Transform (调用次数: 100，时间: 49.571 sec)

基于23-Apr-2016 21:32:15时间于 performance 生成。
文件中的 脚本 C:\UQ\GoodhillIntern\ZerbrafishProject\Transform.m
复制到新窗口以比较多次运行情况

刷新

☑ 显示父函数 ☑ 显示正在执行的代码行 ☑ 显示子函数
☑ 显示代码分析器结果 ☑ 显示文件范围 ☑ 显示函数列表

父级(调用函数)

函数名称	函数类型	调用次数
ProjectionGUI>GenerateMovie_Callback	子函数	100

耗费了大多数 时间 的代码行

行号	代码	调用次数	总时间	% 时间	时间 绘图
92	EffectIndex=MY_intersect(MY_in...	100	13.972 s	28.2%	
34	handles.bodyCoordinate(:,:,2)=...	100	3.379 s	6.8%	
33	handles.bodyCoordinate(:,:,1)=...	100	3.329 s	6.7%	
93	RefIndex(EffectIndex)=[];%excl...	100	3.006 s	6.1%	
22	[handles.cylindricalCoordinate...	100	2.405 s	4.9%	
所有其他行			23.480 s	47.4%	
总计			49.571 s	100%	

子集(调用的函数)

函数名称	函数类型	调用次数	总时间	% 时间	时间 绘图
MY_intersect	函数	200	13.829 s	27.9%	
meshgrid	函数	100	0.842 s	1.7%	
cross	函数	100	0.004 s	0.0%	
自用 时间 (内置项、开销等)			34.896 s	70.4%	
总计			49.571 s	100%	

代码分析器结果
无代码分析器消息。

范围结果

r to dish

the Theta coordinate, and the next one is relative Z coordinate
X ,second is the Y
coordinate, and the next one is Y coordinate and third one is Z coordinate

oordinate);
e);

dinate(:,:,2)]meshgrid(mindegree:handles.stripWidthResolution:handles.stripWidth,0:handl
inate(:,:,1)./360.*2*pi;

is the General length of the projector image

oordinate(:,:,1));
ordinate(:,:,1));

```
les.stripHeightResolution:handles.stripHeight);
```

显示父目录的范围

函数中的总行数	99
非代码行(注释、空行)	50
代码行(可以运行的行)	49
确实运行过的代码行	49
未运行过的代码行	0
范围(确实运行/可以运行)	100.00 %

函数列表

基于以下选项以高亮颜色显示相关代码 时间

时间	调用次数	行号	
< 0.01	100	2	y0=0;%y0 is the horizontal offset of the projector;
< 0.01	100	3	z0=handles.z0;%zo is the offset of the height of the projecto
< 0.01	100	4	gamma=handles.gamma;%gamma is the projector incline degree
< 0.01	100	5	gamma=gamma*pi/180;
< 0.01	100	6	d0=[cos(gamma),0,sin(gamma)];
< 0.01	100	7	ex=[0,1,0];
< 0.01	100	8	ey=cross(d0,ex);
< 0.01	100	9	mindegree=0;
		10	% tstart=tic();
< 0.01	100	11	[Height,Width,N]=size(handles.effectIm);
0.28	100	12	handles.cylindricalCoordinate=zeros(Height,Width,2);%first is
0.28	100	13	handles.projectCoordinate=zeros(Height,Width,2);%first is the
0.43	100	14	handles.bodyCoordinate=zeros(Height,Width,3);%first is the X c
		15	% %%%GPU Accerelate
		16	% handles.bodyCoordinate=gpuArray(handles.bodyCoordinate);
		17	% handles.cylindricalCoordinate=gpuArray(handles.cylindricalC
		18	% handles.projectCoordinate=gpuArray(handles.projectCoordinate
		19	% %%%%
		20	%Generate related mesh coordinate
		21	
2.41	100	22	[handles.cylindricalCoordinate(:,:,1),handles.cylindricalCoor
1.46	100	23	handles.cylindricalCoordinate(:,:,1)=handles.cylindricalCoord
< 0.01	100	24	[PHeight,PWidth,N2]=size(handles.backGroundIm);
< 0.01	100	25	R=handles.dishRadius;
< 0.01	100	26	D=handles.distance;
< 0.01	100	27	Hratio=handles.fieldHeight/handles.physicalHeight*D;
< 0.01	100	28	Wratio=handles.fieldWidth/handles.physicalWidth*D;%60 and 104
		29	
		30	
		31	
		32	
3.33	100	33	handles.bodyCoordinate(:,:,1)=R+D-R.*sin(handles.cylindricalC
3.38	100	34	handles.bodyCoordinate(:,:,2)=y0+R.*cos(handles.cylindricalCo

```
e(:,:,2);
```

```
(d*d0')*ratio;
 /(d*d0')*ratio;

/2)&&abs(handles.projectCoordinate(i,j,2))<(handles.fieldHeight/2)&&

te(i,j,2)+handles.fieldHeight/2),round(handles.projectCoordinate(i,j,1)+handles.fieldWi
```

```
))+ex(2)*(dy-dH*d0(2))+ex(3)*(dz-dH*d0(3))./dH*ratio*2.15;
))+ey(2)*(dy-dH*d0(2))+ey(3)*(dz-dH*d0(3))./dH*ratio*1.5;
))+ex(2)*(dy-dH*d0(2))+ex(3)*(dz-dH*d0(3))./dH*Wratio;
))+ey(2)*(dy-dH*d0(2))+ey(3)*(dz-dH*d0(3))./dH*Hratio;
```

```
/2)&&abs(handles.projectCoordinate(i,j,2))<(handles.fieldHeight/2)&&
dColor'))

te(i,j,2)+handles.fieldHeight/2),round(handles.projectCoordinate(i,j,1)+handles.fieldWi


dles.fieldHeight/2),floor(handles.projectCoordinate(i,j,1)+handles.fieldWidth/2)];
nIm(X(1),X(2),:)+handles.effectIm(i,j,:).*(1-handles.effectImFilter(i,j,1))*(1-handles.e
```

```
dth);
```

```
lth/2),:)=handles.effectIm(i,j,:);
```

```
lth/2),:)=handles.effectIm(i,j,:);
```

```
effectImFilter(i,j,2));
```

```
1.58    100   35  handles.bodyCoordinate(:,:,3)=z0-handles.cylindricalCoordinate
                36
                37
< 0.01  100   38  handles.patternIm=handles.backGroundIm;
                39
                40  % for i=1:Height
                41  %     for j=1:Width
                42  %         d=reshape(handles.bodyCoordinate(i,j,:),1,3);
                43  %         handles.projectCoordinate(i,j,1)=(d-d*d0'*d0)*ex'./
                44  %         handles.projectCoordinate(i,j,2)=((d-d*d0'*d0)*ey').
                45  %
                46  % % abs(handles.projectCoordinate(i,j,1))<(handles.fieldWidth/
                47  %         if(handles.effectIm(i,j,3)==0)
                48  %             handles.patternIm(round(handles.projectCoordinat
                49  %         end
                50  %
                51  %     end
                52  % end
0.77    100   53  dx=handles.bodyCoordinate(:,:,1);
0.78    100   54  dy=handles.bodyCoordinate(:,:,2);
0.77    100   55  dz=handles.bodyCoordinate(:,:,3);
0.53    100   56  dH=dx*d0(1)+dy*d0(2)+dz*d0(3);
                57
                58  %         d=reshape(handles.bodyCoordinate(i,j,:),1,3);
                59  %         handles.projectCoordinate(:,:,1)=(ex(1)*(dx-dH*d0(1)
                60  %         handles.projectCoordinate(:,:,2)=(ey(1)*(dx-dH*d0(1)
1.55    100   61          handles.projectCoordinate(:,:,1)=(ex(1)*(dx-dH*d0(1)
1.57    100   62          handles.projectCoordinate(:,:,2)=(ey(1)*(dx-dH*d0(1)
                63
                64  % effectIm=permute(handles.effectIm,[3,1,2]);
                65  % for i=1:Height
                66  %     for j=1:Width
                67  % % abs(handles.projectCoordinate(i,j,1))<(handles.fieldWidth/
                68  % %         if(~isequal(effectIm(:,i,j),255*handles.backGround
                69  %             if(handles.effectIm(i,j,:)==0)
                70  %             handles.patternIm(round(handles.projectCoordinat
                71  %
                72  %
                73  % %             X=[floor(handles.projectCoordinate(i,j,2)+hand
                74  % %             handles.patternIm(X(1),X(2),:)=handles.patter
                75  %
                76  %
                77  %             end
                78  %     end
                79  % end
0.77    100   80  ProjectX=reshape(handles.projectCoordinate(:,:,2),1,Height*Wi
2.22    100   81  ProjectX=-round(ProjectX)+handles.fieldHeight/2;
```

```
dth);

}

dex+(i-1)*Height*Width);
```

0.78	100	82	ProjectY=reshape(handles.projectCoordinate(:,:,1),1,Height*Wi
2.21	100	83	ProjectY=-round(ProjectY)+handles.fieldWidth/2;
0.41	100	84	Coor=ProjectX+(ProjectY-1)*PHeight;
0.78	100	85	REffectIm=reshape(handles.effectIm(:,:,1),1,Height*Width);
0.78	100	86	GEffectIm=reshape(handles.effectIm(:,:,2),1,Height*Width);
0.77	100	87	BEffectIm=reshape(handles.effectIm(:,:,3),1,Height*Width);
0.57	100	88	RefIndex=1:Height*Width;
1.15	100	89	RCoor=find(REffectIm==255*handles.backGroundColor(1));
1.22	100	90	GCoor=find(GEffectIm==255*handles.backGroundColor(2));
1.21	100	91	BCoor=find(BEffectIm==255*handles.backGroundColor(3));
13.97	100	92	EffectIndex=MY_intersect(MY_intersect(RCoor,GCoor),BCoor);
3.01	100	93	RefIndex(EffectIndex)=[];%exclude the pixal that is backgroun
0.02	100	94	patternIm=reshape(handles.patternIm,1,PHeight*PWidth*3);
0.42	100	95	effectIm=reshape(handles.effectIm,1,Height*Width*3);
< 0.01	100	96	for i=1:3
0.11	300	97	patternIm(Coor(RefIndex)+(i-1)*PHeight*PWidth)=effectIm(RefIn
< 0.01	300	98	end
		99	% toc(tstart);
< 0.01	100	100	handles.patternIm=uint8(reshape(patternIm,PHeight,PWidth,3));

此文件中的其他子函数未包含在该列表中。