

[Help](#)

```
#include "cir2d.h"
#include "chk.h"
#include "model.h"

extern char* path_sep;

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=0.0;
        pt->T.Viter=ALLOW;
        model->nvar++;

        pt->x01.Vname = "Current X1";
        pt->x01.Vtype=PDOUBLE;
        pt->x01.Val.V_PDOUBLE=0.04;
        pt->x01.Viter=ALLOW;
        model->nvar++;

        pt->x02.Vname = "Current X2";
        pt->x02.Vtype=PDOUBLE;
        pt->x02.Val.V_PDOUBLE=0.02;
        pt->x02.Viter=ALLOW;
        model->nvar++;

        pt->k1.Vname = "Speed of Mean Reversion 1";
        pt->k1.Vtype=PDOUBLE;
        pt->k1.Val.V_PDOUBLE=0.02;
        pt->k1.Viter=ALLOW;
        model->nvar++;
    }
}
```

```
    pt->k2.Vname = "Speed of Mean Reversion 2";
    pt->k2.Vtype=PDOUBLE;
    pt->k2.Val.V_PDOUBLE=0.02;
    pt->k2.Viter=ALLOW;
    model->nvar++;

    pt->theta1.Vname = "Long Term Mean 1";
    pt->theta1.Vtype=PDOUBLE;
    pt->theta1.Val.V_PDOUBLE=0.03;
    pt->theta1.Viter=ALLOW;
    model->nvar++;

    pt->theta2.Vname = "Long Term Mean 2";
    pt->theta2.Vtype=PDOUBLE;
    pt->theta2.Val.V_PDOUBLE=0.01;
    pt->theta2.Viter=ALLOW;
    model->nvar++;

    pt->Sigma1.Vname = "Volatility 1";
    pt->Sigma1.Vtype=PDOUBLE;
    pt->Sigma1.Val.V_PDOUBLE=0.04;
    pt->Sigma1.Viter=ALLOW;
    model->nvar++;

    pt->Sigma2.Vname = "Volatility 2";
    pt->Sigma2.Vtype=PDOUBLE;
    pt->Sigma2.Val.V_PDOUBLE=0.02;
    pt->Sigma2.Viter=ALLOW;
    model->nvar++;

    pt->shift.Vname = "Initial Shift";
    pt->shift.Vtype=PDOUBLE;
    pt->shift.Val.V_PDOUBLE=0.02;
    pt->shift.Viter=ALLOW;
    model->nvar++;

}
return OK;
}
TYPEMOD Cir2d;
MAKEMOD(Cir2d);
```

References