

% 以下是用户可以修改的参数，src\_num 为原图编号从 1 到 4，target\_num 为模板编号从 1 到 6

% 默认每一个模板对应一种滤镜，可以修改：

% 其中 1 对应油画风格，2 对应墙体风格，3 对应毛玻璃风格，4 对应黑白风格，5 对应素描风格，6 对应怀旧风格

src\_num = 1;

target\_num = 3;

filter\_num = target\_num;

% 读取原图并显示

img\_src = imread(strcat('./源图像/sourceImage', int2str(src\_num), '.jpg'));

figure(1);

subplot(2,3,1);

imshow(img\_src,[]);

title('img\\_src');

% 读取目标图并显示

img\_target = imread(strcat('./模板图像/targetImage', int2str(target\_num), '.jpg'));

subplot(2,3,2);

imshow(img\_target,[]);

title('img\\_target');

% 交互式地对目标图进行前背景分割，得到 mask

mask = GetMask(img\_target);

subplot(2,3,3);

imshow(mask,[]);

title('mask');

% 对原图进行滤镜操作

img\_filter = Filter(img\_src, filter\_num);

subplot(2,3,4);

```
if target_num == 3 || target_num == 4 || target_num == 5
```

```
    imshow(img_filter/255,[]);
```

```
else
```

```
    imshow(img_filter,[]);
```

```
end
```

```
title('img\_filter');
```

```
% 进行变换
```

```
img_transform = Transform(img_filter, img_target);
```

```
subplot(2,3,5);
```

```
imshow(img_transform,[]);
```

```
title('img\_transform');
```

```
% 得到结果并显示
```

```
img_res = img_transform.*mask + img_target.*(1-mask);
```

```
subplot(2,3,6);
```

```
imshow(img_res,[]);
```

```
title('img\_res');
```

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