

SMALLbox - Bug #430

Redundancies

2012-03-09 02:24 PM - Daniele Barchiesi

Status:	New	Start date:	2012-03-09
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:			

Description

There are various redundancies in the structure of SMALLBox, which require the same variable to be defined multiple times in different places.

For example, here is the simplest dictionary learning example using SMALLBox:

```
X = generate_data();           %training data
ksvd_params = struct('data',X,... %training data
                    'Tdata',1,... %sparsity level
                    'dictsize',3,... %number of atoms
                    'iternum',10); %number of iterations
problem = struct('b',X);       %training data
DL = SMALL_learn(problem,DL);  %learn dictionary
```

The training data must be specified in both the problem structure and the dictionary learning structure using different names, which can easily lead to confusion or errors caused by access to the two copies of the variables. In my opinion, this could be solved by defining a more rigid and well structured framework, or by using OOP.