

## NAG Library Chapter Contents

### F16 – Further Linear Algebra Support Routines

F16 Chapter Introduction – a description of the Chapter and an overview of the algorithms available

<b>Routine Name</b>	<b>Mark of Introduction</b>	<b>Purpose</b>
F16DLF	22	nagf_blast_isum Sum elements of integer vector
F16DNF	22	nagf_blast_imax_val Maximum value and location, integer vector
F16DPF	22	nagf_blast_imin_val Minimum value and location, integer vector
F16DQF	22	nagf_blast_iamax_val Maximum absolute value and location, integer vector
F16DRF	22	nagf_blast_iamin_val Minimum absolute value and location, integer vector
F16EAF (BLAS_DDOT)	25	BLAS_DDOT nagf_blast_ddot Dot product of two vectors, allows scaling and accumulation.
F16ECF (BLAS_DAXPBY)	24	BLAS_DAXPBY nagf_blast_daxpby Real weighted vector addition
F16EHF (BLAS_DWAXPBY)	22	BLAS_DWAXPBY nagf_blast_dwaxpby Real weighted vector addition preserving input
F16ELF (BLAS_DSUM)	22	BLAS_DSUM nagf_blast_dsum Sum elements of real vector
F16GCF (BLAS_ZAXPBY)	24	BLAS_ZAXPBY nagf_blast_zaxpby Complex weighted vector addition
F16GHF (BLAS_ZWAXPBY)	22	BLAS_ZWAXPBY nagf_blast_zwaxpby Complex weighted vector addition preserving input
F16GLF (BLAS_ZSUM)	22	BLAS_ZSUM nagf_blast_zsum Sum elements of complex vector
F16JNF (BLAS_DMAX_VAL)	22	BLAS_DMAX_VAL nagf_blast_dmax_val Maximum value and location, real vector
F16JPF (BLAS_DMIN_VAL)	22	BLAS_DMIN_VAL nagf_blast_dmin_val Minimum value and location, real vector
F16JQF (BLAS_DAMAX_VAL)	22	BLAS_DAMAX_VAL nagf_blast_damax_val Maximum absolute value and location, real vector
F16JRF (BLAS_DAMIN_VAL)	22	BLAS_DAMIN_VAL nagf_blast_damin_val Minimum absolute value and location, real vector

F16JSF (BLAS_ZAMAX_VAL)	22	BLAS_ZAMAX_VAL nagf_blast_zamax_val Maximum absolute value and location, complex vector
F16JTF (BLAS_ZAMIN_VAL)	22	BLAS_ZAMIN_VAL nagf_blast_zamin_val Minimum absolute value and location, complex vector
F16RBF	23	nagf_blast_dgb_norm 1-norm, $\infty$ -norm, Frobenius norm, largest absolute element, real band matrix
F16UBF	23	nagf_blast_zgb_norm 1-norm, $\infty$ -norm, Frobenius norm, largest absolute element, complex band matrix

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