

Help

```
#include "bscir2d.h"
#include "chk.h"
#include "error_msg.h"
#include "model.h"
#include "premia_obj.h"

static int MOD(Init)(Model *model)
{
    TYPEMOD* pt=(TYPEMOD*)(model->TypeModel);

    if (model->init == 0 )
    {
        model->init = 1;
        model->nvar=0;
        pt->T.Vname = "Current Date";
        pt->T.Vtype=DATE;
        pt->T.Val.V_DATE=0.;
        pt->T.Viter=ALLOW;
        model->nvar++;

        pt->S0.Vname = "Spot";
        pt->S0.Vtype=PDOUBLE;
        pt->S0.Val.V_PDOUBLE=100.;
        pt->S0.Viter=ALLOW;
        model->nvar++;

        pt->Sigma.Vname = "Volatility";
        pt->Sigma.Vtype=DOUBLE;
        pt->Sigma.Val.V_DOUBLE=0.1358;
        pt->Sigma.Viter=ALLOW;
        model->nvar++;

        pt->r0.Vname = "Current Rate";
        pt->r0.Vtype=PDOUBLE;
        pt->r0.Val.V_PDOUBLE=0.04;
        pt->r0.Viter=ALLOW;
        model->nvar++;

        pt->k.Vname = "Speed of Mean Reversion";
        pt->k.Vtype=PDOUBLE;
```

```
pt->k.Val.V_PDOUBLE=1;
pt->k.Viter=ALLOW;
model->nvar++;

pt->theta.Vname = "Long Term Mean";
pt->theta.Vtype=PDOUBLE;
pt->theta.Val.V_PDOUBLE=0.04;
pt->theta.Viter=ALLOW;
model->nvar++;

pt->SigmaR.Vname = "Volatility of Interest Rate";
pt->SigmaR.Vtype=PDOUBLE;
pt->SigmaR.Val.V_PDOUBLE=0.2;
pt->SigmaR.Viter=ALLOW;
model->nvar++;

pt->Rho.Vname = "Correlation";
pt->Rho.Vtype=PDOUBLE;
pt->Rho.Val.V_PDOUBLE=0;
pt->Rho.Viter=ALLOW;
model->nvar++;

pt->Mortality.Vname = "Mortality Table";
pt->Mortality.Vtype=FILENAME;
pt->Mortality.Val.V_FILENAME=NULL;
pt->Mortality.Viter=FORBID;
pt->Mortality.Vsetable =SETABLE;

model->nvar++;

if ((pt->Mortality.Val.V_FILENAME=malloc(sizeof(char)
*MAX_PATH_LEN))==NULL)
    return MEMORY_ALLOCATION_FAILURE;
sprintf( pt->Mortality.Val.V_FILENAME, "%s%sMortalit
y.dat", premia_data_dir,path_sep);

}

return OK;
}
```

```
TYPEMOD bscir2d;  
MAKEMOD(bscir2d);
```

References