

# Re: Free Nonlinear Optimization Package?

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- *From:* [jeyadev@xxxxxxxxxxxxxxxxxxxxxxxx](mailto:jeyadev@xxxxxxxxxxxxxxxxxxxxxxxx) (Surendar Jeyadev)
  - *Date:* 2 May 2005 18:47:56 GMT
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In article <1114985981.673848.87020@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>, <shahehe@xxxxxxxx> wrote:

>I have an optimization problem where the objective function is  
>nonlinear and there is no functional constraint. The feasible region is  
>a box, i.e., the optimization variables satisfy the constraints  
>  
> $x_{i\_min} \leq x_i \leq x_{i\_max}$   
>  
>where  $x_{i\_min}$  and  $x_{i\_max}$  are the bounds for variable  $x_i$ .  
>  
>Currently, I am using a general optimization package CFSQP to solve the  
>problem. I would like to know if there is a more robust and more  
>efficient free optimization package implemented in C or C++ that can be  
>used to solve my problem, i.e., "nonlinear objective function, no  
>functional constraint, and box shaped feasible region".

It may not be the right way to call it, but in my book specifying a feasible region is the same as imposing constraints, though, I suppose one may want to distinguish between constraints on design variables and constraints on the function values ...

In any case, try

B. V. Sheela and P. Ramamoorthy, SWIFT – A New Constrained Optimisation Technique, *Comp. Meth. Appl. Mechanics and Engineering*, 6 (1975) 309–318.

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Surendar Jeyadev [jeyadev1@xxxxxxxxxxxxxxxx](mailto:jeyadev1@xxxxxxxxxxxxxxxx)

The 1 in the email address is fake  
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- *References:*
  - ◆ [\*Free Nonlinear Optimization Package?\*](#)

## Re: Free Nonlinear Optimization Package?

◇ *From:* shahehe

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