

NAG C Library Chapter Contents

f06 – Linear Algebra Support Functions

f06 Chapter Introduction

Routine Name	Mark of Introduction	Purpose
f06fec	8	nag_drsl Multiply real vector by reciprocal of scalar
f06kec	8	nag_zrsl Multiply complex vector by reciprocal of real scalar
f06pac	3	dgemv Matrix-vector product, real rectangular matrix
f06pbc	3	dgbmv Matrix-vector product, real rectangular band matrix
f06pcc	3	dsymv Matrix-vector product, real symmetric matrix
f06pdc	3	dsbmv Matrix-vector product, real symmetric band matrix
f06pec	3	dspmv Matrix-vector product, real symmetric packed matrix
f06pfc	3	dtrmv Matrix-vector product, real triangular matrix
f06pgc	3	dtbmv Matrix-vector product, real triangular band matrix
f06phc	3	dtpmv Matrix-vector product, real triangular packed matrix
f06pje	3	dtrsv System of equations, real triangular matrix
f06pkc	3	dtbsv System of equations, real triangular band matrix
f06plc	3	dtpsv System of equations, real triangular packed matrix
f06pmc	3	dger Rank-1 update, real rectangular matrix
f06ppc	3	dsyr Rank-1 update, real symmetric matrix
f06pqc	3	dspr Rank-1 update, real symmetric packed matrix
f06prc	3	dsyr2 Rank-2 update, real symmetric matrix
f06psc	3	dspr2 Rank-2 update, real symmetric packed matrix
f06sac	3	zgemv Matrix-vector product, complex rectangular matrix
f06sbc	3	zgbmv Matrix-vector product, complex rectangular band matrix
f06scc	3	zhemv Matrix-vector product, complex Hermitian matrix
f06sdc	3	zhbmv Matrix-vector product, complex Hermitian band matrix
f06sec	3	zhpmv Matrix-vector product, complex Hermitian packed matrix
f06sfc	3	ztrmv Matrix-vector product, complex triangular matrix

f06sgc	3	ztbmv Matrix-vector product, complex triangular band matrix
f06shc	3	ztpmv Matrix-vector product, complex triangular packed matrix
f06sjc	3	ztrsv System of equations, complex triangular matrix
f06skc	3	ztbsv System of equations, complex triangular band matrix
f06slc	3	ztpsv System of equations, complex triangular packed matrix
f06smc	3	zgeru Rank-1 update, complex rectangular matrix, unconjugated vector
f06snc	3	zgerc Rank-1 update, complex rectangular matrix, conjugated vector
f06spc	3	zher Rank-1 update, complex Hermitian matrix
f06sqc	3	zhpr Rank-1 update, complex Hermitian packed matrix
f06src	3	zher2 Rank-2 update, complex Hermitian matrix
f06ssc	3	zhpr2 Rank-2 update, complex Hermitian packed matrix
f06yac	3	dgemm Matrix-matrix product, two real rectangular matrices
f06ycc	3	dsymm Matrix-matrix product, one real symmetric matrix, one real rectangular matrix
f06yfc	3	dtrmm Matrix-matrix product, one real triangular matrix, one real rectangular matrix
f06yjc	3	dtrsm Solves a system of equations with multiple right-hand sides, real triangular coefficient matrix
f06ypc	3	dsyrk Rank- k update of a real symmetric matrix
f06yrc	3	dsyr2k Rank- $2k$ update of a real symmetric matrix
f06zac	3	zgemm Matrix-matrix product, two complex rectangular matrices
f06zcc	3	zhemm Matrix-matrix product, one complex Hermitian matrix, one complex rectangular matrix
f06zfc	3	ztrmm Matrix-matrix product, one complex triangular matrix, one complex rectangular matrix
f06zjc	3	ztrsm Solves system of equations with multiple right-hand sides, complex triangular coefficient matrix
f06zpc	3	zherk Rank- k update of a complex Hermitian matrix
f06zrc	3	zher2k Rank- $2k$ update of a complex Hermitian matrix
f06ztc	3	zsymm Matrix-matrix product, one complex symmetric matrix, one complex rectangular matrix
f06zuc	3	zsyk Rank- k update of a complex symmetric matrix
f06zwc	3	zsyr2k Rank- $2k$ update of a complex symmetric matrix
