

Re: can somebody verify this C program which calls dsaupd_ ? (longish)

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- *From:* "H. S." <g_reate_xcalibur@xxxxxxxxxx>
 - *Date:* Sat, 02 Apr 2005 22:53:31 -0500
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Apparently, `_glen herrmannsfeldt_`, on 02/04/05 22:07, typed:

> The remaining parameters to the function calls are as follows:

```
> dsaupd(int n, int nev, double *Evals)
> dsaupd(int n, int nev, double **Evals, double **Evecs)
```

I would be very surprised to see a Fortran program expecting a `double**`.

It would be usual to expect a `double*` that is big enough for the whole matrix, as it would be for C if declared as a 2D matrix. It is, of course, system dependent, but to satisfy some of the Fortran rules for calls, it isn't easy otherwise.

If `dsaupd` is not a Fortran program, but a C interface to Fortran then I would have to agree that the question is 100% C. (Actually, C++ as there are many non-C constructs used.)

`dsaupd` is a C++ overloaded function. However, I am more interested in the calling of "`dsaupd_`" function (as the subject line mentions) from within the `daupd` function. `dsaupd_`, the ARPACK reverse communication routine in FORTRAN, gets called in the C `dsaupd` function (in `dsaupd.h` file). In other words, `dsaupd` is a wrapper for the FORTRAN `dsaupd_` function.

->HS

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Thanks ,
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