

```
function plot_cw_policy(pol_pi,CF,s_start,s_end)
% PLOT_CW_POLICY - Plots a cliff walker policy
%
% Written by:
% --
% John L. Weatherwax          2008-01-14
%
% email: wax@alum.mit.edu
%
% Please send comments and especially bug reports to the
% above email address.
%
%-----

% compute_delim_mdpts.m
%JWilliamson;

[sideII,sideJJ]=size(pol_pi);
IIdelims = 0:sideII; IIdelims = 1:sideII;
JJdelims = 0:sideJJ; JJdelims = 1:sideJJ;

% plot the policy in colors beneath:
figure; imagesc( JJdelims, IIdelims, pol_pi ); colorbar; hold on;

% plot the cliff beneath:
figure; imagesc( JJdelims, IIdelims, CF ); colorbar; hold on;

% plot the start/end positions:
plot( s_start(2), s_start(1), 'x', 'MarkerSize', 10, 'MarkerFaceColor', 'k' );
plot( s_end(2), s_end(1), 'o', 'MarkerSize', 10, 'MarkerFaceColor', 'k' );

% fill the vectors:
px = zeros(size(pol_pi)); py = zeros(size(pol_pi));
for ii=1:sideII,
    for jj=1:sideJJ,
        switch pol_pi(ii,jj)
            case 1
                %
                % action = UP
                %
                px(ii,jj) = 0;
                py(ii,jj) = 0.5;
            case 2
                %
                % action = DOWN
                %
                px(ii,jj) = 0;
                py(ii,jj) = -0.5;
            case 3
                %
                % action = RIGHT
                %
                px(ii,jj) = 0.5;
                py(ii,jj) = 0;
            case 4
                %
                % action = LEFT
                %
                px(ii,jj) = -0.5;
```

```
    py(ii,jj) = 0;
case 5
    px(ii,jj) = -0.5;
    py(ii,jj) = +0.5;
case 6
    px(ii,jj) = +0.5;
    py(ii,jj) = +0.5;
case 7
    px(ii,jj) = +0.5;
    py(ii,jj) = -0.5;
case 8
    px(ii,jj) = -0.5;
    py(ii,jj) = -0.5;
otherwise
    error('unknown value of pol_pi(ii,jj)');
end
end
end

ind0 = find(CF(:)==0); px(ind0)=0; py(ind0)=0; px(sideII,sideJJ)=0; py(sideII,sideJJ)=0;

[jjM,iiM]=meshgrid(1:sideJJ,1:sideII);
[jjM,iiM]=meshgrid(JJcents,IIcents);

%quiver(iiM,jjM,px,py,0);
quiver(jjM,iiM,px,-py,0);
```