Submission has been received:

From: John C Nash nashjc@uottawa.ca
Date: Wed, 03 Feb 21 10:21:11 -0500
Subject: Nashlib update and consolidation
Message:
An exchange of emails between Peter Olsen and John Nash has led to a modest project to bring together various implementations of the pseudo-code algorithms from Nash J. C. "Compact Numerical Methods for Computers: Linear Algebra and Function Minimisation", Adam Hilger: Bristol, 1979. There was a 1990 Second Edition with Turbo Pascal codes which are part of the netlib collection.

The codes have turned out to be surprisingly resilient and have evolved as they have been applied, in particular in the R project.

Codes and documentation are being collected and edited so they all are runable at

https://github.com/pcolsen/Nash-Compact-Numerical-Methods

We believe the collection may prove useful:

- as a repository of different versions of the codes, possibly with addition of the extensions that have appeared over the nearly half century since some were initially coded.
- as a source of modest student or learning projects to code the algorithms in different programming languages e.g., Matlab/Octave or C. Python and R are the current goals. Fortran, BASIC and Pascal are well-represented.
- as a resource for exploring the influence of resource and programming language features on software design.
- as a base for specialised implementations e.g., a multiprecision version of an SVD code has been built, where the short code was helpful to adapting to the programming language extensions.

We welcome interest and collaboration.

John Nash and Peter Olsen

Thank you