# Quickstart Instructions for DVODE.F90

- **Compiling DVODE.F90**
  1. DVODE.F90 is a Fortran 90 extension of the f77 DVODE.F ODE solver of Brown, Byrne, and Hindmarsh from the LLNL ODEPACK suite. The three Fortran 90 modules that constitute DVODE.F90 are contained in the distribution file vode_double_m.f90. Compile this file using commands appropriate for your Fortran 90 compiler.
  2. Compile, link, and execute the program example1.f90. The last line in the output file example1.text should be: "No errors occurred."
  3. Repeat Step 2 for the program example2.f90.
  4. Refer to the demonstration programs available from the DVODE.F90 support page for examples which illustrate the various features and options available in DVODE.F90.

- **Documentation**
  1. The distribution file vode_double_m.f90 contains a detailed documentation prologue for using DVODE.F90.
  2. The DVODE.F90 support page contains a break down of the documentation prologue by major task.

- **Changing Working Precision**
  1. The distribution file contains a double precision version of DVODE.F90. If you wish to use it in single precision change the selected precision in a statement at the very beginning of the file.

- **Web Support Page**
  1. The source code, demonstration programs, and other material for DVODE.F90 is located at:
     http://www.radford.edu/∼thompson/vodef90web.html

- **Contact Information**
  1. Please contact the authors if you have any questions concerning DVODE.F90:
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  2. Note that Alan Hindmarsh is not involved with the distribution or support of DVODE.F90. *Please* do not bug him with questions about DVODE.F90.

- **Miscellaneous Notes**
  1. A version of DVODE.F90 that uses a Fortran 90 translation of LAPACK is available from the authors.
  3. DVODE.F90 uses a Fortran 90 translation of the Harwell MA28 routines for sparse Jacobians. A version of DVODE.F90 that uses the more recent Harwell MA48 routines is available from the authors. This version is *not* self contained since MA48 is proprietary software and is not distributed with DVODE.F90. You must have access to the Harwell HSL subroutine library to use it. Use of HSL is subject to license; if you need further clarification, please see
     http://www.hsl-library.com or contact hsl@hyprotech.com