

```

rm -f *.o *_tmp_.* *.P .real .complex .sequential .parallel *.mod

if [ -f .complex ]; then \

    rm -f .complex calkpt.o hamilt.o hns.o horb.o modules.o seclit.o seclr4.o seclr5.o tapewf.o
ustphx.o wfpnt.o wfpnt1.o jacdavblock.o stern.o warpin.o setwar.o par_syrk.o seclit_par.o
matrix_complete.o *.mod; \

fi

touch .real

if [ -f .parallel ]; then \

    rm -f .parallel calkpt.o find_nloat.o gtfnam.o hamilt.o hldau.o hns.o modules.o
pdsyevx17.o pdstebz17.o prtkpt.o pzheevx16.o seclit.o seclr4.o seclr5.o inikpt.o inilpw.o
lapw1.o setkpt.o par_syrk.o matrix_complete.o make_albl.o make_alblH.o jacdavblock.o
seclit_par.o pdgetri_my.o pzgetri_my.o W2kinit.o pdgetrf_my.o pzgetrf_my.o *.mod; \

fi

touch .sequential

make TYPE='REAL' TYPE_COMMENT='\!_REAL' \

./lapw1 FORT=ifort FFLAGS=' -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -
traceback -assume buffered_io -l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp'

make[1]: Entering directory `/home/users/mollabashi/codes/v21.1/SRC_lapw1'

modules.F: REAL version extracted

ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c modules_tmp_.F

mv modules_tmp_.o modules.o

rm modules_tmp_.F

make[1]: Circular W2kinit.o <- W2kinit.o dependency dropped.

W2kinit.F: REAL version extracted

```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c W2kinit_tmp_.F
```

```
mv W2kinit_tmp_.o W2kinit.o
```

```
rm W2kinit_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c abc.f
```

```
atpar.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c atpar_tmp_.F
```

```
mv atpar_tmp_.o atpar.o
```

```
rm atpar_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c bandv1.f
```

```
calkpt.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c calkpt_tmp_.F
```

```
mv calkpt_tmp_.o calkpt.o
```

```
rm calkpt_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c cbcomb.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c charge.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c coors.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c cputim.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dblr2k.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dgeqrl.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dgewy.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dgewyg.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dlbrfg.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dsbein1.f
```

dscgst.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dscgst_tmp_.F
```

```
mv dscgst_tmp_.o dscgst.o
```

```
rm dscgst_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dstebz2.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dsyevx2.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dsyr2m.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dsyrb4.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dsyrb5l.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dsyrdt4.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dsywyv.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dsyxev4.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dvbes1.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c eisps.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c errclr.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c errflg.f
```

find_nloat.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c find_nloat_tmp_.F
```

```
mv find_nloat_tmp_.o find_nloat.o
```

```
rm find_nloat_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c forfhs.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c gaunt.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c gbass.f
```

gtfnam.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c gtfnam_tmp_.F
```

```
mv gtfnam_tmp_.o gtfnam.o
```

```
rm gtfnam_tmp_.F
```

```
hamilt.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c hamilt_tmp_.F
```

```
mv hamilt_tmp_.o hamilt.o
```

```
rm hamilt_tmp_.F
```

```
hns.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c hns_tmp_.F
```

```
mv hns_tmp_.o hns.o
```

```
rm hns_tmp_.F
```

```
horb.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c horb_tmp_.F
```

```
mv horb_tmp_.o horb.o
```

```
rm horb_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c inikpt.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c inilpw.f
```

```
lapw1.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c lapw1_tmp_.F
```

```
mv lapw1_tmp_.o lapw1.o
```

```
rm lapw1_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c latgen.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c lmsort.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c locdef.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c lohns.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c lopw.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c matmm.f
```

matrix_complete.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c matrix_complete_tmp_.F
```

```
mv matrix_complete_tmp_.o matrix_complete.o
```

```
rm matrix_complete_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c nn.f
```

outerr.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c outerr_tmp_.F
```

```
mv outerr_tmp_.o outerr.o
```

```
rm outerr_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c outwinb.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c ph.f
```

prtkpt.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c prtkpt_tmp_.F
```

```
mv prtkpt_tmp_.o prtkpt.o
```

```
rm prtkpt_tmp_.F
```

prtres.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c prtres_tmp_.F
```

```
mv prtres_tmp_.o prtres.o
```

```
rm prtres_tmp_.F
```

pzheevx16.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c pzheevx16_tmp_.F
```

```
mv pzheevx16_tmp_.o pzheevx16.o
```

```
rm pzheevx16_tmp_.F
```

rdswar.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c rdswar_tmp_.F
```

```
mv rdswar_tmp_.o rdswar.o
```

```
rm rdswar_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c rint13.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c rotate.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c rotdef.f
```

seclit.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c seclit_tmp_.F
```

```
mv seclit_tmp_.o seclit.o
```

```
rm seclit_tmp_.F
```

seclr4.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c seclr4_tmp_.F
```

```
mv seclr4_tmp_.o seclr4.o
```

```
rm seclr4_tmp_.F
```

seclr5.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c seclr5_tmp_.F
```

```
mv seclr5_tmp_.o seclr5.o
```

```
rm seclr5_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c select.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c service.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c setkpt.f
```

setwar.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c setwar_tmp_.F
```

```
mv setwar_tmp_.o setwar.o
```

```
rm setwar_tmp_.F
```



```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c sphbes.f
```

stern.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c stern_tmp_.F
```

```
mv stern_tmp_.o stern.o
```

```
rm stern_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c SymmRot.f
```

tapewf.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c tapewf_tmp_.F
```

```
mv tapewf_tmp_.o tapewf.o
```

```
rm tapewf_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c t3j.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c t3j0.f
```

ustphx.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c ustphx_tmp_.F
```

```
mv ustphx_tmp_.o ustphx.o
```

```
rm ustphx_tmp_.F
```

warpin.F: REAL version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c warpin_tmp_.F
```

```
mv warpin_tmp_.o warpin.o
```

```
rm warpin_tmp_.F
```

```
wfpnt.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c wfpnt_tmp_.F
```

```
mv wfpnt_tmp_.o wfpnt.o
```

```
rm wfpnt_tmp_.F
```

```
wfpnt1.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c wfpnt1_tmp_.F
```

```
mv wfpnt1_tmp_.o wfpnt1.o
```

```
rm wfpnt1_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c ylm.f
```

```
zhcgst.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c zhcgst_tmp_.F
```

```
mv zhcgst_tmp_.o zhcgst.o
```

```
rm zhcgst_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c zheevx2.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c zher2m.f
```

```
jacdavblock.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c jacdavblock_tmp_.F
```

```
mv jacdavblock_tmp_.o jacdavblock.o
```

```
rm jacdavblock_tmp_.F
```

```
make_albl.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c make_albl_tmp_.F
```

```
mv make_albl_tmp_.o make_albl.o
```

```
rm make_albl_tmp_.F
```

```
make_alblH.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c make_alblH_tmp_.F
```

```
mv make_alblH_tmp_.o make_alblH.o
```

```
rm make_alblH_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c global2local.f
```

```
par_syrk.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c par_syrk_tmp_.F
```

```
mv par_syrk_tmp_.o par_syrk.o
```

```
rm par_syrk_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c my_dsygst.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c refblas_dtrsm.f
```

```
seclit_par.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c seclit_par_tmp_.F
```

```
mv seclit_par_tmp_.o seclit_par.o
```

```
rm seclit_par_tmp_.F
```

```
pdsyevx17.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c pdsyevx17_tmp_.F
```

```
mv pdsyevx17_tmp_.o pdsyevx17.o
```

```
rm pdsyevx17_tmp_.F
```

```
pdstebz17.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c pdstebz17_tmp_.F
```

```
mv pdstebz17_tmp_.o pdstebz17.o
```

```
rm pdstebz17_tmp_.F
```

```
pdgetri_my.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c pdgetri_my_tmp_.F
```

```
mv pdgetri_my_tmp_.o pdgetri_my.o
```

```
rm pdgetri_my_tmp_.F
```

```
pzgetri_my.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c pzgetri_my_tmp_.F
```

```
mv pzgetri_my_tmp_.o pzgetri_my.o
```

```
rm pzgetri_my_tmp_.F
```

```
pdgetrf_my.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c pdgetrf_my_tmp_.F
```

```
mv pdgetrf_my_tmp_.o pdgetrf_my.o
```

```
rm pdgetrf_my_tmp_.F
```

```
pzgetrf_my.F: REAL version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c pzgetrf_my_tmp_.F
```

```
mv pzgetrf_my_tmp_.o pzgetrf_my.o
```

```
rm pzgetrf_my_tmp_.F
```

```
cc -c W2kutils.c
```

```
ifort -o ./lapw1 abc.o atpar.o bandv1.o calkpt.o cbcomb.o charge.o coors.o cputim.o  
dblr2k.o dgeqr1.o dgewy.o dgewyg.o dlbrfg.o dsbein1.o dscgst.o dstebz2.o dsyevx2.o  
dsyr2m.o dsyrb4.o dsyrb5l.o dsyrdt4.o dsywyv.o dsyxe4.o dvbes1.o eisps.o errclr.o errflg.o  
find_nloat.o forfhs.o gaunt.o gbass.o gtfnam.o hamilt.o hns.o horb.o inikpt.o inilpw.o  
lapw1.o latgen.o lmsort.o locdef.o lohns.o lopw.o matmm.o matrix_complete.o modules.o  
nn.o outrerr.o outwinb.o ph.o prtkpt.o prtres.o pzheevx16.o rdswar.o rint13.o rotate.o  
rotdef.o seclit.o seclr4.o seclr5.o select.o service.o setkpt.o setwar.o sphbes.o stern.o  
SymmRot.o tapewf.o t3j.o t3j0.o ustphx.o warpin.o wfpnt.o wfpnt1.o ylm.o zhcgst.o  
zheevx2.o zher2m.o jacdavblock.o make_albl.o make_alblH.o global2local.o par_syrk.o  
my_dsygst.o refblas_dtrsm.o seclit_par.o pdsyevx17.o pdstebz17.o pdgetri_my.o  
pzgetri_my.o pdgetrf_my.o pzgetrf_my.o W2kutils.o W2kinit.o -O -FR -mp1 -w -prec_div -  
pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -  
L/opt/exp_soft/local/generic/intel/mkl/lib/intel64 -lpthread -lm -ldl -liomp5 -  
lmkl_intel_lp64 -lmkl_intel_thread -lmkl_core
```

```
make[1]: Leaving directory `/home/users/mollabashi/codes/v21.1/SRC_lapw1'
```

```
if [ -f .real ]; then \
```

```
    rm -f .real calkpt.o hamilt.o hns.o horb.o modules.o seclit.o seclr4.o seclr5.o tapewf.o  
    ustphx.o wfpnt.o wfpnt1.o jacdavblock.o stern.o warpin.o setwar.o par_syrk.o seclit_par.o  
    matrix_complete.o *.mod; \
```

```
fi
```

```
touch .complex
```

```

if [ -f .parallel ]; then \

    rm -f .parallel calkpt.o find_nloat.o gtfnam.o hamilt.o hldau.o hns.o modules.o
    pdsyevx17.o pdstebz17.o prtkpt.o pzheevx16.o seclit.o seclr4.o seclr5.o inikpt.o inilpw.o
    lapw1.o setkpt.o par_syrk.o matrix_complete.o make_albl.o make_alblH.o jacdavblock.o
    seclit_par.o pdgetri_my.o pzgetri_my.o W2kinit.o pdgetrf_my.o pzgetrf_my.o *.mod; \

fi

touch .sequential

make TYPE='COMPLEX' TYPE_COMMENT='\!_COMPLEX' \

./lapw1c FORT=ifort FFLAGS=' -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -
traceback -assume buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp'

make[1]: Entering directory `/home/users/mollabashi/codes/v21.1/SRC_lapw1'

modules.F: COMPLEX version extracted

ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c modules_tmp_.F

mv modules_tmp_.o modules.o

rm modules_tmp_.F

make[1]: Circular W2kinit.o <- W2kinit.o dependency dropped.

W2kinit.F: COMPLEX version extracted

ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c W2kinit_tmp_.F

mv W2kinit_tmp_.o W2kinit.o

rm W2kinit_tmp_.F

ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c abc.f

atpar.F: COMPLEX version extracted

```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c atpar_tmp_.F
```

```
mv atpar_tmp_.o atpar.o
```

```
rm atpar_tmp_.F
```

calkpt.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c calkpt_tmp_.F
```

```
mv calkpt_tmp_.o calkpt.o
```

```
rm calkpt_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c cbcomb.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c coors.f
```

dscgst.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c dscgst_tmp_.F
```

```
mv dscgst_tmp_.o dscgst.o
```

```
rm dscgst_tmp_.F
```

find_nloat.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c find_nloat_tmp_.F
```

```
mv find_nloat_tmp_.o find_nloat.o
```

```
rm find_nloat_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c forfhs.f
```

gtfnam.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c gtfnam_tmp_.F
```

```
mv gtfnam_tmp_.o gtfnam.o
```

```
rm gtfnam_tmp_.F
```

hamilt.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c hamilt_tmp_.F
```

```
mv hamilt_tmp_.o hamilt.o
```

```
rm hamilt_tmp_.F
```

hns.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c hns_tmp_.F
```

```
mv hns_tmp_.o hns.o
```

```
rm hns_tmp_.F
```

horb.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c horb_tmp_.F
```

```
mv horb_tmp_.o horb.o
```

```
rm horb_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c inikpt.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c inilpw.f
```

lapw1.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c lapw1_tmp_.F
```



```
mv lapw1_tmp_.o lapw1.o
```

```
rm lapw1_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c latgen.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c lohns.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c lopw.f
```

```
matrix_complete.F: COMPLEX version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c matrix_complete_tmp_.F
```

```
mv matrix_complete_tmp_.o matrix_complete.o
```

```
rm matrix_complete_tmp_.F
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c nn.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c outwinb.f
```

```
prtkpt.F: COMPLEX version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c prtkpt_tmp_.F
```

```
mv prtkpt_tmp_.o prtkpt.o
```

```
rm prtkpt_tmp_.F
```

```
prtres.F: COMPLEX version extracted
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c prtres_tmp_.F
```

```
mv prtres_tmp_.o prtres.o
```

rm prtres_tmp_.F

rdswar.F: COMPLEX version extracted

ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c rdswar_tmp_.F

mv rdswar_tmp_.o rdswar.o

rm rdswar_tmp_.F

ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c rint13.f

ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c rotdef.f

seclit.F: COMPLEX version extracted

ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c seclit_tmp_.F

mv seclit_tmp_.o seclit.o

rm seclit_tmp_.F

seclr4.F: COMPLEX version extracted

ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c seclr4_tmp_.F

mv seclr4_tmp_.o seclr4.o

rm seclr4_tmp_.F

seclr5.F: COMPLEX version extracted

ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -
l/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c seclr5_tmp_.F

mv seclr5_tmp_.o seclr5.o

rm seclr5_tmp_.F

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c select.f
```

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c setkpt.f
```

setwar.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c setwar_tmp.F
```

```
mv setwar_tmp.o setwar.o
```

```
rm setwar_tmp.F
```

stern.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c stern_tmp.F
```

```
mv stern_tmp.o stern.o
```

```
rm stern_tmp.F
```

tapewf.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c tapewf_tmp.F
```

```
mv tapewf_tmp.o tapewf.o
```

```
rm tapewf_tmp.F
```

ustphx.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c ustphx_tmp.F
```

```
mv ustphx_tmp.o ustphx.o
```

```
rm ustphx_tmp.F
```

warpin.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c warpin_tmp_.F
```

```
mv warpin_tmp_.o warpin.o
```

```
rm warpin_tmp_.F
```

wfpnt.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c wfpnt_tmp_.F
```

```
mv wfpnt_tmp_.o wfpnt.o
```

```
rm wfpnt_tmp_.F
```

wfpnt1.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c wfpnt1_tmp_.F
```

```
mv wfpnt1_tmp_.o wfpnt1.o
```

```
rm wfpnt1_tmp_.F
```

zhcgst.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c zhcgst_tmp_.F
```

```
mv zhcgst_tmp_.o zhcgst.o
```

```
rm zhcgst_tmp_.F
```

jacdavblock.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c jacdavblock_tmp_.F
```

```
mv jacdavblock_tmp_.o jacdavblock.o
```

```
rm jacdavblock_tmp_.F
```

make_albl.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c make_albl_tmp.F
```

```
mv make_albl_tmp.o make_albl.o
```

```
rm make_albl_tmp.F
```

make_alblH.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c make_alblH_tmp.F
```

```
mv make_alblH_tmp.o make_alblH.o
```

```
rm make_alblH_tmp.F
```

par_syrk.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c par_syrk_tmp.F
```

```
mv par_syrk_tmp.o par_syrk.o
```

```
rm par_syrk_tmp.F
```

seclit_par.F: COMPLEX version extracted

```
ifort -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -c seclit_par_tmp.F
```

```
mv seclit_par_tmp.o seclit_par.o
```

```
rm seclit_par_tmp.F
```

```
ifort -o ./lapw1c abc.o atpar.o bandv1.o calkpt.o cbcomb.o charge.o coors.o cputim.o  
dbl2k.o dgeqr1.o dgevy.o dgevyg.o dlbrfg.o dsbein1.o dscgst.o dstebz2.o dsyevx2.o  
dsyr2m.o dsyrb4.o dsyrb5l.o dsyrdt4.o dsywyv.o dsyxev4.o dvbes1.o eisps.o errclr.o errflg.o  
find_nload.o forfhs.o gaunt.o gbass.o gtfnam.o hamilt.o hns.o horb.o inikpt.o inilpw.o  
lapw1.o latgen.o lmsort.o locdef.o lohns.o lopw.o matmm.o matrix_complete.o modules.o  
nn.o outerr.o outwinb.o ph.o prtkpt.o prtres.o pzheevx16.o rdswar.o rint13.o rotate.o  
rotdef.o seclit.o seclr4.o seclr5.o select.o service.o setkpt.o setwar.o sphbes.o stern.o  
SymmRot.o tapewf.o t3j.o t3j0.o ustphx.o warpin.o wfpnt.o wfpnt1.o ylm.o zhcgst.o  
zheevx2.o zher2m.o jacdavblock.o make_albl.o make_alblH.o global2local.o par_syrk.o
```

```

my_dsygst.o refblas_dtrsm.o seclit_par.o pdsyevx17.o pdstebz17.o pdgetri_my.o
pzgetri_my.o pdgetrf_my.o pzgetrf_my.o W2kutils.o W2kinit.o -O -FR -mp1 -w -prec_div -
pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -
L/opt/exp_soft/local/generic/intel/mkl/lib/intel64 -lpthread -lm -ldl -liomp5 -
lmkl_intel_lp64 -lmkl_intel_thread -lmkl_core

make[1]: Leaving directory `/home/users/mollabashi/codes/v21.1/SRC_lapw1'

if [ -f .complex ]; then \

    rm -f .complex calkpt.o hamilt.o hns.o horb.o modules.o seclit.o seclr4.o seclr5.o tapewf.o
ustphx.o wfpnt.o wfpnt1.o jacdavblock.o stern.o warpin.o setwar.o par_syrk.o seclit_par.o
matrix_complete.o *.mod; \

fi

touch .real

if [ -f .sequential ]; then \

    rm -f .sequential calkpt.o find_nloat.o gtfnam.o hamilt.o hldau.o hns.o modules.o
pdsyevx17.o pdstebz17.o prtkpt.o pzheevx16.o seclit.o seclr4.o seclr5.o inikpt.o inilpw.o
lapw1.o setkpt.o par_syrk.o matrix_complete.o make_albl.o make_alblH.o jacdavblock.o
seclit_par.o pdgetri_my.o pzgetri_my.o W2kinit.o pdgetrf_my.o pzgetrf_my.o *.mod; \

fi

touch .parallel

make PARALLEL='-DParallel' TYPE='REAL' TYPE_COMMENT='(!_REAL' \

./lapw1_mpi FORT=mpif90 FFLAGS='-O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML
-TRACEBACK -assume buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp
-DParallel'

make[1]: Entering directory `/home/users/mollabashi/codes/v21.1/SRC_lapw1'

modules.F: REAL version extracted

mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c
modules_tmp_.F

```

```
mv modules_tmp_.o modules.o
```

```
rm modules_tmp_.F
```

```
make[1]: Circular W2kinit.o <- W2kinit.o dependency dropped.
```

```
W2kinit.F: REAL version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
W2kinit_tmp_.F
```

```
mv W2kinit_tmp_.o W2kinit.o
```

```
rm W2kinit_tmp_.F
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c abc.f
```

```
atpar.F: REAL version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
atpar_tmp_.F
```

```
mv atpar_tmp_.o atpar.o
```

```
rm atpar_tmp_.F
```

```
calkpt.F: REAL version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
calkpt_tmp_.F
```

```
mv calkpt_tmp_.o calkpt.o
```

```
rm calkpt_tmp_.F
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
cbcomb.f
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c coors.f
```

dscgst.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
dscgst_tmp_.F
```

```
mv dscgst_tmp_.o dscgst.o
```

```
rm dscgst_tmp_.F
```

find_nloat.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
find_nloat_tmp_.F
```

```
mv find_nloat_tmp_.o find_nloat.o
```

```
rm find_nloat_tmp_.F
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c forfhs.f
```

gtfnam.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
gtfnam_tmp_.F
```

```
mv gtfnam_tmp_.o gtfnam.o
```

```
rm gtfnam_tmp_.F
```

hamilt.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
hamilt_tmp_.F
```

```
mv hamilt_tmp_.o hamilt.o
```


rm hamilt_tmp_.F

hns.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
hns_tmp_.F
```

mv hns_tmp_.o hns.o

rm hns_tmp_.F

horb.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
horb_tmp_.F
```

mv horb_tmp_.o horb.o

rm horb_tmp_.F

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c inikpt.f
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c inilpw.f
```

lapw1.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
lapw1_tmp_.F
```

mv lapw1_tmp_.o lapw1.o

rm lapw1_tmp_.F

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c latgen.f
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c lohns.f
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c lopw.f
```

matrix_complete.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
matrix_complete_tmp.F
```

```
mv matrix_complete_tmp.o matrix_complete.o
```

```
rm matrix_complete_tmp.F
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c nn.f
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
outwinb.f
```

prtkpt.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
prtkpt_tmp.F
```

```
mv prtkpt_tmp.o prtkpt.o
```

```
rm prtkpt_tmp.F
```

prtres.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
prtres_tmp.F
```

```
mv prtres_tmp.o prtres.o
```

```
rm prtres_tmp.F
```

pzheevx16.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
pzheevx16_tmp_.F
```

```
mv pzheevx16_tmp_.o pzheevx16.o
```

```
rm pzheevx16_tmp_.F
```

rdswar.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
rdswar_tmp_.F
```

```
mv rdswar_tmp_.o rdswar.o
```

```
rm rdswar_tmp_.F
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c rint13.f
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c rotdef.f
```

seclit.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
seclit_tmp_.F
```

```
mv seclit_tmp_.o seclit.o
```

```
rm seclit_tmp_.F
```

seclr4.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
seclr4_tmp_.F
```

```
mv seclr4_tmp_.o seclr4.o
```

```
rm seclr4_tmp_.F
```

seclr5.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
seclr5_tmp_.F
```

```
mv seclr5_tmp_.o seclr5.o
```

```
rm seclr5_tmp_.F
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c select.f
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c setkpt.f
```

setwar.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
setwar_tmp_.F
```

```
mv setwar_tmp_.o setwar.o
```

```
rm setwar_tmp_.F
```

stern.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
stern_tmp_.F
```

```
mv stern_tmp_.o stern.o
```

```
rm stern_tmp_.F
```

tapewf.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
tapewf_tmp_.F
```

```
mv tapewf_tmp_.o tapewf.o
```

rm tapewf_tmp_.F

ustphx.F: REAL version extracted

mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c
ustphx_tmp_.F

mv ustphx_tmp_.o ustphx.o

rm ustphx_tmp_.F

warpin.F: REAL version extracted

mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c
warpin_tmp_.F

mv warpin_tmp_.o warpin.o

rm warpin_tmp_.F

wfpnt.F: REAL version extracted

mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c
wfpnt_tmp_.F

mv wfpnt_tmp_.o wfpnt.o

rm wfpnt_tmp_.F

wfpnt1.F: REAL version extracted

mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c
wfpnt1_tmp_.F

mv wfpnt1_tmp_.o wfpnt1.o

rm wfpnt1_tmp_.F

zhcgst.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
zhcgst_tmp_.F
```

```
mv zhcgst_tmp_.o zhcgst.o
```

```
rm zhcgst_tmp_.F
```

```
jacdavblock.F: REAL version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
jacdavblock_tmp_.F
```

```
mv jacdavblock_tmp_.o jacdavblock.o
```

```
rm jacdavblock_tmp_.F
```

```
make_albl.F: REAL version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
make_albl_tmp_.F
```

```
mv make_albl_tmp_.o make_albl.o
```

```
rm make_albl_tmp_.F
```

```
make_alblH.F: REAL version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
make_alblH_tmp_.F
```

```
mv make_alblH_tmp_.o make_alblH.o
```

```
rm make_alblH_tmp_.F
```

```
par_syrk.F: REAL version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
par_syrk_tmp_.F
```

```
mv par_syrk_tmp_.o par_syrk.o
```

```
rm par_syrk_tmp_.F
```

```
seclit_par.F: REAL version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
seclit_par_tmp_.F
```

```
mv seclit_par_tmp_.o seclit_par.o
```

```
rm seclit_par_tmp_.F
```

```
pdsyevx17.F: REAL version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
pdsyevx17_tmp_.F
```

```
mv pdsyevx17_tmp_.o pdsyevx17.o
```

```
rm pdsyevx17_tmp_.F
```

```
pdstebz17.F: REAL version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
pdstebz17_tmp_.F
```

```
mv pdstebz17_tmp_.o pdstebz17.o
```

```
rm pdstebz17_tmp_.F
```

```
pdgetri_my.F: REAL version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
pdgetri_my_tmp_.F
```

```
mv pdgetri_my_tmp_.o pdgetri_my.o
```

```
rm pdgetri_my_tmp_.F
```

pzgetri_my.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
pzgetri_my_tmp_.F
```

```
mv pzgetri_my_tmp_.o pzgetri_my.o
```

```
rm pzgetri_my_tmp_.F
```

pdgetrf_my.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
pdgetrf_my_tmp_.F
```

```
mv pdgetrf_my_tmp_.o pdgetrf_my.o
```

```
rm pdgetrf_my_tmp_.F
```

pzgetrf_my.F: REAL version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
pzgetrf_my_tmp_.F
```

```
mv pzgetrf_my_tmp_.o pzgetrf_my.o
```

```
rm pzgetrf_my_tmp_.F
```

```
mpif90 -o ./lapw1_mpi abc.o atpar.o bandv1.o calkpt.o cbcomb.o charge.o coors.o  
cputim.o dblr2k.o dgeqrl.o dgewy.o dgewyg.o dlbrfg.o dsbein1.o dscgst.o dstebz2.o  
dsyevx2.o dsyr2m.o dsyrb4.o dsyrb5l.o dsyrdt4.o dsywyv.o dsyxe4.o dvbes1.o eisps.o  
errclr.o errflg.o find_nloa.o forfhs.o gaunt.o gbass.o gtfnam.o hamilt.o hns.o horb.o inikpt.o  
inilpw.o lapw1.o latgen.o lmsort.o locdef.o lohns.o lopw.o matmm.o matrix_complete.o  
modules.o nn.o outerr.o outwinb.o ph.o prtkpt.o prtres.o pzheevx16.o rdswar.o rint13.o  
rotate.o rotdef.o seclit.o seclr4.o seclr5.o select.o service.o setkpt.o setwar.o sphbes.o  
stern.o SymmRot.o tapewf.o t3j.o t3j0.o ustphx.o warpin.o wfpnt.o wfpnt1.o ylm.o zhcgst.o  
zheevx2.o zher2m.o jacdavblock.o make_albl.o make_alblH.o global2local.o par_syrk.o  
my_dsygst.o refblas_dtrsm.o seclit_par.o pdsyevx17.o pdstebz17.o pdgetri_my.o  
pzgetri_my.o pdgetrf_my.o pzgetrf_my.o W2kutils.o W2kinit.o -O -FR -mp1 -w -prec_div -  
pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -
```



```

I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -
L/opt/exp_soft/local/generic/intel/mkl/lib/intel64 -lpthread -lm -ldl -liomp5 -
L/opt/exp_soft/local/generic/intel/mkl/lib/intel64 -lmkl_scalapack_lp64 -
L/opt/exp_soft/local/generic/intel/mkl/lib/intel64 -lmkl_blacs_intelmpi_lp64 -
lmkl_intel_lp64 -lmkl_intel_thread -lmkl_core

make[1]: Leaving directory `/home/users/mollabashi/codes/v21.1/SRC_lapw1'

if [ -f .real ]; then \

    rm -f .real calkpt.o hamilt.o hns.o horb.o modules.o seclit.o seclr4.o seclr5.o tapewf.o
ustphx.o wfpnt.o wfpnt1.o jacdavblock.o stern.o warpin.o setwar.o par_syrk.o seclit_par.o
matrix_complete.o ; \

fi

touch .complex

if [ -f .sequential ]; then \

    rm -f .sequential calkpt.o find_nfloat.o gtfnam.o hamilt.o hldau.o hns.o modules.o
pdsyevx17.o pdstebz17.o prtkpt.o pzheevx16.o seclit.o seclr4.o seclr5.o inikpt.o inilpw.o
lapw1.o setkpt.o par_syrk.o matrix_complete.o make_albl.o make_alblH.o jacdavblock.o
seclit_par.o pdgetri_my.o pzgetri_my.o W2kinit.o pdgetrf_my.o pzgetrf_my.o *.mod; \

fi

touch .parallel

make PARALLEL='-DParallel' TYPE='COMPLEX' TYPE_COMMENT='\!_COMPLEX' \

./lapw1c_mpi FORT=mpif90 FFLAGS='-O -FR -mp1 -w -prec_div -pc80 -pad -ip -
DINTEL_VML -traceback -assume buffered_io -
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp '-DParallel'

make[1]: Entering directory `/home/users/mollabashi/codes/v21.1/SRC_lapw1'

modules.F: COMPLEX version extracted

mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c
modules_tmp_.F

```

```
mv modules_tmp_.o modules.o
```

```
rm modules_tmp_.F
```

```
make[1]: Circular W2kinit.o <- W2kinit.o dependency dropped.
```

```
W2kinit.F: COMPLEX version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
W2kinit_tmp_.F
```

```
mv W2kinit_tmp_.o W2kinit.o
```

```
rm W2kinit_tmp_.F
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c abc.f
```

```
atpar.F: COMPLEX version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
atpar_tmp_.F
```

```
mv atpar_tmp_.o atpar.o
```

```
rm atpar_tmp_.F
```

```
calkpt.F: COMPLEX version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
calkpt_tmp_.F
```

```
mv calkpt_tmp_.o calkpt.o
```

```
rm calkpt_tmp_.F
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
cbcomb.f
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c coors.f
```

dscgst.F: COMPLEX version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
dscgst_tmp_.F
```

```
mv dscgst_tmp_.o dscgst.o
```

```
rm dscgst_tmp_.F
```

find_nloat.F: COMPLEX version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
find_nloat_tmp_.F
```

```
mv find_nloat_tmp_.o find_nloat.o
```

```
rm find_nloat_tmp_.F
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c forfhs.f
```

gtfnam.F: COMPLEX version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
gtfnam_tmp_.F
```

```
mv gtfnam_tmp_.o gtfnam.o
```

```
rm gtfnam_tmp_.F
```

hamilt.F: COMPLEX version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
hamilt_tmp_.F
```

```
mv hamilt_tmp_.o hamilt.o
```

rm hamilt_tmp_.F

hns.F: COMPLEX version extracted

mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c
hns_tmp_.F

mv hns_tmp_.o hns.o

rm hns_tmp_.F

horb.F: COMPLEX version extracted

mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c
horb_tmp_.F

mv horb_tmp_.o horb.o

rm horb_tmp_.F

mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c inikpt.f

mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c inilpw.f

lapw1.F: COMPLEX version extracted

mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c
lapw1_tmp_.F

mv lapw1_tmp_.o lapw1.o

rm lapw1_tmp_.F

mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c latgen.f

mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c lohns.f

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c lopw.f
```

matrix_complete.F: COMPLEX version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
matrix_complete_tmp.F
```

```
mv matrix_complete_tmp.o matrix_complete.o
```

```
rm matrix_complete_tmp.F
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c nn.f
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
outwinb.f
```

prtkpt.F: COMPLEX version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
prtkpt_tmp.F
```

```
mv prtkpt_tmp.o prtkpt.o
```

```
rm prtkpt_tmp.F
```

prtres.F: COMPLEX version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
prtres_tmp.F
```

```
mv prtres_tmp.o prtres.o
```

```
rm prtres_tmp.F
```

rdswar.F: COMPLEX version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
rdswar_tmp.F
```

```
mv rdswar_tmp.o rdswar.o
```

```
rm rdswar_tmp.F
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c rint13.f
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c rotdef.f
```

```
seclit.F: COMPLEX version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
seclit_tmp.F
```

```
mv seclit_tmp.o seclit.o
```

```
rm seclit_tmp.F
```

```
seclr4.F: COMPLEX version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
seclr4_tmp.F
```

```
mv seclr4_tmp.o seclr4.o
```

```
rm seclr4_tmp.F
```

```
seclr5.F: COMPLEX version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
seclr5_tmp.F
```

```
mv seclr5_tmp.o seclr5.o
```

```
rm seclr5_tmp.F
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c select.f
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c setkpt.f
```

setwar.F: COMPLEX version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
setwar_tmp.F
```

```
mv setwar_tmp.o setwar.o
```

```
rm setwar_tmp.F
```

stern.F: COMPLEX version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
stern_tmp.F
```

```
mv stern_tmp.o stern.o
```

```
rm stern_tmp.F
```

tapewf.F: COMPLEX version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
tapewf_tmp.F
```

```
mv tapewf_tmp.o tapewf.o
```

```
rm tapewf_tmp.F
```

ustphx.F: COMPLEX version extracted

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
ustphx_tmp.F
```

```
mv ustphx_tmp.o ustphx.o
```

```
rm ustphx_tmp_.F
```

```
warpin.F: COMPLEX version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
warpin_tmp_.F
```

```
mv warpin_tmp_.o warpin.o
```

```
rm warpin_tmp_.F
```

```
wfpnt.F: COMPLEX version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
wfpnt_tmp_.F
```

```
mv wfpnt_tmp_.o wfpnt.o
```

```
rm wfpnt_tmp_.F
```

```
wfpnt1.F: COMPLEX version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
wfpnt1_tmp_.F
```

```
mv wfpnt1_tmp_.o wfpnt1.o
```

```
rm wfpnt1_tmp_.F
```

```
zhcgst.F: COMPLEX version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
zhcgst_tmp_.F
```

```
mv zhcgst_tmp_.o zhcgst.o
```

```
rm zhcgst_tmp_.F
```

```
jacdavblock.F: COMPLEX version extracted
```



```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
jacdavblock_tmp_.F
```

```
mv jacdavblock_tmp_.o jacdavblock.o
```

```
rm jacdavblock_tmp_.F
```

```
make_albl.F: COMPLEX version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
make_albl_tmp_.F
```

```
mv make_albl_tmp_.o make_albl.o
```

```
rm make_albl_tmp_.F
```

```
make_alblH.F: COMPLEX version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
make_alblH_tmp_.F
```

```
mv make_alblH_tmp_.o make_alblH.o
```

```
rm make_alblH_tmp_.F
```

```
par_syrk.F: COMPLEX version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
par_syrk_tmp_.F
```

```
mv par_syrk_tmp_.o par_syrk.o
```

```
rm par_syrk_tmp_.F
```

```
seclit_par.F: COMPLEX version extracted
```

```
mpif90 -O -FR -mp1 -w -prec_div -pc80 -pad -ip -DINTEL_VML -traceback -assume  
buffered_io -I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -DParallel -c  
seclit_par_tmp_.F
```

```
mv seclit_par_tmp_.o seclit_par.o
```

```
rm seclit_par_tmp_.F
```

```
mpif90 -o ./lapw1c_mpi abc.o atpar.o bandv1.o calkpt.o cbcomb.o charge.o coors.o  
cputim.o dblr2k.o dgeqlr.o dgewy.o dgewyg.o dlbrfg.o dsbein1.o dscgst.o dstebz2.o  
dsyevx2.o dsyr2m.o dsyrb4.o dsyrb5l.o dsyrdt4.o dsywyv.o dsyxe4.o dvbes1.o eisps.o  
errclr.o errflg.o find_nloat.o forfhs.o gaunt.o gbass.o gtfnam.o hamilt.o hns.o horb.o inikpt.o  
inilpw.o lapw1.o latgen.o lmsort.o locdef.o lohns.o lopw.o matmm.o matrix_complete.o  
modules.o nn.o outrerr.o outwinb.o ph.o prtkpt.o prtres.o pzheevx16.o rdswar.o rint13.o  
rotate.o rotdef.o seclit.o seclr4.o seclr5.o select.o service.o setkpt.o setwar.o sphbes.o  
stern.o SymmRot.o tapewf.o t3j.o t3j0.o ustphx.o warpin.o wfpnt.o wfpnt1.o ylm.o zhcgst.o  
zheevx2.o zher2m.o jacdavblock.o make_albl.o make_alblH.o global2local.o par_syrk.o  
my_dsygst.o refblas_dtrsm.o seclit_par.o pdsyevx17.o pdstebz17.o pdgetri_my.o  
pzgetri_my.o pdgetrf_my.o pzgetrf_my.o W2kutils.o W2kinit.o -O -FR -mp1 -w -prec_div -  
pc80 -pad -ip -DINTEL_VML -traceback -assume buffered_io -  
I/opt/exp_soft/local/generic/intel/mkl/include -qopenmp -  
L/opt/exp_soft/local/generic/intel/mkl/lib/intel64 -lpthread -lm -ldl -liomp5 -  
L/opt/exp_soft/local/generic/intel/mkl/lib/intel64 -lmkl_scalapack_lp64 -  
L/opt/exp_soft/local/generic/intel/mkl/lib/intel64 -lmkl_blacs_intelmpi_lp64 -  
lmkl_intel_lp64 -lmkl_intel_thread -lmkl_core
```

```
make[1]: Leaving directory `/home/users/mollabashi/codes/v21.1/SRC_lapw1'
```