

NAG C Library Chapter Contents

f16 – NAG Interface to BLAS

f16 Chapter Introduction

Routine Name	Mark of Introduction	Purpose
f16dbc	7	nag_iloadd Broadcast scalar into integer vector
f16ecc	7	nag_daxpby Multiply real vector by scalar, preserving input vector
f16fbc	7	nag_dload Broadcast scalar into real vector
f16hbc	7	nag_zload Broadcast scalar into complex vector
f16pac	8	nag_dgemv Matrix-vector product, real rectangular matrix
f16pbc	8	nag_dgbmv Matrix-vector product, real rectangular band matrix
f16pcc	8	nag_dsymv Matrix-vector product, real symmetric matrix
f16pdc	8	nag_dsmbv Matrix-vector product, real symmetric band matrix
f16pec	8	nag_dspmv Matrix-vector product, real symmetric packed matrix
f16pfc	8	nag_dtrmv Matrix-vector product, real triangular matrix
f16pgc	8	nag_dtbmv Matrix-vector product, real triangular band matrix
f16phc	8	nag_dtpmv Matrix-vector product, real triangular packed matrix
f16pje	7	nag_dtrsv System of equations, real triangular matrix
f16pkc	8	nag_dtbsv System of equations, real triangular band matrix
f16plc	8	nag_dtpsv System of equations, real triangular packed matrix
f16pmc	8	nag_dger Rank-1 update, real rectangular matrix
f16ppc	8	nag_dsyrr Rank-1 update, real symmetric matrix
f16ppc	8	nag_dspr Rank-1 update, real symmetric packed matrix
f16prc	8	nag_dsyrr2 Rank-2 update, real symmetric matrix
f16psc	8	nag_dspr2 Rank-2 update, real symmetric packed matrix
f16qec	7	nag_dtr_copy Matrix copy, real triangular matrix
f16qfc	7	nag_dge_copy Matrix copy, real rectangular matrix
f16qgc	7	nag_dtr_load Matrix initialization, real triangular matrix
f16qhc	7	nag_dge_load Matrix initialization, real rectangular matrix

f16rac	7	nag_dge_norm 1-norm, ∞ -norm, Frobenius norm, largest absolute element, real general matrix
f16rbc	7	nag_dgb_norm 1-norm, ∞ -norm, Frobenius norm, largest absolute element, real band matrix
f16rcc	7	nag_dsy_norm 1-norm, ∞ -norm, Frobenius norm, largest absolute element, real symmetric matrix
f16rdc	7	nag_dsp_norm 1-norm, ∞ -norm, Frobenius norm, largest absolute element, real symmetric matrix, packed storage
f16rec	7	nag_dsb_norm 1-norm, ∞ -norm, Frobenius norm, largest absolute element, real symmetric band matrix
f16sac	8	nag_zgemv Matrix-vector product, complex rectangular matrix
f16sbc	8	nag_zgbmv Matrix-vector product, complex rectangular band matrix
f16scc	8	nag_zhemv Matrix-vector product, complex Hermitian matrix
f16sdc	8	nag_zhbmV Matrix-vector product, complex Hermitian band matrix
f16sec	8	nag_zhpmv Matrix-vector product, complex Hermitian packed matrix
f16sfc	8	nag_ztrmv Matrix-vector product, complex triangular matrix
f16sgc	8	nag_ztbmv Matrix-vector product, complex triangular band matrix
f16shc	8	nag_ztpmv Matrix-vector product, complex triangular packed matrix
f16sjc	7	nag_ztrsv System of equations, complex triangular matrix
f16skc	8	nag_ztbsv System of equations, complex triangular band matrix
f16slc	8	nag_ztpsv System of equations, complex triangular packed matrix
f16smc	8	nag_zger Rank-1 update, complex rectangular matrix, unconjugated vector
f16spc	8	nag_zher Rank-1 update, complex Hermitian matrix
f16sqc	8	nag_zhpr Rank-1 update, complex Hermitian packed matrix
f16src	8	nag_zher2 Rank-2 update, complex Hermitian matrix
f16ssc	8	nag_zhpr2 Rank-2 update, complex Hermitian packed matrix
f16tac	8	nag_zsymv Matrix-vector product, complex symmetric matrix
f16tcc	8	nag_zspmv Matrix-vector product, complex symmetric packed matrix
f16tec	7	nag_ztr_copy Matrix copy, complex triangular matrix
f16tfc	7	nag_zge_copy Matrix copy, complex rectangular matrix
f16tgc	7	nag_ztr_load Matrix initialization, complex triangular matrix
f16thc	7	nag_zge_load Matrix initialization, complex rectangular matrix

f16uac	7	nag_zge_norm 1-norm, ∞ -norm, Frobenius norm, largest absolute element, complex general matrix
f16ubc	7	nag_zgb_norm 1-norm, ∞ -norm, Frobenius norm, largest absolute element, complex band matrix
f16ucc	7	nag_zhe_norm 1-norm, ∞ -norm, Frobenius norm, largest absolute element, complex Hermitian matrix
f16udc	7	nag_zhp_norm 1-norm, ∞ -norm, Frobenius norm, largest absolute element, complex Hermitian matrix, packed storage
f16uec	7	nag_zhb_norm 1-norm, ∞ -norm, Frobenius norm, largest absolute element, complex Hermitian band matrix
f16ufc	7	nag_zsy_norm 1-norm, ∞ -norm, Frobenius norm, largest absolute element, complex symmetric matrix
f16ugc	7	nag_zsp_norm 1-norm, ∞ -norm, Frobenius norm, largest absolute element, complex symmetric matrix, packed storage
f16yac	8	nag_dgemm Matrix-matrix product, two real rectangular matrices
f16ycc	8	nag_dsymm Matrix-matrix product, one real symmetric matrix, one real rectangular matrix
f16yfc	8	nag_dtrmm Matrix-matrix product, one real triangular matrix, one real rectangular matrix
f16yje	7	nag_dtrsm Solves a system of equations with multiple right-hand sides, real triangular coefficient matrix
f16ypc	8	nag_dsyrk Rank- k update of a real symmetric matrix
f16yrc	8	nag_dsy2k Rank- $2k$ update of a real symmetric matrix
f16zac	8	nag_zgemm Matrix-matrix product, two complex rectangular matrices
f16zcc	8	nag_zhemm Matrix-matrix product, one complex Hermitian matrix, one complex rectangular matrix
f16zfc	8	nag_ztrmm Matrix-matrix product, one complex triangular matrix, one complex rectangular matrix
f16zjc	7	nag_ztrsm Solves system of equations with multiple right-hand sides, complex triangular coefficient matrix
f16zpc	8	nag_zherk Rank- k update of a complex Hermitian matrix
f16zrc	8	nag_zher2k Rank- $2k$ update of a complex Hermitian matrix
f16ztc	8	nag_zsymm Matrix-matrix product, one complex symmetric matrix, one complex rectangular matrix
f16zuc	8	nag_zsyrk Rank- k update of a complex symmetric matrix
f16zwc	8	nag_zsy2k Rank- $2k$ update of a complex symmetric matrix
