Introduction to `ddesolve`

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1   A Brief History of `ddesolve`

Originally, `ddesolve` on CRAN housed code to generate numerical solutions for systems of delay differential equations (DDEs) and ordinary differential equations (ODEs). The numerical routines came from Simon Wood's program `solve95`[1], written in C for the Microsoft Windows operating systems. With `ddesolve`, a user could write the gradient code for a system of DDEs or ODEs in the R language, rather than C. The code ran on all platforms supported by R, and the results could be inspected using R's extensive graphics capabilities. Simon generously granted us permission to publish `ddesolve` (including his embedded routines) under the GNU GENERAL PUBLIC LICENSE Version 2.

In 2008, we transported the package contents from `ddesolve` to a new package called `PBSddesolve`. Simon's embedded C-code has not changed substantially (though we might need to tweak it occasionally). The important point is that any further development or maintenance will be applied to `PBSddesolve`, not `ddesolve`. We chose the current name `PBSddesolve` to emphasize a close association with other PBS (Pacific Biological Station, Nanaimo BC) packages, particularly `PBSmodelling`.

References

Schnute, J.T., Couture-Beil, A., and Haigh, R. (2008) A user's guide to the R package `ddesolve`, version 1.05. 17 pp.

Wood, S.N. (1999) `Solv95`: a numerical solver for systems of delay differential equations with switches. Saint Andrews, UK. 10 pp.

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[1]URL: `http://www.maths.bath.ac.uk/~sw283/simon/dde.html`, file: `solv95.zip`