

Reserved Names

1 Auxiliary Routines

In addition to those Library routines which are documented and are intended to be called by users, the Library also contains many auxiliary routines.

In general, you need not be concerned with them at all, although you may be made aware of their existence if, for example, you examine a memory map of an executable program which calls NAG routines.

NAG auxiliary routines have names which are similar to the name of the documented routine(s) to which they are related, but with the sixth letter 'Z', 'Y', and so on, e.g.,

D01AUTP is an auxiliary routine called by D01AUPF.

The Library also calls a number of **de facto** standard routines such as the BLACS, PBLAS (see Choi *et al.* [2]) and BLAS (see for example Anderson *et al.* [1] and the references contained therein). Depending on which version of the Library is used, a few MPI routines are also called. MPI routines that are called by the MPI-based version of the Library have names that start with MPI, to avoid unintentional clashes with MPI names you should not declare names that start with these characters. Similarly, a number of the BLACS routines start with the characters BLACS. Additional reserved names, to avoid including further BLACS names, are listed below.

2 Other Reserved Names

CGAMN2D_	CGAMX2D_	CGEBR2D_	CGEBS2D_
CGERV2D_	CGESD2D_	CGSUM2D_	CTRBR2D_
CTRBS2D_	CTRRV2D_	CTRSD2D_	DCPUTIME00_
DESC_CONVERT	DGAMN2D_	DGAMX2D_	DGEBR2D_
DGEBS2D_	DGERV2D_	DGESD2D_	DGSUM2D_
DLABAD	DLACPY	DLADIV	DLAGGE
DLAGSY	DLAGTF	DLAGTS	DLAMCH
DLAPY2	DLAPY3	DLARAN	DLARF
DLARFB	DLARFG	DLARFT	dlarnd
DLARNV	DLAROT	DLARTG	DLARUV
DLASCL	DLASET	DLASRT	DLASSQ
DLATCPY	DLATM1	DLATMS	DMATADD
DORM2L	DORM2R	DORMQL	DORMQR
DORMTR	DPBTF2	DPBTRF	DPOTF2
DPOTRF	DPTTRF	DPTTRS	DSTEIN
DTBTRS	DTRBR2D_	DTRBS2D_	DTRRV2D_
DTRSD2D_	DTRTRS	DWALLTIME00_	DZSUM1
GETPBBUF	ICMAX1	ICOPY	IGAMN2D_
IGAMX2D_	IGEBR2D_	IGEBS2D_	IGERV2D_
IGESD2D_	IGSUM2D_	ILAENV	INFOG2L
ITRBR2D_	ITRBS2D_	ITRRV2D_	ITRSD2D_
IZMAX1	KBRID_	KBSID_	KRECVID_
KSENDID_	LSAME	PBCHKMAT	PBCHKVECT
PBDDZERO	PBDDZRO1	PBDGEMM	PBDGEMV
PBDGER	PBDLACP1	PBDLACPZ	PBDMATADD
PBDSYMM	PBDSYMV	PBDSYR	PBDSYR2
PBDSYR2K	PBDSYRK	PBDTRAD1	PBDTRADD
PBDTRAN	PBDTRGET	PBDTRMM	PBDTRMV
PBDTRNV	PBDTRSM	PBDTRSRT	PBDTRST1
PBDTRSV	PBDVECADD	PBERROR_	PBFREEBUF_
PBZDZERO	PBZDZRO1	PBZGEMM	PBZGEMV

PBZGERC	PBZGERU	PBZHEMM	PBZHEMV
PBZHER	PBZHER2	PBZHER2K	PBZHERK
PBZLACP1	PBZLACPZ	PBZMATADD	PBZSYMM
PBZSYR2K	PBZSYRK	PBZTRAD1	PBZTRADD
PBZTRAN	PBZTRGET	PBZTRMM	PBZTRMV
PBZTRNV	PBZTRSM	PBZTRSRT	PBZTRST1
PBZTRSV	PBZVECADD	PDAMAX_	PDASUM_
PDAXPY_	PDCOPY_	PDDOT_	PDGEMM_
PDGEMV_	PDGER_	PDLABAD	PDLAIECT
PDLANTR	PDLATRS	PDNRM2_	PDRSCL
PDSCAL_	PDSWAP_	PDSYMM_	PDSYMV_
PDSYR2_	PDSYR2K_	PDSYR_	PDSYRK_
PDTRAN_	PDTRMM_	PDTRMV_	PDTRSM_
PDTRSV_	PDZASUM_	PDZNRM2_	PTOP
PTOPGET_	PTOPSET_	PXERBLA	PZAMAX_
PZAXPY_	PZCOPY_	PZDOTC_	PZDOTU_
PZDSCAL_	PZELGET	PZGEMM_	PZGEMV_
PZGERC_	PZGERU_	PZHEMM_	PZHEMV_
PZHER2_	PZHER2K_	PZHER_	PZHERK_
PZSCAL_	PZSWAP_	PZSYMM_	PZSYR2K_
PZSYRK_	PZTRANC_	PZTRANU_	PZTRMM_
PZTRMV_	PZTRSM_	PZTRSV_	RESHAPE
SGAMN2D_	SGAMX2D_	SGBR2D_	SGBS2D_
SGERV2D_	SGESD2D_	SGSUM2D_	STRBR2D_
STRBS2D_	STRRV2D_	STRSD2D_	XERBLA
ZGAMN2D_	ZGAMX2D_	ZGBR2D_	ZGBS2D_
ZGERV2D_	ZGESD2D_	ZGSUM2D_	ZLACGV
ZLACPY	ZLADIV	ZLAGGE	ZLAGGE
ZLAGSY	ZLARF	ZLARFB	ZLARFG
ZLARFT	ZLARND	ZLAROT	ZLARTG
ZLASCL	ZLASET	ZLASSQ	ZLATCPY
ZLATMS	ZMATADD	ZPBTF2	ZPBTRF
ZPOTF2	ZPOTRF	ZPTTRF	ZROT
ZSTEIN	ZTBTRS	ZTRBR2D_	ZTRBS2D_
ZTRRV2D_	ZTRSD2D_	ZTRTRS	ZUNM2L
ZUNM2R	ZUNMQL	ZUNMQR	ZUNMTR
ZZDOTC			

3 References

- [1] Anderson E, Bai Z, Bischof C, Blackford S, Demmel J, Dongarra J J, Du Croz J J, Greenbaum A, Hammarling S, McKenney A and Sorensen D (1999) *LAPACK Users' Guide* (3rd Edition) SIAM, Philadelphia
- [2] Choi J, Dongarra J J, Ostrouchov S, Petitot A P, Walker D W and Whaley R C (1994) The Design and Implementation of the ScaLAPACK LU, QR and Cholesky Factorization Routines *LAPACK Working Note 80. Technical Report CS-94-246* Department of Computer Science, University of Tennessee, 107 Ayres Hall, Knoxville, TN 37996-1301, USA