

## [Help](#)

```
#include "
href.././mod/bscir2d/bscir2d_h_src.pdfbscir2d.h"
#include "
href.././common/chk_h_src.pdfchk.h"
#include "
href.././common/error_msg_h_src.pdferror_msg.h"
#include "
href.././mod/hes1d/hes1d_pad/model_h_src.pdfmodel.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;
```

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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 = DOUBLE;
pt->Rho.Val.V_DOUBLE = 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))==N
/* return MEMORY_ALLOCATION_FAILURE; */
/* sprintf( pt->Mortality.Val.V_FILENAME, "%s%sMortality.dat", premia_data
}

```

```
    return OK;
}

TYPEMOD bscir2d;
MAKEMOD(bscir2d);
```