

Announcing WNLIB 9.0 – Free C Subroutine Library

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WNLIB 9.0 is now available for download.

During my 15 years of C programming, I have accumulated a large library of subroutines which I have found most useful in quickly writing fast, portable, clean C programs. I am now making it available to all, with no usage restrictions.

Of particular interest to readers of this newsgroup:

- various matrix and vector routines.
- very good pseudo-random number generator. Also a routine to generate true random numbers (no kidding!). Normal distribution, Poisson distribution, Cauchy distribution, etc.
- unconstrained non-linear optimization routines: implementation of conjugate-gradient and conjugate-directions algorithms.
- constrained non-linear optimization routines: based on conjugate-gradient algorithm with penalties.
- simplex method for linear programming: contains anti-cycling and numerical stability hacks. No optimization for sparse matrix.
- transportation problem/assignment problem routine: optimization for sparse matrix.
- fast Fourier transform routines.
- general simulated annealing routine
- improved memory allocator and memory debugger; parsing package
- data structures: linked list; balanced binary tree; hash table – with common hash functions; dd tree
- sorting for lists and arrays

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You can download it by going to this URL:

<http://www.willnaylor.com/wnlib.html>

Happy hacking!

– Will Naylor

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