

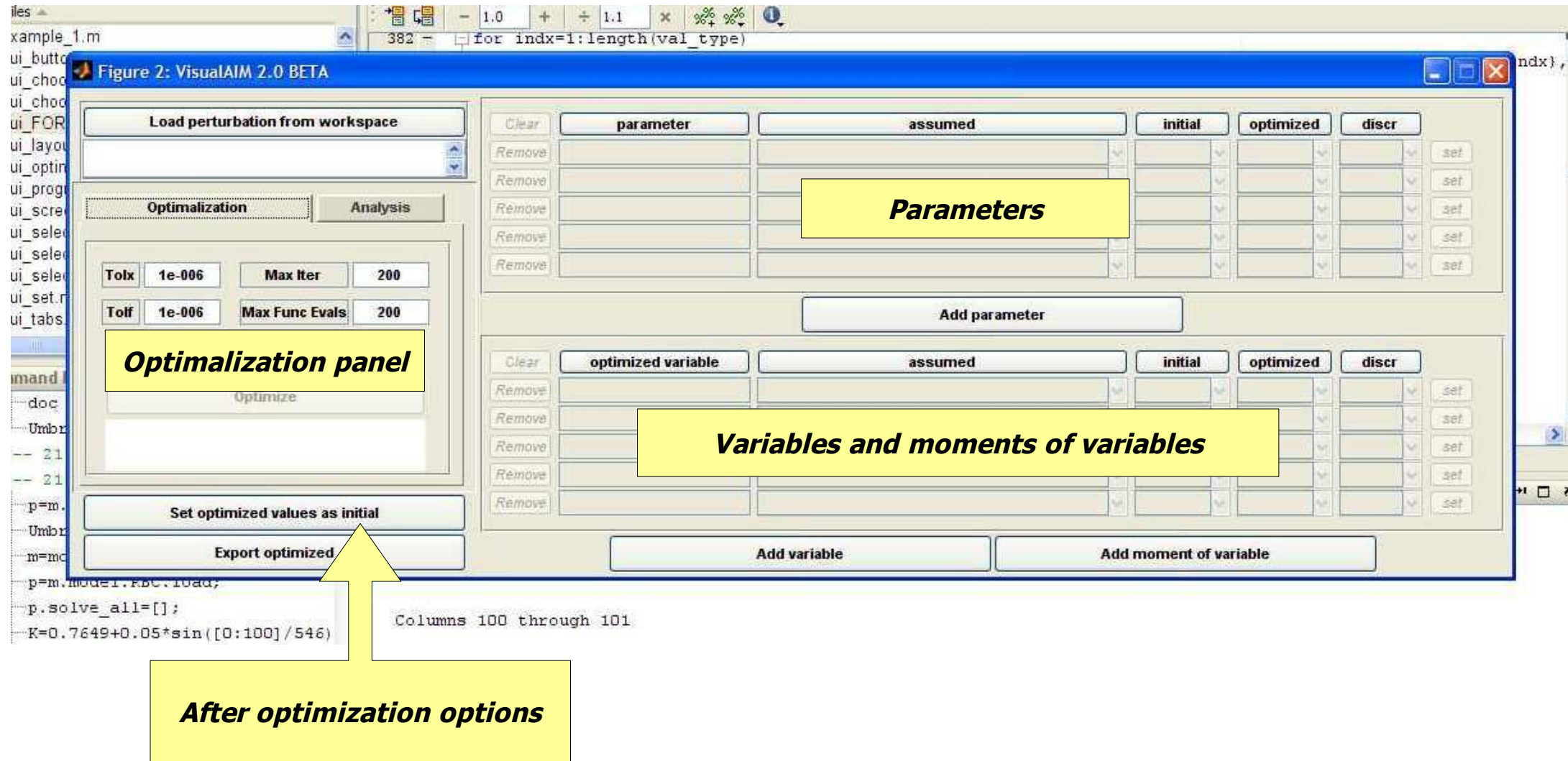
Tutorial to work with VisualAIM 2.0

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*VisualAIM2.0 is a MATLAB tool for simple investigations
and calibration of parameters impact on models solutions
in FORMA 24*

Overview of basic Visual AIM interface elements



Before optimization

**Load FORMA
perturbation object**

*The analysis panel could be
helpfull in choosing the
parameters to tune*

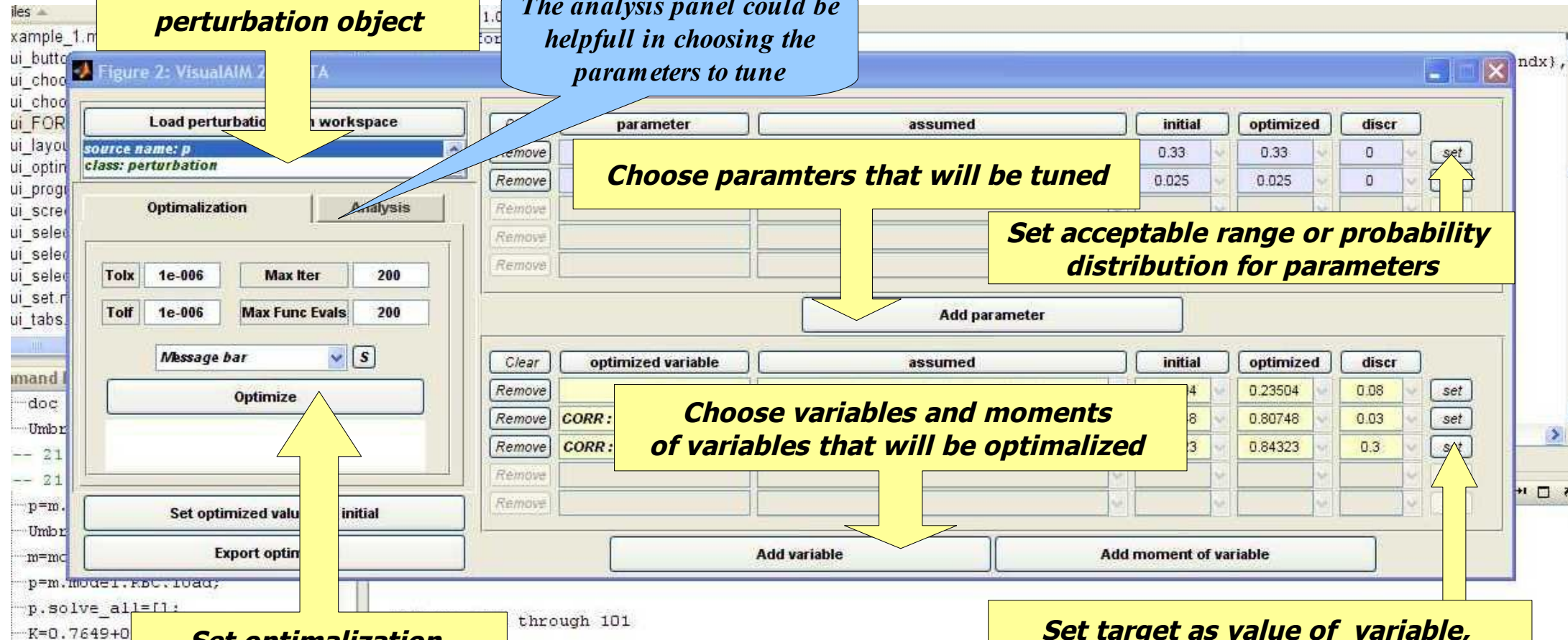
Choose paramters that will be tuned

**Set acceptable range or probability
distribution for parameters**

**Choose variables and moments
of variables that will be optimized**

**Set optimization
options for MATLAB
fminsearch and start
optimization with
this button**

**Set target as value of variable,
range of value or by the value
probability distributions**



Setting parameters and variables

The name of variable or parameter

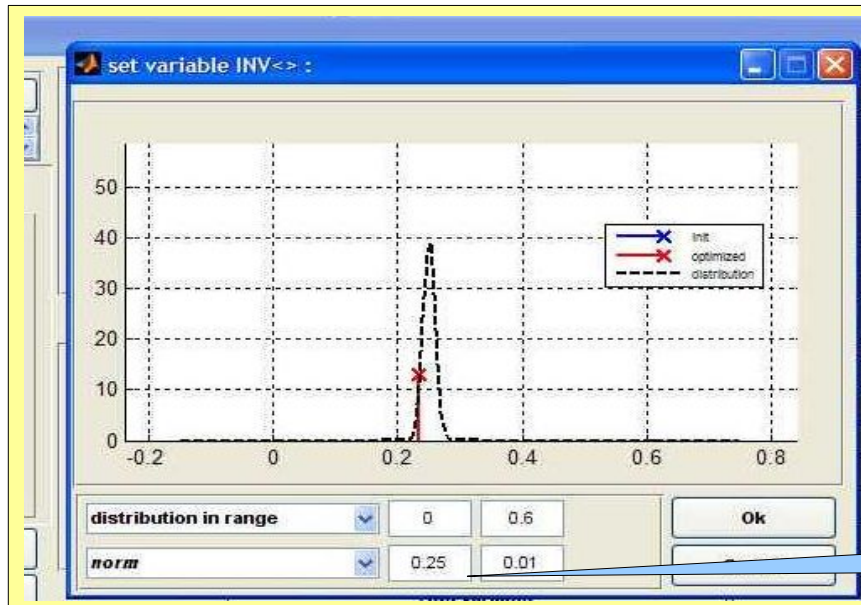
The initial (recent) value

Limits on variable/parameter

Value obtained in last optimization

Clear	normalized variable	assumed	initial	optimized	discr	
Remove	INV<>	norm:0.25,0.01, in range: 0.21 - 0.6	0.23504	0.23504	0.08	set

Discrepancy calculated as distance of optimized value from target or as the inverse of value probability for assumed distribution



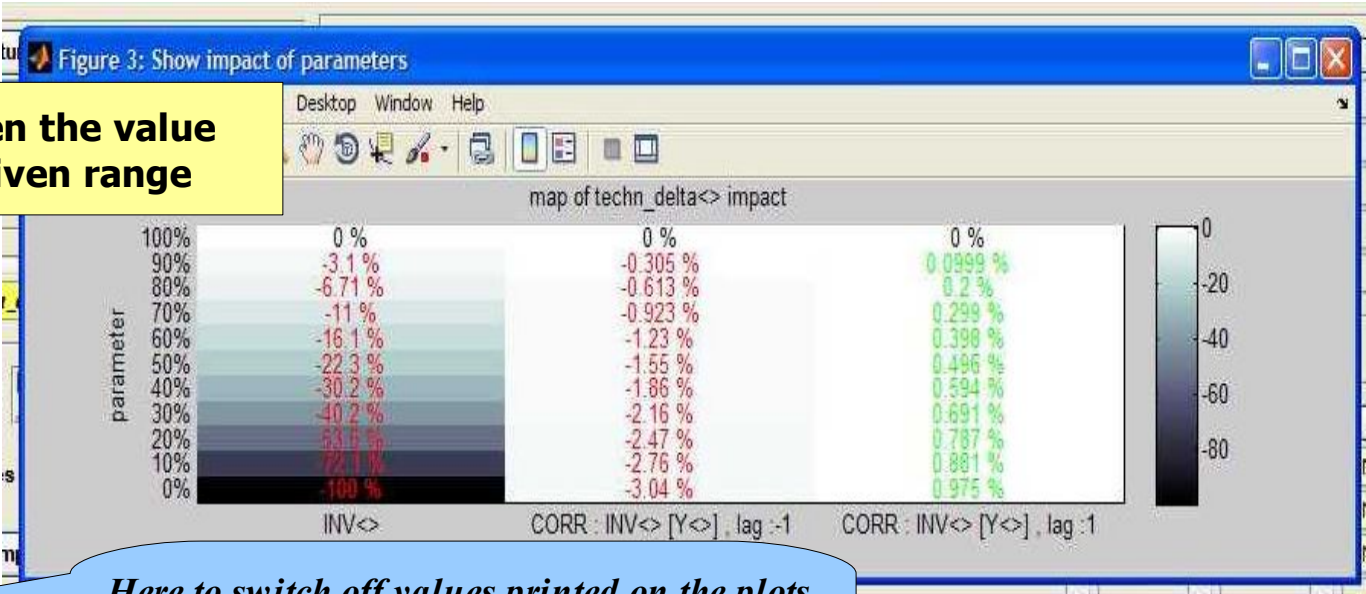
Parameter could be set by value, range of values or probability distribution of values using MATLAB pdf function

Variable could be left free to set by FORMA solution or could have assumed target value target range of values or target probability distribution of values using MATLAB pdf function

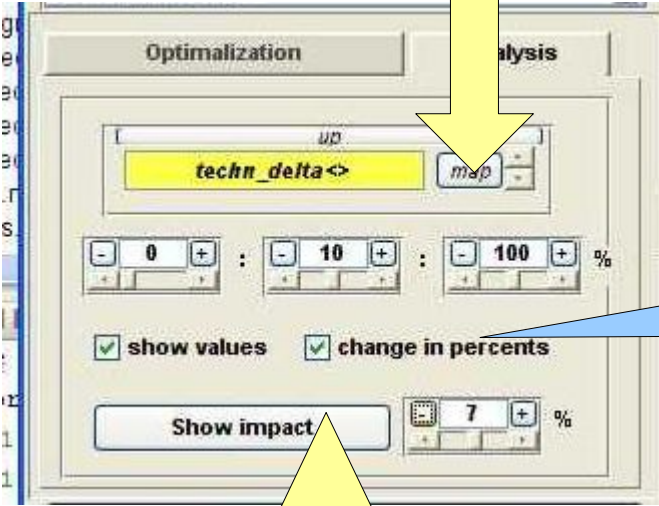
Parameters here are the arguments for MATLAB pdf function

Analysis panel

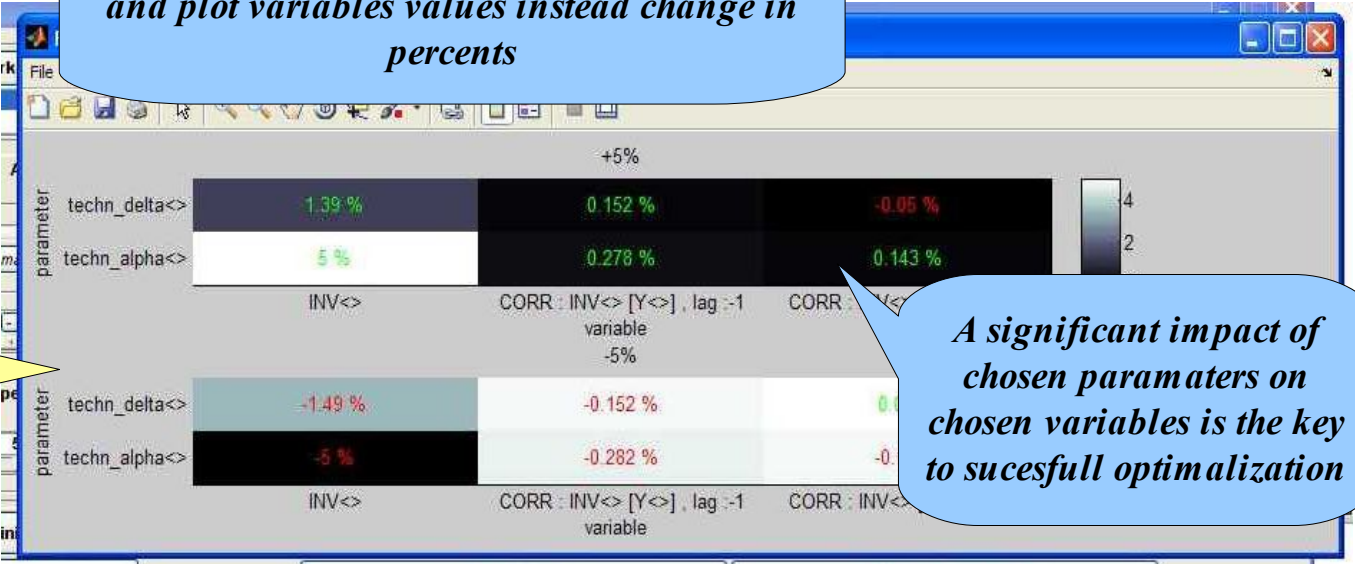
Shows the change of variables when the value of chosen paramater varies in given range



Here to switch off values printed on the plots and plot variables values instead change in percents



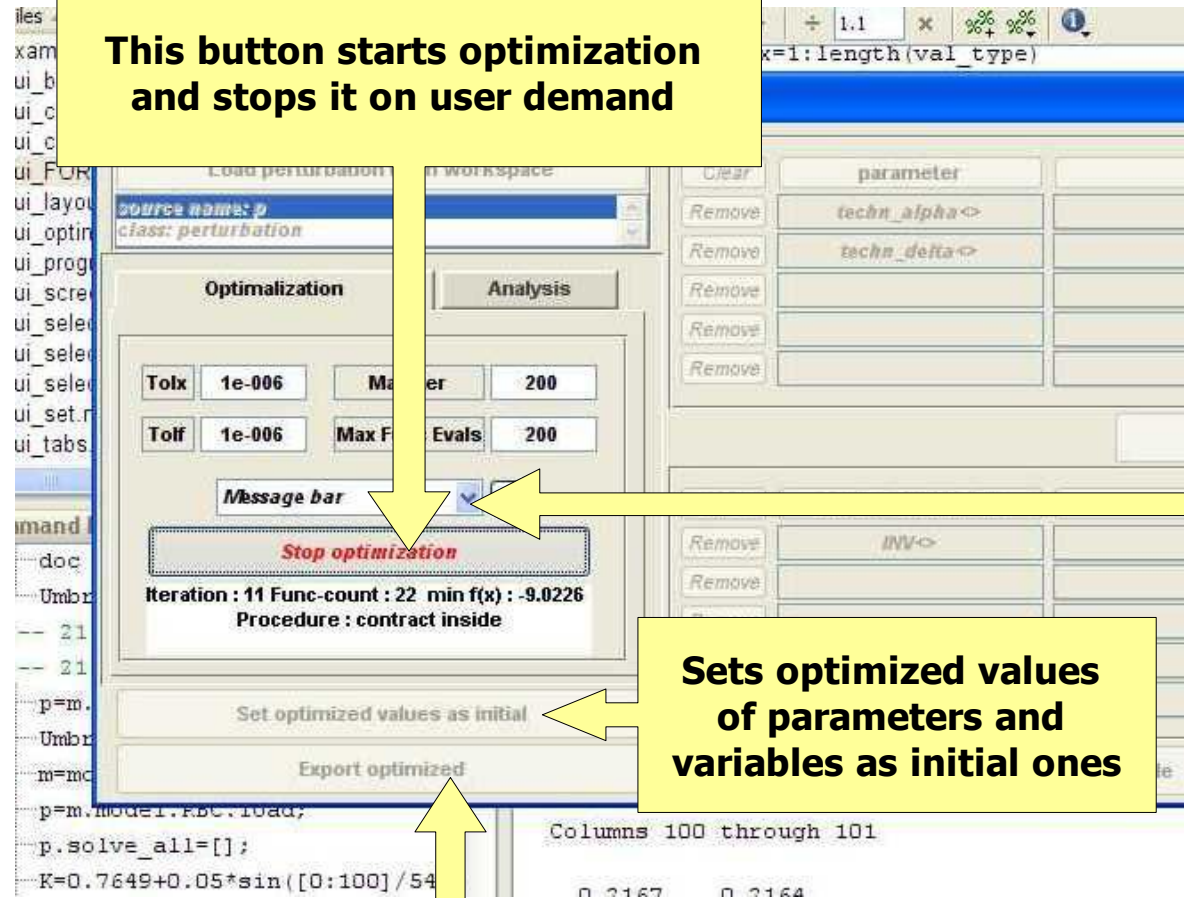
Shows the change of variables when given plus and minus percent change is made to single parameter of set



A significant impact of chosen paramaters on chosen variables is the key to sucesfull optimization

Optimization and aftermath

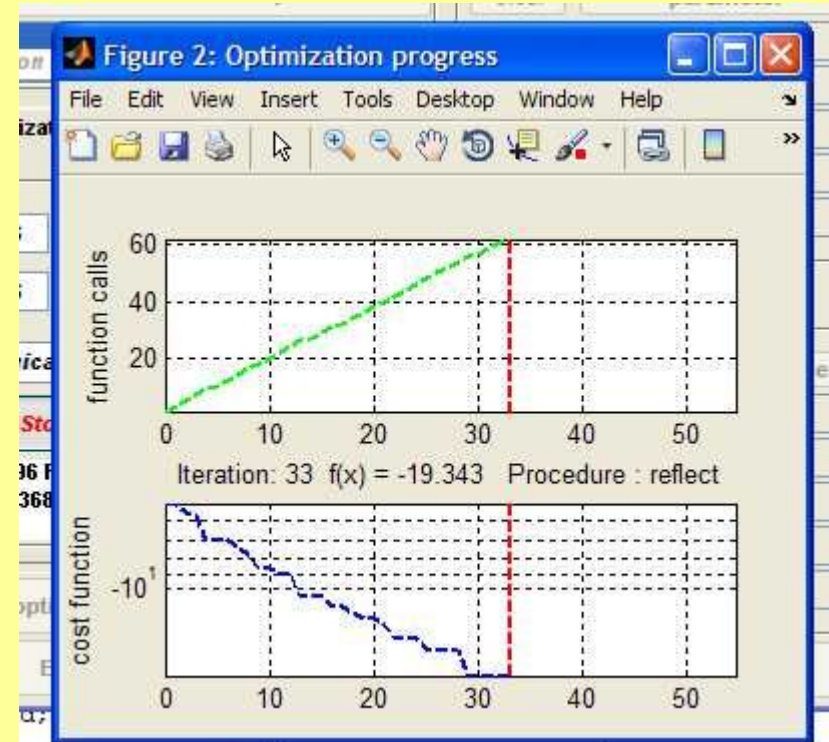
This button starts optimization and stops it on user demand



Sets optimized values of parameters and variables as initial ones

Exports results to .mat MATLAB file

The optimization progress could be presented as plots of function evaluations and discrepancy function value



End of Tutorial