

<textit info> author=Roman Putanowicz title=Solution to exercise 6.1.3

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## Solution to exercise 6.1.3

<sxh c> function rotatecolor(R,a,n)

```
fi = linspace(0,2*pi-2*pi/n,n);
x = R*cos(fi);
y = R*sin(fi);
h = zeros(n);
for i=1:n
    h(i) = square(x(i),y(i),a);
endfor
drawnow()
circulate(h, n);
```

endfunction

function circulate(h, N)

```
n = length(h);
i = 1; k = 0;
while k < N
    c = get(h(i), "facecolor");
    set(h(i), "facecolor", "red");
    drawnow()
    fname = sprintf("frame%03d.png", i);
    print(fname, "-dpng", "-S300,300");
    set(h(i), "facecolor", c);
    i = mod(i+1, n+1);
    if i == 0
        i = 1;
    endif
    k = k+1;
end
```

endfunction

function h = square(x,y,a)

```
a2 = a/2;
x = [x-a2,x+a2,x+a2, x-a2, x-a2];
y = [y-a2,y-a2,y+a2, y+a2, y-a2];
h = patch(x,y,"yellow");
```

endfunction </sxh>

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```
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x = R*cos(fi);  
y = R*sin(fi);  
h = zeros(n);  
for i=1:n  
    h(i) = square(x(i),y(i),a);  
endfor  
drawnow()  
circulate(h, n);
```

endfunction

function circulate(h, N)

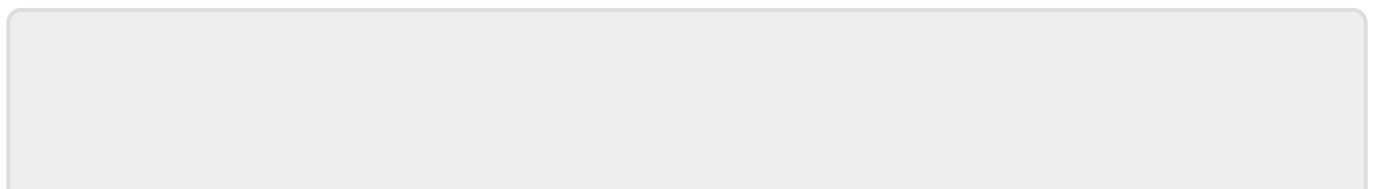
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n = length(h);  
i = 1; k = 0;  
while k < N  
    c = get(h(i), "facecolor");  
    set(h(i),"facecolor","red");  
    drawnow()  
    fname = sprintf("frame%03d.png", i);  
    print(fname, "-dpng","-S300,300");  
    set(h(i),"facecolor",c);  
    i = mod(i+1, n+1);  
    if i == 0  
        i = 1;  
    endif  
    k = k+1;  
end
```

endfunction

function h = square(x,y,a)

```
a2 = a/2;  
x = [x-a2,x+a2,x+a2, x-a2, x-a2];  
y = [y-a2,y-a2,y+a2, y+a2, y-a2];  
h = patch(x,y,"yellow");
```

endfunction \end{lstlisting} </texit>



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