

[Help](#)

```
#include "bs2d_std2d.h"

int MOD_OPT(ChkMix)(Option *Opt,Model *Mod)
{
    TYPEOPT* ptOpt=(TYPEOPT*)(Opt->TypeOpt);
    TYPEMOD* ptMod=(TYPEMOD*)(Mod->TypeModel);
    int status=OK;

    if (ptOpt->Maturity.Val.V_DATE<=ptMod->T.Val.V_DATE)
    {
        Fprintf(TOSCREENANDFILE,"Current date greater than
        maturity!\n");
        status+=1;
    };

    return status;
}

extern PricingMethod MET(CF_CallMax);
extern PricingMethod MET(CF_Exchange);
extern PricingMethod MET(CF_PutMin);
extern PricingMethod MET(FD_Adi);
extern PricingMethod MET(FD_Explicit);
extern PricingMethod MET(FD_VFExplicit);
extern PricingMethod MET(FD_Howard);
extern PricingMethod MET(FD_Multigrid);
extern PricingMethod MET(FD_FMGH);
extern PricingMethod MET(FD_GMRES);
extern PricingMethod MET(FD_Psor);
extern PricingMethod MET(FD_BCGStab);
extern PricingMethod MET(MC_Standard2D);
extern PricingMethod MET(TR_BoyleEvnineGibbs);
extern PricingMethod MET(TR_KamradRitchken);
extern PricingMethod MET(TR_ProductTR);
extern PricingMethod MET(MC_LongstaffSchwartz2D);
extern PricingMethod MET(MC_RandomQuantization2D);
extern PricingMethod MET(MC_BarraquandMartineau2D);
extern PricingMethod MET(MC_BroadieGlassermann2D);
```

```
extern PricingMethod MET(MC_LionsRegnier2D);
extern PricingMethod MET(MC_BGRS2D);
/*extern PricingMethod MET(TR_Euler);*/
```

```
PricingMethod* MOD_OPT(methods)[]={
    &MET(CF_CallMax),
    &MET(CF_Exchange),
    &MET(CF_PutMin),
    &MET(FD_Adi),
    &MET(FD_Explicit),
    &MET(FD_VFExplicit),
    &MET(FD_Howard),
    &MET(FD_Multigrid),
    &MET(FD_FMGH),
    &MET(FD_GMRES),
    &MET(FD_Psor),
    &MET(FD_BCGStab),
    &MET(MC_Standard2D),
    &MET(TR_BoyleEvnineGibbs),
    &MET(TR_KamradRitchken),
    &MET(TR_ProductTR),
    &MET(MC_LongstaffSchwartz2D),
    &MET(MC_RandomQuantization2D),
    &MET(MC_BarraquandMartineau2D),
    &MET(MC_BroadieGlassermann2D),
    &MET(MC_LionsRegnier2D),
    &MET(MC_BGRS2D),
    /*&MET(TR_Euler),*/
    NULL
};
```

```
extern DynamicTest MOD_OPT(test);
DynamicTest* MOD_OPT(tests)[]={
    &MOD_OPT(test),
    NULL
};
```

```
Pricing MOD_OPT(pricing)={
    ID_MOD_OPT,
    MOD_OPT(methods),
    MOD_OPT(tests),
```

```
MOD_OPT(ChkMix)
};

/* Utility function */

int MOD_OPT(Delta_Operator)(double u1,double d1,double u2,
    double d2,double stock1,
        double stock2,double puu, double pud,double
    pdu,
        double pdd,double *ptdelta1,double *ptdelta2)
{
    *ptdelta1=((d2-1.)*(pdu-puu)+(u2-1.)*(pud-pdd))/(stock2*(
        u1-d1)*(u2-d2));
    *ptdelta2=((d1-1.)*(pud-puu)+(u1-1.)*(pdu-pdd))/(stock1*(
        u1-d1)*(u2-d2));

    return OK;
}
```

## References