

Appendix A. Files Required by Each Entry

The following tabulation shows for each user-callable procedure name in the MATH77 library the set of program files needed to support the use of that procedure name. A program file contains one or more Fortran program units. A program unit contains the code for one or more procedures (more than one if ENTRY statements are present). Files are listed in lower case, entries in upper case. If an entry uses an entry that is not in a MATH77 file, it is listed with the files, but in upper case.

The term “file” is used here as it is used in most operating systems. For the UNISYS (UNIVAC) system replace the term “file” with “element.”

Entry	Necessary files										
CAXPY	caxpy										
CCOEF	ccoef										
CCOPY	ccopy										
CDOTC	cdotc										
CDOTU	cdotu										
CGAM	amach	cgam	erfin	ermmsg	serm1	serv1					
CGECO	caxpy	cdotc	cgeco	cgefa	cscal	csscal	icamax	scasum			
CGED	amach	cged									
CGEFA	caxpy	cgefa	cscal	icamax							
CGEFS	caxpy	cgefa	cgefs	cgesld	cscal	erfin	ermmsg	icamax			
CGEFSC	caxpy	cdotc	cgeco	cgefa	cgefsc	cgesld	cscal	csscal	erfin	ermmsg	icamax
	scasum										
CGEI	caxpy	cgei	cscal	cswap	erfin	ermmsg					
CGESLD	caxpy	cgesld	erfin	ermmsg							
CGESLT	cdotc	cgeslt	erfin	ermmsg							
CPOLZ	amach	cpolz	erfin	ermmsg	scomqr						
CSCAL	cscal										
CSORT	csort										
CSORTP	csortp										
CSORTQ	csortp										
CSSCAL	csscal										
CSWAP	cswap										
CWOFZ	amach	cwofz	erfin	ermor	ermmsg	serv1					
D1MACH	amach										
DACCUM	amach	daccum	dhtcc	dnrm2	drotg	erfin	ermmsg	ierm1	ierv1		
DACOSH	amach	dasinh	derm1	derv1	erfin	ermmsg					
DACSCH	amach	dasinh	derm1	derv1	erfin	ermmsg					
DACTNH	amach	dasinh	derm1	derv1	erfin	ermmsg					
DASECH	amach	dasinh	derm1	derv1	erfin	ermmsg					
DASINH	amach	dasinh	derm1	derv1	erfin	ermmsg					
DASUM	dasum										
DATANH	amach	dasinh	derm1	derv1	erfin	ermmsg					
DAXPY	daxpy										
DBACC	amach	dbacc	dhtcc	dnrm2	erfin	ermmsg	ierm1	ierv1			
DBESJ0	amach	dbesj0	dbmp0	dcsevl	derm1	derv1	dinits	erfin	ermmsg	ierm1	ierv1
DBESJ1	amach	dbesj1	dbmp1	dcsevl	derm1	derv1	dinits	erfin	ermmsg	ierm1	ierv1
DBESJN	amach	dbesjn	dbesjq	derm1	derv1	dgamma	erfin	ermmsg	ierv1		
DBESY0	amach	dbesj0	dbesy0	dbmp0	dcsevl	derm1	derv1	dinits	erfin	ermmsg	ierm1
	ierv1										
DBESY1	amach	dbesj1	dbesy1	dbmp1	dcsevl	derm1	derv1	dinits	erfin	ermmsg	ierm1
	ierv1										
DBESYN	amach	dbesjq	dbesyn	derm1	derv1	dgamma	dlgama	erfin	ermor	ermmsg	ierv1
DBI0K0	amach	dbi0k0	dcsevl	derm1	derv1	dinits	erfin	ermmsg	ierm1	ierv1	
DBI1K1	amach	dbi1k1	dcsevl	derm1	derv1	dinits	erfin	ermmsg	ierm1	ierv1	
DBINOM	amach	dbinom	derm1	derv1	dgamma	dlgama	erfin	ermmsg	ierm1	ierv1	
DBSOL	dbsol	erfin	ermmsg	ierm1	ierv1						
DC2FIT	amach	dbacc	dbsol	dc2bas	dc2fit	derm1	derv1	dhtcc	dnrm2	dtrc2c	erfin
	ermmsg	ierm1	ierv1								

Entry	Necessary files										
DCDCHI	amach	dcdchi	dcsevl	derf	derm1	derv1	dgam1	dgami	dgamma	dgr17	dgr29
	dinits	drcomp	drexp	drlog	dxparg	erfin	ermsg	ierm1	ierv1		
DCDNML	amach	dcdnml	dcsevl	derf	derm1	derv1	dinits	erfin	ermsg	ierm1	ierv1
DCDPOI	amach	dcdpoi	dcsevl	derf	derm1	derv1	dgam1	dgami	dgamma	dgr17	dgr29
	dinits	drcomp	drexp	drlog	dxparg	erfin	ermsg	ierm1	ierv1		
DCFT	deft	dfft	erfin	ermsg	ierm1	ierv1					
DCHOL	amach	dchol	ddot								
DCI	dci	dcpval	derm1	derv1	erfin	ermsg					
DCIN	dci	dcpval	derm1	derv1	erfin	ermsg					
DCKDER	amach	dckder	erfin	ermsg	ierm1	ierv1					
DCONCM	dconcm										
DCONMC	dconmc										
DCOPY	dcopy										
DCOS1	dcos1										
DCOSHM	dcoshm										
DCOSPX	amach	dcospx	derm1	derv1	erfin	ermsg					
DCOV2	dcov2	ddot	dswap	erfin	ermsg	ierm1	ierv1				
DCOV3	dcopy	dcov3	ddot	dscal	erfin	ermsg	ierm1	ierv1			
DCPDRV	dcpdrv	erfin	ermsg	ierm1	ierv1						
DCPINT	dcpint	erfin	ermsg	ierm1	ierv1						
DCPLTE	amach	dcplte	derm1	derv1	erfin	ermsg					
DCPLTK	amach	dcpltk	derm1	derv1	erfin	ermsg					
DCPVAL	dcpval										
DCSHMM	dcshmm										
DDASDB	amach	ddasdb	dmess	mess							
DDASLS	amach	dasum	daxpy	dcopy	ddasf	ddasls	ddot	dgbfa	dgbsl	dgefa	dgemv
	dgesl	dscal	dswap	idamax	lsame	mess	xerbla				
DDASLX	amach	daxpy	dcopy	ddas1	ddasco	ddasdb	ddasf	ddasgh	ddasin	ddasj	ddaslv
	ddaslx	ddasnm	ddastp	ddaswt	ddot	dgbfa	dgbsl	dgefa	dgesl	dmess	dnrn2
	drotg	dscal	dswap	idamax	mess					drot	
DDOT	ddot										
DE1	amach	dcsevl	dei	derm1	derv1	dinits	erfin	ermsg	ierm1	ierv1	
DEI	amach	dcsevl	dei	derm1	derv1	dinits	erfin	ermsg	ierm1	ierv1	
DELEFI	amach	delefi	derm1	derv1	dlrel	erfin	ermsg				
DELPII	amach	delpii	derm1	derv1	drcval	drfval	drjval	erfin	ermsg		
DERF	amach	dcsevl	derf	derm1	derv1	dinits	erfin	ermsg	ierm1	ierv1	
DERFC	amach	dcsevl	derf	derm1	derv1	dinits	erfin	ermsg	ierm1	ierv1	
DERFCE	amach	dcsevl	derf	derm1	derv1	dinits	erfin	ermsg	ierm1	ierv1	
DERFCI	amach	derfi	derm1	derv1	erfin	ermsg					
DERFI	amach	derfi	derm1	derv1	erfin	ermsg					
DERM1	derm1	derv1	erfin	ermsg							
DERV1	derv1	erfin									
DEVUN	amach	devbh	devun	erfin	ermsg						
DEVVUN	amach	devbh	devvun	dnrn2	dscal	erfin	ermsg				
DFFT	dfft										
DFMIN	amach	dfmin	erfin	ermsg	ierm1	ierv1					
DFRENC	amach	dcospx	dcspxx	derm1	derv1	dfrenl	dsinpx	dsnpxx	erfin	ermsg	
DFRENF	amach	dcospx	dcspxx	derm1	derv1	dfrenl	dsinpx	dsnpxx	erfin	ermsg	
DFRENG	amach	dcospx	dcspxx	derm1	derv1	dfrenl	dsinpx	dsnpxx	erfin	ermsg	
DFRENS	amach	dcospx	dcspxx	derm1	derv1	dfrenl	dsinpx	dsnpxx	erfin	ermsg	
DGAM1	amach	derm1	derv1	dgam1	dgamma	erfin	ermsg				
DGAMI	amach	dcsevl	derf	derm1	derv1	dgam1	dgami	dgamma	dgr17	dgr29	dinits
	drcomp	drexp	drlog	dxparg	erfin	ermsg	ierm1	ierv1			
DGAMIE	amach	dcsevl	derf	derm1	derv1	dgam1	dgami	dgamma	dgr17	dgr29	dinits
	drcomp	drexp	drlog	dxparg	erfin	ermsg	ierm1	ierv1			
DGAMIK	amach	dcsevl	derf	derm1	derv1	dgam1	dgami	dgamma	dgr17	dgr29	dinits
	drcomp	drexp	drlog	dxparg	erfin	ermsg	ierm1	ierv1			

Entry	Necessary files										
DGAMMA	amach	derm1	derv1	dgamma	erfin	ermsg					
DGECO	dasum	daxpy	ddot	dgeco	dgefa	dscal	idamax				
DGED	amach	dged									
DGEFA	daxpy	dgefa	dscal	idamax							
DGEFS	daxpy	dgefa	dgefs	dgesld	dscal	erfin	ermsg	idamax			
DGEFSC	dasum	daxpy	ddot	dgeco	dgefa	dgefsc	dgesld	dscal	erfin	ermsg	idamax
DGEI	daxpy	dgei	dscal	dswap	erfin	ermsg					
DGESLD	daxpy	dgesld	erfin	ermsg							
DGESLT	ddot	dgeslt	erfin	ermsg							
DHERQL	dherql	dimql	erfin	ermsg	ierm1	ierv1					
DHFTI	amach	daxpy	ddot	dhfti	dhtcc	dhtgen	dnrm2	erfin	ermor	ermsg	ierm1
		ierv1									
DHINT	dhint										
DHTCC	amach	dhtcc	dnrm2								
DHTGEN	amach	daxpy	ddot	dhtgen	dnrm2						
DILUP	amach	dilup	dmess	mess							
DILUPM	amach	dilup	dilupm	dmess	mess	optchk					
DILUPM	amach	dilupm	dmess	mess							
DINT1	amach	dint1	dinta	dintdl	dintdu	dintf	dintns	dinto	dintop	dintsm	dmess
		mess									
DINTA	amach	dinta	dintdl	dintdu	dintf	dintns	dinto	dintsm	dmess	mess	
DINTM	amach	dcopy	dinta	dintdl	dintdu	dintf	dintm	dintma	dintns	dinto	dintop
		dintsm	dmess	mess							
DINTMA	amach	dcopy	dinta	dintdl	dintdu	dintf	dintma	dintns	dinto	dintsm	dmess
		mess									
DINTOP	amach	dintop	mess								
DIVA	amach	diva	dmess	mess	optchk	DIVAF	DIVAO				
DIVAA	amach	diva	dmess	mess	optchk	DIVAF	DIVAO				
DIVACO	amach	diva	dmess	mess	optchk	DIVAF	DIVAO				
DIVADB	amach	divadb	dmess	mess							
DIVAG	amach	diva	divag	dmess	dzero	mess	optchk				
DIVAIN	amach	diva	dmess	mess	optchk	DIVAF	DIVAO				
DIVAOP	amach	diva	dmess	mess	optchk	DIVAF	DIVAO				
DIVSET	amach	divset									
DJACG	amach	djacg									
DLASUM	dlasum										
DLESUM	dlesum										
DLGAMA	amach	derm1	derv1	dgamma	dlgama	erfin	ermsg				
DLNREL	dlnrel										
DMATP	amach	dmatp									
DMATPR	amach	dmatpr	dmess	mess							
DMESS	amach	dmess	mess								
DMLC01	amach	derv1	dmlc	erfin	ermor	ermsg	ierm1	ierv1	DMLCFG		
DMPDRV	dmpdrv	erfin	ermsg	ierm1	ierv1						
DMPINT	dmpint	erfin	ermsg	ierm1	ierv1						
DMPVAL	dmpval										
DNLAFB	amach	divset	dnlafb	drn2gb	i7copy	DCALCR					
DNLAFU	amach	divset	dnlafu	drn2g	DCALCR						
DNLAGB	amach	divset	dnlagb	drn2gb	i7copy	DCALCR	DCALCJ				
DNLAGU	amach	divset	dnlagu	drn2g	DCALCR	DCALCJ					
DNLSFB	amach	divset	dnlafb	dq7rfh	drn2gb	drnsgb	i7copy	idsm	DCALCA		
DNLSFU	amach	divset	dnlafu	dq7rfh	drn2g	drnsg	idsm				
DNLSGB	amach	divset	dnlsgb	dq7rfh	drn2gb	drnsgb	i7copy				
DNLSGU	amach	divset	dnlsgu	dq7rfh	drn2g	drnsg	DCALCA				
DNQSOL	amach	derv1	dnqsol	dnrm2	erfin	ermsg	ierm1	ierv1	DNQFJ		
DNRM2	amach	dnrm2									
DPASCL	dwcomp	erfin	ermsg	ierm1	ierv1						

Entry	Necessary files										
DPFIT	amach	derm1	derv1	dpfit	drotm	drotmg	erfin	ermsg	ierm1	ierv1	
DPLOT	amach	dmess	dplot	mess							
DPOLZ	amach	dpolz	erfin	ermsg							
DPOLZ2	amach	dpolz2	erfin	ermsg							
DPPNML	amach	derfi	derm1	derv1	dppnml	erfin	ermsg				
DPQUAD	derv1	dpquad	dsfind	erfin	ermsg	ierm1	ierv1				
DPRPL	dprpl										
DPRPL1	dprpl1	dprpl3	erfin	ermsg	ierm1	ierv1					
DPRPL2	dprpl2	dprpl3	erfin	ermsg	ierm1	ierv1					
DPSI	amach	dcsevl	derm1	derv1	dinits	dpsi	erfin	ermor	ermsg	ierm1	ierv1
DPSIE	amach	dcsevl	derm1	derv1	dinits	dpsi	erfin	ermor	ermsg	ierm1	ierv1
DPSIK	amach	dcsevl	derm1	derv1	dinits	dpsi	erfin	ermor	ermsg	ierm1	ierv1
DPVAL	derv1	dpval	dsfind	erfin	ermsg	ierm1	ierv1				
DRANE	drane	erfin	ermsg	ranpk1	ranpk2						
DRANG	drang	erfin	ermsg	ranpk1	ranpk2						
DRANGV	drang	drangv	erfin	ermsg	ranpk1	ranpk2					
DRANR	dranr	erfin	ermsg	ranpk1	ranpk2						
DRANU	dranu	erfin	ermsg	ranpk1	ranpk2						
DRANUA	erfin	ermsg	ranpk2								
DRANUS	erfin	ermsg	ranpk2								
DRCVAL	amach	derm1	derv1	drcval	erfin	ermsg					
DRDVAL	amach	derm1	derv1	drdval	erfin	ermsg					
DREXP	amach	drexp									
DRFT	dfft	drft	erfin	ermsg	ierm1	ierv1					
DRFT1	dfft	drft1	erfin	ermsg	ierm1	ierv1					
DRFVAL	amach	derm1	derv1	drfval	erfin	ermsg					
DRJVAL	amach	derm1	derv1	drcval	drfval	drjval	erfin	ermsg			
DRLOG	amach	drlog									
DRLOG1	amach	drlog									
DROT	drot										
DROTG	drotg										
DROTM	drotm										
DROTMG	drotmg										
DSBASD	dsbasd	erfin	ermsg	ierm1	ierv1						
DSBASI	derv1	dsbasd	dsbasi	dsfind	erfin	ermsg	ierm1	ierv1			
DSCAL	dscal										
DSDIF	dsdif										
DSDOT	dsdot										
DSFIND	derv1	dsfind	erfin	ermsg	ierm1	ierv1					
DSFIT	amach	dbacc	dsol	derv1	dhtcc	dnrm2	dsbasd	dsfit	erfin	ermsg	ierm1
DSFITC	amach	daxpy	dblse	dcopy	ddot	derv1	dhtcc	dnrm2	dranu	drotg	dsbasd
DSI	dsbasi	dsfind	dsfitc	dswap	erfin	ermor	ermsg	ierm1	ierv1	ranpk1	ranpk2
DSIN1	amach	dsin1									
DSINHM	amach	dsinhm									
DSINPX	amach	derm1	derv1	dsinpx	erfin	ermsg					
DSORT	dsort										
DSORTP	dsortp										
DSORTQ	dsortp										
DSPGE	amach	dmess	dspge	mess							
DSQUAD	derv1	dsfind	dsquad	dsva	erfin	ermsg	ierm1	ierv1			
DSTAT1	dstat1										
DSTAT2	dprpl	dstat2									
DSTOP	derv1	dsdif	dsfind	dstop	dsva	erfin	ermsg	ierm1	ierv1		
DSVA	amach	daxpy	dcopy	ddot	dhtcc	dhtgen	dnrm2	dprtsv	dqrbd	drot	drotg
	dsva	dsvdrs	dswap	erfin	ermor	ermsg	ierv1				

Entry	Necessary files										
DSVAL	derv1	dsfind	dsval	erfin	ermmsg	ierm1	ierv1				
DSVALA	derv1	dsfind	dsvala	erfin	ermmsg	ierm1	ierv1				
DSVDRS	amach	daxpy	dcopy	ddot	dhtcc	dhtgen	dnrm2	dqrbd	drot	drotg dsvdrs	
	dswap	erfin	ermor	ermmsg	ierv1						
DSWAP	dswap										
DSYMQQL	dimql	dsymql	erfin	ermmsg	ierm1	ierv1					
DTCST	dfft	dtcst	erfin	ermmsg	ierm1	ierv1					
DTGFI	dtgc0	dtgc1	dtgext	dtgfi	dtgfnf	dtgset	erfin	ermmsg	ierm1	ierv1	
DTGGRD	dsortp	dtggrd	dtgset								
DTGPD	drot	drotg	dtgpd	dtgset							
DTGPRG	dtgprg	dtgset									
DTGREC	dtgc0	dtgc1	dtgext	dtgfi	dtgfnf	dtgrec	dtgset	erfin	ermmsg	ierm1	ierv1
DUACOS	ducomp	erfin	ermmsg	ierm1	ierv1						
DUASIN	ducomp	erfin	ermmsg	ierm1	ierv1						
DUATAN	ducomp	erfin	ermmsg	ierm1	ierv1						
DUATN2	ducomp	erfin	ermmsg	ierm1	ierv1						
DUCOS	ducomp	erfin	ermmsg	ierm1	ierv1						
DUCOSH	ducomp	erfin	ermmsg	ierm1	ierv1						
DUDIF	ducomp	erfin	ermmsg	ierm1	ierv1						
DUDIF1	ducomp	erfin	ermmsg	ierm1	ierv1						
DUEXP	ducomp	erfin	ermmsg	ierm1	ierv1						
DUGETN	ducomp	erfin	ermmsg	ierm1	ierv1						
DULOG	ducomp	erfin	ermmsg	ierm1	ierv1						
DUPRO	ducomp	erfin	ermmsg	ierm1	ierv1						
DUPRO1	ducomp	erfin	ermmsg	ierm1	ierv1						
DUPWRI	ducomp	erfin	ermmsg	ierm1	ierv1						
DUQUO	ducomp	erfin	ermmsg	ierm1	ierv1						
DUQUO1	ducomp	erfin	ermmsg	ierm1	ierv1						
DUREV	dasum	daxpy	ddot	dgeco	dgefa	dgei	dscal	dswap	durev	erfin	ermmsg
	idamax										
DUSET	ducomp	erfin	ermmsg	ierm1	ierv1						
DUSETN	ducomp	erfin	ermmsg	ierm1	ierv1						
DUSIN	ducomp	erfin	ermmsg	ierm1	ierv1						
DUSINH	ducomp	erfin	ermmsg	ierm1	ierv1						
DUSQRT	ducomp	erfin	ermmsg	ierm1	ierv1						
DUSUM	ducomp	erfin	ermmsg	ierm1	ierv1						
DUSUM1	ducomp	erfin	ermmsg	ierm1	ierv1						
DUTAN	ducomp	erfin	ermmsg	ierm1	ierv1						
DUTANH	ducomp	erfin	ermmsg	ierm1	ierv1						
DVECP	amach	dvecp									
DVECPR	amach	dmess	dvecpr	mess							
DWACOS	dwcomp	erfin	ermmsg	ierm1	ierv1						
DWASIN	dwcomp	erfin	ermmsg	ierm1	ierv1						
DWATAN	dwcomp	erfin	ermmsg	ierm1	ierv1						
DWATN2	dwcomp	erfin	ermmsg	ierm1	ierv1						
DWCHN	dwcomp	erfin	ermmsg	ierm1	ierv1						
DWCOS	dwcomp	erfin	ermmsg	ierm1	ierv1						
DWCOSH	dwcomp	erfin	ermmsg	ierm1	ierv1						
DWDIF	dwcomp	erfin	ermmsg	ierm1	ierv1						
DWDIF1	dwcomp	erfin	ermmsg	ierm1	ierv1						
DWEXP	dwcomp	erfin	ermmsg	ierm1	ierv1						
DWLOG	dwcomp	erfin	ermmsg	ierm1	ierv1						
DWPRO	dwcomp	erfin	ermmsg	ierm1	ierv1						
DWPRO1	dwcomp	erfin	ermmsg	ierm1	ierv1						
DWPWRI	dwcomp	erfin	ermmsg	ierm1	ierv1						
DWQUO	dwcomp	erfin	ermmsg	ierm1	ierv1						
DWQUO1	dwcomp	erfin	ermmsg	ierm1	ierv1						

Entry	Necessary files								
DWRCHN	dwcomp	erfin	errmsg	ierm1	ierv1				
DWSET	dwcomp	erfin	errmsg	ierm1	ierv1				
DWSIN	dwcomp	erfin	errmsg	ierm1	ierv1				
DWSINH	dwcomp	erfin	errmsg	ierm1	ierv1				
DWSQRT	dwcomp	erfin	errmsg	ierm1	ierv1				
DWSUM	dwcomp	erfin	errmsg	ierm1	ierv1				
DWSUM1	dwcomp	erfin	errmsg	ierm1	ierv1				
DWTAN	dwcomp	erfin	errmsg	ierm1	ierv1				
DWTANH	dwcomp	erfin	errmsg	ierm1	ierv1				
DXRK8	amach	dmess	dxrk8	dxrk8f	dxrk8o	mess			
DXRK8A	amach	dmess	dxrk8	dxrk8f	dxrk8o	mess			
DXRK8G	amach	dmess	dxrk8	dxrk8f	dxrk8g	dxrk8o	dzero	mess	
DZABS	dzabs								
DZERO	amach	dmess	dzero	mess					
ERFIN	erfin								
ERMOR	erfin	ermor							
ERMSET	erfin	errmsg							
ERMSG	erfin	errmsg							
EXSORT	exsort	insrtx	pvec	DATAOP	COMPAR				
GSORTP	gsortp	COMPAR							
I1MACH	amach								
ICAMAX	icamax								
IDAMAX	idamax								
IDRANP	amach	derm1	derv1	erfin	errmsg	idranp	ranpk1	ranpk2	
IDSTA1	idsta1								
IDSTA2	dprpl	idsta2							
IERM1	erfin	errmsg	ierm1	ierv1					
IERV1	erfin	ierv1							
IMATP	imatp								
IMATPR	imatpr	mess							
INSORT	insort	COMPAR							
ISAMAX	isamax								
ISORT	isort								
ISORTP	isortp								
ISORTQ	isortp								
ISRANP	amach	erfin	errmsg	isranp	ranpk1	ranpk2	serm1	serv1	
ISSTA1	issta1								
ISSTA2	issta2	sprpl							
IVECP	ivecp								
IVECPR	ivecpr	mess							
MESS	mess								
PVEC	pvec								
R1MACH	amach								
RAN1	erfin	errmsg	ranpk1	ranpk2					
RANGET	erfin	errmsg	ranpk2						
RANPUT	erfin	errmsg	ranpk1	ranpk2					
RANSIZ	erfin	errmsg	ranpk2						
RN2	erfin	errmsg	ranpk2						
SACCUM	amach	erfin	errmsg	ierm1	ierv1	saccum	shtcc	snrm2	srotg
SACOSH	amach	erfin	errmsg	sasinh	serm1	serv1			
SACSCH	amach	erfin	errmsg	sasinh	serm1	serv1			
SACTNH	amach	erfin	errmsg	sasinh	serm1	serv1			
SASECH	amach	erfin	errmsg	sasinh	serm1	serv1			
SASINH	amach	erfin	errmsg	sasinh	serm1	serv1			
SASUM	sasum								
SATANH	amach	erfin	errmsg	sasinh	serm1	serv1			
SAXPY	saxpy								

Entry	Necessary files											
SBACC	amach	erfin	ermsg	ierm1	ierv1	sbacc	shtcc	snrm2				
SBESJ0	amach	erfin	ermsg	ierm1	ierv1	sbesj0	sbmp0	scsevl	serm1	serv1	sinits	
SBESJ1	amach	erfin	ermsg	ierm1	ierv1	sbesj1	sbmp1	scsevl	serm1	serv1	sinits	
SBESJN	amach	erfin	ermsg	ierv1	sbesjn	sbespq	serm1	serv1	sgamma			
SBESY0	amach	erfin	ermsg	ierm1	ierv1	sbesj0	sbesy0	sbmp0	scsevl	serm1	serv1	
	sinits											
SBESY1	amach	erfin	ermsg	ierm1	ierv1	sbesj1	sbesy1	sbmp1	scsevl	serm1	serv1	
	sinits											
SBESYN	amach	erfin	ermor	ermsg	ierv1	sbespq	sbesyn	serm1	serv1	sgamma	slgama	
SBI0K0	amach	erfin	ermsg	ierm1	ierv1	sbi0k0	scsevl	serm1	serv1	sinits		
SBI1K1	amach	erfin	ermsg	ierm1	ierv1	sbi1k1	scsevl	serm1	serv1	sinits		
SBINOM	amach	erfin	ermsg	ierm1	ierv1	sbinom	serm1	serv1	sgamma	slgama		
SBSOL	erfin	ermsg	ierm1	ierv1	sbsol							
SC2FIT	amach	erfin	ermsg	ierm1	ierv1	sbacc	sbsol	sc2bas	sc2fit	serm1	serv1	
	shtcc	snrm2	strc2c									
SCASUM	scasum											
SCDCHI	amach	erfin	ermsg	ierm1	ierv1	scdchi	scsevl	serf	serm1	serv1	sgam1	
	sgami	sgamma	sgr17	sgr29	sinits	srcomp	srexp	srlog	sexparg			
SCDNML	amach	erfin	ermsg	ierm1	ierv1	scdnml	scsevl	serf	serm1	serv1	sinits	
SCDPOI	amach	erfin	ermsg	ierm1	ierv1	scdpoi	scsevl	serf	serm1	serv1	sgam1	
	sgami	sgamma	sgr17	sgr29	sinits	srcomp	srexp	srlog	sexparg			
SCFT	erfin	ermsg	ierm1	ierv1	scft	sfft						
SCHOL	amach	schol	sdot									
SCI	erfin	ermsg	sci	scpval	serm1	serv1						
SCIN	erfin	ermsg	sci	scpval	serm1	serv1						
SCKDER	amach	erfin	ermsg	ierm1	ierv1	sckder						
SCNRM2	amach	scnrm2										
SCONCM	sconcm											
SCONMC	sconmc											
SCOPY	scopy											
SCOS1	scos1											
SCOSHM	scoshm											
SCOSPX	amach	erfin	ermsg	scospx	serm1	serv1						
SCOV2	erfin	ermsg	ierm1	ierv1	scov2	sdot	sswap					
SCOV3	erfin	ermsg	ierm1	ierv1	scopy	scov3	sdot	sscal				
SCPDRV	erfin	ermsg	ierm1	ierv1	scpdrv							
SCPINT	erfin	ermsg	ierm1	ierv1	scpint							
SCPLTE	amach	erfin	ermsg	scplte	serm1	serv1						
SCPLTK	amach	erfin	ermsg	scpltk	serm1	serv1						
SCPVAL	scpval											
SCSHMM	scshmm											
SDASDB	amach	mess	sdasdb	smess								
SDASLS	amach	isamax	lsame	mess	sasum	saxpy	scopy	sdasf	sdasls	sdot	sgbfa	
	sgbsl	sgefa	sgemv	sgesl	sscal	sswap	xerbla					
SDASLX	amach	isamax	mess	saxpy	scopy	sdas1	sdasco	sdasdb	sdasf	sdasgh	sdasin	
	sdasj	sdaslv	sdaslx	sdasnm	sdastp	sdaswt	sdot	sgbfa	sgbsl	sgefa	sgesl	smess
	snrm2	srot	srotg	sscal	sswap							
SDOT	sdot											
SDSDOT	sdsdot											
SE1	amach	erfin	ermsg	ierm1	ierv1	scsevl	sei	serm1	serv1	sinits		
SEI	amach	erfin	ermsg	ierm1	ierv1	scsevl	sei	serm1	serv1	sinits		
SELEFI	amach	erfin	ermsg	selefi	serm1	serv1	slnrel					
SELP11	amach	erfin	ermsg	selp11	serm1	serv1	srcval	srfval	srjval			
SERF	amach	erfin	ermsg	ierm1	ierv1	scsevl	serf	serm1	serv1	sinits		
SERFC	amach	erfin	ermsg	ierm1	ierv1	scsevl	serf	serm1	serv1	sinits		
SERFCE	amach	erfin	ermsg	ierm1	ierv1	scsevl	serf	serm1	serv1	sinits		
SERFCI	amach	erfin	ermsg	serfi	serm1	serv1						

Entry	Necessary files											
SERFI	amach	erfin	ermsg	serfi	serm1	serv1						
SERM1	erfin	ermsg	serm1	serv1								
SERV1	erfin	serv1										
SEVUN	amach	erfin	ermsg	sevbh	sevun							
SEVVUN	amach	erfin	ermsg	sevbh	sevvun	snrm2	sscal					
SFFT	sfft											
SFMIN	amach	erfin	ermsg	ierm1	ierv1	sfmin						
SFRENC	amach	erfin	ermsg	scospx	scspxx	serm1	serv1	sfrenl	ssinpx	ssnpxx		
SFRENF	amach	erfin	ermsg	scospx	scspxx	serm1	serv1	sfrenl	ssinpx	ssnpxx		
SFRENG	amach	erfin	ermsg	scospx	scspxx	serm1	serv1	sfrenl	ssinpx	ssnpxx		
SFRENS	amach	erfin	ermsg	scospx	scspxx	serm1	serv1	sfrenl	ssinpx	ssnpxx		
SGAM1	amach	erfin	ermsg	serm1	serv1	sgam1	sgamma					
SGAMI	amach	erfin	ermsg	ierm1	ierv1	scsevl	serf	serm1	serv1	sgam1	sgami	
	sgamma	sgr17	sgr29	sinits	srcomp	srexp	srlog	sexparg				
SGAMIE	amach	erfin	ermsg	ierm1	ierv1	scsevl	serf	serm1	serv1	sgam1	sgami	
	sgamma	sgr17	sgr29	sinits	srcomp	srexp	srlog	sexparg				
SGAMIK	amach	erfin	ermsg	ierm1	ierv1	scsevl	serf	serm1	serv1	sgam1	sgami	
	sgamma	sgr17	sgr29	sinits	srcomp	srexp	srlog	sexparg				
SGAMMA	amach	erfin	ermsg	serm1	serv1	sgamma						
SGECO	isamax	sasum	saxpy	sdot	sgeco	sgefa	sscal					
SGED	amach	sged										
SGEFA	isamax	saxpy	sgefa	sscal								
SGEFS	erfin	ermsg	isamax	saxpy	sgefa	sgefs	sgesld	sscal				
SGEFSC	erfin	ermsg	isamax	sasum	saxpy	sdot	sgeco	sgefa	sgefsc	sgesld	sscal	
SGEI	erfin	ermsg	saxpy	sgei	sscal	sswap						
SGESLD	erfin	ermsg	saxpy	sgesld								
SGESLT	erfin	ermsg	sdot	sgeslt								
SHERQL	erfin	ermsg	ierm1	ierv1	sherql	simql						
SHFTI	amach	erfin	ermor	ermsg	ierm1	ierv1	saxpy	sdot	shfti	shtcc	shtgen	
	snrm2											
SHINT	shint											
SHTCC	amach	shtcc	snrm2									
SHTGEN	amach	saxpy	sdot	shtgen	snrm2							
SILUP	amach	mess	silup	smess								
SILUPM	amach	mess	optchk	silup	silupm	smess						
SILUPM	amach	mess	silupm	smess								
SINT1	amach	mess	sint1	sinta	sintdl	sintdu	sintf	sintns	sinto	sintop	sintsm	
	smess											
SINTA	amach	mess	sinta	sintdl	sintdu	sintf	sintns	sinto	sintsm	smess		
SINTM	amach	mess	scopy	sinta	sintdl	sintdu	sintf	sintm	sintma	sintns	sinto	
	sintop	sintsm	smess									
SINTMA	amach	mess	scopy	sinta	sintdl	sintdu	sintf	sintma	sintns	sinto	sintsm	
	smess											
SINTOP	amach	mess	sintop									
SIVA	amach	mess	optchk	siva	smess	SIVAF	SIVAO					
SIVAA	amach	mess	optchk	siva	smess	SIVAF	SIVAO					
SIVACO	amach	mess	optchk	siva	smess	SIVAF	SIVAO					
SIVADB	amach	mess	sivadb	smess								
SIVAG	amach	mess	optchk	siva	sivag	smess	szero					
SIVAIN	amach	mess	optchk	siva	smess	SIVAF	SIVAO					
SIVAOP	amach	mess	optchk	siva	smess	SIVAF	SIVAO					
SIVSET	amach	sivset										
SJACG	amach	sjacg										
SLASUM	slasum											
SLESUM	slesum											
SLGAMA	amach	erfin	ermsg	serm1	serv1	sgamma	slgama					
SLNREL	slnrel											

Entry	Necessary files										
SMATP	amach	smatp									
SMATPR	amach	mess	smatpr	smess							
SMESS	amach	mess	smess								
SMLC01	amach	erfin	ermor	ermmsg	ierm1	ierv1	serv1	smlc	SMLCFG		
SMPDRV	erfin	ermmsg	ierm1	ierv1	smpdrv						
SMPINT	erfin	ermmsg	ierm1	ierv1	smpint						
SMPVAL	smpval										
SNLAFB	amach	i7copy	sivset	snlafb	srn2gb	SCALCR					
SNLAFU	amach	sivset	snlafu	srn2g	SCALCR						
SNLAGB	amach	i7copy	sivset	snlagb	srn2gb	SCALCR	SCALCJ				
SNLAGU	amach	sivset	snlagu	srn2g	SCALCR	SCALCJ					
SNLSFB	amach	i7copy	idsm	sivset	snlsfb	sq7rfh	srn2gb	srnsgb	SCALCA		
SNLSFU	amach	idsm	sivset	snlsfu	sq7rfh	srn2g	srnsg				
SNLSGB	amach	i7copy	sivset	snlsgb	sq7rfh	srn2gb	srnsgb				
SNLSGU	amach	sivset	snlsgu	sq7rfh	srn2g	srnsg	SCALCA				
SNQSOL	amach	erfin	ermmsg	ierm1	ierv1	serv1	snqsol	snrm2	SNQFJ		
SNRM2	amach	snrm2									
SPASCL	erfin	ermmsg	ierm1	ierv1	swcomp						
SPFIT	amach	erfin	ermmsg	ierm1	ierv1	serm1	serv1	spfit	srotm	srotmg	
SPLOT	amach	mess	smess	splot							
SPOLZ	amach	erfin	ermmsg	spolz							
SPOLZ2	amach	erfin	ermmsg	spolz2							
SPPNML	amach	erfin	ermmsg	serfi	serm1	serv1	sppnml				
SPQUAD	erfin	ermmsg	ierm1	ierv1	serv1	spquad	ssfind				
SPRPL	sprpl										
SPRPL1	erfin	ermmsg	ierm1	ierv1	sprpl1	sprpl3					
SPRPL2	erfin	ermmsg	ierm1	ierv1	sprpl2	sprpl3					
SPSI	amach	erfin	ermor	ermmsg	ierm1	ierv1	scsevl	serm1	serv1	sinit	spsi
SPSIE	amach	erfin	ermor	ermmsg	ierm1	ierv1	scsevl	serm1	serv1	sinit	spsi
SPSIK	amach	erfin	ermor	ermmsg	ierm1	ierv1	scsevl	serm1	serv1	sinit	spsi
SPVAL	erfin	ermmsg	ierm1	ierv1	serv1	spval	ssfind				
SRANE	erfin	ermmsg	ranpk1	ranpk2	srane						
SRANG	erfin	ermmsg	ranpk1	ranpk2	srang						
SRANGV	erfin	ermmsg	ranpk1	ranpk2	srang	srangv					
SRANR	erfin	ermmsg	ranpk1	ranpk2	srandr						
SRANU	erfin	ermmsg	ranpk1	ranpk2	sranu						
SRANUA	erfin	ermmsg	ranpk2								
SRANUS	erfin	ermmsg	ranpk2								
SRCVAL	amach	erfin	ermmsg	serm1	serv1	srcval					
SRDVAL	amach	erfin	ermmsg	serm1	serv1	srcval					
SREXP	amach	srexp									
SRFT	erfin	ermmsg	ierm1	ierv1	sfft	srft					
SRFT1	erfin	ermmsg	ierm1	ierv1	sfft	srft1					
SRFVAL	amach	erfin	ermmsg	serm1	serv1	srftval					
SRJVAL	amach	erfin	ermmsg	serm1	serv1	srcval	srftval	srjval			
SRLOG	amach	srlog									
SRLOG1	amach	srlog									
SROT	srot										
SROTG	srotg										
SROTM	srotm										
SROTMG	srotmg										
SSBASD	erfin	ermmsg	ierm1	ierv1	ssbasd						
SSBASI	erfin	ermmsg	ierm1	ierv1	serv1	ssbasd	ssbasi	ssfind			
SSCAL	sscal										
SSDIF	ssdif										
SSFIND	erfin	ermmsg	ierm1	ierv1	serv1	ssfind					
SSFIT	amach	erfin	ermmsg	ierm1	ierv1	sbacc	sbsol	serv1	shtcc	snrm2	ssbasd

Entry	Necessary files										
	ssfit										
SSFITC	amach	erfin	ermor	ermmsg	ierm1	ierv1	ranpk1	ranpk2	saxpy	sblse	scopy
	sdot	serv1	shtcc	snrm2	sranu	srotg	ssbasd	ssbasi	ssfind	ssfitc	sswap
SSI	scpval ssi										
SSIN1	amach ssin1										
SSINHM	amach ssinhm										
SSINPX	amach	erfin	ermmsg	serm1	serv1	ssinpx					
SSORT	ssort										
SSORTP	ssortp										
SSORTQ	ssortp										
SSPGE	amach	mess	smess	sspge							
SSQUAD	erfin	ermmsg	ierm1	ierv1	serv1	ssfind	ssquad	ssval			
SSTAT1	sstat1										
SSTAT2	sprpl	sstat2									
SSTOP	erfin	ermmsg	ierm1	ierv1	serv1	ssdif	ssfind	sstop	ssvala		
SSVA	amach	erfin	ermor	ermmsg	ierv1	saxpy	scopy	sdot	shtcc	shtgen	snrm2
	sprtsv	sqrbd	srot	srotg	ssva	ssvdrs	sswap				
SSVAL	erfin	ermmsg	ierm1	ierv1	serv1	ssfind	ssval				
SSVALA	erfin	ermmsg	ierm1	ierv1	serv1	ssfind	ssvala				
SSVDRS	amach	erfin	ermor	ermmsg	ierv1	saxpy	scopy	sdot	shtcc	shtgen	snrm2
	sqrbd	srot	srotg	ssvdrs	sswap						
SSWAP	sswap										
SSYMQQL	erfin	ermmsg	ierm1	ierv1	simql	ssymql					
STCST	erfin	ermmsg	ierm1	ierv1	sfft	stcst					
STGFI	erfin	ermmsg	ierm1	ierv1	stgc0	stgc1	stgext	stgfi	stgfnd stgset		
STGGRD	ssortp	stggrd	stgset								
STGPD	srot	srotg	stgpd	stgset							
STGPRG	stgprg	stgset									
STGREC	erfin	ermmsg	ierm1	ierv1	stgc0	stgc1	stgext	stgfi	stgfnd	stgrec	stgset
SUACOS	erfin	ermmsg	ierm1	ierv1	sucomp						
SUASIN	erfin	ermmsg	ierm1	ierv1	sucomp						
SUATAN	erfin	ermmsg	ierm1	ierv1	sucomp						
SUATN2	erfin	ermmsg	ierm1	ierv1	sucomp						
SUCOS	erfin	ermmsg	ierm1	ierv1	sucomp						
SUCOSH	erfin	ermmsg	ierm1	ierv1	sucomp						
SUDIF	erfin	ermmsg	ierm1	ierv1	sucomp						
SUDIF1	erfin	ermmsg	ierm1	ierv1	sucomp						
SUEXP	erfin	ermmsg	ierm1	ierv1	sucomp						
SUGETN	erfin	ermmsg	ierm1	ierv1	sucomp						
SULOG	erfin	ermmsg	ierm1	ierv1	sucomp						
SUPRO	erfin	ermmsg	ierm1	ierv1	sucomp						
SUPRO1	erfin	ermmsg	ierm1	ierv1	sucomp						
SUPWRI	erfin	ermmsg	ierm1	ierv1	sucomp						
SUQUO	erfin	ermmsg	ierm1	ierv1	sucomp						
SUQUO1	erfin	ermmsg	ierm1	ierv1	sucomp						
SUREV	erfin	ermmsg	isamax	sasum	saxpy	sdot	sgeco	sgefa	sgei	sscal	sswap
	surev										
SUSET	erfin	ermmsg	ierm1	ierv1	sucomp						
SUSETN	erfin	ermmsg	ierm1	ierv1	sucomp						
SUSIN	erfin	ermmsg	ierm1	ierv1	sucomp						
SUSINH	erfin	ermmsg	ierm1	ierv1	sucomp						
SUSQRT	erfin	ermmsg	ierm1	ierv1	sucomp						
SUSUM	erfin	ermmsg	ierm1	ierv1	sucomp						
SUSUM1	erfin	ermmsg	ierm1	ierv1	sucomp						
SUTAN	erfin	ermmsg	ierm1	ierv1	sucomp						
SUTANH	erfin	ermmsg	ierm1	ierv1	sucomp						
SVECP	amach svecp										

Entry	Necessary files						
SVECPR	amach	mess	smess	svecpr			
SWACOS	erfin	ermmsg	ierm1	ierv1	swcomp		
SWASIN	erfin	ermmsg	ierm1	ierv1	swcomp		
SWATAN	erfin	ermmsg	ierm1	ierv1	swcomp		
SWATN2	erfin	ermmsg	ierm1	ierv1	swcomp		
SWCHN	erfin	ermmsg	ierm1	ierv1	swcomp		
SWCOS	erfin	ermmsg	ierm1	ierv1	swcomp		
SWCOSH	erfin	ermmsg	ierm1	ierv1	swcomp		
SWDIF	erfin	ermmsg	ierm1	ierv1	swcomp		
SWDIF1	erfin	ermmsg	ierm1	ierv1	swcomp		
SWEXP	erfin	ermmsg	ierm1	ierv1	swcomp		
SWLOG	erfin	ermmsg	ierm1	ierv1	swcomp		
SWPRO	erfin	ermmsg	ierm1	ierv1	swcomp		
SWPRO1	erfin	ermmsg	ierm1	ierv1	swcomp		
SWPWRI	erfin	ermmsg	ierm1	ierv1	swcomp		
SWQUO	erfin	ermmsg	ierm1	ierv1	swcomp		
SWQUO1	erfin	ermmsg	ierm1	ierv1	swcomp		
SWRCHN	erfin	ermmsg	ierm1	ierv1	swcomp		
SWSET	erfin	ermmsg	ierm1	ierv1	swcomp		
SWSIN	erfin	ermmsg	ierm1	ierv1	swcomp		
SWSINH	erfin	ermmsg	ierm1	ierv1	swcomp		
SWSQRT	erfin	ermmsg	ierm1	ierv1	swcomp		
SWSUM	erfin	ermmsg	ierm1	ierv1	swcomp		
SWSUM1	erfin	ermmsg	ierm1	ierv1	swcomp		
SWTAN	erfin	ermmsg	ierm1	ierv1	swcomp		
SWTANH	erfin	ermmsg	ierm1	ierv1	swcomp		
SXRK8	amach	mess	smess	sxrk8	sxrk8f	sxrk8o	
SXRK8A	amach	mess	smess	sxrk8	sxrk8f	sxrk8o	
SXRK8G	amach	mess	smess	sxrk8	sxrk8f	sxrk8g	sxrk8o szero
SZERO	amach	mess	smess	szero			
ZCOEF	zcoef						
ZDIF	zdif						
ZGAM	amach	derm1	derv1	erfin	ermmsg	zgam	
ZPOLZ	amach	dcomqr	dzabs	erfin	ermmsg	zpolz	zquo zsqrtx
ZPRO	zpro						
ZQUO	zquo						
ZSQRTX	zsqrtx						
ZSUM	zsum						
ZWOFZ	amach	derv1	erfin	ermor	ermmsg	zwofz	