

```
clc % clear screen
clear all % clearing workspace
close all % close all the figures

%crystalsyms
```

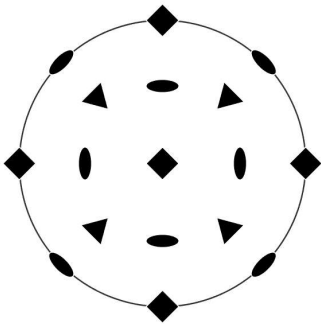
Defining Crystal Symmetry

```
% cryshex=crystalSymmetry('hexagonal')
% plot(cryshex)
% cs=crystalSymmetry('cubic')
% plot(cs)
cs1=crystalSymmetry('432')
```

```
cs1 = crystalSymmetry
```

```
symmetry: 432
elements: 24
a, b, c : 1, 1, 1
```

```
plot(cs1)
```



```
% cs2=crystalSymmetry('m-3m')
% plot(cs2)
```

Define a direction

```
uvw=Miller(1,0,0,cs1,'uvw')
```

```
uvw = Miller (432)
  u v w
  1 0 0
```

```
hkl=Miller(1,0,0,cs1,'hkl')
```

```
hkl = Miller (432)
  h k l
  1 0 0
```

```
% hkil=Miller(2,-1,-1,0,cryshex,'hkil')
% uvtw=Miller(2,-1,-1,0,cryshex,'uvtw')
```

crystal symmetry in directions/planes

```
% methods(hkil); % show all the methods of uvw miller class
uvwsym=uvw.symmetrise
```

```
uvwsym = Miller (432)
size: 24 x 1

show Miller
```

```
figure
%
%
plot(uvw.symmetrise)

uvw=Miller(1,1,0,cs1,'uvw')
```

```
uvw = Miller (432)
  u v w
  1 1 0
```

```
plot(uvw.symmetrise)
```

