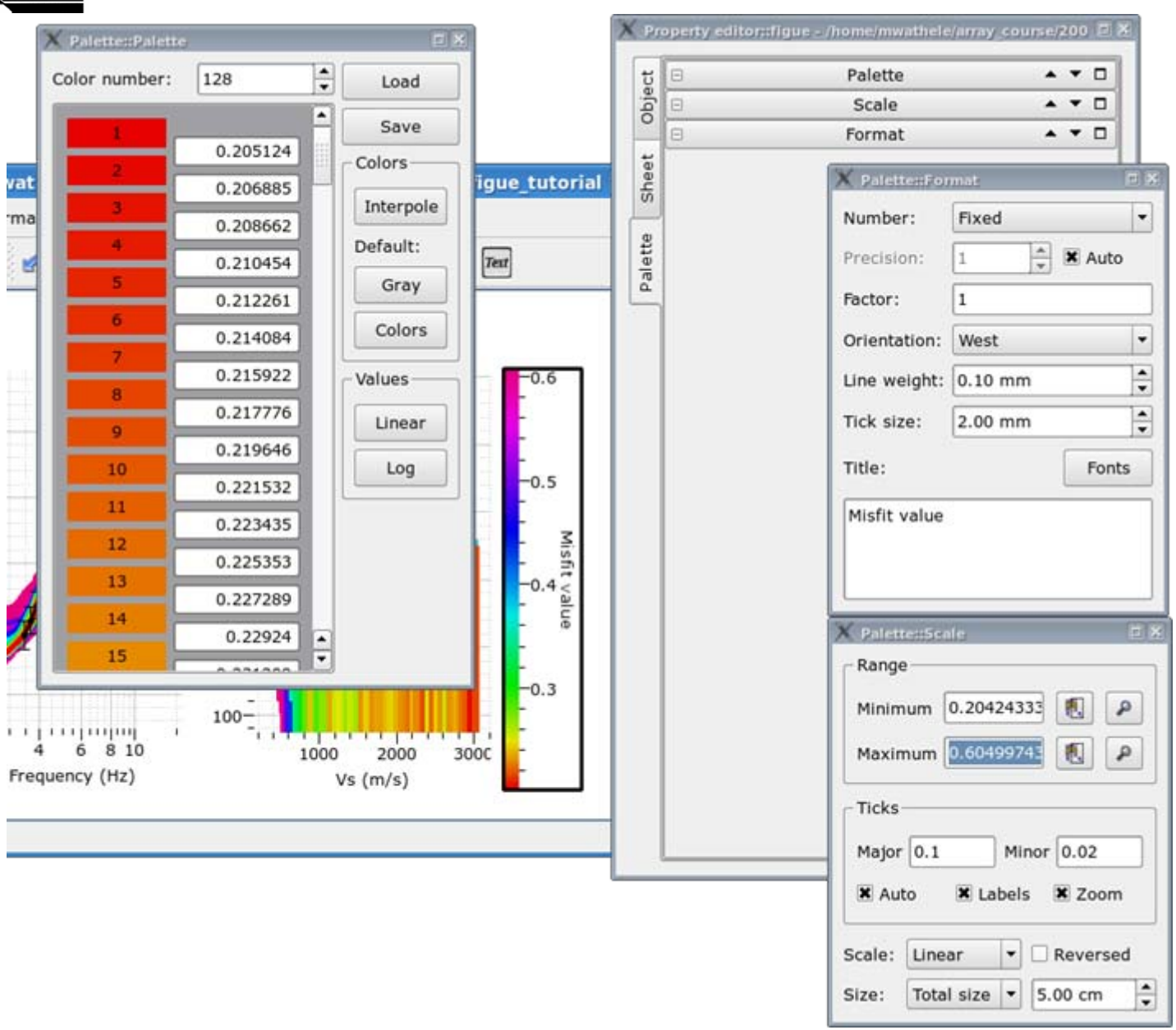
Properties of objects

Double click or right click "properties"

Properties of a text

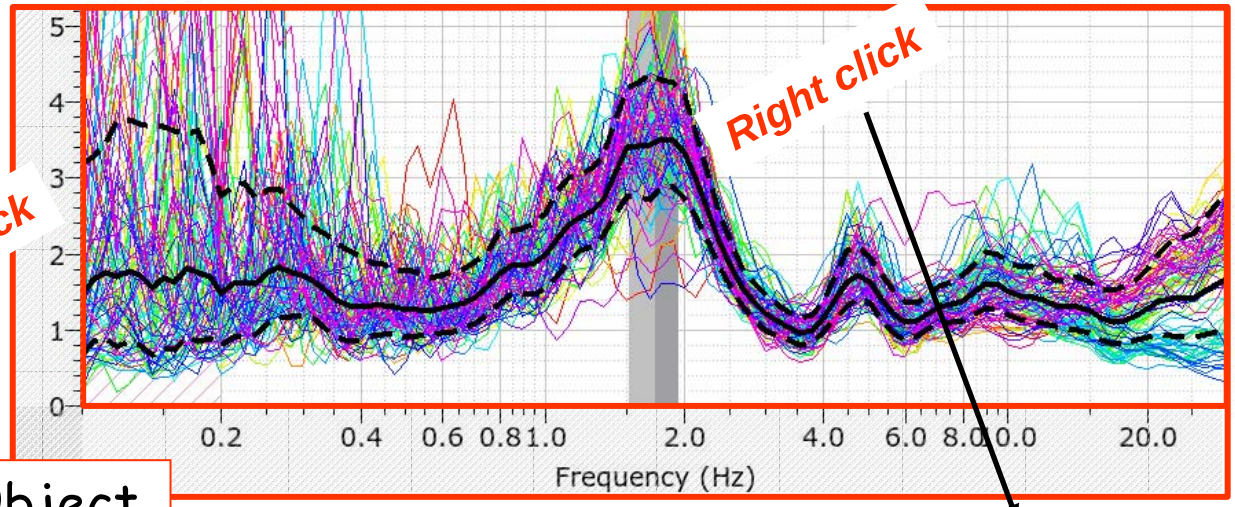


Properties of a palette



Properties of a 2D plot

Double click or right click + properties



Menu Object

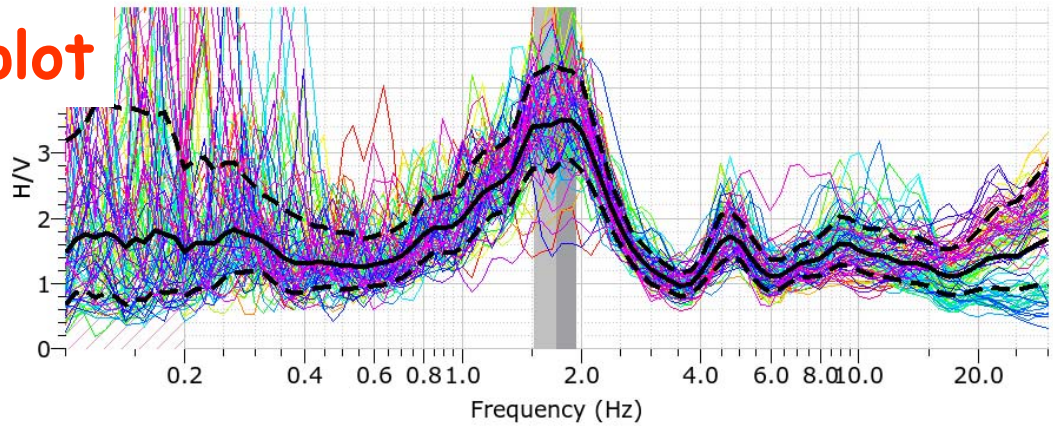
Menu Graph Content

Sheet
Object
Palette
X Axis
Y Axis
Graphic
Layers

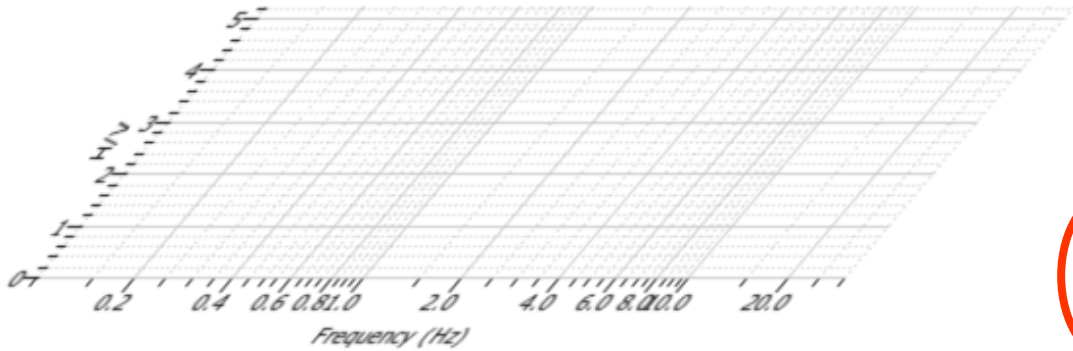
Properties	Ctrl+Alt+P
Order	▸
Alignment	▸
Delete	
Print	
Export image as ...	
Copy	
Copy image	
Save make-up	
Save as a page	
Restore make-up	

Properties	Ctrl+Alt+P
Zoom	Ctrl+Alt+Z
Zoom in	Ctrl++
Unzoom	Ctrl+-
Save layers	
Add layers	

Layers of a 2D plot



Double click
or right click
+ properties



Background: grid lines

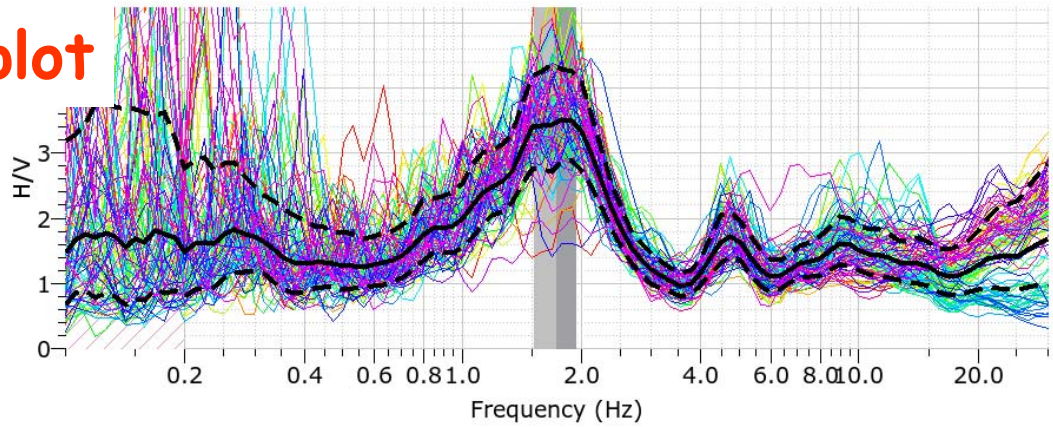
Layer stack

graph

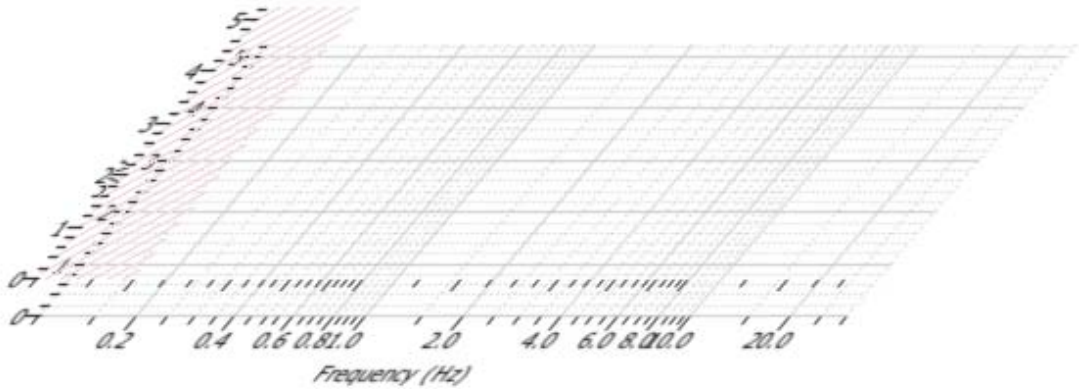
	Type	Name	Opacity
1	ParallelBands	T10	1
2	ParallelBands	f0	1
3	XUniqueYColorLines	Windows	1
4	DynXYColorLines	Average	1
5	DynXYColorLines	Stddev	1

Delete

Layers of a 2D plot



Parallel bands



Layer stack

graph

	Type	Name	Opacity
1	ParallelBands	T10	1
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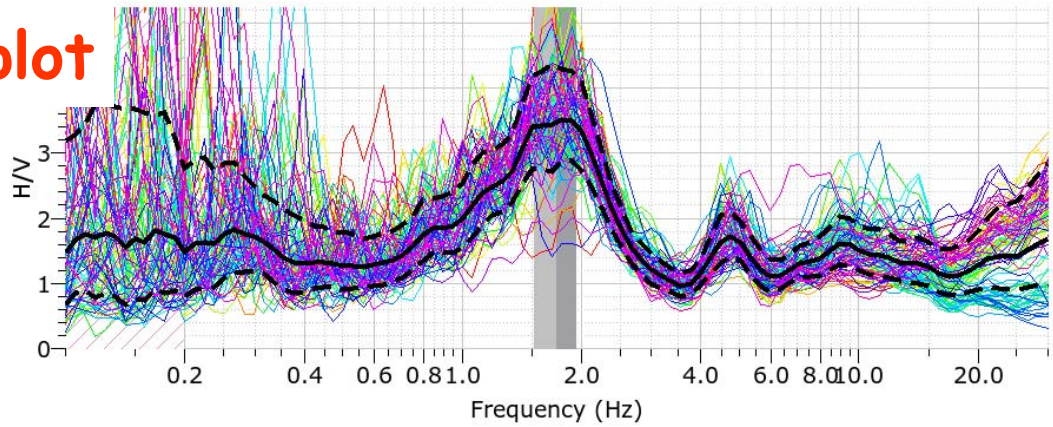
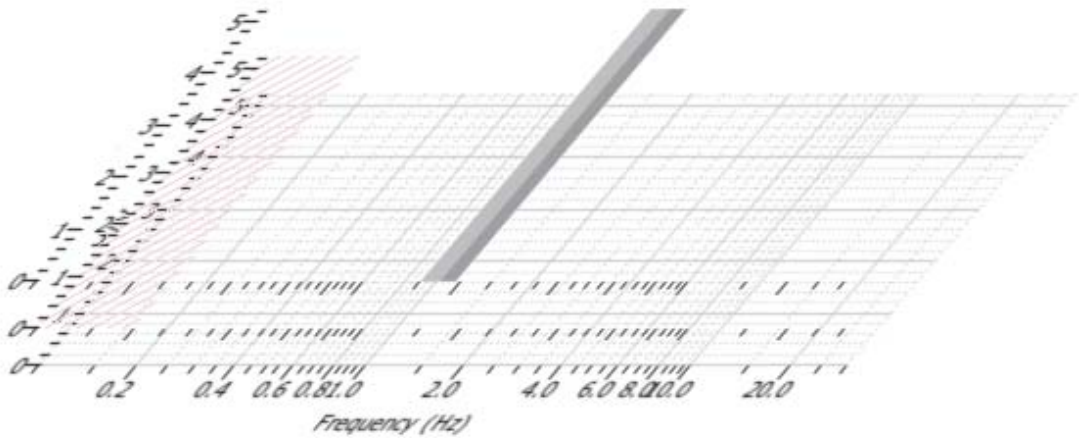
3	XUniqueYColorLines	Windows	1
4	DynXYColorLines	Average	1
5	DynXYColorLines	Stddev	1

Delete

Layers of a 2D plot



Parallel bands



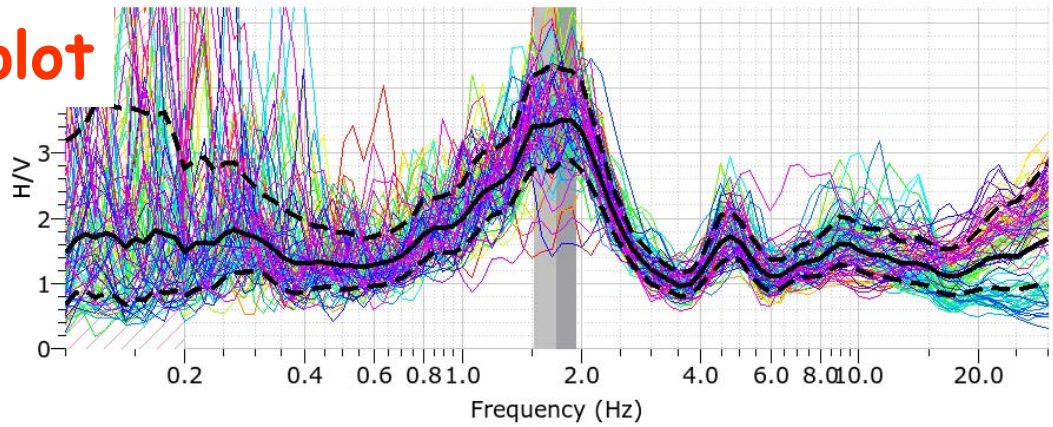
Layer stack

graph

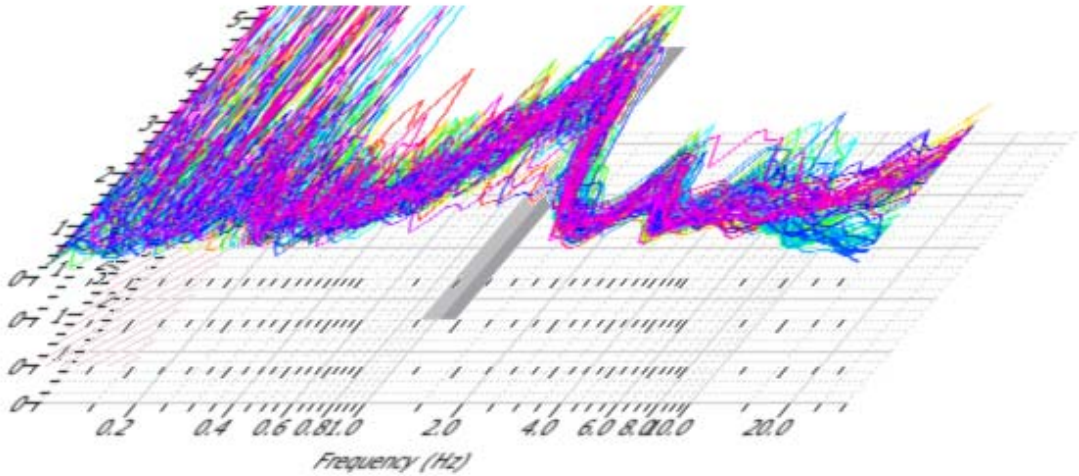
	Type	Name	Opacity
1	ParallelBands	T10	1
2	ParallelBands	f0	1
3	XUniqueYColorLines	Windows	1
4	DynXYColorLines	Average	1
5	DynXYColorLines	Stddev	1

Delete

Layers of a 2D plot



XY Color lines



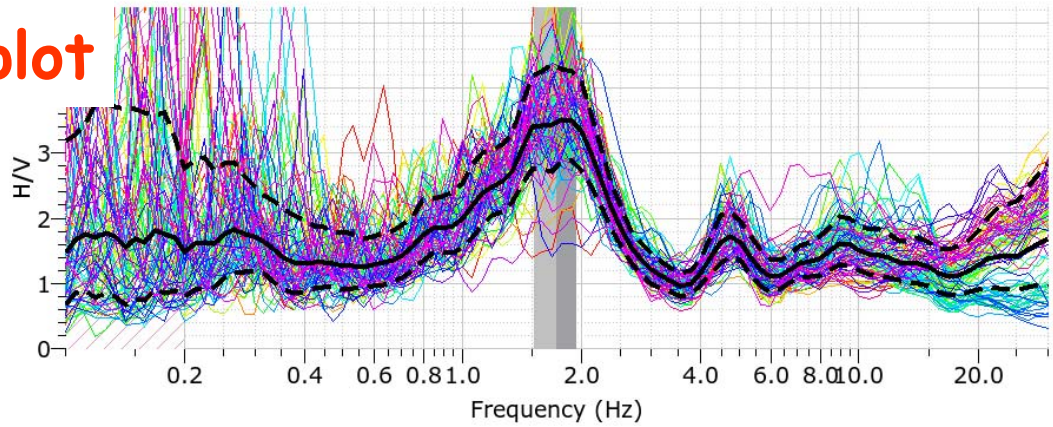
Layer stack

graph

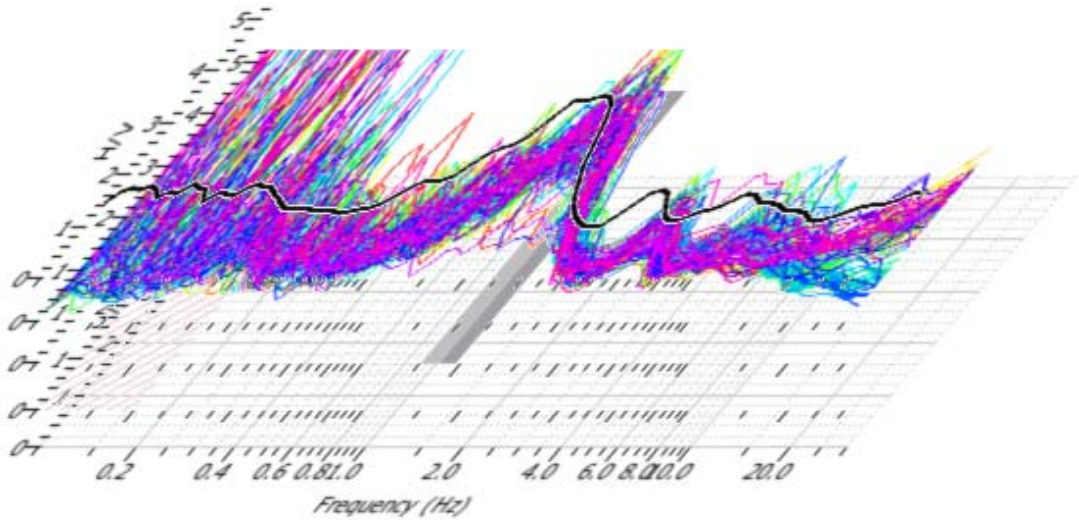
	Type	Name	Opacity
1	ParallelBands	T10	1
2	ParallelBands	f0	1
3	XUniqueYColorLines	Windows	1
4	DynXYColorLines	Average	1
5	DynXYColorLines	Stddev	1

Delete

Layers of a 2D plot



Dynamic XY Color lines



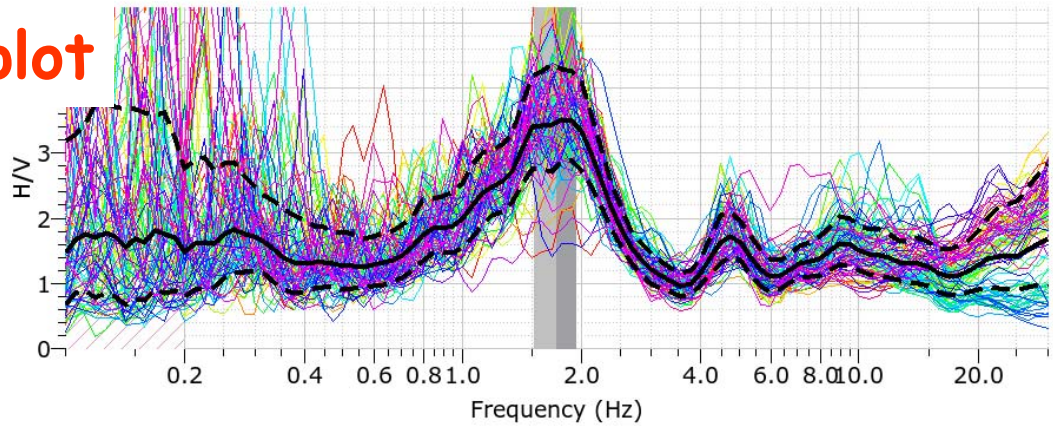
Layer stack

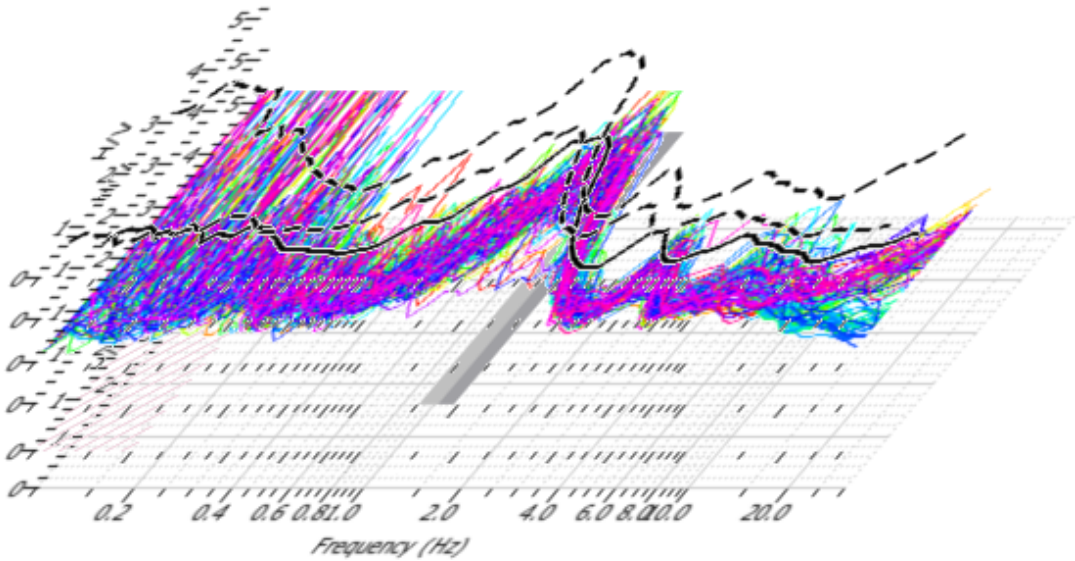
graph

	Type	Name	Opacity
1	ParallelBands	T10	1
2	ParallelBands	f0	1
3	XUniqueYColorLines	Windows	1
4	DynXYColorLines	Average	1
5	DynXYColorLines	Stddev	1

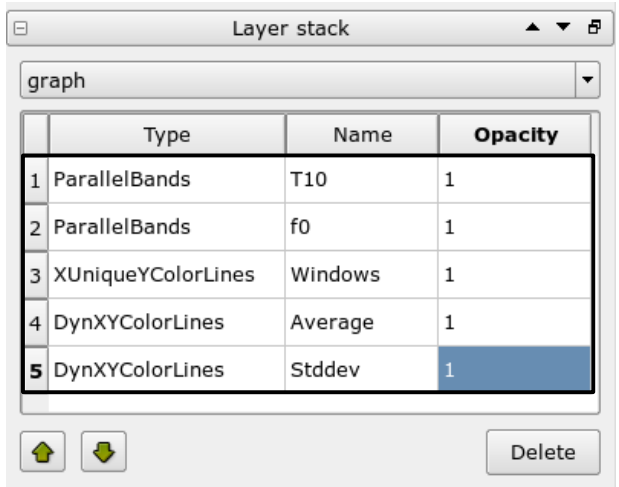
Delete

Layers of a 2D plot



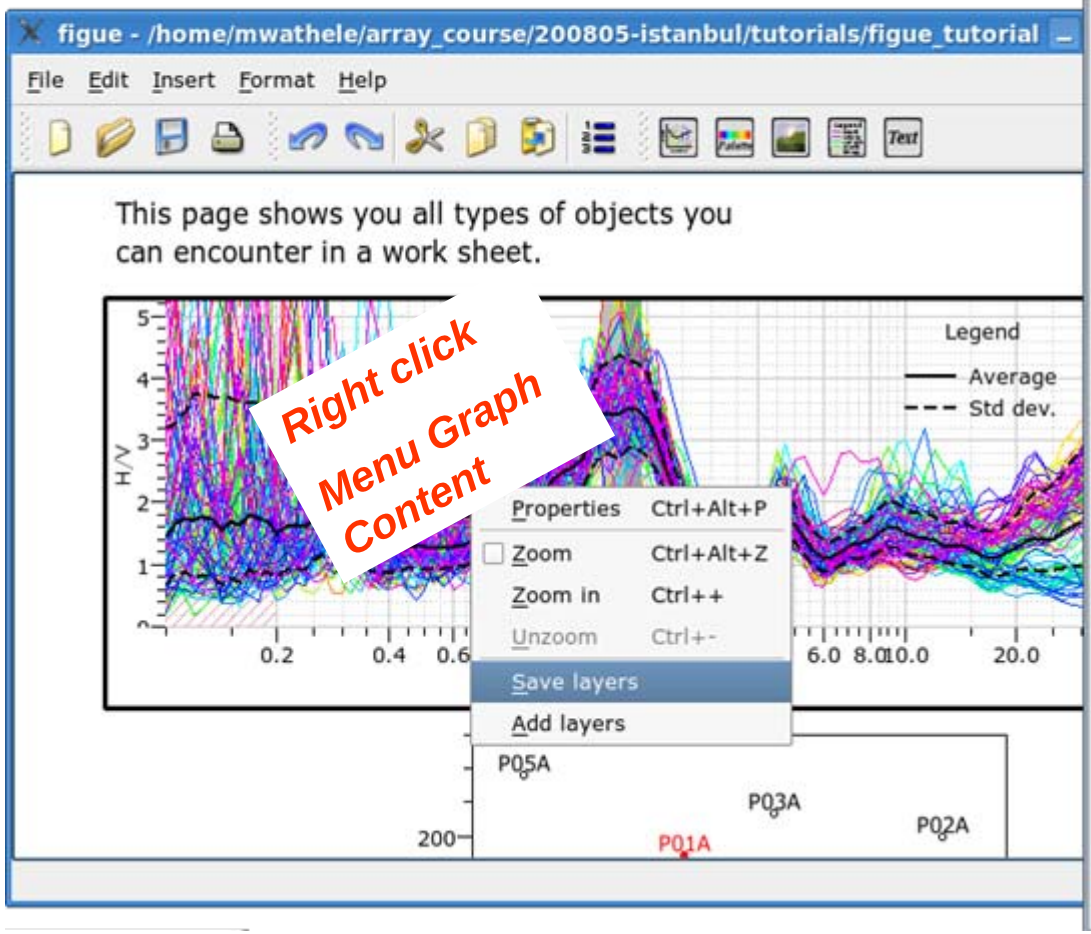


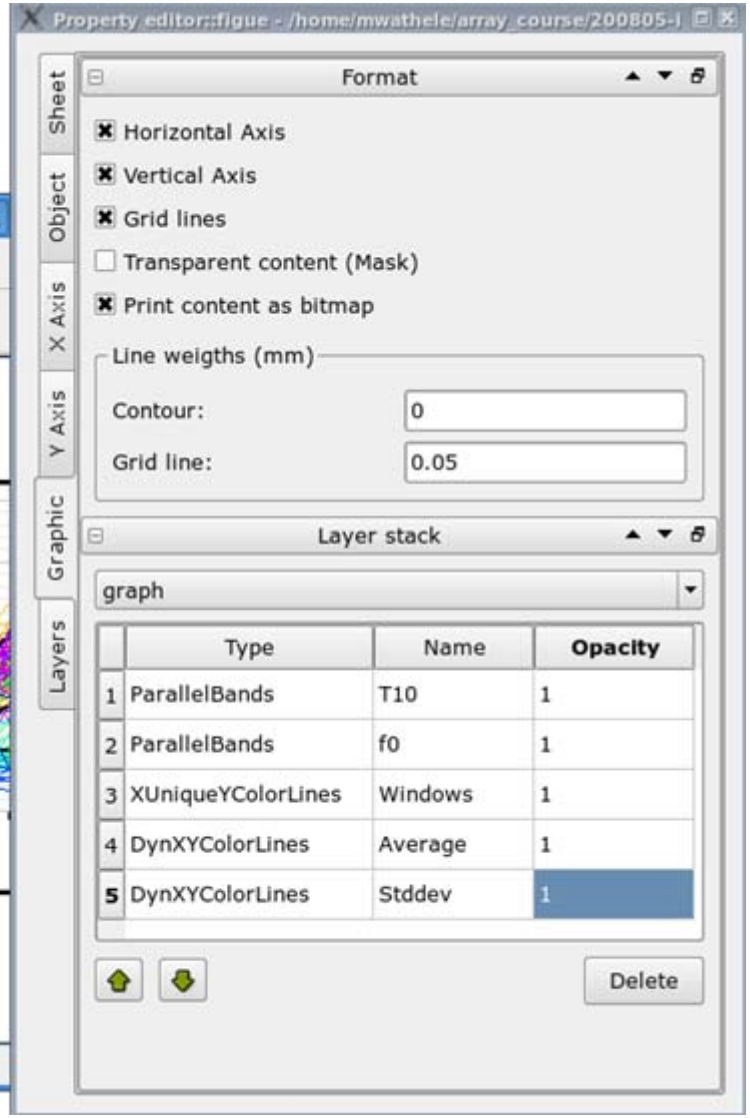
Dynamic XY Color lines



Save, Load, Re-order, Delete,... layers

Files: *.layer



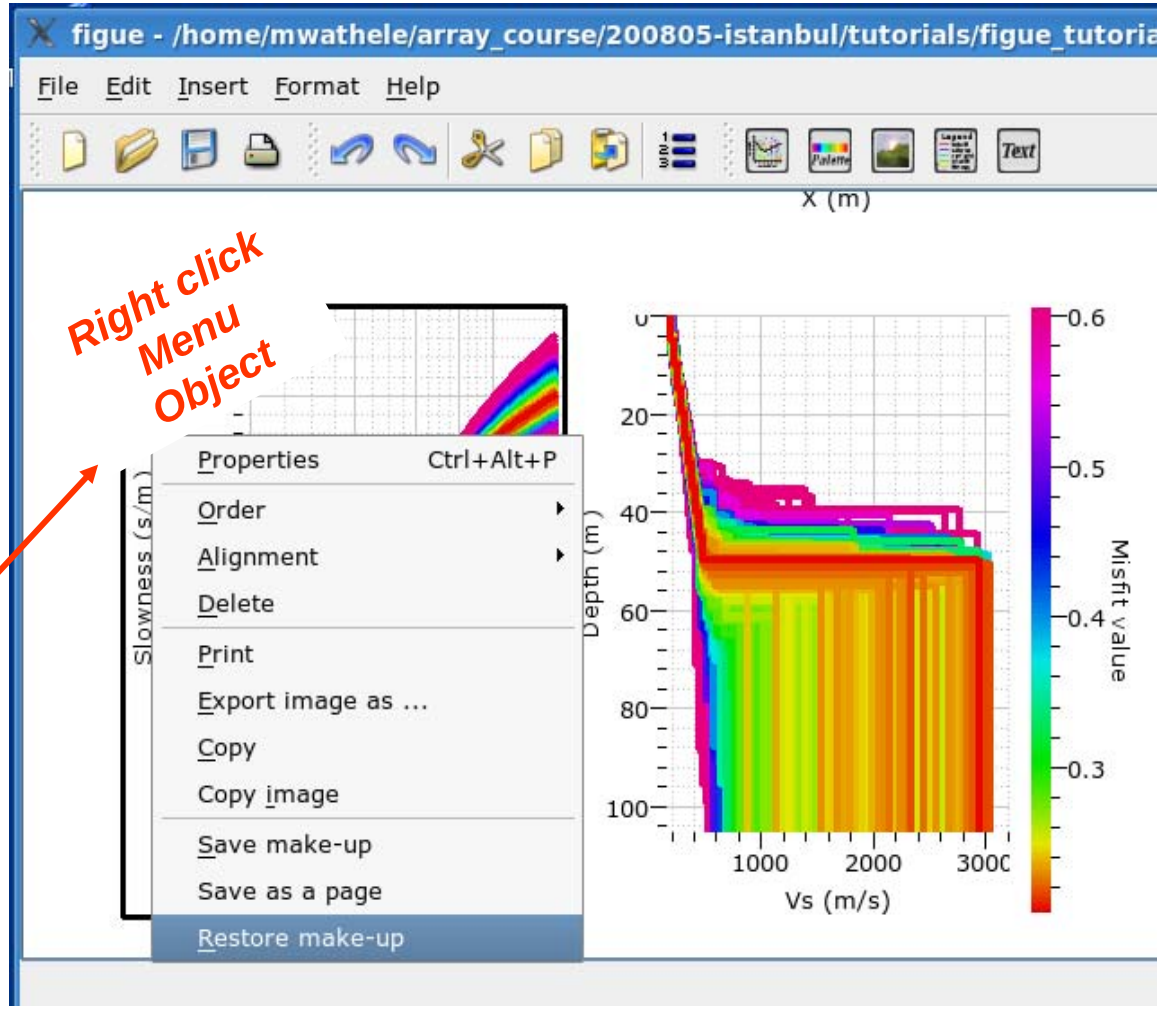


Save & restore "makeups"

Files: *.mkup

Load "object.mkup"

Be careful: difference between makeups for:
-Objects (right click) and
-Sheets

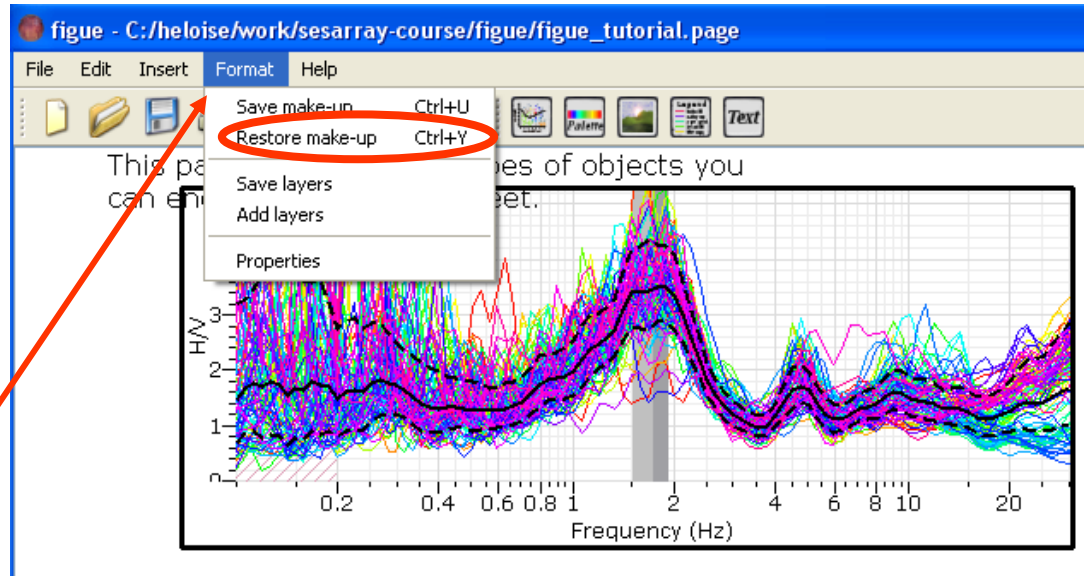


Save & restore "makeups"

Files: *.mkup

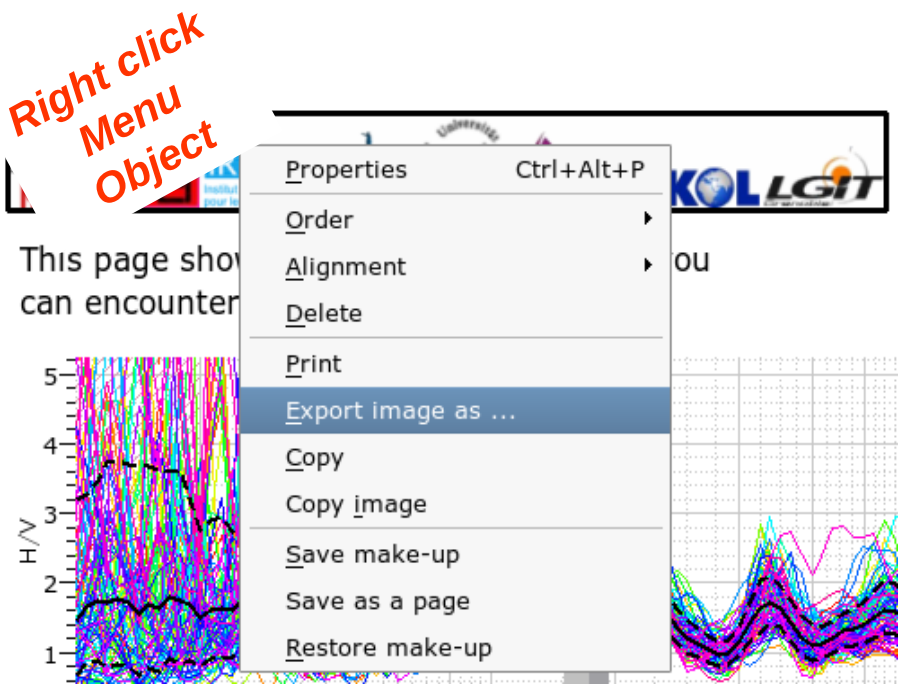
Load "object.mkup"

Be careful: difference between makeups for:
-Objects
and
-Sheets (top menu bar)

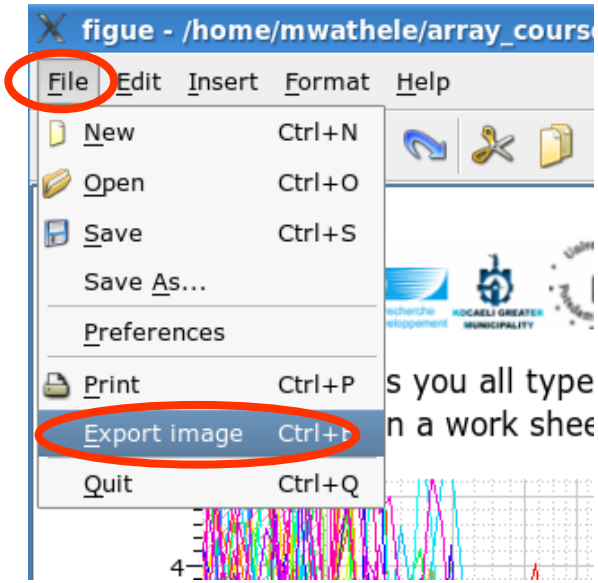


Save images

Create an image of an object



Create an image of the whole sheet



Controlling output resolution

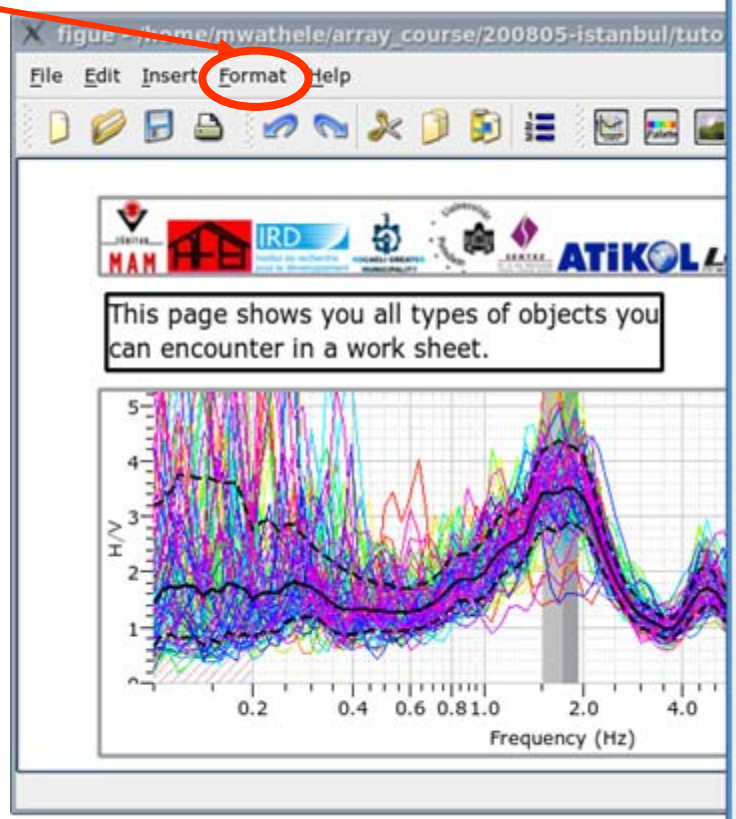
First: "ctrl+a" to select all objects

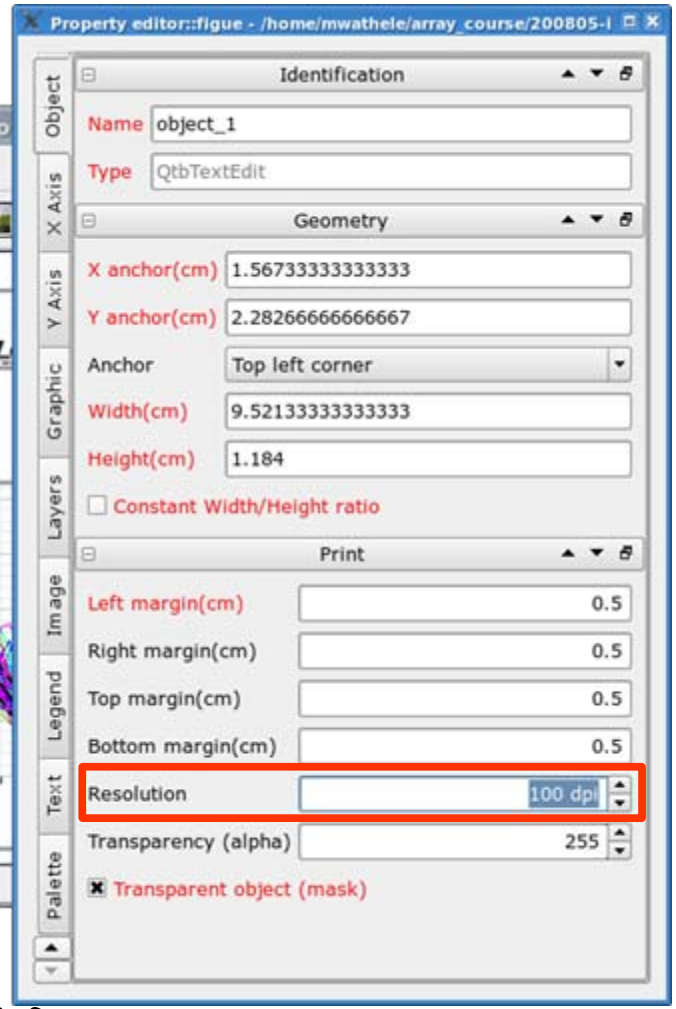
And either: *right click => properties*

Or

Top menu bar:

"format" => properties





Controlling image production
from command line

```
figue figue_tutorial.page -e figue_tutorial.png -f PNG -dpi 50
```

Whole sheet into a PNG file with low resolution

```
figue figue_tutorial.page -e figue_tutorial.pdf -f PDF -dpi 300
```

High quality PDF

```
figue -h
Usage: figue [OPTIONS] [FILE]...
Customize your figures saved as .page and convert into usual
image format (see option --format). FILE(s) are .page files.
These files are tar.gz files containing an xml (contents.xml)
and eventually some other binary files.
[...]
```

For more information

Figue as a quick plotter

```
cat curve.txt | figue -c -m dc.mkup
```

Plot a curve stored in a 2-column text file
with format saved in a "makeup" file (object kind)

Other types of plots: grids, dots, many curve,...
see option -h for more information.