```
bianCCD:=(
bf=1;
If[getflag["bianyi"]==1,
MessageDialog["           ",
{"   CCD":>CreateDialog[CurrentImage[]]}
],
CreateWindow[DialogNotebook[
Column[{
Panel[
Column[{
If[Length[CCompilers[]]==0,
"       C     ",
Column[{"        C      \n"<>("Name"/.CCompilers[][[1,1]])<>
", "<>("CompilerInstallation"/.CCompilers[][[1,3]]),
Row[{Dynamic@Button["    ",
bf=2;
check=Timing[Quiet@Check[bianyi,"err"]];
If[check[[2]]=!="err",changeflag["bianyi",1]];
bf=3,Enabled->(bf==1),Method->"Queued"
,ImageSize->{100,30}],
Dynamic[
Which[
bf==1,"       ",
bf==2,"      ...",
bf==3,
If[check[[2]]=!="err",
"      ,      "<>ToString[check[[1]]]<>"s",
Style["      ",Red] ] ]
] },Spacer[4]]
}]
],
Null,Null,
Dynamic@Button["   CCD",
CreateDialog[CurrentImage[]];
DialogReturn[],
Enabled->(getflag["bianyi"]==1),
Method->"Queued",
ImageSize->{200,30}]
}]
,ImageSize->{500,180}]
}]
]]]
)
```

```
tiaozheng:=
CreateWindow[DialogNotebook[
DynamicModule[{rr=r},
Panel[
Column[{
Dynamic[
Module[{ lr ,img          },
lr=Round[320rr];
img=CurrentImage[];
Show[img,Graphics[{Red,Line[{{lr,0},{lr,240}}]}]]]
]],
Row[{Slider[Dynamic[rr],{0.5,0.99}],Dynamic[rr]},Spacer[20]],
Null,
Row[{DefaultButton[r=rr;DialogReturn[]],CancelButton[]},Spacer[30]]
}]    ]  ]
],WindowSize->All]
```

```
bilixishu:=CreateWindow[DialogNotebook[
(Manipulate[
Framed[Dynamic@Show[imgt,ImageSize->400]],
Item[Style["          ",{17,Blue}],ControlPlacement->Top],
Delimiter,
Item[Row[{"",Column[{Button[Style["    "],
imgt:=CurrentImage[],ImageSize->{150,25}],
Button[Style["    "],imgt=CurrentImage[],ImageSize->{150,25}]}]}],
Spacer[30]],ControlPlacement->Right],
Delimiter,
Item[Style["k        \n",{15,Bold}],ControlPlacement->Right],
Item[Column[{Control[{{p,{{0,0},{0,0}},"p"}}],
Control[{{l,0,"l"}}]
},Spacings->3,Frame->All,FrameStyle->GrayLevel[0.6]],
ControlPlacement->Right],
Item[Column[{Row[{"",Button[Style["    ",{Red,15}],
(If[l!=0,k=Norm[p[[1]]-p[[2]]]/l]),
ImageSize->{150,30}],""},Spacer[30]],
Row[{"",Row[{"k = ",InputField[Dynamic[k],FieldSize->5]," px/cm"}],""},
Spacer[50]]},Spacings->2,Frame->All,FrameStyle->GrayLevel[0.6]],
ControlPlacement->Right],AppearanceElements->None,
Initialization:>(imgt:=CurrentImage[])])
],WindowTitle->"            ",WindowSize->All
]
```

```
canshu:=
(CreateWindow[DialogNotebook[
DynamicModule[{mode=getflag["mode"]   , $S=S,  $Θm=Θm,
 $ΘM=ΘM,$x=x,$di=di,$y=y    ,$hm=hm  ,$hM=hM        },
Panel[
Column[{
Row[{"      ",RadioButtonBar[Dynamic[mode],
{1->"     ",2->"     ",3->"     "}]}],Spacer[10]],
Null,
Grid[{{"di: ",InputField[Dynamic[$di]],""}}],
Null,
Dynamic@Grid[{
{"S:",InputField[Dynamic[$S],Enabled->(mode==3||mode==1)],"    "},
{"Θm:",InputField[Dynamic[$Θm],Enabled->(mode==3||mode==1)]," "},
{"ΘM:",InputField[Dynamic[$ΘM],Enabled->(mode==3||mode==1)]," "}
}],
Null,
Dynamic@Grid[{
{"x:",InputField[Dynamic[$x],Enabled->(mode==3||mode==2)],"    "},
{"y:",InputField[Dynamic[$y],Enabled->(mode==3||mode==2)],"    "},
{"hm:",InputField[Dynamic[$hm],Enabled->(mode==3||mode==2)],"   "},
{"hM:",InputField[Dynamic[$hM],Enabled->(mode==3||mode==2)],"   "}
}],
Null,Null,
Row[{"",DefaultButton[
changeflag["mode",mode];
Which[
mode==1,(S=$S;Θm=$Θm;ΘM=$ΘM;di=$di),
mode==2,(x=$x;y=$y;hm=$hm;hM=$hM;di=$di),
mode==3,(S=$S;Θm=$Θm;ΘM=$ΘM;x=$x;y=$y;hm=$hm;hM=$hM;di=$di)
];DialogReturn[]
],CancelButton[]},Spacer[30]]

}],ImageSize->{400,390}
]
]],WindowSize->All]
)
```

```
paishe:=
(
Which[
getflag["paishe"]==2,notStart[r],
getflag["paishe"]==1,
Which[
getflag["mode"]==1,
videoL[CurrentImage[],r,zuobiaoL0,gzuobiao,{240,320},
If[getflag["jiankong"]==1,True,False,di]],
getflag["mode"]==2,
videoR[CurrentImage[],r,zuobiaoR0,gzuobiao,{240,320},
If[getflag["jiankong"]==1,True,False,di]],
getflag["mode"]==3,
videoLR[CurrentImage[],r,zuobiaoLR0,gzuobiao,{240,320},
If[getflag["jiankong"]==1,True,False,di]]
]
]
)
```

```
chushi:=
(
CreateWindow[
DialogNotebook[
Panel[
Module[{    img   ,showimg   ,lr,l=320,L=240                    },
lr=Round[l*r];
img=CurrentImage[];
Which[
getflag["mode"]==1,
zuobiaoL0=gzuobiao[ImageData[img],{240,320},r,1,di][[1]];
showimg=Show[img,
Graphics[{
Red,Line[{{lr,0},{lr,L}}],
Dashed,Line[{{0,zuobiaoL0[[2]]},{lr,zuobiaoL0[[2]]}}],
Line[{{zuobiaoL0[[1]],0},{zuobiaoL0[[1]],L}}],
Black,Rectangle[{lr+1,0},{l,L}] }]   ]
,
getflag["mode"]==2,
zuobiaoR0=gzuobiao[ImageData[img],{240,320},r,2,di][[1]];
showimg=Show[img,
Graphics[{
Red,Line[{{lr,0},{lr,L}}],
Dashed,Line[{{lr,zuobiaoR0[[2]]},{l,zuobiaoR0[[2]]}}],
Line[{{zuobiaoR0[[1]],0},{zuobiaoR0[[1]],L}}],
Black,Rectangle[{0,0},{lr-1,L}] }]   ]
,
getflag["mode"]==3,
zuobiaoLR0=gzuobiao[ImageData[img],{240,320},r,3,di];
zuobiaoL0=zuobiaoLR0[[1]];
zuobiaoR0=zuobiaoLR0[[2]];
showimg=Show[img,
Graphics[{
Red,Line[{{lr,0},{lr,L}}],
Dashed,Line[{{0,zuobiaoL0[[2]]},{lr,zuobiaoL0[[2]]}}],
Line[{{zuobiaoL0[[1]],0},{zuobiaoL0[[1]],L}}],
 Line[{{lr,zuobiaoR0[[2]]},{l,zuobiaoR0[[2]]}}],
Line[{{zuobiaoR0[[1]],0},{zuobiaoR0[[1]],L}}]}]   ]

];showimg]
]   ]   ]
)
```

```
chucunSet:=(
CreateWindow[DialogNotebook[
DynamicModule[{$fileWrite=fileWrite,$ups=ups  ,
$dateStart=dateStart,$dateStop=dateStop ,check1,check2   },
Panel[
Column[{
Column[{"              ",
Row[{InputField[Dynamic[$fileWrite],String],
FileNameSetter[Dynamic[$fileWrite],"Save"]},Spacer[5]]}],
Null,
Column[{"              ",
Row[{InputField[Dynamic[$dateStart],String],
```

```
Button[" ",$dateStart=ToString[Row[Round@DateList[],","]]]},Spacer[5]]
"             ",
InputField[Dynamic[$dateStop],String]
}],
Null,
Column[{"             ",
Row[{InputField[Dynamic[$ups]]," "},Spacer[5]]
}],
Null,Null,
Row[{DefaultButton[(
check1=Quiet[Check[DateList[{$dateStart,
{"Year","Month","Day","Hour","Minute","Second"}}],"err"]];
check2=Quiet[Check[DateList[{$dateStop,
{"Year","Month","Day","Hour","Minute","Second"}}],"err"]];
Which[
(check1==="err"||check2==="err"),
MessageDialog["              \n                       "],
(AbsoluteTime[check1]>AbsoluteTime[check2])||(AbsoluteTime[check2]
<AbsoluteTime[]),
MessageDialog["          "],
$ups<0.4,MessageDialog["            ,        0.4"],
getflag["jilu"]==1,
MessageDialog[
Column[{
"                       \n               ",
Null,
"        ",
Null,
"          :\n "<>fileWrite,
"        : "<>DateString@DateList[{dateStart,
{"Year","Month","Day","Hour","Minute","Second"}}],
"          : "<>DateString@DateList[{dateStop,
{"Year","Month","Day","Hour","Minute","Second"}}],
"      : "<>"   "<>ToString[NumberForm[ups,3]]<>"          "
}]
];DialogReturn[],
True,
(
fileWrite=$fileWrite;
str=OpenWrite[fileWrite];
dateStart=$dateStart;
dateStop=$dateStop;
WriteString[str,ToString[getflag["mode"]]<>";"];
WriteString[str,ToString[Round[AbsoluteTime[DateList[{$dateStart,
{"Year","Month","Day","Hour","Minute","Second"}}]]]]<>";"];
ups=$ups;
If[AbsoluteTime[check1]>AbsoluteTime[],
changeflag["jilu",3],
changeflag["jilu",2]
];
MessageDialog[
Column[{
"        ",
Null,
```

```
"            :\n "<>fileWrite,
"          : "<>DateString@DateList[{dateStart,
{"Year","Month","Day","Hour","Minute","Second"}}],
"          : "<>DateString@DateList[{dateStop,
{"Year","Month","Day","Hour","Minute","Second"}}],
"       : "<>"     "<>ToString[NumberForm[ups,3]]<>"            "
}]];DialogReturn[])
]
),Method->"Queued"],
CancelButton[]},Spacer[30]]
}]
,ImageSize->{400,350}
]   ]
]]
)
```

```
shujuchuli:=
CreateWindow[DialogNotebook[
DynamicModule[{ $fileRead=fileRead   ,str    ,mode , jiansuo="all"    ,
timestart,timelast,time    ,n=0   ,sdt=0   ,recordstart,recordstring,
uα={},uθ={},uh={},record   ,check1,check2,ts1="",ts2="",t1,t2,
jf=0,readflag=0 (* 0:    , 1:          *)    },
Panel[
Column[{
Column[{"         :",
Row[{InputField[Dynamic[$fileRead],String],
FileNameSetter[Dynamic[$fileRead],"Open"]},Spacer[5]]
}],
Row[{♯,""}]&@@Button["             ",
str=OpenRead[$fileRead];
SetStreamPosition[str,0];

mode=ToExpression@Read[str,Record,RecordSeparators->";"];
time=ToExpression@Read[str,Record,RecordSeparators->";"];

If[(Quiet[Check[(recordstart=ToExpression[Read[str,
Record,RecordSeparators->";"]]),"err"]]=!="err")&&ListQ[recordstart],
n++;
timestart=time+recordstart[[1]];
timelast=recordstart[[1]];
While[(recordstring=Read[str,Record,RecordSeparators->";"])=!=EndOfFile,
If[(Quiet[Check[(record=ToExpression[recordstring]),
"err"]]==="err")||!ListQ[record],
Break[]];
n++;
sdt=sdt+(record[[1]]-timelast);
timelast=record[[1]]
];
MessageDialog[Column[{
"              :",
Null,
"      : "<>DateString[timestart],
"      : "<>DateString[timestart+sdt],
Null,
```

```
"      : "<>ToString[n],
"           : "<>ToString[NumberForm[sdt/(n-1),3]]<>"    "
}]],
MessageDialog["            "]
];Close[str];n=0;sdt=0,

Method->"Queued",ImageSize->{150,30}

],
Null,
RadioButtonBar[Dynamic[jiansuo],
{"all"->"           ","part"->"            "}],
Row[{"       :",Dynamic@InputField[Dynamic[ts1],String,
Enabled->(jiansuo=="part")]},Spacer[5]],
Row[{"        :",Dynamic@InputField[Dynamic[ts2],
String,Enabled->(jiansuo=="part")]},Spacer[5]],
Null,
Row[{
Dynamic@If[jf==0,
Button["        ",
str=OpenRead[$fileRead];
SetStreamPosition[str,0];
mode=ToExpression@Read[str,Record,RecordSeparators->";"];
time=ToExpression@Read[str,Record,RecordSeparators->";"];
Which[jiansuo=="all",
If[(Quiet[Check[(recordstart=ToExpression[Read[str,Record,
RecordSeparators->";"]]),"err"]]=!="err")&&ListQ[recordstart],
Which[
mode==1,
AppendTo[uα,{time+recordstart[[1]],recordstart[[2]]}];
AppendTo[uθ,{time+recordstart[[1]],recordstart[[3]]}],
mode==2,
AppendTo[uh,{time+recordstart[[1]],recordstart[[2]]}],
mode==3,
AppendTo[uα,{time+recordstart[[1]],recordstart[[2]]}];
AppendTo[uθ,{time+recordstart[[1]],recordstart[[3]]}];
AppendTo[uh,{time+recordstart[[1]],recordstart[[4]]}]
];
While[(recordstring=Read[str,Record,
RecordSeparators->";"])=!=EndOfFile,
If[(Quiet[Check[(record=ToExpression[recordstring]),
"err"]]==="err")||!ListQ[record],
Break[]];
Which[
mode==1,
AppendTo[uα,{time+record[[1]],record[[2]]}];
AppendTo[uθ,{time+record[[1]],record[[3]]}],
mode==2,
AppendTo[uh,{time+record[[1]],record[[2]]}],
mode==3,
AppendTo[uα,{time+record[[1]],record[[2]]}];
AppendTo[uθ,{time+record[[1]],record[[3]]}];
AppendTo[uh,{time+record[[1]],record[[4]]}]
]
];jf=1,
```

```
MessageDialog["          "]
],
jiansuo=="part",
check1=Quiet[Check[DateList[{ts1,
{"Year","Month","Day","Hour","Minute","Second"}}],"err"]];
check2=Quiet[Check[DateList[{ts2,
{"Year","Month","Day","Hour","Minute","Second"}}],"err"]];
Which[
(check1==="err"||check2==="err"),
MessageDialog["          \n                          "],
AbsoluteTime[check1]>AbsoluteTime[check2],
MessageDialog["          "],
True,
If[(Quiet[Check[(recordstart=ToExpression[Read[str,Record,
RecordSeparators->";"]]),"err"]]=!="err")&&ListQ[recordstart],
t1=AbsoluteTime@DateList[{ts1,
{"Year","Month","Day","Hour","Minute","Second"}}];
t2=AbsoluteTime@DateList[{ts2,
{"Year","Month","Day","Hour","Minute","Second"}}];
If[t1<=time+recordstart[[1]]<=t2,
Which[
mode==1,
AppendTo[uα,{time+recordstart[[1]],recordstart[[2]]}];
AppendTo[uθ,{time+recordstart[[1]],recordstart[[3]]}],
mode==2,
AppendTo[uh,{time+recordstart[[1]],recordstart[[2]]}],
mode==3,
AppendTo[uα,{time+recordstart[[1]],recordstart[[2]]}];
AppendTo[uθ,{time+recordstart[[1]],recordstart[[3]]}];
AppendTo[uh,{time+recordstart[[1]],recordstart[[4]]}]
]];
While[(recordstring=Read[str,Record,
RecordSeparators->";"])=!=EndOfFile,
If[(Quiet[Check[(record=ToExpression[recordstring]),
"err"]]==="err")||!ListQ[record],
Break[]];
If[t1<=time+record[[1]]<=t2,
Which[
mode==1,
AppendTo[uα,{time+record[[1]],record[[2]]}];
AppendTo[uθ,{time+record[[1]],record[[3]]}],
mode==2,
AppendTo[uh,{time+record[[1]],record[[2]]}],
mode==3,
AppendTo[uα,{time+record[[1]],record[[2]]}];
AppendTo[uθ,{time+record[[1]],record[[3]]}];
AppendTo[uh,{time+record[[1]],record[[4]]}]
]]
];jf=1,
MessageDialog["          "]
]]
];Close[str]

,Method->"Queued",ImageSize->{150,30}
],
```

```
Button["        ",jf=0;uα=uθ=uh={},ImageSize->{150,30}]
],
Dynamic@If[jf==1,"        ",""]
},Spacer[20]]        ,
Row[{Button["        ",
If[jf==0,
MessageDialog["        "],
CreateWindow[DialogNotebook[
Which[mode==1,
Row[{
DateListPlot[uα,PlotLabel->"            ",PlotRange->{0,360},
ImageSize->300,AspectRatio->1,Joined->True],
DateListPlot[uθ,PlotLabel->"            ",PlotRange->{0,θM},
ImageSize->300,AspectRatio->1,Joined->True]},Spacer[20]],
mode==2,
DateListPlot[uh,PlotLabel->"            ",
PlotRange->{-hM,hM},ImageSize->300,AspectRatio->1,Joined->True],
mode==3,
Row[{
DateListPlot[uα,PlotLabel->"            ",PlotRange->{0,360},
ImageSize->300,AspectRatio->1,Joined->True],
DateListPlot[uθ,PlotLabel->"            ",PlotRange->{0,θM},
ImageSize->300,AspectRatio->1,Joined->True],
DateListPlot[uh,PlotLabel->"            ",
PlotRange->{-hM,hM},ImageSize->300,AspectRatio->1,Joined->True]
},Spacer[20]]   ]
],WindowSize->All]
],ImageSize->{150,30}],""}]
}]
,ImageSize->{400,310}
]]   ]    ]
```