

NAG Library Chapter Introduction
f06 – Linear Algebra Support Functions

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1 Scope of the Chapter

This chapter is concerned with basic linear algebra functions which perform elementary algebraic operations involving scalars, vectors and matrices. It includes functions which conform to the specifications of the BLAS (Basic Linear Algebra Subprograms).

A large number of functions in this chapter have been superseded by equivalent functions in Chapter f16. Please refer to Section 4 for further information.

2 Functionality Index

Level 1 (Vector) operations,

complex vector(s),

multiply vector by reciprocal of a real scalar nag_zrscl (f06kec)

real vector(s),

multiply vector by reciprocal of a scalar nag_drsc1 (f06fec)

3 Auxiliary Functions Associated with Library Function Arguments

None.

4 Functions Withdrawn or Scheduled for Withdrawal

The following lists all those functions that have been withdrawn since Mark 23 of the Library or are scheduled for withdrawal at one of the next two marks.

| Withdrawn Function | Mark of Withdrawal | Replacement Function(s) |
|---------------------|--------------------|-------------------------|
| old_dgemv (f06pac) | 23 | nag_dgemv (f16pac) |
| old_dgbmv (f06pbc) | 23 | nag_dgbmv (f16pbc) |
| old_dsymv (f06pcc) | 23 | nag_dsymv (f16pcc) |
| old_dsbbmv (f06pdc) | 23 | nag_dsbbmv (f16pdc) |
| old_dsbbmv (f06pec) | 23 | nag_dsbbmv (f16pec) |
| old_dtrmv (f06pfc) | 23 | nag_dtrmv (f16pfc) |
| old_dtbmv (f06pgc) | 23 | nag_dtbmv (f16pgc) |
| old_dtpmv (f06phc) | 23 | nag_dtpmv (f16phc) |
| old_dtrsv (f06pjc) | 23 | nag_dtrsv (f16pjc) |
| old_dtbsv (f06pkc) | 23 | nag_dtbsv (f16pkc) |
| old_dtpsv (f06plc) | 23 | nag_dtpsv (f16plc) |
| old_dger (f06pmc) | 23 | nag_dger (f16pmc) |
| old_dsyv (f06ppe) | 23 | nag_dsyv (f16ppe) |
| old_dspr (f06pqc) | 23 | nag_dspr (f16pqc) |
| old_dsyv2 (f06prc) | 23 | nag_dsyv2 (f16prc) |
| old_dspr2 (f06psc) | 23 | nag_dspr2 (f16psc) |
| old_zgemv (f06sac) | 23 | nag_zgemv (f16sac) |
| old_zgbmv (f06sbc) | 23 | nag_zgbmv (f16sbc) |
| old_zhemv (f06scc) | 23 | nag_zhemv (f16scc) |
| old_zhbbmv (f06sdc) | 23 | nag_zhbbmv (f16sdc) |
| old_zhbbmv (f06sec) | 23 | nag_zhbbmv (f16sec) |
| old_ztrmv (f06sfc) | 23 | nag_ztrmv (f16sfc) |
| old_ztbmv (f06sgc) | 23 | nag_ztbmv (f16sgc) |
| old_ztpmv (f06shc) | 23 | nag_ztpmv (f16shc) |
| old_ztrsv (f06sjc) | 23 | nag_ztrsv (f16sjc) |
| old_ztbsv (f06skc) | 23 | nag_ztbsv (f16skc) |
| old_ztpsv (f06slc) | 23 | nag_ztpsv (f16slc) |
| old_zgeru (f06smc) | 23 | nag_zgeru (f16smc) |
| old_zgerc (f06snc) | 23 | nag_zgerc (f16snc) |
| old_zher (f06spc) | 23 | nag_zher (f16spc) |

| | | |
|---------------------|----|---------------------|
| old_zhpr (f06sqc) | 23 | nag_zhpr (f16sqc) |
| old_zher2 (f06src) | 23 | nag_zher2 (f16src) |
| old_zhpr2 (f06ssc) | 23 | nag_zhpr2 (f16ssc) |
| old_dgemm (f06yac) | 23 | nag_dgemm (f16yac) |
| old_dsymm (f06ycc) | 23 | nag_dsymm (f16ycc) |
| old_dtrmm (f06yfc) | 23 | nag_dtrmm (f16yfc) |
| old_dtrsm (f06yjc) | 23 | nag_dtrsm (f16yjc) |
| old_dsyk (f06ypc) | 23 | nag_dsyk (f16ypc) |
| old_dsyk2k (f06yrc) | 23 | nag_dsyk2k (f16yrc) |
| old_zgemm (f06zac) | 23 | nag_zgemm (f16zac) |
| old_zhemm (f06zcc) | 23 | nag_zhemm (f16zcc) |
| old_ztrmm (f06zfc) | 23 | nag_ztrmm (f16zfc) |
| old_ztrsm (f06zjc) | 23 | nag_ztrsm (f16zjc) |
| old_zherk (f06zpc) | 23 | nag_zherk (f16zpc) |
| old_zher2k (f06zrc) | 23 | nag_zher2k (f16zrc) |
| old_zsymm (f06ztc) | 23 | nag_zsymm (f16ztc) |
| old_zsyk (f06zuc) | 23 | nag_zsyk (f16zuc) |
| old_zsyk2k (f06zwc) | 23 | nag_zsyk2k (f16zwc) |
