Meaning of prefixes
S - REAL
D - DOUBLE PRECISION
C - COMPLEX
Z - COMPLEX*16
(this may not be supported by all machines)

For the Level 2 BLAS a set of extended-precision routines with the prefixes ES, ED, EC, EZ may also be available.

Level 1 BLAS
In addition to the listed routines there are two further extended-precision dot product routines DQDOTI and DQDOTA.

Level 2 and Level 3 BLAS
Matrix types:
GE - General
GB - General Band
SY - SYmmetric
SB - Sym, Band
HE - HErmitian
HB - Herm, Band
HP - Herm, Packed
TR - Triangular
TB - Triang, Band
TP - Triang, Packed

Level 2 and Level 3 BLAS Options
Dummy options arguments are declared as CHARACTER *1
and may be passed as character strings.
TRANS = 'No transpose', 'Transpose',
      'Conjugate transpose' (X, X', X*)
UPLO = 'Upper triangular', 'Lower triangular'
DIAG = 'Non-unit triangular', 'Unit triangular'
SIDE = 'Left', 'Right' (A or op(A) on the left,
or A or op(A) on the right)

For real matrices, TRANS = 'T' and TRANS = 'C'
have the same meaning.
For Hermitian matrices, TRANS = 'T' is not allowed.
For complex symmetric matrices, TRANS = 'H'
 is not allowed.

References


Obtaining the Software via netlib@ornl.gov

To receive a copy of the single-precision software,
type in a mail message:
send sblas from blas
send sblas2 from blas
send sblas3 from blas

To receive a copy of the double-precision software,
type in a mail message:
send dblas from blas
send dblas2 from blas
send dblas3 from blas

To receive a copy of the complex single-precision software,
type in a mail message:
send cblas from blas
send cblas2 from blas
send cblas3 from blas

To receive a copy of the complex double-precision software,
type in a mail message:
send zblas from blas
send zblas2 from blas
send zblas3 from blas

Send comments and questions to lapack@cs.utk.edu .

Basic Linear Algebra Subprograms
A Quick Reference Guide

University of Tennessee
Oak Ridge National Laboratory
Numerical Algorithms Group Ltd.

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