**function** convert2redians(deg){  
 **return** deg\*Math.PI/180;  
}

//角度转换为弧度的函数  
**function** mercator2y(lat) {  
 y=Math.log(Math.tan(lat)+(1.0)/Math.cos(lat));  
 **return** y;  
}

//纬度的莫卡托转换的函数

**function** degree2xy(lat,lon,north,south,west,east,size,zoom) {  
 lat=convert2redians(lat);  
 lon=convert2redians(lon);

//将经纬度转为弧度  
  
 north=convert2redians(north);  
 south=convert2redians(south);  
 west=convert2redians(west);  
 east=convert2redians(east);

//将经纬度转为弧度  
  
 let yMin=mercator2y(south);  
 let yMax=mercator2y(north);  
 //纬度边界做莫卡托转换

let y=mercator2y(lat);

//目标纬度做莫卡托转换

let xfactor=size/(east-west);  
 let yfactor=size/(yMax-yMin);  
 //计算单位经纬度的像素值

let x=(lon-west)\*xfactor;  
 y=(yMax-y)\*yfactor;

//计算目标坐标的像素值

x=x/256;

y=y/256;

//得出栅格坐标值

**return** {**"x"**:x,**"y"**:y}  
}