<!DOCTYPE html>  
<html lang="en">  
 <head>  
 <meta charset="UTF-8" />  
  
 <title>圣诞快乐</title>  
  
 <style>  
 button,hr,input{overflow:visible}audio,canvas,progress,video{display:inline-block}progress,sub,sup{vertical-align:baseline}html{font-family:sans-serif;line-height:1.15;-ms-text-size-adjust:100%;-webkit-text-size-adjust:100%}body{margin:0} menu,article,aside,details,footer,header,nav,section{display:block}h1{font-size:2em;margin:.67em 0}figcaption,figure,main{display:block}figure{margin:1em 40px}hr{box-sizing:content-box;height:0}code,kbd,pre,samp{font-family:monospace,monospace;font-size:1em}a{background-color:transparent;-webkit-text-decoration-skip:objects}a:active,a:hover{outline-width:0}abbr[title]{border-bottom:none;text-decoration:underline;text-decoration:underline dotted}b,strong{font-weight:bolder}dfn{font-style:italic}mark{background-color:#ff0;color:#000}small{font-size:80%}sub,sup{font-size:75%;line-height:0;position:relative}sub{bottom:-.25em}sup{top:-.5em}audio:not([controls]){display:none;height:0}img{border-style:none}svg:not(:root){overflow:hidden}button,input,optgroup,select,textarea{font-family:sans-serif;font-size:100%;line-height:1.15;margin:0}button,input{}button,select{text-transform:none}[type=submit], [type=reset],button,html [type=button]{-webkit-appearance:button}[type=button]::-moz-focus-inner,[type=reset]::-moz-focus-inner,[type=submit]::-moz-focus-inner,button::-moz-focus-inner{border-style:none;padding:0}[type=button]:-moz-focusring,[type=reset]:-moz-focusring,[type=submit]:-moz-focusring,button:-moz-focusring{outline:ButtonText dotted 1px}fieldset{border:1px solid silver;margin:0 2px;padding:.35em .625em .75em}legend{box-sizing:border-box;color:inherit;display:table;max-width:100%;padding:0;white-space:normal}progress{}textarea{overflow:auto}[type=checkbox],[type=radio]{box-sizing:border-box;padding:0}[type=number]::-webkit-inner-spin-button,[type=number]::-webkit-outer-spin-button{height:auto}[type=search]{-webkit-appearance:textfield;outline-offset:-2px}[type=search]::-webkit-search-cancel-button,[type=search]::-webkit-search-decoration{-webkit-appearance:none}::-webkit-file-upload-button{-webkit-appearance:button;font:inherit}summary{display:list-item}[hidden],template{display:none}/\*# sourceMappingURL=normalize.min.css.map \*/  
 </style>  
  
 <style>  
 \* {  
 box-sizing: border-box;  
 }  
  
 body {  
 margin: 0;  
 height: 100vh;  
 overflow: hidden;  
 display: flex;  
 align-items: center;  
 justify-content: center;  
 background: #161616;  
 color: #c5a880;  
 font-family: sans-serif;  
 }  
  
 label {  
 display: inline-block;  
 background-color: #161616;  
 padding: 16px;  
 border-radius: 0.3rem;  
 cursor: pointer;  
 margin-top: 1rem;  
 width: 300px;  
 border-radius: 10px;  
 border: 1px solid #c5a880;  
 text-align: center;  
 }  
  
 ul {  
 list-style-type: none;  
 padding: 0;  
 margin: 0;  
 }  
  
 .btn {  
 background-color: #161616;  
 border-radius: 10px;  
 color: #c5a880;  
 border: 1px solid #c5a880;  
 padding: 16px;  
 width: 300px;  
 margin-bottom: 16px;  
 line-height: 1.5;  
 cursor: pointer;  
 }  
 .separator {  
 font-weight: bold;  
 text-align: center;  
 width: 300px;  
 margin: 16px 0px;  
 color: #a07676;  
 }  
  
 .title {  
 color: #a07676;  
 font-weight: bold;  
 font-size: 3rem;  
 margin-bottom: 16px;  
 }  
  
 .text-loading {  
 font-size: 2rem;  
 }  
  
 .btn {  
 background-color: transparent;  
 border: none;  
 font-size: 15rem;  
 animation: shack 0.4s ease-in-out infinite;  
 }  
  
 @keyframes shack {  
 0% {  
 transform: rotate(0);  
 }  
 25% {  
 transform: rotate(-10deg);  
 }  
 50% {  
 transform: rotate(0);  
 }  
 75% {  
 transform: rotate(10deg);  
 }  
 100% {  
 transform: rotate(0);  
 }  
 }  
  
 #labels,  
 #extra {  
 /\* color: rgb(106, 17, 11); \*/  
 color: #c5a880;  
 font-weight: bold;  
 font-size: 3.25rem;  
 position: absolute;  
 width: 100%;  
 text-align: center;  
 opacity: 0;  
 transition: all 1s ease-in-out;  
 z-index: -1;  
 top: 20%;  
 }  
 #labels.hide {  
 opacity: 0;  
 }  
 #labels.show,  
 #extra.show {  
 opacity: 1;  
 z-index: 100;  
 }  
 </style>  
  
 <script>  
 window.console = window.console || function (t) {};  
 </script>  
  
 <script>  
 if (document.location.search.match(/type=embed/gi)) {  
 window.parent.postMessage("resize", "\*");  
 }  
 </script>  
 </head>  
  
 <body translate="no">  
 <script>  
 // threejs.org/license  
(function(k,Ea){"object"===typeof exports&&"undefined"!==typeof module?Ea(exports):"function"===typeof define&&define.amd?define(["exports"],Ea):(k=k||self,Ea(k.THREE={}))})(this,function(k){function Ea(){}function t(a,b){this.x=a||0;this.y=b||0}function wa(){this.elements=[1,0,0,0,1,0,0,0,1];0<arguments.length&&console.error("THREE.Matrix3: the constructor no longer reads arguments. use .set() instead.")}function V(a,b,c,d,e,f,g,h,l,m){Object.defineProperty(this,"id",{value:pj++});this.uuid=L.generateUUID();  
this.name="";this.image=void 0!==a?a:V.DEFAULT\_IMAGE;this.mipmaps=[];this.mapping=void 0!==b?b:V.DEFAULT\_MAPPING;this.wrapS=void 0!==c?c:1001;this.wrapT=void 0!==d?d:1001;this.magFilter=void 0!==e?e:1006;this.minFilter=void 0!==f?f:1008;this.anisotropy=void 0!==l?l:1;this.format=void 0!==g?g:1023;this.internalFormat=null;this.type=void 0!==h?h:1009;this.offset=new t(0,0);this.repeat=new t(1,1);this.center=new t(0,0);this.rotation=0;this.matrixAutoUpdate=!0;this.matrix=new wa;this.generateMipmaps=  
!0;this.premultiplyAlpha=!1;this.flipY=!0;this.unpackAlignment=4;this.encoding=void 0!==m?m:3E3;this.version=0;this.onUpdate=null}function ka(a,b,c,d){this.x=a||0;this.y=b||0;this.z=c||0;this.w=void 0!==d?d:1}function Ha(a,b,c){this.width=a;this.height=b;this.scissor=new ka(0,0,a,b);this.scissorTest=!1;this.viewport=new ka(0,0,a,b);c=c||{};this.texture=new V(void 0,c.mapping,c.wrapS,c.wrapT,c.magFilter,c.minFilter,c.format,c.type,c.anisotropy,c.encoding);this.texture.image={};this.texture.image.width=  
a;this.texture.image.height=b;this.texture.generateMipmaps=void 0!==c.generateMipmaps?c.generateMipmaps:!1;this.texture.minFilter=void 0!==c.minFilter?c.minFilter:1006;this.depthBuffer=void 0!==c.depthBuffer?c.depthBuffer:!0;this.stencilBuffer=void 0!==c.stencilBuffer?c.stencilBuffer:!0;this.depthTexture=void 0!==c.depthTexture?c.depthTexture:null}function Zf(a,b,c){Ha.call(this,a,b,c);this.samples=4}function Aa(a,b,c,d){this.\_x=a||0;this.\_y=b||0;this.\_z=c||0;this.\_w=void 0!==d?d:1}function n(a,b,  
c){this.x=a||0;this.y=b||0;this.z=c||0}function P(){this.elements=[1,0,0,0,0,1,0,0,0,0,1,0,0,0,0,1];0<arguments.length&&console.error("THREE.Matrix4: the constructor no longer reads arguments. use .set() instead.")}function Tb(a,b,c,d){this.\_x=a||0;this.\_y=b||0;this.\_z=c||0;this.\_order=d||Tb.DefaultOrder}function He(){this.mask=1}function F(){Object.defineProperty(this,"id",{value:qj++});this.uuid=L.generateUUID();this.name="";this.type="Object3D";this.parent=null;this.children=[];this.up=F.DefaultUp.clone();  
var a=new n,b=new Tb,c=new Aa,d=new n(1,1,1);b.\_onChange(function(){c.setFromEuler(b,!1)});c.\_onChange(function(){b.setFromQuaternion(c,void 0,!1)});Object.defineProperties(this,{position:{configurable:!0,enumerable:!0,value:a},rotation:{configurable:!0,enumerable:!0,value:b},quaternion:{configurable:!0,enumerable:!0,value:c},scale:{configurable:!0,enumerable:!0,value:d},modelViewMatrix:{value:new P},normalMatrix:{value:new wa}});this.matrix=new P;this.matrixWorld=new P;this.matrixAutoUpdate=F.DefaultMatrixAutoUpdate;  
this.matrixWorldNeedsUpdate=!1;this.layers=new He;this.visible=!0;this.receiveShadow=this.castShadow=!1;this.frustumCulled=!0;this.renderOrder=0;this.userData={}}function ob(){F.call(this);this.type="Scene";this.overrideMaterial=this.fog=this.environment=this.background=null;this.autoUpdate=!0;"undefined"!==typeof \_\_THREE\_DEVTOOLS\_\_&&\_\_THREE\_DEVTOOLS\_\_.dispatchEvent(new CustomEvent("observe",{detail:this}))}function Sa(a,b){this.min=void 0!==a?a:new n(Infinity,Infinity,Infinity);this.max=void 0!==  
b?b:new n(-Infinity,-Infinity,-Infinity)}function $f(a,b,c,d,e){var f;var g=0;for(f=a.length-3;g<=f;g+=3){Ub.fromArray(a,g);var h=e.x\*Math.abs(Ub.x)+e.y\*Math.abs(Ub.y)+e.z\*Math.abs(Ub.z),l=b.dot(Ub),m=c.dot(Ub),u=d.dot(Ub);if(Math.max(-Math.max(l,m,u),Math.min(l,m,u))>h)return!1}return!0}function pb(a,b){this.center=void 0!==a?a:new n;this.radius=void 0!==b?b:0}function Vb(a,b){this.origin=void 0!==a?a:new n;this.direction=void 0!==b?b:new n(0,0,-1)}function Ta(a,b){this.normal=void 0!==a?a:new n(1,  
0,0);this.constant=void 0!==b?b:0}function oa(a,b,c){this.a=void 0!==a?a:new n;this.b=void 0!==b?b:new n;this.c=void 0!==c?c:new n}function A(a,b,c){return void 0===b&&void 0===c?this.set(a):this.setRGB(a,b,c)}function ag(a,b,c){0>c&&(c+=1);1<c&&--c;return c<1/6?a+6\*(b-a)\*c:.5>c?b:c<2/3?a+6\*(b-a)\*(2/3-c):a}function bg(a){return.04045>a?.0773993808\*a:Math.pow(.9478672986\*a+.0521327014,2.4)}function cg(a){return.0031308>a?12.92\*a:1.055\*Math.pow(a,.41666)-.055}function Bc(a,b,c,d,e,f){this.a=a;this.b=  
b;this.c=c;this.normal=d&&d.isVector3?d:new n;this.vertexNormals=Array.isArray(d)?d:[];this.color=e&&e.isColor?e:new A;this.vertexColors=Array.isArray(e)?e:[];this.materialIndex=void 0!==f?f:0}function K(){Object.defineProperty(this,"id",{value:rj++});this.uuid=L.generateUUID();this.name="";this.type="Material";this.fog=!0;this.blending=1;this.side=0;this.vertexColors=this.flatShading=!1;this.opacity=1;this.transparent=!1;this.blendSrc=204;this.blendDst=205;this.blendEquation=100;this.blendEquationAlpha=  
this.blendDstAlpha=this.blendSrcAlpha=null;this.depthFunc=3;this.depthWrite=this.depthTest=!0;this.stencilWriteMask=255;this.stencilFunc=519;this.stencilRef=0;this.stencilFuncMask=255;this.stencilZPass=this.stencilZFail=this.stencilFail=7680;this.stencilWrite=!1;this.clippingPlanes=null;this.clipShadows=this.clipIntersection=!1;this.shadowSide=null;this.colorWrite=!0;this.precision=null;this.polygonOffset=!1;this.polygonOffsetUnits=this.polygonOffsetFactor=0;this.dithering=!1;this.alphaTest=0;this.premultipliedAlpha=  
!1;this.toneMapped=this.visible=!0;this.userData={};this.version=0}function Oa(a){K.call(this);this.type="MeshBasicMaterial";this.color=new A(16777215);this.lightMap=this.map=null;this.lightMapIntensity=1;this.aoMap=null;this.aoMapIntensity=1;this.envMap=this.alphaMap=this.specularMap=null;this.combine=0;this.reflectivity=1;this.refractionRatio=.98;this.wireframe=!1;this.wireframeLinewidth=1;this.wireframeLinejoin=this.wireframeLinecap="round";this.morphTargets=this.skinning=!1;this.setValues(a)}  
function M(a,b,c){if(Array.isArray(a))throw new TypeError("THREE.BufferAttribute: array should be a Typed Array.");this.name="";this.array=a;this.itemSize=b;this.count=void 0!==a?a.length/b:0;this.normalized=!0===c;this.usage=35044;this.updateRange={offset:0,count:-1};this.version=0}function Bd(a,b,c){M.call(this,new Int8Array(a),b,c)}function Cd(a,b,c){M.call(this,new Uint8Array(a),b,c)}function Dd(a,b,c){M.call(this,new Uint8ClampedArray(a),b,c)}function Ed(a,b,c){M.call(this,new Int16Array(a),  
b,c)}function Wb(a,b,c){M.call(this,new Uint16Array(a),b,c)}function Fd(a,b,c){M.call(this,new Int32Array(a),b,c)}function Xb(a,b,c){M.call(this,new Uint32Array(a),b,c)}function y(a,b,c){M.call(this,new Float32Array(a),b,c)}function Gd(a,b,c){M.call(this,new Float64Array(a),b,c)}function xh(){this.vertices=[];this.normals=[];this.colors=[];this.uvs=[];this.uvs2=[];this.groups=[];this.morphTargets={};this.skinWeights=[];this.skinIndices=[];this.boundingSphere=this.boundingBox=null;this.groupsNeedUpdate=  
this.uvsNeedUpdate=this.colorsNeedUpdate=this.normalsNeedUpdate=this.verticesNeedUpdate=!1}function yh(a){if(0===a.length)return-Infinity;for(var b=a[0],c=1,d=a.length;c<d;++c)a[c]>b&&(b=a[c]);return b}function C(){Object.defineProperty(this,"id",{value:sj+=2});this.uuid=L.generateUUID();this.name="";this.type="BufferGeometry";this.index=null;this.attributes={};this.morphAttributes={};this.morphTargetsRelative=!1;this.groups=[];this.boundingSphere=this.boundingBox=null;this.drawRange={start:0,count:Infinity};  
this.userData={}}function S(a,b){F.call(this);this.type="Mesh";this.geometry=void 0!==a?a:new C;this.material=void 0!==b?b:new Oa;this.updateMorphTargets()}function zh(a,b,c,d,e,f,g,h){if(null===(1===b.side?d.intersectTriangle(g,f,e,!0,h):d.intersectTriangle(e,f,g,2!==b.side,h)))return null;Ie.copy(h);Ie.applyMatrix4(a.matrixWorld);b=c.ray.origin.distanceTo(Ie);return b<c.near||b>c.far?null:{distance:b,point:Ie.clone(),object:a}}function Je(a,b,c,d,e,f,g,h,l,m,u,p){Yb.fromBufferAttribute(e,m);Zb.fromBufferAttribute(e,  
u);$b.fromBufferAttribute(e,p);e=a.morphTargetInfluences;if(b.morphTargets&&f&&e){Ke.set(0,0,0);Le.set(0,0,0);Me.set(0,0,0);for(var x=0,r=f.length;x<r;x++){var k=e[x],v=f[x];0!==k&&(dg.fromBufferAttribute(v,m),eg.fromBufferAttribute(v,u),fg.fromBufferAttribute(v,p),g?(Ke.addScaledVector(dg,k),Le.addScaledVector(eg,k),Me.addScaledVector(fg,k)):(Ke.addScaledVector(dg.sub(Yb),k),Le.addScaledVector(eg.sub(Zb),k),Me.addScaledVector(fg.sub($b),k)))}Yb.add(Ke);Zb.add(Le);$b.add(Me)}if(a=zh(a,b,c,d,Yb,Zb,  
$b,Hd))h&&(Cc.fromBufferAttribute(h,m),Dc.fromBufferAttribute(h,u),Ec.fromBufferAttribute(h,p),a.uv=oa.getUV(Hd,Yb,Zb,$b,Cc,Dc,Ec,new t)),l&&(Cc.fromBufferAttribute(l,m),Dc.fromBufferAttribute(l,u),Ec.fromBufferAttribute(l,p),a.uv2=oa.getUV(Hd,Yb,Zb,$b,Cc,Dc,Ec,new t)),h=new Bc(m,u,p),oa.getNormal(Yb,Zb,$b,h.normal),a.face=h;return a}function N(){Object.defineProperty(this,"id",{value:tj+=2});this.uuid=L.generateUUID();this.name="";this.type="Geometry";this.vertices=[];this.colors=[];this.faces=[];  
this.faceVertexUvs=[[]];this.morphTargets=[];this.morphNormals=[];this.skinWeights=[];this.skinIndices=[];this.lineDistances=[];this.boundingSphere=this.boundingBox=null;this.groupsNeedUpdate=this.lineDistancesNeedUpdate=this.colorsNeedUpdate=this.normalsNeedUpdate=this.uvsNeedUpdate=this.verticesNeedUpdate=this.elementsNeedUpdate=!1}function Fc(a){var b={},c;for(c in a){b[c]={};for(var d in a[c]){var e=a[c][d];e&&(e.isColor||e.isMatrix3||e.isMatrix4||e.isVector2||e.isVector3||e.isVector4||e.isTexture)?  
b[c][d]=e.clone():Array.isArray(e)?b[c][d]=e.slice():b[c][d]=e}}return b}function va(a){for(var b={},c=0;c<a.length;c++){var d=Fc(a[c]),e;for(e in d)b[e]=d[e]}return b}function Ba(a){K.call(this);this.type="ShaderMaterial";this.defines={};this.uniforms={};this.vertexShader="void main() {\n\tgl\_Position = projectionMatrix \* modelViewMatrix \* vec4( position, 1.0 );\n}";this.fragmentShader="void main() {\n\tgl\_FragColor = vec4( 1.0, 0.0, 0.0, 1.0 );\n}";this.linewidth=1;this.wireframe=!1;this.wireframeLinewidth=  
1;this.morphNormals=this.morphTargets=this.skinning=this.clipping=this.lights=this.fog=!1;this.extensions={derivatives:!1,fragDepth:!1,drawBuffers:!1,shaderTextureLOD:!1};this.defaultAttributeValues={color:[1,1,1],uv:[0,0],uv2:[0,0]};this.index0AttributeName=void 0;this.uniformsNeedUpdate=!1;void 0!==a&&(void 0!==a.attributes&&console.error("THREE.ShaderMaterial: attributes should now be defined in THREE.BufferGeometry instead."),this.setValues(a))}function db(){F.call(this);this.type="Camera";this.matrixWorldInverse=  
new P;this.projectionMatrix=new P;this.projectionMatrixInverse=new P}function aa(a,b,c,d){db.call(this);this.type="PerspectiveCamera";this.fov=void 0!==a?a:50;this.zoom=1;this.near=void 0!==c?c:.1;this.far=void 0!==d?d:2E3;this.focus=10;this.aspect=void 0!==b?b:1;this.view=null;this.filmGauge=35;this.filmOffset=0;this.updateProjectionMatrix()}function Gc(a,b,c,d){F.call(this);this.type="CubeCamera";var e=new aa(90,1,a,b);e.up.set(0,-1,0);e.lookAt(new n(1,0,0));this.add(e);var f=new aa(90,1,a,b);f.up.set(0,  
-1,0);f.lookAt(new n(-1,0,0));this.add(f);var g=new aa(90,1,a,b);g.up.set(0,0,1);g.lookAt(new n(0,1,0));this.add(g);var h=new aa(90,1,a,b);h.up.set(0,0,-1);h.lookAt(new n(0,-1,0));this.add(h);var l=new aa(90,1,a,b);l.up.set(0,-1,0);l.lookAt(new n(0,0,1));this.add(l);var m=new aa(90,1,a,b);m.up.set(0,-1,0);m.lookAt(new n(0,0,-1));this.add(m);d=d||{format:1022,magFilter:1006,minFilter:1006};this.renderTarget=new Db(c,d);this.renderTarget.texture.name="CubeCamera";this.update=function(a,b){null===this.parent&&  
this.updateMatrixWorld();var c=a.getRenderTarget(),d=this.renderTarget,p=d.texture.generateMipmaps;d.texture.generateMipmaps=!1;a.setRenderTarget(d,0);a.render(b,e);a.setRenderTarget(d,1);a.render(b,f);a.setRenderTarget(d,2);a.render(b,g);a.setRenderTarget(d,3);a.render(b,h);a.setRenderTarget(d,4);a.render(b,l);d.texture.generateMipmaps=p;a.setRenderTarget(d,5);a.render(b,m);a.setRenderTarget(c)};this.clear=function(a,b,c,d){for(var e=a.getRenderTarget(),f=this.renderTarget,g=0;6>g;g++)a.setRenderTarget(f,  
g),a.clear(b,c,d);a.setRenderTarget(e)}}function Db(a,b,c){Number.isInteger(b)&&(console.warn("THREE.WebGLCubeRenderTarget: constructor signature is now WebGLCubeRenderTarget( size, options )"),b=c);Ha.call(this,a,a,b)}function ac(a,b,c,d,e,f,g,h,l,m,u,p){V.call(this,null,f,g,h,l,m,d,e,u,p);this.image={data:a||null,width:b||1,height:c||1};this.magFilter=void 0!==l?l:1003;this.minFilter=void 0!==m?m:1003;this.flipY=this.generateMipmaps=!1;this.unpackAlignment=1;this.needsUpdate=!0}function Hc(a,b,  
c,d,e,f){this.planes=[void 0!==a?a:new Ta,void 0!==b?b:new Ta,void 0!==c?c:new Ta,void 0!==d?d:new Ta,void 0!==e?e:new Ta,void 0!==f?f:new Ta]}function Ah(){function a(e,f){!1!==c&&(d(e,f),b.requestAnimationFrame(a))}var b=null,c=!1,d=null;return{start:function(){!0!==c&&null!==d&&(b.requestAnimationFrame(a),c=!0)},stop:function(){c=!1},setAnimationLoop:function(a){d=a},setContext:function(a){b=a}}}function uj(a,b){function c(b,c){var d=b.array,e=b.usage,f=a.createBuffer();a.bindBuffer(c,f);a.bufferData(c,  
d,e);b.onUploadCallback();c=5126;d instanceof Float32Array?c=5126:d instanceof Float64Array?console.warn("THREE.WebGLAttributes: Unsupported data buffer format: Float64Array."):d instanceof Uint16Array?c=5123:d instanceof Int16Array?c=5122:d instanceof Uint32Array?c=5125:d instanceof Int32Array?c=5124:d instanceof Int8Array?c=5120:d instanceof Uint8Array&&(c=5121);return{buffer:f,type:c,bytesPerElement:d.BYTES\_PER\_ELEMENT,version:b.version}}var d=b.isWebGL2,e=new WeakMap;return{get:function(a){a.isInterleavedBufferAttribute&&  
(a=a.data);return e.get(a)},remove:function(b){b.isInterleavedBufferAttribute&&(b=b.data);var c=e.get(b);c&&(a.deleteBuffer(c.buffer),e.delete(b))},update:function(b,g){b.isInterleavedBufferAttribute&&(b=b.data);var f=e.get(b);if(void 0===f)e.set(b,c(b,g));else if(f.version<b.version){var l=b.array,m=b.updateRange;a.bindBuffer(g,f.buffer);-1===m.count?a.bufferSubData(g,0,l):(d?a.bufferSubData(g,m.offset\*l.BYTES\_PER\_ELEMENT,l,m.offset,m.count):a.bufferSubData(g,m.offset\*l.BYTES\_PER\_ELEMENT,l.subarray(m.offset,  
m.offset+m.count)),m.count=-1);f.version=b.version}}}}function Id(a,b,c,d){N.call(this);this.type="PlaneGeometry";this.parameters={width:a,height:b,widthSegments:c,heightSegments:d};this.fromBufferGeometry(new bc(a,b,c,d));this.mergeVertices()}function bc(a,b,c,d){C.call(this);this.type="PlaneBufferGeometry";this.parameters={width:a,height:b,widthSegments:c,heightSegments:d};a=a||1;b=b||1;var e=a/2,f=b/2;c=Math.floor(c)||1;d=Math.floor(d)||1;var g=c+1,h=d+1,l=a/c,m=b/d,u=[],p=[],k=[],r=[];for(a=0;a<  
h;a++){var q=a\*m-f;for(b=0;b<g;b++)p.push(b\*l-e,-q,0),k.push(0,0,1),r.push(b/c),r.push(1-a/d)}for(a=0;a<d;a++)for(b=0;b<c;b++)e=b+g\*(a+1),f=b+1+g\*(a+1),h=b+1+g\*a,u.push(b+g\*a,e,h),u.push(e,f,h);this.setIndex(u);this.setAttribute("position",new y(p,3));this.setAttribute("normal",new y(k,3));this.setAttribute("uv",new y(r,2))}function vj(a,b,c,d){function e(a,c){b.buffers.color.setClear(a.r,a.g,a.b,c,d)}var f=new A(0),g=0,h,l,m=null,u=0,p=null;return{getClearColor:function(){return f},setClearColor:function(a,  
b){f.set(a);g=void 0!==b?b:1;e(f,g)},getClearAlpha:function(){return g},setClearAlpha:function(a){g=a;e(f,g)},render:function(b,d,k,v){d=d.background;k=a.xr;(k=k.getSession&&k.getSession())&&"additive"===k.environmentBlendMode&&(d=null);null===d?e(f,g):d&&d.isColor&&(e(d,1),v=!0);(a.autoClear||v)&&a.clear(a.autoClearColor,a.autoClearDepth,a.autoClearStencil);if(d&&(d.isCubeTexture||d.isWebGLCubeRenderTarget||306===d.mapping)){void 0===l&&(l=new S(new Jd(1,1,1),new Ba({type:"BackgroundCubeMaterial",  
uniforms:Fc(eb.cube.uniforms),vertexShader:eb.cube.vertexShader,fragmentShader:eb.cube.fragmentShader,side:1,depthTest:!1,depthWrite:!1,fog:!1})),l.geometry.deleteAttribute("normal"),l.geometry.deleteAttribute("uv"),l.onBeforeRender=function(a,b,c){this.matrixWorld.copyPosition(c.matrixWorld)},Object.defineProperty(l.material,"envMap",{get:function(){return this.uniforms.envMap.value}}),c.update(l));v=d.isWebGLCubeRenderTarget?d.texture:d;l.material.uniforms.envMap.value=v;l.material.uniforms.flipEnvMap.value=  
v.isCubeTexture?-1:1;if(m!==d||u!==v.version||p!==a.toneMapping)l.material.needsUpdate=!0,m=d,u=v.version,p=a.toneMapping;b.unshift(l,l.geometry,l.material,0,0,null)}else if(d&&d.isTexture){void 0===h&&(h=new S(new bc(2,2),new Ba({type:"BackgroundMaterial",uniforms:Fc(eb.background.uniforms),vertexShader:eb.background.vertexShader,fragmentShader:eb.background.fragmentShader,side:0,depthTest:!1,depthWrite:!1,fog:!1})),h.geometry.deleteAttribute("normal"),Object.defineProperty(h.material,"map",{get:function(){return this.uniforms.t2D.value}}),  
c.update(h));h.material.uniforms.t2D.value=d;!0===d.matrixAutoUpdate&&d.updateMatrix();h.material.uniforms.uvTransform.value.copy(d.matrix);if(m!==d||u!==d.version||p!==a.toneMapping)h.material.needsUpdate=!0,m=d,u=d.version,p=a.toneMapping;b.unshift(h,h.geometry,h.material,0,0,null)}}}}function wj(a,b,c,d){var e=d.isWebGL2,f;this.setMode=function(a){f=a};this.render=function(b,d){a.drawArrays(f,b,d);c.update(d,f)};this.renderInstances=function(d,h,l,m){if(0!==m){if(e){d=a;var g="drawArraysInstanced"}else if(d=  
b.get("ANGLE\_instanced\_arrays"),g="drawArraysInstancedANGLE",null===d){console.error("THREE.WebGLBufferRenderer: using THREE.InstancedBufferGeometry but hardware does not support extension ANGLE\_instanced\_arrays.");return}d[g](f,h,l,m);c.update(l,f,m)}}}function xj(a,b,c){function d(b){if("highp"===b){if(0<a.getShaderPrecisionFormat(35633,36338).precision&&0<a.getShaderPrecisionFormat(35632,36338).precision)return"highp";b="mediump"}return"mediump"===b&&0<a.getShaderPrecisionFormat(35633,36337).precision&&  
0<a.getShaderPrecisionFormat(35632,36337).precision?"mediump":"lowp"}var e,f="undefined"!==typeof WebGL2RenderingContext&&a instanceof WebGL2RenderingContext||"undefined"!==typeof WebGL2ComputeRenderingContext&&a instanceof WebGL2ComputeRenderingContext,g=void 0!==c.precision?c.precision:"highp",h=d(g);h!==g&&(console.warn("THREE.WebGLRenderer:",g,"not supported, using",h,"instead."),g=h);c=!0===c.logarithmicDepthBuffer;h=a.getParameter(34930);var l=a.getParameter(35660),m=a.getParameter(3379),u=  
a.getParameter(34076),p=a.getParameter(34921),k=a.getParameter(36347),r=a.getParameter(36348),q=a.getParameter(36349),v=0<l,n=f||!!b.get("OES\_texture\_float"),w=v&&n,z=f?a.getParameter(36183):0;return{isWebGL2:f,getMaxAnisotropy:function(){if(void 0!==e)return e;var c=b.get("EXT\_texture\_filter\_anisotropic");return e=null!==c?a.getParameter(c.MAX\_TEXTURE\_MAX\_ANISOTROPY\_EXT):0},getMaxPrecision:d,precision:g,logarithmicDepthBuffer:c,maxTextures:h,maxVertexTextures:l,maxTextureSize:m,maxCubemapSize:u,  
maxAttributes:p,maxVertexUniforms:k,maxVaryings:r,maxFragmentUniforms:q,vertexTextures:v,floatFragmentTextures:n,floatVertexTextures:w,maxSamples:z}}function yj(){function a(){m.value!==d&&(m.value=d,m.needsUpdate=0<e);c.numPlanes=e;c.numIntersection=0}function b(a,b,d,e){var f=null!==a?a.length:0,g=null;if(0!==f){g=m.value;if(!0!==e||null===g){e=d+4\*f;b=b.matrixWorldInverse;l.getNormalMatrix(b);if(null===g||g.length<e)g=new Float32Array(e);for(e=0;e!==f;++e,d+=4)h.copy(a[e]).applyMatrix4(b,l),h.normal.toArray(g,  
d),g[d+3]=h.constant}m.value=g;m.needsUpdate=!0}c.numPlanes=f;c.numIntersection=0;return g}var c=this,d=null,e=0,f=!1,g=!1,h=new Ta,l=new wa,m={value:null,needsUpdate:!1};this.uniform=m;this.numIntersection=this.numPlanes=0;this.init=function(a,c,g){var h=0!==a.length||c||0!==e||f;f=c;d=b(a,g,0);e=a.length;return h};this.beginShadows=function(){g=!0;b(null)};this.endShadows=function(){g=!1;a()};this.setState=function(c,h,l,k,q,v){if(!f||null===c||0===c.length||g&&!l)g?b(null):a();else{l=g?0:e;var p=  
4\*l,u=q.clippingState||null;m.value=u;u=b(c,k,p,v);for(c=0;c!==p;++c)u[c]=d[c];q.clippingState=u;this.numIntersection=h?this.numPlanes:0;this.numPlanes+=l}}}function zj(a){var b={};return{get:function(c){if(void 0!==b[c])return b[c];switch(c){case "WEBGL\_depth\_texture":var d=a.getExtension("WEBGL\_depth\_texture")||a.getExtension("MOZ\_WEBGL\_depth\_texture")||a.getExtension("WEBKIT\_WEBGL\_depth\_texture");break;case "EXT\_texture\_filter\_anisotropic":d=a.getExtension("EXT\_texture\_filter\_anisotropic")||a.getExtension("MOZ\_EXT\_texture\_filter\_anisotropic")||  
a.getExtension("WEBKIT\_EXT\_texture\_filter\_anisotropic");break;case "WEBGL\_compressed\_texture\_s3tc":d=a.getExtension("WEBGL\_compressed\_texture\_s3tc")||a.getExtension("MOZ\_WEBGL\_compressed\_texture\_s3tc")||a.getExtension("WEBKIT\_WEBGL\_compressed\_texture\_s3tc");break;case "WEBGL\_compressed\_texture\_pvrtc":d=a.getExtension("WEBGL\_compressed\_texture\_pvrtc")||a.getExtension("WEBKIT\_WEBGL\_compressed\_texture\_pvrtc");break;default:d=a.getExtension(c)}null===d&&console.warn("THREE.WebGLRenderer: "+c+" extension not supported.");  
return b[c]=d}}}function Aj(a,b,c){function d(a){var e=a.target;a=f.get(e);null!==a.index&&b.remove(a.index);for(var h in a.attributes)b.remove(a.attributes[h]);e.removeEventListener("dispose",d);f.delete(e);if(h=g.get(a))b.remove(h),g.delete(a);c.memory.geometries--}function e(a){var c=[],d=a.index,e=a.attributes.position;if(null!==d){var f=d.array;d=d.version;e=0;for(var h=f.length;e<h;e+=3){var k=f[e+0],q=f[e+1],v=f[e+2];c.push(k,q,q,v,v,k)}}else for(f=e.array,d=e.version,e=0,h=f.length/3-1;e<  
h;e+=3)k=e+0,q=e+1,v=e+2,c.push(k,q,q,v,v,k);c=new (65535<yh(c)?Xb:Wb)(c,1);c.version=d;b.update(c,34963);(f=g.get(a))&&b.remove(f);g.set(a,c)}var f=new WeakMap,g=new WeakMap;return{get:function(a,b){var e=f.get(b);if(e)return e;b.addEventListener("dispose",d);b.isBufferGeometry?e=b:b.isGeometry&&(void 0===b.\_bufferGeometry&&(b.\_bufferGeometry=(new C).setFromObject(a)),e=b.\_bufferGeometry);f.set(b,e);c.memory.geometries++;return e},update:function(a){var c=a.index,d=a.attributes;null!==c&&b.update(c,  
34963);for(var e in d)b.update(d[e],34962);a=a.morphAttributes;for(e in a){c=a[e];d=0;for(var f=c.length;d<f;d++)b.update(c[d],34962)}},getWireframeAttribute:function(a){var b=g.get(a);if(b){var c=a.index;null!==c&&b.version<c.version&&e(a)}else e(a);return g.get(a)}}}function Bj(a,b,c,d){var e=d.isWebGL2,f,g,h;this.setMode=function(a){f=a};this.setIndex=function(a){g=a.type;h=a.bytesPerElement};this.render=function(b,d){a.drawElements(f,d,g,b\*h);c.update(d,f)};this.renderInstances=function(d,m,u,  
p){if(0!==p){if(e){d=a;var l="drawElementsInstanced"}else if(d=b.get("ANGLE\_instanced\_arrays"),l="drawElementsInstancedANGLE",null===d){console.error("THREE.WebGLIndexedBufferRenderer: using THREE.InstancedBufferGeometry but hardware does not support extension ANGLE\_instanced\_arrays.");return}d[l](f,u,g,m\*h,p);c.update(u,f,p)}}}function Cj(a){var b={frame:0,calls:0,triangles:0,points:0,lines:0};return{memory:{geometries:0,textures:0},render:b,programs:null,autoReset:!0,reset:function(){b.frame++;  
b.calls=0;b.triangles=0;b.points=0;b.lines=0},update:function(a,d,e){e=e||1;b.calls++;switch(d){case 4:b.triangles+=a/3\*e;break;case 1:b.lines+=a/2\*e;break;case 3:b.lines+=e\*(a-1);break;case 2:b.lines+=e\*a;break;case 0:b.points+=e\*a;break;default:console.error("THREE.WebGLInfo: Unknown draw mode:",d)}}}}function Dj(a,b){return Math.abs(b[1])-Math.abs(a[1])}function Ej(a){var b={},c=new Float32Array(8);return{update:function(d,e,f,g){var h=d.morphTargetInfluences,l=void 0===h?0:h.length;d=b[e.id];  
if(void 0===d){d=[];for(var m=0;m<l;m++)d[m]=[m,0];b[e.id]=d}var u=f.morphTargets&&e.morphAttributes.position;f=f.morphNormals&&e.morphAttributes.normal;for(m=0;m<l;m++){var p=d[m];0!==p[1]&&(u&&e.deleteAttribute("morphTarget"+m),f&&e.deleteAttribute("morphNormal"+m))}for(m=0;m<l;m++)p=d[m],p[0]=m,p[1]=h[m];d.sort(Dj);for(m=h=0;8>m;m++){if(p=d[m])if(l=p[0],p=p[1]){u&&e.setAttribute("morphTarget"+m,u[l]);f&&e.setAttribute("morphNormal"+m,f[l]);c[m]=p;h+=p;continue}c[m]=0}e=e.morphTargetsRelative?1:  
1-h;g.getUniforms().setValue(a,"morphTargetBaseInfluence",e);g.getUniforms().setValue(a,"morphTargetInfluences",c)}}}function Fj(a,b,c,d){var e=new WeakMap;return{update:function(a){var f=d.render.frame,h=a.geometry,l=b.get(a,h);e.get(l)!==f&&(h.isGeometry&&l.updateFromObject(a),b.update(l),e.set(l,f));a.isInstancedMesh&&c.update(a.instanceMatrix,34962);return l},dispose:function(){e=new WeakMap}}}function qb(a,b,c,d,e,f,g,h,l,m){a=void 0!==a?a:[];V.call(this,a,void 0!==b?b:301,c,d,e,f,void 0!==g?  
g:1022,h,l,m);this.flipY=!1}function Ic(a,b,c,d){V.call(this,null);this.image={data:a||null,width:b||1,height:c||1,depth:d||1};this.minFilter=this.magFilter=1003;this.wrapR=1001;this.flipY=this.generateMipmaps=!1;this.needsUpdate=!0}function Jc(a,b,c,d){V.call(this,null);this.image={data:a||null,width:b||1,height:c||1,depth:d||1};this.minFilter=this.magFilter=1003;this.wrapR=1001;this.flipY=this.generateMipmaps=!1;this.needsUpdate=!0}function Kc(a,b,c){var d=a[0];if(0>=d||0<d)return a;var e=b\*c,f=  
Bh[e];void 0===f&&(f=new Float32Array(e),Bh[e]=f);if(0!==b)for(d.toArray(f,0),d=1,e=0;d!==b;++d)e+=c,a[d].toArray(f,e);return f}function Pa(a,b){if(a.length!==b.length)return!1;for(var c=0,d=a.length;c<d;c++)if(a[c]!==b[c])return!1;return!0}function Ia(a,b){for(var c=0,d=b.length;c<d;c++)a[c]=b[c]}function Ch(a,b){var c=Dh[b];void 0===c&&(c=new Int32Array(b),Dh[b]=c);for(var d=0;d!==b;++d)c[d]=a.allocateTextureUnit();return c}function Gj(a,b){var c=this.cache;c[0]!==b&&(a.uniform1f(this.addr,b),c[0]=  
b)}function Hj(a,b){var c=this.cache;if(void 0!==b.x){if(c[0]!==b.x||c[1]!==b.y)a.uniform2f(this.addr,b.x,b.y),c[0]=b.x,c[1]=b.y}else Pa(c,b)||(a.uniform2fv(this.addr,b),Ia(c,b))}function Ij(a,b){var c=this.cache;if(void 0!==b.x){if(c[0]!==b.x||c[1]!==b.y||c[2]!==b.z)a.uniform3f(this.addr,b.x,b.y,b.z),c[0]=b.x,c[1]=b.y,c[2]=b.z}else if(void 0!==b.r){if(c[0]!==b.r||c[1]!==b.g||c[2]!==b.b)a.uniform3f(this.addr,b.r,b.g,b.b),c[0]=b.r,c[1]=b.g,c[2]=b.b}else Pa(c,b)||(a.uniform3fv(this.addr,b),Ia(c,b))}  
function Jj(a,b){var c=this.cache;if(void 0!==b.x){if(c[0]!==b.x||c[1]!==b.y||c[2]!==b.z||c[3]!==b.w)a.uniform4f(this.addr,b.x,b.y,b.z,b.w),c[0]=b.x,c[1]=b.y,c[2]=b.z,c[3]=b.w}else Pa(c,b)||(a.uniform4fv(this.addr,b),Ia(c,b))}function Kj(a,b){var c=this.cache,d=b.elements;void 0===d?Pa(c,b)||(a.uniformMatrix2fv(this.addr,!1,b),Ia(c,b)):Pa(c,d)||(Eh.set(d),a.uniformMatrix2fv(this.addr,!1,Eh),Ia(c,d))}function Lj(a,b){var c=this.cache,d=b.elements;void 0===d?Pa(c,b)||(a.uniformMatrix3fv(this.addr,!1,  
b),Ia(c,b)):Pa(c,d)||(Fh.set(d),a.uniformMatrix3fv(this.addr,!1,Fh),Ia(c,d))}function Mj(a,b){var c=this.cache,d=b.elements;void 0===d?Pa(c,b)||(a.uniformMatrix4fv(this.addr,!1,b),Ia(c,b)):Pa(c,d)||(Gh.set(d),a.uniformMatrix4fv(this.addr,!1,Gh),Ia(c,d))}function Nj(a,b,c){var d=this.cache,e=c.allocateTextureUnit();d[0]!==e&&(a.uniform1i(this.addr,e),d[0]=e);c.safeSetTexture2D(b||Hh,e)}function Oj(a,b,c){var d=this.cache,e=c.allocateTextureUnit();d[0]!==e&&(a.uniform1i(this.addr,e),d[0]=e);c.setTexture2DArray(b||  
Pj,e)}function Qj(a,b,c){var d=this.cache,e=c.allocateTextureUnit();d[0]!==e&&(a.uniform1i(this.addr,e),d[0]=e);c.setTexture3D(b||Rj,e)}function Sj(a,b,c){var d=this.cache,e=c.allocateTextureUnit();d[0]!==e&&(a.uniform1i(this.addr,e),d[0]=e);c.safeSetTextureCube(b||Ih,e)}function Tj(a,b){var c=this.cache;c[0]!==b&&(a.uniform1i(this.addr,b),c[0]=b)}function Uj(a,b){var c=this.cache;Pa(c,b)||(a.uniform2iv(this.addr,b),Ia(c,b))}function Vj(a,b){var c=this.cache;Pa(c,b)||(a.uniform3iv(this.addr,b),Ia(c,  
b))}function Wj(a,b){var c=this.cache;Pa(c,b)||(a.uniform4iv(this.addr,b),Ia(c,b))}function Xj(a,b){var c=this.cache;c[0]!==b&&(a.uniform1ui(this.addr,b),c[0]=b)}function Yj(a){switch(a){case 5126:return Gj;case 35664:return Hj;case 35665:return Ij;case 35666:return Jj;case 35674:return Kj;case 35675:return Lj;case 35676:return Mj;case 5124:case 35670:return Tj;case 35667:case 35671:return Uj;case 35668:case 35672:return Vj;case 35669:case 35673:return Wj;case 5125:return Xj;case 35678:case 36198:case 36298:case 36306:case 35682:return Nj;  
case 35679:case 36299:case 36307:return Qj;case 35680:case 36300:case 36308:case 36293:return Sj;case 36289:case 36303:case 36311:case 36292:return Oj}}function Zj(a,b){a.uniform1fv(this.addr,b)}function ak(a,b){a.uniform1iv(this.addr,b)}function bk(a,b){a.uniform2iv(this.addr,b)}function ck(a,b){a.uniform3iv(this.addr,b)}function dk(a,b){a.uniform4iv(this.addr,b)}function ek(a,b){b=Kc(b,this.size,2);a.uniform2fv(this.addr,b)}function fk(a,b){b=Kc(b,this.size,3);a.uniform3fv(this.addr,b)}function gk(a,  
b){b=Kc(b,this.size,4);a.uniform4fv(this.addr,b)}function hk(a,b){b=Kc(b,this.size,4);a.uniformMatrix2fv(this.addr,!1,b)}function ik(a,b){b=Kc(b,this.size,9);a.uniformMatrix3fv(this.addr,!1,b)}function jk(a,b){b=Kc(b,this.size,16);a.uniformMatrix4fv(this.addr,!1,b)}function kk(a,b,c){var d=b.length,e=Ch(c,d);a.uniform1iv(this.addr,e);for(a=0;a!==d;++a)c.safeSetTexture2D(b[a]||Hh,e[a])}function lk(a,b,c){var d=b.length,e=Ch(c,d);a.uniform1iv(this.addr,e);for(a=0;a!==d;++a)c.safeSetTextureCube(b[a]||  
Ih,e[a])}function mk(a){switch(a){case 5126:return Zj;case 35664:return ek;case 35665:return fk;case 35666:return gk;case 35674:return hk;case 35675:return ik;case 35676:return jk;case 5124:case 35670:return ak;case 35667:case 35671:return bk;case 35668:case 35672:return ck;case 35669:case 35673:return dk;case 35678:case 36198:case 36298:case 36306:case 35682:return kk;case 35680:case 36300:case 36308:case 36293:return lk}}function nk(a,b,c){this.id=a;this.addr=c;this.cache=[];this.setValue=Yj(b.type)}  
function Jh(a,b,c){this.id=a;this.addr=c;this.cache=[];this.size=b.size;this.setValue=mk(b.type)}function Kh(a){this.id=a;this.seq=[];this.map={}}function Eb(a,b){this.seq=[];this.map={};for(var c=a.getProgramParameter(b,35718),d=0;d<c;++d){var e=a.getActiveUniform(b,d),f=a.getUniformLocation(b,e.name),g=this,h=e.name,l=h.length;for(gg.lastIndex=0;;){var m=gg.exec(h),u=gg.lastIndex,p=m[1],k=m[3];"]"===m[2]&&(p|=0);if(void 0===k||"["===k&&u+2===l){h=g;e=void 0===k?new nk(p,e,f):new Jh(p,e,f);h.seq.push(e);  
h.map[e.id]=e;break}else k=g.map[p],void 0===k&&(k=new Kh(p),p=g,g=k,p.seq.push(g),p.map[g.id]=g),g=k}}}function Lh(a,b,c){b=a.createShader(b);a.shaderSource(b,c);a.compileShader(b);return b}function Mh(a){switch(a){case 3E3:return["Linear","( value )"];case 3001:return["sRGB","( value )"];case 3002:return["RGBE","( value )"];case 3004:return["RGBM","( value, 7.0 )"];case 3005:return["RGBM","( value, 16.0 )"];case 3006:return["RGBD","( value, 256.0 )"];case 3007:return["Gamma","( value, float( GAMMA\_FACTOR ) )"];  
case 3003:return["LogLuv","( value )"];default:throw Error("unsupported encoding: "+a);}}function Nh(a,b,c){var d=a.getShaderParameter(b,35713),e=a.getShaderInfoLog(b).trim();if(d&&""===e)return"";a=a.getShaderSource(b).split("\n");for(b=0;b<a.length;b++)a[b]=b+1+": "+a[b];a=a.join("\n");return"THREE.WebGLShader: gl.getShaderInfoLog() "+c+"\n"+e+a}function Kd(a,b){b=Mh(b);return"vec4 "+a+"( vec4 value ) { return "+b[0]+"ToLinear"+b[1]+"; }"}function ok(a,b){b=Mh(b);return"vec4 "+a+"( vec4 value ) { return LinearTo"+  
b[0]+b[1]+"; }"}function pk(a,b){switch(b){case 1:b="Linear";break;case 2:b="Reinhard";break;case 3:b="Uncharted2";break;case 4:b="OptimizedCineon";break;case 5:b="ACESFilmic";break;default:throw Error("unsupported toneMapping: "+b);}return"vec3 "+a+"( vec3 color ) { return "+b+"ToneMapping( color ); }"}function qk(a){var b=[],c;for(c in a){var d=a[c];!1!==d&&b.push("#define "+c+" "+d)}return b.join("\n")}function Ld(a){return""!==a}function Oh(a,b){return a.replace(/NUM\_DIR\_LIGHTS/g,b.numDirLights).replace(/NUM\_SPOT\_LIGHTS/g,  
b.numSpotLights).replace(/NUM\_RECT\_AREA\_LIGHTS/g,b.numRectAreaLights).replace(/NUM\_POINT\_LIGHTS/g,b.numPointLights).replace(/NUM\_HEMI\_LIGHTS/g,b.numHemiLights).replace(/NUM\_DIR\_LIGHT\_SHADOWS/g,b.numDirLightShadows).replace(/NUM\_SPOT\_LIGHT\_SHADOWS/g,b.numSpotLightShadows).replace(/NUM\_POINT\_LIGHT\_SHADOWS/g,b.numPointLightShadows)}function Ph(a,b){return a.replace(/NUM\_CLIPPING\_PLANES/g,b.numClippingPlanes).replace(/UNION\_CLIPPING\_PLANES/g,b.numClippingPlanes-b.numClipIntersection)}function hg(a,b){a=  
O[b];if(void 0===a)throw Error("Can not resolve #include <"+b+">");return a.replace(ig,hg)}function Qh(a,b,c,d){console.warn("WebGLProgram: #pragma unroll\_loop shader syntax is deprecated. Please use #pragma unroll\_loop\_start syntax instead.");return jg(a,b,c,d)}function jg(a,b,c,d){a="";for(b=parseInt(b);b<parseInt(c);b++)a+=d.replace(/\[ i \]/g,"[ "+b+" ]").replace(/UNROLLED\_LOOP\_INDEX/g,b);return a}function Rh(a){var b="precision "+a.precision+" float;\nprecision "+a.precision+" int;";"highp"===  
a.precision?b+="\n#define HIGH\_PRECISION":"mediump"===a.precision?b+="\n#define MEDIUM\_PRECISION":"lowp"===a.precision&&(b+="\n#define LOW\_PRECISION");return b}function rk(a){var b="SHADOWMAP\_TYPE\_BASIC";1===a.shadowMapType?b="SHADOWMAP\_TYPE\_PCF":2===a.shadowMapType?b="SHADOWMAP\_TYPE\_PCF\_SOFT":3===a.shadowMapType&&(b="SHADOWMAP\_TYPE\_VSM");return b}function sk(a){var b="ENVMAP\_TYPE\_CUBE";if(a.envMap)switch(a.envMapMode){case 301:case 302:b="ENVMAP\_TYPE\_CUBE";break;case 306:case 307:b="ENVMAP\_TYPE\_CUBE\_UV";  
break;case 303:case 304:b="ENVMAP\_TYPE\_EQUIREC";break;case 305:b="ENVMAP\_TYPE\_SPHERE"}return b}function tk(a){var b="ENVMAP\_MODE\_REFLECTION";if(a.envMap)switch(a.envMapMode){case 302:case 304:b="ENVMAP\_MODE\_REFRACTION"}return b}function uk(a){var b="ENVMAP\_BLENDING\_NONE";if(a.envMap)switch(a.combine){case 0:b="ENVMAP\_BLENDING\_MULTIPLY";break;case 1:b="ENVMAP\_BLENDING\_MIX";break;case 2:b="ENVMAP\_BLENDING\_ADD"}return b}function vk(a,b,c){var d=a.getContext(),e=c.defines,f=c.vertexShader,g=c.fragmentShader,  
h=rk(c),l=sk(c),m=tk(c),u=uk(c),p=0<a.gammaFactor?a.gammaFactor:1,k=c.isWebGL2?"":[c.extensionDerivatives||c.envMapCubeUV||c.bumpMap||c.tangentSpaceNormalMap||c.clearcoatNormalMap||c.flatShading||"physical"===c.shaderID?"#extension GL\_OES\_standard\_derivatives : enable":"",(c.extensionFragDepth||c.logarithmicDepthBuffer)&&c.rendererExtensionFragDepth?"#extension GL\_EXT\_frag\_depth : enable":"",c.extensionDrawBuffers&&c.rendererExtensionDrawBuffers?"#extension GL\_EXT\_draw\_buffers : require":"",(c.extensionShaderTextureLOD||  
c.envMap)&&c.rendererExtensionShaderTextureLod?"#extension GL\_EXT\_shader\_texture\_lod : enable":""].filter(Ld).join("\n"),r=qk(e),q=d.createProgram();c.isRawShaderMaterial?(e=[r].filter(Ld).join("\n"),0<e.length&&(e+="\n"),h=[k,r].filter(Ld).join("\n"),0<h.length&&(h+="\n")):(e=[Rh(c),"#define SHADER\_NAME "+c.shaderName,r,c.instancing?"#define USE\_INSTANCING":"",c.supportsVertexTextures?"#define VERTEX\_TEXTURES":"","#define GAMMA\_FACTOR "+p,"#define MAX\_BONES "+c.maxBones,c.useFog&&c.fog?"#define USE\_FOG":  
"",c.useFog&&c.fogExp2?"#define FOG\_EXP2":"",c.map?"#define USE\_MAP":"",c.envMap?"#define USE\_ENVMAP":"",c.envMap?"#define "+m:"",c.lightMap?"#define USE\_LIGHTMAP":"",c.aoMap?"#define USE\_AOMAP":"",c.emissiveMap?"#define USE\_EMISSIVEMAP":"",c.bumpMap?"#define USE\_BUMPMAP":"",c.normalMap?"#define USE\_NORMALMAP":"",c.normalMap&&c.objectSpaceNormalMap?"#define OBJECTSPACE\_NORMALMAP":"",c.normalMap&&c.tangentSpaceNormalMap?"#define TANGENTSPACE\_NORMALMAP":"",c.clearcoatMap?"#define USE\_CLEARCOATMAP":  
"",c.clearcoatRoughnessMap?"#define USE\_CLEARCOAT\_ROUGHNESSMAP":"",c.clearcoatNormalMap?"#define USE\_CLEARCOAT\_NORMALMAP":"",c.displacementMap&&c.supportsVertexTextures?"#define USE\_DISPLACEMENTMAP":"",c.specularMap?"#define USE\_SPECULARMAP":"",c.roughnessMap?"#define USE\_ROUGHNESSMAP":"",c.metalnessMap?"#define USE\_METALNESSMAP":"",c.alphaMap?"#define USE\_ALPHAMAP":"",c.vertexTangents?"#define USE\_TANGENT":"",c.vertexColors?"#define USE\_COLOR":"",c.vertexUvs?"#define USE\_UV":"",c.uvsVertexOnly?"#define UVS\_VERTEX\_ONLY":  
"",c.flatShading?"#define FLAT\_SHADED":"",c.skinning?"#define USE\_SKINNING":"",c.useVertexTexture?"#define BONE\_TEXTURE":"",c.morphTargets?"#define USE\_MORPHTARGETS":"",c.morphNormals&&!1===c.flatShading?"#define USE\_MORPHNORMALS":"",c.doubleSided?"#define DOUBLE\_SIDED":"",c.flipSided?"#define FLIP\_SIDED":"",c.shadowMapEnabled?"#define USE\_SHADOWMAP":"",c.shadowMapEnabled?"#define "+h:"",c.sizeAttenuation?"#define USE\_SIZEATTENUATION":"",c.logarithmicDepthBuffer?"#define USE\_LOGDEPTHBUF":"",c.logarithmicDepthBuffer&&  
c.rendererExtensionFragDepth?"#define USE\_LOGDEPTHBUF\_EXT":"","uniform mat4 modelMatrix;","uniform mat4 modelViewMatrix;","uniform mat4 projectionMatrix;","uniform mat4 viewMatrix;","uniform mat3 normalMatrix;","uniform vec3 cameraPosition;","uniform bool isOrthographic;","#ifdef USE\_INSTANCING"," attribute mat4 instanceMatrix;","#endif","attribute vec3 position;","attribute vec3 normal;","attribute vec2 uv;","#ifdef USE\_TANGENT","\tattribute vec4 tangent;","#endif","#ifdef USE\_COLOR","\tattribute vec3 color;",  
"#endif","#ifdef USE\_MORPHTARGETS","\tattribute vec3 morphTarget0;","\tattribute vec3 morphTarget1;","\tattribute vec3 morphTarget2;","\tattribute vec3 morphTarget3;","\t#ifdef USE\_MORPHNORMALS","\t\tattribute vec3 morphNormal0;","\t\tattribute vec3 morphNormal1;","\t\tattribute vec3 morphNormal2;","\t\tattribute vec3 morphNormal3;","\t#else","\t\tattribute vec3 morphTarget4;","\t\tattribute vec3 morphTarget5;","\t\tattribute vec3 morphTarget6;","\t\tattribute vec3 morphTarget7;","\t#endif","#endif",  
"#ifdef USE\_SKINNING","\tattribute vec4 skinIndex;","\tattribute vec4 skinWeight;","#endif","\n"].filter(Ld).join("\n"),h=[k,Rh(c),"#define SHADER\_NAME "+c.shaderName,r,c.alphaTest?"#define ALPHATEST "+c.alphaTest+(c.alphaTest%1?"":".0"):"","#define GAMMA\_FACTOR "+p,c.useFog&&c.fog?"#define USE\_FOG":"",c.useFog&&c.fogExp2?"#define FOG\_EXP2":"",c.map?"#define USE\_MAP":"",c.matcap?"#define USE\_MATCAP":"",c.envMap?"#define USE\_ENVMAP":"",c.envMap?"#define "+l:"",c.envMap?"#define "+m:"",c.envMap?"#define "+  
u:"",c.lightMap?"#define USE\_LIGHTMAP":"",c.aoMap?"#define USE\_AOMAP":"",c.emissiveMap?"#define USE\_EMISSIVEMAP":"",c.bumpMap?"#define USE\_BUMPMAP":"",c.normalMap?"#define USE\_NORMALMAP":"",c.normalMap&&c.objectSpaceNormalMap?"#define OBJECTSPACE\_NORMALMAP":"",c.normalMap&&c.tangentSpaceNormalMap?"#define TANGENTSPACE\_NORMALMAP":"",c.clearcoatMap?"#define USE\_CLEARCOATMAP":"",c.clearcoatRoughnessMap?"#define USE\_CLEARCOAT\_ROUGHNESSMAP":"",c.clearcoatNormalMap?"#define USE\_CLEARCOAT\_NORMALMAP":"",  
c.specularMap?"#define USE\_SPECULARMAP":"",c.roughnessMap?"#define USE\_ROUGHNESSMAP":"",c.metalnessMap?"#define USE\_METALNESSMAP":"",c.alphaMap?"#define USE\_ALPHAMAP":"",c.sheen?"#define USE\_SHEEN":"",c.vertexTangents?"#define USE\_TANGENT":"",c.vertexColors?"#define USE\_COLOR":"",c.vertexUvs?"#define USE\_UV":"",c.uvsVertexOnly?"#define UVS\_VERTEX\_ONLY":"",c.gradientMap?"#define USE\_GRADIENTMAP":"",c.flatShading?"#define FLAT\_SHADED":"",c.doubleSided?"#define DOUBLE\_SIDED":"",c.flipSided?"#define FLIP\_SIDED":  
"",c.shadowMapEnabled?"#define USE\_SHADOWMAP":"",c.shadowMapEnabled?"#define "+h:"",c.premultipliedAlpha?"#define PREMULTIPLIED\_ALPHA":"",c.physicallyCorrectLights?"#define PHYSICALLY\_CORRECT\_LIGHTS":"",c.logarithmicDepthBuffer?"#define USE\_LOGDEPTHBUF":"",c.logarithmicDepthBuffer&&c.rendererExtensionFragDepth?"#define USE\_LOGDEPTHBUF\_EXT":"",(c.extensionShaderTextureLOD||c.envMap)&&c.rendererExtensionShaderTextureLod?"#define TEXTURE\_LOD\_EXT":"","uniform mat4 viewMatrix;","uniform vec3 cameraPosition;",  
"uniform bool isOrthographic;",0!==c.toneMapping?"#define TONE\_MAPPING":"",0!==c.toneMapping?O.tonemapping\_pars\_fragment:"",0!==c.toneMapping?pk("toneMapping",c.toneMapping):"",c.dithering?"#define DITHERING":"",c.outputEncoding||c.mapEncoding||c.matcapEncoding||c.envMapEncoding||c.emissiveMapEncoding||c.lightMapEncoding?O.encodings\_pars\_fragment:"",c.mapEncoding?Kd("mapTexelToLinear",c.mapEncoding):"",c.matcapEncoding?Kd("matcapTexelToLinear",c.matcapEncoding):"",c.envMapEncoding?Kd("envMapTexelToLinear",  
c.envMapEncoding):"",c.emissiveMapEncoding?Kd("emissiveMapTexelToLinear",c.emissiveMapEncoding):"",c.lightMapEncoding?Kd("lightMapTexelToLinear",c.lightMapEncoding):"",c.outputEncoding?ok("linearToOutputTexel",c.outputEncoding):"",c.depthPacking?"#define DEPTH\_PACKING "+c.depthPacking:"","\n"].filter(Ld).join("\n"));f=f.replace(ig,hg);f=Oh(f,c);f=Ph(f,c);g=g.replace(ig,hg);g=Oh(g,c);g=Ph(g,c);f=f.replace(Sh,jg).replace(Th,Qh);g=g.replace(Sh,jg).replace(Th,Qh);c.isWebGL2&&!c.isRawShaderMaterial&&(l=  
!1,m=/^\s\*#version\s+300\s+es\s\*\n/,c.isShaderMaterial&&null!==f.match(m)&&null!==g.match(m)&&(l=!0,f=f.replace(m,""),g=g.replace(m,"")),e="#version 300 es\n\n#define attribute in\n#define varying out\n#define texture2D texture\n"+e,h=["#version 300 es\n\n#define varying in",l?"":"out highp vec4 pc\_fragColor;",l?"":"#define gl\_FragColor pc\_fragColor","#define gl\_FragDepthEXT gl\_FragDepth\n#define texture2D texture\n#define textureCube texture\n#define texture2DProj textureProj\n#define texture2DLodEXT textureLod\n#define texture2DProjLodEXT textureProjLod\n#define textureCubeLodEXT textureLod\n#define texture2DGradEXT textureGrad\n#define texture2DProjGradEXT textureProjGrad\n#define textureCubeGradEXT textureGrad"].join("\n")+  
"\n"+h);g=h+g;f=Lh(d,35633,e+f);g=Lh(d,35632,g);d.attachShader(q,f);d.attachShader(q,g);void 0!==c.index0AttributeName?d.bindAttribLocation(q,0,c.index0AttributeName):!0===c.morphTargets&&d.bindAttribLocation(q,0,"position");d.linkProgram(q);if(a.debug.checkShaderErrors){a=d.getProgramInfoLog(q).trim();l=d.getShaderInfoLog(f).trim();m=d.getShaderInfoLog(g).trim();p=u=!0;if(!1===d.getProgramParameter(q,35714))u=!1,k=Nh(d,f,"vertex"),r=Nh(d,g,"fragment"),console.error("THREE.WebGLProgram: shader error: ",  
d.getError(),"35715",d.getProgramParameter(q,35715),"gl.getProgramInfoLog",a,k,r);else if(""!==a)console.warn("THREE.WebGLProgram: gl.getProgramInfoLog()",a);else if(""===l||""===m)p=!1;p&&(this.diagnostics={runnable:u,programLog:a,vertexShader:{log:l,prefix:e},fragmentShader:{log:m,prefix:h}})}d.detachShader(q,f);d.detachShader(q,g);d.deleteShader(f);d.deleteShader(g);var v;this.getUniforms=function(){void 0===v&&(v=new Eb(d,q));return v};var n;this.getAttributes=function(){if(void 0===n){for(var a=  
{},b=d.getProgramParameter(q,35721),c=0;c<b;c++){var e=d.getActiveAttrib(q,c).name;a[e]=d.getAttribLocation(q,e)}n=a}return n};this.destroy=function(){d.deleteProgram(q);this.program=void 0};this.name=c.shaderName;this.id=wk++;this.cacheKey=b;this.usedTimes=1;this.program=q;this.vertexShader=f;this.fragmentShader=g;return this}function xk(a,b,c){function d(a){if(a)a.isTexture?b=a.encoding:a.isWebGLRenderTarget&&(console.warn("THREE.WebGLPrograms.getTextureEncodingFromMap: don't use render targets as textures. Use their .texture property instead."),  
b=a.texture.encoding);else var b=3E3;return b}var e=[],f=c.isWebGL2,g=c.logarithmicDepthBuffer,h=c.floatVertexTextures,l=c.precision,m=c.maxVertexUniforms,u=c.vertexTextures,p={MeshDepthMaterial:"depth",MeshDistanceMaterial:"distanceRGBA",MeshNormalMaterial:"normal",MeshBasicMaterial:"basic",MeshLambertMaterial:"lambert",MeshPhongMaterial:"phong",MeshToonMaterial:"toon",MeshStandardMaterial:"physical",MeshPhysicalMaterial:"physical",MeshMatcapMaterial:"matcap",LineBasicMaterial:"basic",LineDashedMaterial:"dashed",  
PointsMaterial:"points",ShadowMaterial:"shadow",SpriteMaterial:"sprite"},k="precision isWebGL2 supportsVertexTextures outputEncoding instancing map mapEncoding matcap matcapEncoding envMap envMapMode envMapEncoding envMapCubeUV lightMap lightMapEncoding aoMap emissiveMap emissiveMapEncoding bumpMap normalMap objectSpaceNormalMap tangentSpaceNormalMap clearcoatMap clearcoatRoughnessMap clearcoatNormalMap displacementMap specularMap roughnessMap metalnessMap gradientMap alphaMap combine vertexColors vertexTangents vertexUvs uvsVertexOnly fog useFog fogExp2 flatShading sizeAttenuation logarithmicDepthBuffer skinning maxBones useVertexTexture morphTargets morphNormals maxMorphTargets maxMorphNormals premultipliedAlpha numDirLights numPointLights numSpotLights numHemiLights numRectAreaLights numDirLightShadows numPointLightShadows numSpotLightShadows shadowMapEnabled shadowMapType toneMapping physicallyCorrectLights alphaTest doubleSided flipSided numClippingPlanes numClipIntersection depthPacking dithering sheen".split(" ");  
this.getParameters=function(e,k,x,n,w,z,ha){var q=n.fog;n=e.isMeshStandardMaterial?n.environment:null;n=e.envMap||n;var r=p[e.type];if(ha.isSkinnedMesh){var v=ha.skeleton.bones;if(h)v=1024;else{var E=Math.min(Math.floor((m-20)/4),v.length);E<v.length?(console.warn("THREE.WebGLRenderer: Skeleton has "+v.length+" bones. This GPU supports "+E+"."),v=0):v=E}}else v=0;null!==e.precision&&(l=c.getMaxPrecision(e.precision),l!==e.precision&&console.warn("THREE.WebGLProgram.getParameters:",e.precision,"not supported, using",  
l,"instead."));r?(E=eb[r],E={name:e.type,uniforms:Uh.clone(E.uniforms),vertexShader:E.vertexShader,fragmentShader:E.fragmentShader}):E={name:e.type,uniforms:e.uniforms,vertexShader:e.vertexShader,fragmentShader:e.fragmentShader};e.onBeforeCompile(E,a);var ia=a.getRenderTarget();return{isWebGL2:f,shaderID:r,shaderName:E.name,uniforms:E.uniforms,vertexShader:E.vertexShader,fragmentShader:E.fragmentShader,defines:e.defines,isRawShaderMaterial:e.isRawShaderMaterial,isShaderMaterial:e.isShaderMaterial,  
precision:l,instancing:!0===ha.isInstancedMesh,supportsVertexTextures:u,outputEncoding:null!==ia?d(ia.texture):a.outputEncoding,map:!!e.map,mapEncoding:d(e.map),matcap:!!e.matcap,matcapEncoding:d(e.matcap),envMap:!!n,envMapMode:n&&n.mapping,envMapEncoding:d(n),envMapCubeUV:!!n&&(306===n.mapping||307===n.mapping),lightMap:!!e.lightMap,lightMapEncoding:d(e.lightMap),aoMap:!!e.aoMap,emissiveMap:!!e.emissiveMap,emissiveMapEncoding:d(e.emissiveMap),bumpMap:!!e.bumpMap,normalMap:!!e.normalMap,objectSpaceNormalMap:1===  
e.normalMapType,tangentSpaceNormalMap:0===e.normalMapType,clearcoatMap:!!e.clearcoatMap,clearcoatRoughnessMap:!!e.clearcoatRoughnessMap,clearcoatNormalMap:!!e.clearcoatNormalMap,displacementMap:!!e.displacementMap,roughnessMap:!!e.roughnessMap,metalnessMap:!!e.metalnessMap,specularMap:!!e.specularMap,alphaMap:!!e.alphaMap,gradientMap:!!e.gradientMap,sheen:!!e.sheen,combine:e.combine,vertexTangents:e.normalMap&&e.vertexTangents,vertexColors:e.vertexColors,vertexUvs:!!e.map||!!e.bumpMap||!!e.normalMap||  
!!e.specularMap||!!e.alphaMap||!!e.emissiveMap||!!e.roughnessMap||!!e.metalnessMap||!!e.clearcoatMap||!!e.clearcoatRoughnessMap||!!e.clearcoatNormalMap||!!e.displacementMap,uvsVertexOnly:!(e.map||e.bumpMap||e.normalMap||e.specularMap||e.alphaMap||e.emissiveMap||e.roughnessMap||e.metalnessMap||e.clearcoatNormalMap)&&!!e.displacementMap,fog:!!q,useFog:e.fog,fogExp2:q&&q.isFogExp2,flatShading:e.flatShading,sizeAttenuation:e.sizeAttenuation,logarithmicDepthBuffer:g,skinning:e.skinning&&0<v,maxBones:v,  
useVertexTexture:h,morphTargets:e.morphTargets,morphNormals:e.morphNormals,maxMorphTargets:a.maxMorphTargets,maxMorphNormals:a.maxMorphNormals,numDirLights:k.directional.length,numPointLights:k.point.length,numSpotLights:k.spot.length,numRectAreaLights:k.rectArea.length,numHemiLights:k.hemi.length,numDirLightShadows:k.directionalShadowMap.length,numPointLightShadows:k.pointShadowMap.length,numSpotLightShadows:k.spotShadowMap.length,numClippingPlanes:w,numClipIntersection:z,dithering:e.dithering,shadowMapEnabled:a.shadowMap.enabled&&  
0<x.length,shadowMapType:a.shadowMap.type,toneMapping:e.toneMapped?a.toneMapping:0,physicallyCorrectLights:a.physicallyCorrectLights,premultipliedAlpha:e.premultipliedAlpha,alphaTest:e.alphaTest,doubleSided:2===e.side,flipSided:1===e.side,depthPacking:void 0!==e.depthPacking?e.depthPacking:!1,index0AttributeName:e.index0AttributeName,extensionDerivatives:e.extensions&&e.extensions.derivatives,extensionFragDepth:e.extensions&&e.extensions.fragDepth,extensionDrawBuffers:e.extensions&&e.extensions.drawBuffers,  
extensionShaderTextureLOD:e.extensions&&e.extensions.shaderTextureLOD,rendererExtensionFragDepth:f||null!==b.get("EXT\_frag\_depth"),rendererExtensionDrawBuffers:f||null!==b.get("WEBGL\_draw\_buffers"),rendererExtensionShaderTextureLod:f||null!==b.get("EXT\_shader\_texture\_lod"),onBeforeCompile:e.onBeforeCompile}};this.getProgramCacheKey=function(b){var c=[];b.shaderID?c.push(b.shaderID):(c.push(b.fragmentShader),c.push(b.vertexShader));if(void 0!==b.defines)for(var d in b.defines)c.push(d),c.push(b.defines[d]);  
if(void 0===b.isRawShaderMaterial){for(d=0;d<k.length;d++)c.push(b[k[d]]);c.push(a.outputEncoding);c.push(a.gammaFactor)}c.push(b.onBeforeCompile.toString());return c.join()};this.acquireProgram=function(b,c){for(var d,f=0,g=e.length;f<g;f++){var h=e[f];if(h.cacheKey===c){d=h;++d.usedTimes;break}}void 0===d&&(d=new vk(a,c,b),e.push(d));return d};this.releaseProgram=function(a){if(0===--a.usedTimes){var b=e.indexOf(a);e[b]=e[e.length-1];e.pop();a.destroy()}};this.programs=e}function yk(){var a=new WeakMap;  
return{get:function(b){var c=a.get(b);void 0===c&&(c={},a.set(b,c));return c},remove:function(b){a.delete(b)},update:function(b,c,d){a.get(b)[c]=d},dispose:function(){a=new WeakMap}}}function zk(a,b){return a.groupOrder!==b.groupOrder?a.groupOrder-b.groupOrder:a.renderOrder!==b.renderOrder?a.renderOrder-b.renderOrder:a.program!==b.program?a.program.id-b.program.id:a.material.id!==b.material.id?a.material.id-b.material.id:a.z!==b.z?a.z-b.z:a.id-b.id}function Ak(a,b){return a.groupOrder!==b.groupOrder?  
a.groupOrder-b.groupOrder:a.renderOrder!==b.renderOrder?a.renderOrder-b.renderOrder:a.z!==b.z?b.z-a.z:a.id-b.id}function Vh(){function a(a,d,e,m,k,p){var g=b[c];void 0===g?(g={id:a.id,object:a,geometry:d,material:e,program:e.program||f,groupOrder:m,renderOrder:a.renderOrder,z:k,group:p},b[c]=g):(g.id=a.id,g.object=a,g.geometry=d,g.material=e,g.program=e.program||f,g.groupOrder=m,g.renderOrder=a.renderOrder,g.z=k,g.group=p);c++;return g}var b=[],c=0,d=[],e=[],f={id:-1};return{opaque:d,transparent:e,  
init:function(){c=0;d.length=0;e.length=0},push:function(b,c,f,m,k,p){b=a(b,c,f,m,k,p);(!0===f.transparent?e:d).push(b)},unshift:function(b,c,f,m,k,p){b=a(b,c,f,m,k,p);(!0===f.transparent?e:d).unshift(b)},finish:function(){for(var a=c,d=b.length;a<d;a++){var e=b[a];if(null===e.id)break;e.id=null;e.object=null;e.geometry=null;e.material=null;e.program=null;e.group=null}},sort:function(a,b){1<d.length&&d.sort(a||zk);1<e.length&&e.sort(b||Ak)}}}function Bk(){function a(c){c=c.target;c.removeEventListener("dispose",  
a);b.delete(c)}var b=new WeakMap;return{get:function(c,d){var e=b.get(c);if(void 0===e){var f=new Vh;b.set(c,new WeakMap);b.get(c).set(d,f);c.addEventListener("dispose",a)}else f=e.get(d),void 0===f&&(f=new Vh,e.set(d,f));return f},dispose:function(){b=new WeakMap}}}function Ck(){var a={};return{get:function(b){if(void 0!==a[b.id])return a[b.id];switch(b.type){case "DirectionalLight":var c={direction:new n,color:new A};break;case "SpotLight":c={position:new n,direction:new n,color:new A,distance:0,  
coneCos:0,penumbraCos:0,decay:0};break;case "PointLight":c={position:new n,color:new A,distance:0,decay:0};break;case "HemisphereLight":c={direction:new n,skyColor:new A,groundColor:new A};break;case "RectAreaLight":c={color:new A,position:new n,halfWidth:new n,halfHeight:new n}}return a[b.id]=c}}}function Dk(){var a={};return{get:function(b){if(void 0!==a[b.id])return a[b.id];switch(b.type){case "DirectionalLight":var c={shadowBias:0,shadowRadius:1,shadowMapSize:new t};break;case "SpotLight":c={shadowBias:0,  
shadowRadius:1,shadowMapSize:new t};break;case "PointLight":c={shadowBias:0,shadowRadius:1,shadowMapSize:new t,shadowCameraNear:1,shadowCameraFar:1E3}}return a[b.id]=c}}}function Ek(a,b){return(b.castShadow?1:0)-(a.castShadow?1:0)}function Fk(){for(var a=new Ck,b=Dk(),c={version:0,hash:{directionalLength:-1,pointLength:-1,spotLength:-1,rectAreaLength:-1,hemiLength:-1,numDirectionalShadows:-1,numPointShadows:-1,numSpotShadows:-1},ambient:[0,0,0],probe:[],directional:[],directionalShadow:[],directionalShadowMap:[],  
directionalShadowMatrix:[],spot:[],spotShadow:[],spotShadowMap:[],spotShadowMatrix:[],rectArea:[],point:[],pointShadow:[],pointShadowMap:[],pointShadowMatrix:[],hemi:[]},d=0;9>d;d++)c.probe.push(new n);var e=new n,f=new P,g=new P;return{setup:function(d,l,m){for(var h=0,p=0,k=0,r=0;9>r;r++)c.probe[r].set(0,0,0);var q=l=0,v=0,n=0,w=0,z=0,ha=0,U=0;m=m.matrixWorldInverse;d.sort(Ek);r=0;for(var ca=d.length;r<ca;r++){var B=d[r],t=B.color,ia=B.intensity,Ca=B.distance,Ja=B.shadow&&B.shadow.map?B.shadow.map.texture:  
null;if(B.isAmbientLight)h+=t.r\*ia,p+=t.g\*ia,k+=t.b\*ia;else if(B.isLightProbe)for(Ja=0;9>Ja;Ja++)c.probe[Ja].addScaledVector(B.sh.coefficients[Ja],ia);else if(B.isDirectionalLight){var H=a.get(B);H.color.copy(B.color).multiplyScalar(B.intensity);H.direction.setFromMatrixPosition(B.matrixWorld);e.setFromMatrixPosition(B.target.matrixWorld);H.direction.sub(e);H.direction.transformDirection(m);B.castShadow&&(ia=B.shadow,t=b.get(B),t.shadowBias=ia.bias,t.shadowRadius=ia.radius,t.shadowMapSize=ia.mapSize,  
c.directionalShadow[l]=t,c.directionalShadowMap[l]=Ja,c.directionalShadowMatrix[l]=B.shadow.matrix,z++);c.directional[l]=H;l++}else B.isSpotLight?(H=a.get(B),H.position.setFromMatrixPosition(B.matrixWorld),H.position.applyMatrix4(m),H.color.copy(t).multiplyScalar(ia),H.distance=Ca,H.direction.setFromMatrixPosition(B.matrixWorld),e.setFromMatrixPosition(B.target.matrixWorld),H.direction.sub(e),H.direction.transformDirection(m),H.coneCos=Math.cos(B.angle),H.penumbraCos=Math.cos(B.angle\*(1-B.penumbra)),  
H.decay=B.decay,B.castShadow&&(ia=B.shadow,t=b.get(B),t.shadowBias=ia.bias,t.shadowRadius=ia.radius,t.shadowMapSize=ia.mapSize,c.spotShadow[v]=t,c.spotShadowMap[v]=Ja,c.spotShadowMatrix[v]=B.shadow.matrix,U++),c.spot[v]=H,v++):B.isRectAreaLight?(H=a.get(B),H.color.copy(t).multiplyScalar(ia),H.position.setFromMatrixPosition(B.matrixWorld),H.position.applyMatrix4(m),g.identity(),f.copy(B.matrixWorld),f.premultiply(m),g.extractRotation(f),H.halfWidth.set(.5\*B.width,0,0),H.halfHeight.set(0,.5\*B.height,  
0),H.halfWidth.applyMatrix4(g),H.halfHeight.applyMatrix4(g),c.rectArea[n]=H,n++):B.isPointLight?(H=a.get(B),H.position.setFromMatrixPosition(B.matrixWorld),H.position.applyMatrix4(m),H.color.copy(B.color).multiplyScalar(B.intensity),H.distance=B.distance,H.decay=B.decay,B.castShadow&&(ia=B.shadow,t=b.get(B),t.shadowBias=ia.bias,t.shadowRadius=ia.radius,t.shadowMapSize=ia.mapSize,t.shadowCameraNear=ia.camera.near,t.shadowCameraFar=ia.camera.far,c.pointShadow[q]=t,c.pointShadowMap[q]=Ja,c.pointShadowMatrix[q]=  
B.shadow.matrix,ha++),c.point[q]=H,q++):B.isHemisphereLight&&(H=a.get(B),H.direction.setFromMatrixPosition(B.matrixWorld),H.direction.transformDirection(m),H.direction.normalize(),H.skyColor.copy(B.color).multiplyScalar(ia),H.groundColor.copy(B.groundColor).multiplyScalar(ia),c.hemi[w]=H,w++)}c.ambient[0]=h;c.ambient[1]=p;c.ambient[2]=k;d=c.hash;if(d.directionalLength!==l||d.pointLength!==q||d.spotLength!==v||d.rectAreaLength!==n||d.hemiLength!==w||d.numDirectionalShadows!==z||d.numPointShadows!==  
ha||d.numSpotShadows!==U)c.directional.length=l,c.spot.length=v,c.rectArea.length=n,c.point.length=q,c.hemi.length=w,c.directionalShadow.length=z,c.directionalShadowMap.length=z,c.pointShadow.length=ha,c.pointShadowMap.length=ha,c.spotShadow.length=U,c.spotShadowMap.length=U,c.directionalShadowMatrix.length=z,c.pointShadowMatrix.length=ha,c.spotShadowMatrix.length=U,d.directionalLength=l,d.pointLength=q,d.spotLength=v,d.rectAreaLength=n,d.hemiLength=w,d.numDirectionalShadows=z,d.numPointShadows=ha,  
d.numSpotShadows=U,c.version=Gk++},state:c}}function Wh(){var a=new Fk,b=[],c=[];return{init:function(){b.length=0;c.length=0},state:{lightsArray:b,shadowsArray:c,lights:a},setupLights:function(d){a.setup(b,c,d)},pushLight:function(a){b.push(a)},pushShadow:function(a){c.push(a)}}}function Hk(){function a(c){c=c.target;c.removeEventListener("dispose",a);b.delete(c)}var b=new WeakMap;return{get:function(c,d){if(!1===b.has(c)){var e=new Wh;b.set(c,new WeakMap);b.get(c).set(d,e);c.addEventListener("dispose",  
a)}else!1===b.get(c).has(d)?(e=new Wh,b.get(c).set(d,e)):e=b.get(c).get(d);return e},dispose:function(){b=new WeakMap}}}function Fb(a){K.call(this);this.type="MeshDepthMaterial";this.depthPacking=3200;this.morphTargets=this.skinning=!1;this.displacementMap=this.alphaMap=this.map=null;this.displacementScale=1;this.displacementBias=0;this.wireframe=!1;this.wireframeLinewidth=1;this.fog=!1;this.setValues(a)}function Gb(a){K.call(this);this.type="MeshDistanceMaterial";this.referencePosition=new n;this.nearDistance=  
1;this.farDistance=1E3;this.morphTargets=this.skinning=!1;this.displacementMap=this.alphaMap=this.map=null;this.displacementScale=1;this.displacementBias=0;this.fog=!1;this.setValues(a)}function Xh(a,b,c){function d(a,b,c){c=a<<0|b<<1|c<<2;var d=p[c];void 0===d&&(d=new Fb({depthPacking:3201,morphTargets:a,skinning:b}),p[c]=d);return d}function e(a,b,c){c=a<<0|b<<1|c<<2;var d=x[c];void 0===d&&(d=new Gb({morphTargets:a,skinning:b}),x[c]=d);return d}function f(b,c,f,g,h,l){var m=b.geometry,p=d,k=b.customDepthMaterial;  
!0===f.isPointLight&&(p=e,k=b.customDistanceMaterial);void 0===k?(k=!1,!0===c.morphTargets&&(!0===m.isBufferGeometry?k=m.morphAttributes&&m.morphAttributes.position&&0<m.morphAttributes.position.length:!0===m.isGeometry&&(k=m.morphTargets&&0<m.morphTargets.length)),m=!1,!0===b.isSkinnedMesh&&(!0===c.skinning?m=!0:console.warn("THREE.WebGLShadowMap: THREE.SkinnedMesh with material.skinning set to false:",b)),b=p(k,m,!0===b.isInstancedMesh)):b=k;a.localClippingEnabled&&!0===c.clipShadows&&0!==c.clippingPlanes.length&&  
(k=b.uuid,p=c.uuid,m=r[k],void 0===m&&(m={},r[k]=m),k=m[p],void 0===k&&(k=b.clone(),m[p]=k),b=k);b.visible=c.visible;b.wireframe=c.wireframe;b.side=3===l?null!==c.shadowSide?c.shadowSide:c.side:null!==c.shadowSide?c.shadowSide:q[c.side];b.clipShadows=c.clipShadows;b.clippingPlanes=c.clippingPlanes;b.clipIntersection=c.clipIntersection;b.wireframeLinewidth=c.wireframeLinewidth;b.linewidth=c.linewidth;!0===f.isPointLight&&!0===b.isMeshDistanceMaterial&&(b.referencePosition.setFromMatrixPosition(f.matrixWorld),  
b.nearDistance=g,b.farDistance=h);return b}function g(c,d,e,l,m){if(!1!==c.visible){if(c.layers.test(d.layers)&&(c.isMesh||c.isLine||c.isPoints)&&(c.castShadow||c.receiveShadow&&3===m)&&(!c.frustumCulled||h.intersectsObject(c))){c.modelViewMatrix.multiplyMatrices(e.matrixWorldInverse,c.matrixWorld);var p=b.update(c),k=c.material;if(Array.isArray(k))for(var u=p.groups,x=0,q=u.length;x<q;x++){var r=u[x],v=k[r.materialIndex];v&&v.visible&&(v=f(c,v,l,e.near,e.far,m),a.renderBufferDirect(e,null,p,v,c,  
r))}else k.visible&&(v=f(c,k,l,e.near,e.far,m),a.renderBufferDirect(e,null,p,v,c,null))}c=c.children;p=0;for(k=c.length;p<k;p++)g(c[p],d,e,l,m)}}var h=new Hc,l=new t,m=new t,k=new ka,p=[],x=[],r={},q={0:1,1:0,2:2},v=new Ba({defines:{SAMPLE\_RATE:.25,HALF\_SAMPLE\_RATE:.125},uniforms:{shadow\_pass:{value:null},resolution:{value:new t},radius:{value:4}},vertexShader:"void main() {\n\tgl\_Position = vec4( position, 1.0 );\n}",fragmentShader:"uniform sampler2D shadow\_pass;\nuniform vec2 resolution;\nuniform float radius;\n#include <packing>\nvoid main() {\n float mean = 0.0;\n float squared\_mean = 0.0;\n\tfloat depth = unpackRGBAToDepth( texture2D( shadow\_pass, ( gl\_FragCoord.xy ) / resolution ) );\n for ( float i = -1.0; i < 1.0 ; i += SAMPLE\_RATE) {\n #ifdef HORIZONAL\_PASS\n vec2 distribution = unpackRGBATo2Half( texture2D( shadow\_pass, ( gl\_FragCoord.xy + vec2( i, 0.0 ) \* radius ) / resolution ) );\n mean += distribution.x;\n squared\_mean += distribution.y \* distribution.y + distribution.x \* distribution.x;\n #else\n float depth = unpackRGBAToDepth( texture2D( shadow\_pass, ( gl\_FragCoord.xy + vec2( 0.0, i ) \* radius ) / resolution ) );\n mean += depth;\n squared\_mean += depth \* depth;\n #endif\n }\n mean = mean \* HALF\_SAMPLE\_RATE;\n squared\_mean = squared\_mean \* HALF\_SAMPLE\_RATE;\n float std\_dev = sqrt( squared\_mean - mean \* mean );\n gl\_FragColor = pack2HalfToRGBA( vec2( mean, std\_dev ) );\n}"}),  
n=v.clone();n.defines.HORIZONAL\_PASS=1;var w=new C;w.setAttribute("position",new M(new Float32Array([-1,-1,.5,3,-1,.5,-1,3,.5]),3));var z=new S(w,v),ha=this;this.enabled=!1;this.autoUpdate=!0;this.needsUpdate=!1;this.type=1;this.render=function(d,e,f){if(!1!==ha.enabled&&(!1!==ha.autoUpdate||!1!==ha.needsUpdate)&&0!==d.length){var p=a.getRenderTarget(),u=a.getActiveCubeFace(),x=a.getActiveMipmapLevel(),q=a.state;q.setBlending(0);q.buffers.color.setClear(1,1,1,1);q.buffers.depth.setTest(!0);q.setScissorTest(!1);  
for(var r=0,E=d.length;r<E;r++){var w=d[r],B=w.shadow;if(void 0===B)console.warn("THREE.WebGLShadowMap:",w,"has no shadow.");else{l.copy(B.mapSize);var t=B.getFrameExtents();l.multiply(t);m.copy(B.mapSize);if(l.x>c||l.y>c)console.warn("THREE.WebGLShadowMap:",w,"has shadow exceeding max texture size, reducing"),l.x>c&&(m.x=Math.floor(c/t.x),l.x=m.x\*t.x,B.mapSize.x=m.x),l.y>c&&(m.y=Math.floor(c/t.y),l.y=m.y\*t.y,B.mapSize.y=m.y);null!==B.map||B.isPointLightShadow||3!==this.type||(t={minFilter:1006,magFilter:1006,  
format:1023},B.map=new Ha(l.x,l.y,t),B.map.texture.name=w.name+".shadowMap",B.mapPass=new Ha(l.x,l.y,t),B.camera.updateProjectionMatrix());null===B.map&&(t={minFilter:1003,magFilter:1003,format:1023},B.map=new Ha(l.x,l.y,t),B.map.texture.name=w.name+".shadowMap",B.camera.updateProjectionMatrix());a.setRenderTarget(B.map);a.clear();t=B.getViewportCount();for(var ca=0;ca<t;ca++){var U=B.getViewport(ca);k.set(m.x\*U.x,m.y\*U.y,m.x\*U.z,m.y\*U.w);q.viewport(k);B.updateMatrices(w,ca);h=B.getFrustum();g(e,  
f,B.camera,w,this.type)}B.isPointLightShadow||3!==this.type||(w=B,B=f,t=b.update(z),v.uniforms.shadow\_pass.value=w.map.texture,v.uniforms.resolution.value=w.mapSize,v.uniforms.radius.value=w.radius,a.setRenderTarget(w.mapPass),a.clear(),a.renderBufferDirect(B,null,t,v,z,null),n.uniforms.shadow\_pass.value=w.mapPass.texture,n.uniforms.resolution.value=w.mapSize,n.uniforms.radius.value=w.radius,a.setRenderTarget(w.map),a.clear(),a.renderBufferDirect(B,null,t,n,z,null))}}ha.needsUpdate=!1;a.setRenderTarget(p,  
u,x)}}}function Ik(a,b,c){function d(b,c,d){var e=new Uint8Array(4),f=a.createTexture();a.bindTexture(b,f);a.texParameteri(b,10241,9728);a.texParameteri(b,10240,9728);for(b=0;b<d;b++)a.texImage2D(c+b,0,6408,1,1,0,6408,5121,e);return f}function e(c,d){n[c]=1;0===w[c]&&(a.enableVertexAttribArray(c),w[c]=1);z[c]!==d&&((x?a:b.get("ANGLE\_instanced\_arrays"))[x?"vertexAttribDivisor":"vertexAttribDivisorANGLE"](c,d),z[c]=d)}function f(b){!0!==t[b]&&(a.enable(b),t[b]=!0)}function g(b){!1!==t[b]&&(a.disable(b),  
t[b]=!1)}function h(b,c,d,e,h,l,m,p){if(0===b)ca&&(g(3042),ca=!1);else if(ca||(f(3042),ca=!0),5!==b){if(b!==B||p!==F){if(100!==y||100!==Ja)a.blendEquation(32774),Ja=y=100;if(p)switch(b){case 1:a.blendFuncSeparate(1,771,1,771);break;case 2:a.blendFunc(1,1);break;case 3:a.blendFuncSeparate(0,0,769,771);break;case 4:a.blendFuncSeparate(0,768,0,770);break;default:console.error("THREE.WebGLState: Invalid blending: ",b)}else switch(b){case 1:a.blendFuncSeparate(770,771,1,771);break;case 2:a.blendFunc(770,  
1);break;case 3:a.blendFunc(0,769);break;case 4:a.blendFunc(0,768);break;default:console.error("THREE.WebGLState: Invalid blending: ",b)}D=H=Ca=ia=null;B=b;F=p}}else{h=h||c;l=l||d;m=m||e;if(c!==y||h!==Ja)a.blendEquationSeparate(Lc[c],Lc[h]),y=c,Ja=h;if(d!==ia||e!==Ca||l!==H||m!==D)a.blendFuncSeparate(J[d],J[e],J[l],J[m]),ia=d,Ca=e,H=l,D=m;B=b;F=null}}function l(b){A!==b&&(b?a.frontFace(2304):a.frontFace(2305),A=b)}function m(b){0!==b?(f(2884),b!==C&&(1===b?a.cullFace(1029):2===b?a.cullFace(1028):  
a.cullFace(1032))):g(2884);C=b}function k(b,c,d){if(b){if(f(32823),K!==c||M!==d)a.polygonOffset(c,d),K=c,M=d}else g(32823)}function p(b){void 0===b&&(b=33984+fa-1);L!==b&&(a.activeTexture(b),L=b)}var x=c.isWebGL2,r=new function(){var b=!1,c=new ka,d=null,e=new ka(0,0,0,0);return{setMask:function(c){d===c||b||(a.colorMask(c,c,c,c),d=c)},setLocked:function(a){b=a},setClear:function(b,d,f,g,h){!0===h&&(b\*=g,d\*=g,f\*=g);c.set(b,d,f,g);!1===e.equals(c)&&(a.clearColor(b,d,f,g),e.copy(c))},reset:function(){b=  
!1;d=null;e.set(-1,0,0,0)}}},q=new function(){var b=!1,c=null,d=null,e=null;return{setTest:function(a){a?f(2929):g(2929)},setMask:function(d){c===d||b||(a.depthMask(d),c=d)},setFunc:function(b){if(d!==b){if(b)switch(b){case 0:a.depthFunc(512);break;case 1:a.depthFunc(519);break;case 2:a.depthFunc(513);break;case 3:a.depthFunc(515);break;case 4:a.depthFunc(514);break;case 5:a.depthFunc(518);break;case 6:a.depthFunc(516);break;case 7:a.depthFunc(517);break;default:a.depthFunc(515)}else a.depthFunc(515);  
d=b}},setLocked:function(a){b=a},setClear:function(b){e!==b&&(a.clearDepth(b),e=b)},reset:function(){b=!1;e=d=c=null}}},v=new function(){var b=!1,c=null,d=null,e=null,h=null,l=null,m=null,p=null,k=null;return{setTest:function(a){b||(a?f(2960):g(2960))},setMask:function(d){c===d||b||(a.stencilMask(d),c=d)},setFunc:function(b,c,f){if(d!==b||e!==c||h!==f)a.stencilFunc(b,c,f),d=b,e=c,h=f},setOp:function(b,c,d){if(l!==b||m!==c||p!==d)a.stencilOp(b,c,d),l=b,m=c,p=d},setLocked:function(a){b=a},setClear:function(b){k!==  
b&&(a.clearStencil(b),k=b)},reset:function(){b=!1;k=p=m=l=h=e=d=c=null}}};c=a.getParameter(34921);var n=new Uint8Array(c),w=new Uint8Array(c),z=new Uint8Array(c),t={},U=null,ca=null,B=null,y=null,ia=null,Ca=null,Ja=null,H=null,D=null,F=!1,A=null,C=null,G=null,K=null,M=null,fa=a.getParameter(35661),N=!1;c=0;c=a.getParameter(7938);-1!==c.indexOf("WebGL")?(c=parseFloat(/^WebGL ([0-9])/.exec(c)[1]),N=1<=c):-1!==c.indexOf("OpenGL ES")&&(c=parseFloat(/^OpenGL ES ([0-9])/.exec(c)[1]),N=2<=c);var L=null,  
Nd={},Z=new ka,Yh=new ka,ng={};ng[3553]=d(3553,3553,1);ng[34067]=d(34067,34069,6);r.setClear(0,0,0,1);q.setClear(1);v.setClear(0);f(2929);q.setFunc(3);l(!1);m(1);f(2884);h(0);var Lc={100:32774,101:32778,102:32779};x?(Lc[103]=32775,Lc[104]=32776):(c=b.get("EXT\_blend\_minmax"),null!==c&&(Lc[103]=c.MIN\_EXT,Lc[104]=c.MAX\_EXT));var J={200:0,201:1,202:768,204:770,210:776,208:774,206:772,203:769,205:771,209:775,207:773};return{buffers:{color:r,depth:q,stencil:v},initAttributes:function(){for(var a=0,b=n.length;a<  
b;a++)n[a]=0},enableAttribute:function(a){e(a,0)},enableAttributeAndDivisor:e,disableUnusedAttributes:function(){for(var b=0,c=w.length;b!==c;++b)w[b]!==n[b]&&(a.disableVertexAttribArray(b),w[b]=0)},enable:f,disable:g,useProgram:function(b){return U!==b?(a.useProgram(b),U=b,!0):!1},setBlending:h,setMaterial:function(a,b){2===a.side?g(2884):f(2884);var c=1===a.side;b&&(c=!c);l(c);1===a.blending&&!1===a.transparent?h(0):h(a.blending,a.blendEquation,a.blendSrc,a.blendDst,a.blendEquationAlpha,a.blendSrcAlpha,  
a.blendDstAlpha,a.premultipliedAlpha);q.setFunc(a.depthFunc);q.setTest(a.depthTest);q.setMask(a.depthWrite);r.setMask(a.colorWrite);b=a.stencilWrite;v.setTest(b);b&&(v.setMask(a.stencilWriteMask),v.setFunc(a.stencilFunc,a.stencilRef,a.stencilFuncMask),v.setOp(a.stencilFail,a.stencilZFail,a.stencilZPass));k(a.polygonOffset,a.polygonOffsetFactor,a.polygonOffsetUnits)},setFlipSided:l,setCullFace:m,setLineWidth:function(b){b!==G&&(N&&a.lineWidth(b),G=b)},setPolygonOffset:k,setScissorTest:function(a){a?  
f(3089):g(3089)},activeTexture:p,bindTexture:function(b,c){null===L&&p();var d=Nd[L];void 0===d&&(d={type:void 0,texture:void 0},Nd[L]=d);if(d.type!==b||d.texture!==c)a.bindTexture(b,c||ng[b]),d.type=b,d.texture=c},unbindTexture:function(){var b=Nd[L];void 0!==b&&void 0!==b.type&&(a.bindTexture(b.type,null),b.type=void 0,b.texture=void 0)},compressedTexImage2D:function(){try{a.compressedTexImage2D.apply(a,arguments)}catch(Q){console.error("THREE.WebGLState:",Q)}},texImage2D:function(){try{a.texImage2D.apply(a,  
arguments)}catch(Q){console.error("THREE.WebGLState:",Q)}},texImage3D:function(){try{a.texImage3D.apply(a,arguments)}catch(Q){console.error("THREE.WebGLState:",Q)}},scissor:function(b){!1===Z.equals(b)&&(a.scissor(b.x,b.y,b.z,b.w),Z.copy(b))},viewport:function(b){!1===Yh.equals(b)&&(a.viewport(b.x,b.y,b.z,b.w),Yh.copy(b))},reset:function(){for(var b=0;b<w.length;b++)1===w[b]&&(a.disableVertexAttribArray(b),w[b]=0);t={};L=null;Nd={};C=A=B=U=null;r.reset();q.reset();v.reset()}}}function Jk(a,b,c,d,  
e,f,g){function h(a,b){return K?new OffscreenCanvas(a,b):document.createElementNS("http://www.w3.org/1999/xhtml","canvas")}function l(a,b,c,d){var e=1;if(a.width>d||a.height>d)e=d/Math.max(a.width,a.height);if(1>e||!0===b){if("undefined"!==typeof HTMLImageElement&&a instanceof HTMLImageElement||"undefined"!==typeof HTMLCanvasElement&&a instanceof HTMLCanvasElement||"undefined"!==typeof ImageBitmap&&a instanceof ImageBitmap)return d=b?L.floorPowerOfTwo:Math.floor,b=d(e\*a.width),e=d(e\*a.height),void 0===  
G&&(G=h(b,e)),c=c?h(b,e):G,c.width=b,c.height=e,c.getContext("2d").drawImage(a,0,0,b,e),console.warn("THREE.WebGLRenderer: Texture has been resized from ("+a.width+"x"+a.height+") to ("+b+"x"+e+")."),c;"data"in a&&console.warn("THREE.WebGLRenderer: Image in DataTexture is too big ("+a.width+"x"+a.height+").")}return a}function m(a){return L.isPowerOfTwo(a.width)&&L.isPowerOfTwo(a.height)}function k(a,b){return a.generateMipmaps&&b&&1003!==a.minFilter&&1006!==a.minFilter}function p(b,c,e,f){a.generateMipmap(b);  
d.get(c).\_\_maxMipLevel=Math.log(Math.max(e,f))\*Math.LOG2E}function x(c,d,e){if(!1===Ca)return d;if(null!==c){if(void 0!==a[c])return a[c];console.warn("THREE.WebGLRenderer: Attempt to use non-existing WebGL internal format '"+c+"'")}c=d;6403===d&&(5126===e&&(c=33326),5131===e&&(c=33325),5121===e&&(c=33321));6407===d&&(5126===e&&(c=34837),5131===e&&(c=34843),5121===e&&(c=32849));6408===d&&(5126===e&&(c=34836),5131===e&&(c=34842),5121===e&&(c=32856));33325!==c&&33326!==c&&34842!==c&&34836!==c||b.get("EXT\_color\_buffer\_float");  
return c}function r(a){return 1003===a||1004===a||1005===a?9728:9729}function q(b){b=b.target;b.removeEventListener("dispose",q);var c=d.get(b);void 0!==c.\_\_webglInit&&(a.deleteTexture(c.\_\_webglTexture),d.remove(b));b.isVideoTexture&&C.delete(b);g.memory.textures--}function v(b){b=b.target;b.removeEventListener("dispose",v);var c=d.get(b),e=d.get(b.texture);if(b){void 0!==e.\_\_webglTexture&&a.deleteTexture(e.\_\_webglTexture);b.depthTexture&&b.depthTexture.dispose();if(b.isWebGLCubeRenderTarget)for(e=  
0;6>e;e++)a.deleteFramebuffer(c.\_\_webglFramebuffer[e]),c.\_\_webglDepthbuffer&&a.deleteRenderbuffer(c.\_\_webglDepthbuffer[e]);else a.deleteFramebuffer(c.\_\_webglFramebuffer),c.\_\_webglDepthbuffer&&a.deleteRenderbuffer(c.\_\_webglDepthbuffer),c.\_\_webglMultisampledFramebuffer&&a.deleteFramebuffer(c.\_\_webglMultisampledFramebuffer),c.\_\_webglColorRenderbuffer&&a.deleteRenderbuffer(c.\_\_webglColorRenderbuffer),c.\_\_webglDepthRenderbuffer&&a.deleteRenderbuffer(c.\_\_webglDepthRenderbuffer);d.remove(b.texture);d.remove(b)}g.memory.textures--}  
function n(a,b){var e=d.get(a);if(a.isVideoTexture){var f=g.render.frame;C.get(a)!==f&&(C.set(a,f),a.update())}if(0<a.version&&e.\_\_version!==a.version)if(f=a.image,void 0===f)console.warn("THREE.WebGLRenderer: Texture marked for update but image is undefined");else if(!1===f.complete)console.warn("THREE.WebGLRenderer: Texture marked for update but image is incomplete");else{ca(e,a,b);return}c.activeTexture(33984+b);c.bindTexture(3553,e.\_\_webglTexture)}function w(b,e){if(6===b.image.length){var g=  
d.get(b);if(0<b.version&&g.\_\_version!==b.version){U(g,b);c.activeTexture(33984+e);c.bindTexture(34067,g.\_\_webglTexture);a.pixelStorei(37440,b.flipY);var h=b&&(b.isCompressedTexture||b.image[0].isCompressedTexture);e=b.image[0]&&b.image[0].isDataTexture;for(var u=[],q=0;6>q;q++)u[q]=h||e?e?b.image[q].image:b.image[q]:l(b.image[q],!1,!0,H);var r=u[0],v=m(r)||Ca,n=f.convert(b.format),w=f.convert(b.type),E=x(b.internalFormat,n,w);t(34067,b,v);if(h){for(q=0;6>q;q++){var Z=u[q].mipmaps;for(h=0;h<Z.length;h++){var z=  
Z[h];1023!==b.format&&1022!==b.format?null!==n?c.compressedTexImage2D(34069+q,h,E,z.width,z.height,0,z.data):console.warn("THREE.WebGLRenderer: Attempt to load unsupported compressed texture format in .setTextureCube()"):c.texImage2D(34069+q,h,E,z.width,z.height,0,n,w,z.data)}}g.\_\_maxMipLevel=Z.length-1}else{Z=b.mipmaps;for(q=0;6>q;q++)if(e)for(c.texImage2D(34069+q,0,E,u[q].width,u[q].height,0,n,w,u[q].data),h=0;h<Z.length;h++)z=Z[h],z=z.image[q].image,c.texImage2D(34069+q,h+1,E,z.width,z.height,  
0,n,w,z.data);else for(c.texImage2D(34069+q,0,E,n,w,u[q]),h=0;h<Z.length;h++)z=Z[h],c.texImage2D(34069+q,h+1,E,n,w,z.image[q]);g.\_\_maxMipLevel=Z.length}k(b,v)&&p(34067,b,r.width,r.height);g.\_\_version=b.version;if(b.onUpdate)b.onUpdate(b)}else c.activeTexture(33984+e),c.bindTexture(34067,g.\_\_webglTexture)}}function z(a,b){c.activeTexture(33984+b);c.bindTexture(34067,d.get(a).\_\_webglTexture)}function t(c,f,g){g?(a.texParameteri(c,10242,N[f.wrapS]),a.texParameteri(c,10243,N[f.wrapT]),32879!==c&&35866!==  
c||a.texParameteri(c,32882,N[f.wrapR]),a.texParameteri(c,10240,fa[f.magFilter]),a.texParameteri(c,10241,fa[f.minFilter])):(a.texParameteri(c,10242,33071),a.texParameteri(c,10243,33071),32879!==c&&35866!==c||a.texParameteri(c,32882,33071),1001===f.wrapS&&1001===f.wrapT||console.warn("THREE.WebGLRenderer: Texture is not power of two. Texture.wrapS and Texture.wrapT should be set to THREE.ClampToEdgeWrapping."),a.texParameteri(c,10240,r(f.magFilter)),a.texParameteri(c,10241,r(f.minFilter)),1003!==f.minFilter&&  
1006!==f.minFilter&&console.warn("THREE.WebGLRenderer: Texture is not power of two. Texture.minFilter should be set to THREE.NearestFilter or THREE.LinearFilter."));!(g=b.get("EXT\_texture\_filter\_anisotropic"))||1015===f.type&&null===b.get("OES\_texture\_float\_linear")||1016===f.type&&null===(Ca||b.get("OES\_texture\_half\_float\_linear"))||!(1<f.anisotropy||d.get(f).\_\_currentAnisotropy)||(a.texParameterf(c,g.TEXTURE\_MAX\_ANISOTROPY\_EXT,Math.min(f.anisotropy,e.getMaxAnisotropy())),d.get(f).\_\_currentAnisotropy=  
f.anisotropy)}function U(b,c){void 0===b.\_\_webglInit&&(b.\_\_webglInit=!0,c.addEventListener("dispose",q),b.\_\_webglTexture=a.createTexture(),g.memory.textures++)}function ca(b,d,e){var g=3553;d.isDataTexture2DArray&&(g=35866);d.isDataTexture3D&&(g=32879);U(b,d);c.activeTexture(33984+e);c.bindTexture(g,b.\_\_webglTexture);a.pixelStorei(37440,d.flipY);a.pixelStorei(37441,d.premultiplyAlpha);a.pixelStorei(3317,d.unpackAlignment);e=Ca?!1:1001!==d.wrapS||1001!==d.wrapT||1003!==d.minFilter&&1006!==d.minFilter;  
e=e&&!1===m(d.image);e=l(d.image,e,!1,F);var h=m(e)||Ca,u=f.convert(d.format),q=f.convert(d.type),r=x(d.internalFormat,u,q);t(g,d,h);var v=d.mipmaps;if(d.isDepthTexture)r=6402,Ca?r=1015===d.type?36012:1014===d.type?33190:1020===d.type?35056:33189:1015===d.type&&console.error("WebGLRenderer: Floating point depth texture requires WebGL2."),1026===d.format&&6402===r&&1012!==d.type&&1014!==d.type&&(console.warn("THREE.WebGLRenderer: Use UnsignedShortType or UnsignedIntType for DepthFormat DepthTexture."),  
d.type=1012,q=f.convert(d.type)),1027===d.format&&6402===r&&(r=34041,1020!==d.type&&(console.warn("THREE.WebGLRenderer: Use UnsignedInt248Type for DepthStencilFormat DepthTexture."),d.type=1020,q=f.convert(d.type))),c.texImage2D(3553,0,r,e.width,e.height,0,u,q,null);else if(d.isDataTexture)if(0<v.length&&h){for(var n=0,w=v.length;n<w;n++){var E=v[n];c.texImage2D(3553,n,r,E.width,E.height,0,u,q,E.data)}d.generateMipmaps=!1;b.\_\_maxMipLevel=v.length-1}else c.texImage2D(3553,0,r,e.width,e.height,0,u,  
q,e.data),b.\_\_maxMipLevel=0;else if(d.isCompressedTexture){n=0;for(w=v.length;n<w;n++)E=v[n],1023!==d.format&&1022!==d.format?null!==u?c.compressedTexImage2D(3553,n,r,E.width,E.height,0,E.data):console.warn("THREE.WebGLRenderer: Attempt to load unsupported compressed texture format in .uploadTexture()"):c.texImage2D(3553,n,r,E.width,E.height,0,u,q,E.data);b.\_\_maxMipLevel=v.length-1}else if(d.isDataTexture2DArray)c.texImage3D(35866,0,r,e.width,e.height,e.depth,0,u,q,e.data),b.\_\_maxMipLevel=0;else if(d.isDataTexture3D)c.texImage3D(32879,  
0,r,e.width,e.height,e.depth,0,u,q,e.data),b.\_\_maxMipLevel=0;else if(0<v.length&&h){n=0;for(w=v.length;n<w;n++)E=v[n],c.texImage2D(3553,n,r,u,q,E);d.generateMipmaps=!1;b.\_\_maxMipLevel=v.length-1}else c.texImage2D(3553,0,r,u,q,e),b.\_\_maxMipLevel=0;k(d,h)&&p(g,d,e.width,e.height);b.\_\_version=d.version;if(d.onUpdate)d.onUpdate(d)}function B(b,e,g,h){var l=f.convert(e.texture.format),m=f.convert(e.texture.type),p=x(e.texture.internalFormat,l,m);c.texImage2D(h,0,p,e.width,e.height,0,l,m,null);a.bindFramebuffer(36160,  
b);a.framebufferTexture2D(36160,g,h,d.get(e.texture).\_\_webglTexture,0);a.bindFramebuffer(36160,null)}function y(b,c,d){a.bindRenderbuffer(36161,b);if(c.depthBuffer&&!c.stencilBuffer){var e=33189;d?((d=c.depthTexture)&&d.isDepthTexture&&(1015===d.type?e=36012:1014===d.type&&(e=33190)),d=ia(c),a.renderbufferStorageMultisample(36161,d,e,c.width,c.height)):a.renderbufferStorage(36161,e,c.width,c.height);a.framebufferRenderbuffer(36160,36096,36161,b)}else c.depthBuffer&&c.stencilBuffer?(d?(d=ia(c),a.renderbufferStorageMultisample(36161,  
d,35056,c.width,c.height)):a.renderbufferStorage(36161,34041,c.width,c.height),a.framebufferRenderbuffer(36160,33306,36161,b)):(b=f.convert(c.texture.format),e=f.convert(c.texture.type),e=x(c.texture.internalFormat,b,e),d?(d=ia(c),a.renderbufferStorageMultisample(36161,d,e,c.width,c.height)):a.renderbufferStorage(36161,e,c.width,c.height));a.bindRenderbuffer(36161,null)}function ia(a){return Ca&&a.isWebGLMultisampleRenderTarget?Math.min(A,a.samples):0}var Ca=e.isWebGL2,D=e.maxTextures,H=e.maxCubemapSize,  
F=e.maxTextureSize,A=e.maxSamples,C=new WeakMap,G,K=!1;try{K="undefined"!==typeof OffscreenCanvas&&null!==(new OffscreenCanvas(1,1)).getContext("2d")}catch(Nd){}var M=0,N={1E3:10497,1001:33071,1002:33648},fa={1003:9728,1004:9984,1005:9986,1006:9729,1007:9985,1008:9987},P=!1,O=!1;this.allocateTextureUnit=function(){var a=M;a>=D&&console.warn("THREE.WebGLTextures: Trying to use "+a+" texture units while this GPU supports only "+D);M+=1;return a};this.resetTextureUnits=function(){M=0};this.setTexture2D=  
n;this.setTexture2DArray=function(a,b){var e=d.get(a);0<a.version&&e.\_\_version!==a.version?ca(e,a,b):(c.activeTexture(33984+b),c.bindTexture(35866,e.\_\_webglTexture))};this.setTexture3D=function(a,b){var e=d.get(a);0<a.version&&e.\_\_version!==a.version?ca(e,a,b):(c.activeTexture(33984+b),c.bindTexture(32879,e.\_\_webglTexture))};this.setTextureCube=w;this.setTextureCubeDynamic=z;this.setupRenderTarget=function(b){var e=d.get(b),h=d.get(b.texture);b.addEventListener("dispose",v);h.\_\_webglTexture=a.createTexture();  
g.memory.textures++;var l=!0===b.isWebGLCubeRenderTarget,u=!0===b.isWebGLMultisampleRenderTarget,q=m(b)||Ca;!Ca||1022!==b.texture.format||1015!==b.texture.type&&1016!==b.texture.type||(b.texture.format=1023,console.warn("THREE.WebGLRenderer: Rendering to textures with RGB format is not supported. Using RGBA format instead."));if(l)for(e.\_\_webglFramebuffer=[],u=0;6>u;u++)e.\_\_webglFramebuffer[u]=a.createFramebuffer();else if(e.\_\_webglFramebuffer=a.createFramebuffer(),u)if(Ca){e.\_\_webglMultisampledFramebuffer=  
a.createFramebuffer();e.\_\_webglColorRenderbuffer=a.createRenderbuffer();a.bindRenderbuffer(36161,e.\_\_webglColorRenderbuffer);u=f.convert(b.texture.format);var r=f.convert(b.texture.type);u=x(b.texture.internalFormat,u,r);r=ia(b);a.renderbufferStorageMultisample(36161,r,u,b.width,b.height);a.bindFramebuffer(36160,e.\_\_webglMultisampledFramebuffer);a.framebufferRenderbuffer(36160,36064,36161,e.\_\_webglColorRenderbuffer);a.bindRenderbuffer(36161,null);b.depthBuffer&&(e.\_\_webglDepthRenderbuffer=a.createRenderbuffer(),  
y(e.\_\_webglDepthRenderbuffer,b,!0));a.bindFramebuffer(36160,null)}else console.warn("THREE.WebGLRenderer: WebGLMultisampleRenderTarget can only be used with WebGL2.");if(l){c.bindTexture(34067,h.\_\_webglTexture);t(34067,b.texture,q);for(u=0;6>u;u++)B(e.\_\_webglFramebuffer[u],b,36064,34069+u);k(b.texture,q)&&p(34067,b.texture,b.width,b.height);c.bindTexture(34067,null)}else c.bindTexture(3553,h.\_\_webglTexture),t(3553,b.texture,q),B(e.\_\_webglFramebuffer,b,36064,3553),k(b.texture,q)&&p(3553,b.texture,  
b.width,b.height),c.bindTexture(3553,null);if(b.depthBuffer){e=d.get(b);h=!0===b.isWebGLCubeRenderTarget;if(b.depthTexture){if(h)throw Error("target.depthTexture not supported in Cube render targets");if(b&&b.isWebGLCubeRenderTarget)throw Error("Depth Texture with cube render targets is not supported");a.bindFramebuffer(36160,e.\_\_webglFramebuffer);if(!b.depthTexture||!b.depthTexture.isDepthTexture)throw Error("renderTarget.depthTexture must be an instance of THREE.DepthTexture");d.get(b.depthTexture).\_\_webglTexture&&  
b.depthTexture.image.width===b.width&&b.depthTexture.image.height===b.height||(b.depthTexture.image.width=b.width,b.depthTexture.image.height=b.height,b.depthTexture.needsUpdate=!0);n(b.depthTexture,0);e=d.get(b.depthTexture).\_\_webglTexture;if(1026===b.depthTexture.format)a.framebufferTexture2D(36160,36096,3553,e,0);else if(1027===b.depthTexture.format)a.framebufferTexture2D(36160,33306,3553,e,0);else throw Error("Unknown depthTexture format");}else if(h)for(e.\_\_webglDepthbuffer=[],h=0;6>h;h++)a.bindFramebuffer(36160,  
e.\_\_webglFramebuffer[h]),e.\_\_webglDepthbuffer[h]=a.createRenderbuffer(),y(e.\_\_webglDepthbuffer[h],b,!1);else a.bindFramebuffer(36160,e.\_\_webglFramebuffer),e.\_\_webglDepthbuffer=a.createRenderbuffer(),y(e.\_\_webglDepthbuffer,b,!1);a.bindFramebuffer(36160,null)}};this.updateRenderTargetMipmap=function(a){var b=a.texture,e=m(a)||Ca;if(k(b,e)){e=a.isWebGLCubeRenderTarget?34067:3553;var f=d.get(b).\_\_webglTexture;c.bindTexture(e,f);p(e,b,a.width,a.height);c.bindTexture(e,null)}};this.updateMultisampleRenderTarget=  
function(b){if(b.isWebGLMultisampleRenderTarget)if(Ca){var c=d.get(b);a.bindFramebuffer(36008,c.\_\_webglMultisampledFramebuffer);a.bindFramebuffer(36009,c.\_\_webglFramebuffer);var e=b.width,f=b.height,g=16384;b.depthBuffer&&(g|=256);b.stencilBuffer&&(g|=1024);a.blitFramebuffer(0,0,e,f,0,0,e,f,g,9728);a.bindFramebuffer(36160,c.\_\_webglMultisampledFramebuffer)}else console.warn("THREE.WebGLRenderer: WebGLMultisampleRenderTarget can only be used with WebGL2.")};this.safeSetTexture2D=function(a,b){a&&a.isWebGLRenderTarget&&  
(!1===P&&(console.warn("THREE.WebGLTextures.safeSetTexture2D: don't use render targets as textures. Use their .texture property instead."),P=!0),a=a.texture);n(a,b)};this.safeSetTextureCube=function(a,b){a&&a.isWebGLCubeRenderTarget&&(!1===O&&(console.warn("THREE.WebGLTextures.safeSetTextureCube: don't use cube render targets as textures. Use their .texture property instead."),O=!0),a=a.texture);a&&a.isCubeTexture||Array.isArray(a.image)&&6===a.image.length?w(a,b):z(a,b)}}function Zh(a,b,c){var d=  
c.isWebGL2;return{convert:function(a){if(1009===a)return 5121;if(1017===a)return 32819;if(1018===a)return 32820;if(1019===a)return 33635;if(1010===a)return 5120;if(1011===a)return 5122;if(1012===a)return 5123;if(1013===a)return 5124;if(1014===a)return 5125;if(1015===a)return 5126;if(1016===a){if(d)return 5131;var c=b.get("OES\_texture\_half\_float");return null!==c?c.HALF\_FLOAT\_OES:null}if(1021===a)return 6406;if(1022===a)return 6407;if(1023===a)return 6408;if(1024===a)return 6409;if(1025===a)return 6410;  
if(1026===a)return 6402;if(1027===a)return 34041;if(1028===a)return 6403;if(1029===a)return 36244;if(1030===a)return 33319;if(1031===a)return 33320;if(1032===a)return 36248;if(1033===a)return 36249;if(33776===a||33777===a||33778===a||33779===a)if(c=b.get("WEBGL\_compressed\_texture\_s3tc"),null!==c){if(33776===a)return c.COMPRESSED\_RGB\_S3TC\_DXT1\_EXT;if(33777===a)return c.COMPRESSED\_RGBA\_S3TC\_DXT1\_EXT;if(33778===a)return c.COMPRESSED\_RGBA\_S3TC\_DXT3\_EXT;if(33779===a)return c.COMPRESSED\_RGBA\_S3TC\_DXT5\_EXT}else return null;  
if(35840===a||35841===a||35842===a||35843===a)if(c=b.get("WEBGL\_compressed\_texture\_pvrtc"),null!==c){if(35840===a)return c.COMPRESSED\_RGB\_PVRTC\_4BPPV1\_IMG;if(35841===a)return c.COMPRESSED\_RGB\_PVRTC\_2BPPV1\_IMG;if(35842===a)return c.COMPRESSED\_RGBA\_PVRTC\_4BPPV1\_IMG;if(35843===a)return c.COMPRESSED\_RGBA\_PVRTC\_2BPPV1\_IMG}else return null;if(36196===a)return c=b.get("WEBGL\_compressed\_texture\_etc1"),null!==c?c.COMPRESSED\_RGB\_ETC1\_WEBGL:null;if(37492===a||37496===a)if(c=b.get("WEBGL\_compressed\_texture\_etc"),  
null!==c){if(37492===a)return c.COMPRESSED\_RGB8\_ETC2;if(37496===a)return c.COMPRESSED\_RGBA8\_ETC2\_EAC}if(37808===a||37809===a||37810===a||37811===a||37812===a||37813===a||37814===a||37815===a||37816===a||37817===a||37818===a||37819===a||37820===a||37821===a||37840===a||37841===a||37842===a||37843===a||37844===a||37845===a||37846===a||37847===a||37848===a||37849===a||37850===a||37851===a||37852===a||37853===a)return c=b.get("WEBGL\_compressed\_texture\_astc"),null!==c?a:null;if(36492===a)return c=b.get("EXT\_texture\_compression\_bptc"),  
null!==c?a:null;if(1020===a){if(d)return 34042;c=b.get("WEBGL\_depth\_texture");return null!==c?c.UNSIGNED\_INT\_24\_8\_WEBGL:null}}}}function Pe(a){aa.call(this);this.cameras=a||[]}function Mc(){F.call(this);this.type="Group"}function $h(a,b){function c(a){var b=q.get(a.inputSource);b&&(b.targetRay&&b.targetRay.dispatchEvent({type:a.type}),b.grip&&b.grip.dispatchEvent({type:a.type}))}function d(){q.forEach(function(a,b){a.targetRay&&(a.targetRay.dispatchEvent({type:"disconnected",data:b}),a.targetRay.visible=  
!1);a.grip&&(a.grip.dispatchEvent({type:"disconnected",data:b}),a.grip.visible=!1)});q.clear();a.setFramebuffer(null);a.setRenderTarget(a.getRenderTarget());y.stop();h.isPresenting=!1;h.dispatchEvent({type:"sessionend"})}function e(a){k=a;y.setContext(l);y.start();h.isPresenting=!0;h.dispatchEvent({type:"sessionstart"})}function f(a){for(var b=l.inputSources,c=0;c<r.length;c++)q.set(b[c],r[c]);for(c=0;c<a.removed.length;c++){b=a.removed[c];var d=q.get(b);d&&(d.targetRay&&d.targetRay.dispatchEvent({type:"disconnected",  
data:b}),d.grip&&d.grip.dispatchEvent({type:"disconnected",data:b}),q.delete(b))}for(c=0;c<a.added.length;c++)if(b=a.added[c],d=q.get(b))d.targetRay&&d.targetRay.dispatchEvent({type:"connected",data:b}),d.grip&&d.grip.dispatchEvent({type:"connected",data:b})}function g(a,b){null===b?a.matrixWorld.copy(a.matrix):a.matrixWorld.multiplyMatrices(b.matrixWorld,a.matrix);a.matrixWorldInverse.getInverse(a.matrixWorld)}var h=this,l=null,m=1,k=null,p="local-floor",x=null,r=[],q=new Map,v=new aa;v.layers.enable(1);  
v.viewport=new ka;var E=new aa;E.layers.enable(2);E.viewport=new ka;var w=new Pe([v,E]);w.layers.enable(1);w.layers.enable(2);var z=null,t=null;this.isPresenting=this.enabled=!1;this.getController=function(a){var b=r[a];void 0===b&&(b={},r[a]=b);void 0===b.targetRay&&(b.targetRay=new Mc,b.targetRay.matrixAutoUpdate=!1,b.targetRay.visible=!1);return b.targetRay};this.getControllerGrip=function(a){var b=r[a];void 0===b&&(b={},r[a]=b);void 0===b.grip&&(b.grip=new Mc,b.grip.matrixAutoUpdate=!1,b.grip.visible=  
!1);return b.grip};this.setFramebufferScaleFactor=function(a){m=a;1==h.isPresenting&&console.warn("WebXRManager: Cannot change framebuffer scale while presenting VR content")};this.setReferenceSpaceType=function(a){p=a};this.getReferenceSpace=function(){return k};this.getSession=function(){return l};this.setSession=function(a){l=a;null!==l&&(l.addEventListener("select",c),l.addEventListener("selectstart",c),l.addEventListener("selectend",c),l.addEventListener("squeeze",c),l.addEventListener("squeezestart",  
c),l.addEventListener("squeezeend",c),l.addEventListener("end",d),a=b.getContextAttributes(),a=new XRWebGLLayer(l,b,{antialias:a.antialias,alpha:a.alpha,depth:a.depth,stencil:a.stencil,framebufferScaleFactor:m}),l.updateRenderState({baseLayer:a}),l.requestReferenceSpace(p).then(e),l.addEventListener("inputsourceschange",f))};var U=new n,ca=new n;this.getCamera=function(a){w.near=E.near=v.near=a.near;w.far=E.far=v.far=a.far;if(z!==w.near||t!==w.far)l.updateRenderState({depthNear:w.near,depthFar:w.far}),  
z=w.near,t=w.far;var b=a.parent,c=w.cameras;g(w,b);for(var d=0;d<c.length;d++)g(c[d],b);a.matrixWorld.copy(w.matrixWorld);a=a.children;d=0;for(b=a.length;d<b;d++)a[d].updateMatrixWorld(!0);U.setFromMatrixPosition(v.matrixWorld);ca.setFromMatrixPosition(E.matrixWorld);d=U.distanceTo(ca);var e=v.projectionMatrix.elements,f=E.projectionMatrix.elements,h=e[14]/(e[10]-1);a=e[14]/(e[10]+1);b=(e[9]+1)/e[5];c=(e[9]-1)/e[5];var m=(e[8]-1)/e[0],p=(f[8]+1)/f[0];f=h\*m;e=h\*p;p=d/(-m+p);m=p\*-m;v.matrixWorld.decompose(w.position,  
w.quaternion,w.scale);w.translateX(m);w.translateZ(p);w.matrixWorld.compose(w.position,w.quaternion,w.scale);w.matrixWorldInverse.getInverse(w.matrixWorld);h+=p;p=a+p;w.projectionMatrix.makePerspective(f-m,e+(d-m),b\*a/p\*h,c\*a/p\*h,h,p);return w};var B=null,y=new Ah;y.setAnimationLoop(function(b,c){x=c.getViewerPose(k);if(null!==x){var d=x.views,e=l.renderState.baseLayer;a.setFramebuffer(e.framebuffer);for(var f=0;f<d.length;f++){var g=d[f],h=e.getViewport(g),m=w.cameras[f];m.matrix.fromArray(g.transform.matrix);  
m.projectionMatrix.fromArray(g.projectionMatrix);m.viewport.set(h.x,h.y,h.width,h.height);0===f&&w.matrix.copy(m.matrix)}}d=l.inputSources;for(f=0;f<r.length;f++)e=r[f],g=d[f],m=h=null,g&&(e.targetRay&&(h=c.getPose(g.targetRaySpace,k),null!==h&&(e.targetRay.matrix.fromArray(h.transform.matrix),e.targetRay.matrix.decompose(e.targetRay.position,e.targetRay.rotation,e.targetRay.scale))),e.grip&&g.gripSpace&&(m=c.getPose(g.gripSpace,k),null!==m&&(e.grip.matrix.fromArray(m.transform.matrix),e.grip.matrix.decompose(e.grip.position,  
e.grip.rotation,e.grip.scale)))),e.targetRay&&(e.targetRay.visible=null!==h),e.grip&&(e.grip.visible=null!==m);B&&B(b,c)});this.setAnimationLoop=function(a){B=a};this.dispose=function(){}}function og(a){var b;function c(){ra=new zj(I);Fa=new xj(I,ra,a);!1===Fa.isWebGL2&&(ra.get("WEBGL\_depth\_texture"),ra.get("OES\_texture\_float"),ra.get("OES\_texture\_half\_float"),ra.get("OES\_texture\_half\_float\_linear"),ra.get("OES\_standard\_derivatives"),ra.get("OES\_element\_index\_uint"),ra.get("ANGLE\_instanced\_arrays"));  
ra.get("OES\_texture\_float\_linear");qa=new Zh(I,ra,Fa);Y=new Ik(I,ra,Fa);Y.scissor(T.copy(ja).multiplyScalar(Q).floor());Y.viewport(Z.copy(R).multiplyScalar(Q).floor());aa=new Cj(I);X=new yk;ea=new Jk(I,ra,Y,X,Fa,qa,aa);oa=new uj(I,Fa);xa=new Aj(I,oa,aa);sa=new Fj(I,xa,oa,aa);ya=new Ej(I);ta=new xk(H,ra,Fa);wa=new Bk;va=new Hk;pa=new vj(H,Y,sa,ca);Aa=new wj(I,ra,aa,Fa);Ba=new Bj(I,ra,aa,Fa);aa.programs=ta.programs;H.capabilities=Fa;H.extensions=ra;H.properties=X;H.renderLists=wa;H.state=Y;H.info=aa}  
function d(a){a.preventDefault();console.log("THREE.WebGLRenderer: Context Lost.");G=!0}function e(){console.log("THREE.WebGLRenderer: Context Restored.");G=!1;c()}function f(a){a=a.target;a.removeEventListener("dispose",f);g(a);X.remove(a)}function g(a){var b=X.get(a).program;a.program=void 0;void 0!==b&&ta.releaseProgram(b)}function h(a,b){a.render(function(a){H.renderBufferImmediate(a,b)})}function l(a,b,c,d){if(!1!==a.visible){if(a.layers.test(b.layers))if(a.isGroup)c=a.renderOrder;else if(a.isLOD)!0===  
a.autoUpdate&&a.update(b);else if(a.isLight)A.pushLight(a),a.castShadow&&A.pushShadow(a);else if(a.isSprite){if(!a.frustumCulled||lg.intersectsSprite(a)){d&&Hb.setFromMatrixPosition(a.matrixWorld).applyMatrix4(Md);var e=sa.update(a),f=a.material;f.visible&&C.push(a,e,f,c,Hb.z,null)}}else if(a.isImmediateRenderObject)d&&Hb.setFromMatrixPosition(a.matrixWorld).applyMatrix4(Md),C.push(a,null,a.material,c,Hb.z,null);else if(a.isMesh||a.isLine||a.isPoints)if(a.isSkinnedMesh&&a.skeleton.frame!==aa.render.frame&&  
(a.skeleton.update(),a.skeleton.frame=aa.render.frame),!a.frustumCulled||lg.intersectsObject(a))if(d&&Hb.setFromMatrixPosition(a.matrixWorld).applyMatrix4(Md),e=sa.update(a),f=a.material,Array.isArray(f))for(var g=e.groups,h=0,m=g.length;h<m;h++){var p=g[h],k=f[p.materialIndex];k&&k.visible&&C.push(a,e,k,c,Hb.z,p)}else f.visible&&C.push(a,e,f,c,Hb.z,null);a=a.children;h=0;for(m=a.length;h<m;h++)l(a[h],b,c,d)}}function m(a,b,c,d){for(var e=0,f=a.length;e<f;e++){var g=a[e],h=g.object,l=g.geometry,m=  
void 0===d?g.material:d;g=g.group;if(c.isArrayCamera){ba=c;for(var p=c.cameras,u=0,q=p.length;u<q;u++){var x=p[u];h.layers.test(x.layers)&&(Y.viewport(Z.copy(x.viewport)),A.setupLights(x),k(h,b,x,l,m,g))}}else ba=null,k(h,b,c,l,m,g)}}function k(a,c,d,e,f,g){a.onBeforeRender(H,c,d,e,f,g);A=va.get(c,ba||d);a.modelViewMatrix.multiplyMatrices(d.matrixWorldInverse,a.matrixWorld);a.normalMatrix.getNormalMatrix(a.modelViewMatrix);if(a.isImmediateRenderObject){var l=x(d,c,f,a);Y.setMaterial(f);fa=b=null;  
Oe=!1;h(a,l)}else H.renderBufferDirect(d,c,e,f,a,g);a.onAfterRender(H,c,d,e,f,g);A=va.get(c,ba||d)}function p(a,b,c){var d=X.get(a),e=A.state.lights,h=e.state.version;c=ta.getParameters(a,e.state,A.state.shadowsArray,b,Ua.numPlanes,Ua.numIntersection,c);var l=ta.getProgramCacheKey(c),m=d.program,p=!0;if(void 0===m)a.addEventListener("dispose",f);else if(m.cacheKey!==l)g(a);else{if(d.lightsStateVersion!==h)d.lightsStateVersion=h;else if(void 0!==c.shaderID)return;p=!1}p&&(m=ta.acquireProgram(c,l),  
d.program=m,d.uniforms=c.uniforms,d.environment=a.isMeshStandardMaterial?b.environment:null,d.outputEncoding=H.outputEncoding,a.program=m);c=m.getAttributes();if(a.morphTargets)for(l=a.numSupportedMorphTargets=0;l<H.maxMorphTargets;l++)0<=c["morphTarget"+l]&&a.numSupportedMorphTargets++;if(a.morphNormals)for(l=a.numSupportedMorphNormals=0;l<H.maxMorphNormals;l++)0<=c["morphNormal"+l]&&a.numSupportedMorphNormals++;c=d.uniforms;if(!a.isShaderMaterial&&!a.isRawShaderMaterial||!0===a.clipping)d.numClippingPlanes=  
Ua.numPlanes,d.numIntersection=Ua.numIntersection,c.clippingPlanes=Ua.uniform;d.fog=b.fog;d.needsLights=a.isMeshLambertMaterial||a.isMeshToonMaterial||a.isMeshPhongMaterial||a.isMeshStandardMaterial||a.isShadowMaterial||a.isShaderMaterial&&!0===a.lights;d.lightsStateVersion=h;d.needsLights&&(c.ambientLightColor.value=e.state.ambient,c.lightProbe.value=e.state.probe,c.directionalLights.value=e.state.directional,c.directionalLightShadows.value=e.state.directionalShadow,c.spotLights.value=e.state.spot,  
c.spotLightShadows.value=e.state.spotShadow,c.rectAreaLights.value=e.state.rectArea,c.pointLights.value=e.state.point,c.pointLightShadows.value=e.state.pointShadow,c.hemisphereLights.value=e.state.hemi,c.directionalShadowMap.value=e.state.directionalShadowMap,c.directionalShadowMatrix.value=e.state.directionalShadowMatrix,c.spotShadowMap.value=e.state.spotShadowMap,c.spotShadowMatrix.value=e.state.spotShadowMatrix,c.pointShadowMap.value=e.state.pointShadowMap,c.pointShadowMatrix.value=e.state.pointShadowMatrix);  
a=d.program.getUniforms();a=Eb.seqWithValue(a.seq,c);d.uniformsList=a}function x(a,b,c,d){ea.resetTextureUnits();var e=b.fog,f=c.isMeshStandardMaterial?b.environment:null,g=X.get(c),h=A.state.lights;na&&(mg||a!==V)&&Ua.setState(c.clippingPlanes,c.clipIntersection,c.clipShadows,a,g,a===V&&c.id===Ne);c.version===g.\_\_version?void 0===g.program?p(c,b,d):c.fog&&g.fog!==e?p(c,b,d):g.environment!==f?p(c,b,d):g.needsLights&&g.lightsStateVersion!==h.state.version?p(c,b,d):void 0===g.numClippingPlanes||g.numClippingPlanes===  
Ua.numPlanes&&g.numIntersection===Ua.numIntersection?g.outputEncoding!==H.outputEncoding&&p(c,b,d):p(c,b,d):(p(c,b,d),g.\_\_version=c.version);var l=!1,m=!1,k=!1;b=g.program;h=b.getUniforms();var u=g.uniforms;Y.useProgram(b.program)&&(k=m=l=!0);c.id!==Ne&&(Ne=c.id,m=!0);if(l||V!==a){h.setValue(I,"projectionMatrix",a.projectionMatrix);Fa.logarithmicDepthBuffer&&h.setValue(I,"logDepthBufFC",2/(Math.log(a.far+1)/Math.LN2));V!==a&&(V=a,k=m=!0);if(c.isShaderMaterial||c.isMeshPhongMaterial||c.isMeshToonMaterial||  
c.isMeshStandardMaterial||c.envMap)l=h.map.cameraPosition,void 0!==l&&l.setValue(I,Hb.setFromMatrixPosition(a.matrixWorld));(c.isMeshPhongMaterial||c.isMeshToonMaterial||c.isMeshLambertMaterial||c.isMeshBasicMaterial||c.isMeshStandardMaterial||c.isShaderMaterial)&&h.setValue(I,"isOrthographic",!0===a.isOrthographicCamera);(c.isMeshPhongMaterial||c.isMeshToonMaterial||c.isMeshLambertMaterial||c.isMeshBasicMaterial||c.isMeshStandardMaterial||c.isShaderMaterial||c.skinning)&&h.setValue(I,"viewMatrix",  
a.matrixWorldInverse)}if(c.skinning&&(h.setOptional(I,d,"bindMatrix"),h.setOptional(I,d,"bindMatrixInverse"),a=d.skeleton))if(l=a.bones,Fa.floatVertexTextures){if(void 0===a.boneTexture){l=Math.sqrt(4\*l.length);l=L.ceilPowerOfTwo(l);l=Math.max(l,4);var x=new Float32Array(l\*l\*4);x.set(a.boneMatrices);var v=new ac(x,l,l,1023,1015);a.boneMatrices=x;a.boneTexture=v;a.boneTextureSize=l}h.setValue(I,"boneTexture",a.boneTexture,ea);h.setValue(I,"boneTextureSize",a.boneTextureSize)}else h.setOptional(I,a,  
"boneMatrices");if(m||g.receiveShadow!==d.receiveShadow)g.receiveShadow=d.receiveShadow,h.setValue(I,"receiveShadow",d.receiveShadow);if(m){h.setValue(I,"toneMappingExposure",H.toneMappingExposure);h.setValue(I,"toneMappingWhitePoint",H.toneMappingWhitePoint);g.needsLights&&(m=k,u.ambientLightColor.needsUpdate=m,u.lightProbe.needsUpdate=m,u.directionalLights.needsUpdate=m,u.directionalLightShadows.needsUpdate=m,u.pointLights.needsUpdate=m,u.pointLightShadows.needsUpdate=m,u.spotLights.needsUpdate=  
m,u.spotLightShadows.needsUpdate=m,u.rectAreaLights.needsUpdate=m,u.hemisphereLights.needsUpdate=m);e&&c.fog&&(u.fogColor.value.copy(e.color),e.isFog?(u.fogNear.value=e.near,u.fogFar.value=e.far):e.isFogExp2&&(u.fogDensity.value=e.density));if(c.isMeshBasicMaterial)r(u,c);else if(c.isMeshLambertMaterial)r(u,c),c.emissiveMap&&(u.emissiveMap.value=c.emissiveMap);else if(c.isMeshToonMaterial)r(u,c),u.specular.value.copy(c.specular),u.shininess.value=Math.max(c.shininess,1E-4),c.gradientMap&&(u.gradientMap.value=  
c.gradientMap),c.emissiveMap&&(u.emissiveMap.value=c.emissiveMap),c.bumpMap&&(u.bumpMap.value=c.bumpMap,u.bumpScale.value=c.bumpScale,1===c.side&&(u.bumpScale.value\*=-1)),c.normalMap&&(u.normalMap.value=c.normalMap,u.normalScale.value.copy(c.normalScale),1===c.side&&u.normalScale.value.negate()),c.displacementMap&&(u.displacementMap.value=c.displacementMap,u.displacementScale.value=c.displacementScale,u.displacementBias.value=c.displacementBias);else if(c.isMeshPhongMaterial)r(u,c),u.specular.value.copy(c.specular),  
u.shininess.value=Math.max(c.shininess,1E-4),c.emissiveMap&&(u.emissiveMap.value=c.emissiveMap),c.bumpMap&&(u.bumpMap.value=c.bumpMap,u.bumpScale.value=c.bumpScale,1===c.side&&(u.bumpScale.value\*=-1)),c.normalMap&&(u.normalMap.value=c.normalMap,u.normalScale.value.copy(c.normalScale),1===c.side&&u.normalScale.value.negate()),c.displacementMap&&(u.displacementMap.value=c.displacementMap,u.displacementScale.value=c.displacementScale,u.displacementBias.value=c.displacementBias);else if(c.isMeshStandardMaterial)r(u,  
c,f),c.isMeshPhysicalMaterial?(q(u,c,f),u.reflectivity.value=c.reflectivity,u.clearcoat.value=c.clearcoat,u.clearcoatRoughness.value=c.clearcoatRoughness,c.sheen&&u.sheen.value.copy(c.sheen),c.clearcoatMap&&(u.clearcoatMap.value=c.clearcoatMap),c.clearcoatRoughnessMap&&(u.clearcoatRoughnessMap.value=c.clearcoatRoughnessMap),c.clearcoatNormalMap&&(u.clearcoatNormalScale.value.copy(c.clearcoatNormalScale),u.clearcoatNormalMap.value=c.clearcoatNormalMap,1===c.side&&u.clearcoatNormalScale.value.negate()),  
u.transparency.value=c.transparency):q(u,c,f);else if(c.isMeshMatcapMaterial)r(u,c),c.matcap&&(u.matcap.value=c.matcap),c.bumpMap&&(u.bumpMap.value=c.bumpMap,u.bumpScale.value=c.bumpScale,1===c.side&&(u.bumpScale.value\*=-1)),c.normalMap&&(u.normalMap.value=c.normalMap,u.normalScale.value.copy(c.normalScale),1===c.side&&u.normalScale.value.negate()),c.displacementMap&&(u.displacementMap.value=c.displacementMap,u.displacementScale.value=c.displacementScale,u.displacementBias.value=c.displacementBias);  
else if(c.isMeshDepthMaterial)r(u,c),c.displacementMap&&(u.displacementMap.value=c.displacementMap,u.displacementScale.value=c.displacementScale,u.displacementBias.value=c.displacementBias);else if(c.isMeshDistanceMaterial)r(u,c),c.displacementMap&&(u.displacementMap.value=c.displacementMap,u.displacementScale.value=c.displacementScale,u.displacementBias.value=c.displacementBias),u.referencePosition.value.copy(c.referencePosition),u.nearDistance.value=c.nearDistance,u.farDistance.value=c.farDistance;  
else if(c.isMeshNormalMaterial)r(u,c),c.bumpMap&&(u.bumpMap.value=c.bumpMap,u.bumpScale.value=c.bumpScale,1===c.side&&(u.bumpScale.value\*=-1)),c.normalMap&&(u.normalMap.value=c.normalMap,u.normalScale.value.copy(c.normalScale),1===c.side&&u.normalScale.value.negate()),c.displacementMap&&(u.displacementMap.value=c.displacementMap,u.displacementScale.value=c.displacementScale,u.displacementBias.value=c.displacementBias);else if(c.isLineBasicMaterial)u.diffuse.value.copy(c.color),u.opacity.value=c.opacity,  
c.isLineDashedMaterial&&(u.dashSize.value=c.dashSize,u.totalSize.value=c.dashSize+c.gapSize,u.scale.value=c.scale);else if(c.isPointsMaterial){u.diffuse.value.copy(c.color);u.opacity.value=c.opacity;u.size.value=c.size\*Q;u.scale.value=.5\*J;c.map&&(u.map.value=c.map);c.alphaMap&&(u.alphaMap.value=c.alphaMap);if(c.map)var n=c.map;else c.alphaMap&&(n=c.alphaMap);void 0!==n&&(!0===n.matrixAutoUpdate&&n.updateMatrix(),u.uvTransform.value.copy(n.matrix))}else if(c.isSpriteMaterial){u.diffuse.value.copy(c.color);  
u.opacity.value=c.opacity;u.rotation.value=c.rotation;c.map&&(u.map.value=c.map);c.alphaMap&&(u.alphaMap.value=c.alphaMap);if(c.map)var w=c.map;else c.alphaMap&&(w=c.alphaMap);void 0!==w&&(!0===w.matrixAutoUpdate&&w.updateMatrix(),u.uvTransform.value.copy(w.matrix))}else c.isShadowMaterial&&(u.color.value.copy(c.color),u.opacity.value=c.opacity);void 0!==u.ltc\_1&&(u.ltc\_1.value=D.LTC\_1);void 0!==u.ltc\_2&&(u.ltc\_2.value=D.LTC\_2);Eb.upload(I,g.uniformsList,u,ea);c.isShaderMaterial&&(c.uniformsNeedUpdate=  
!1)}c.isShaderMaterial&&!0===c.uniformsNeedUpdate&&(Eb.upload(I,g.uniformsList,u,ea),c.uniformsNeedUpdate=!1);c.isSpriteMaterial&&h.setValue(I,"center",d.center);h.setValue(I,"modelViewMatrix",d.modelViewMatrix);h.setValue(I,"normalMatrix",d.normalMatrix);h.setValue(I,"modelMatrix",d.matrixWorld);return b}function r(a,b,c){a.opacity.value=b.opacity;b.color&&a.diffuse.value.copy(b.color);b.emissive&&a.emissive.value.copy(b.emissive).multiplyScalar(b.emissiveIntensity);b.map&&(a.map.value=b.map);b.alphaMap&&  
(a.alphaMap.value=b.alphaMap);b.specularMap&&(a.specularMap.value=b.specularMap);if(c=b.envMap||c)a.envMap.value=c,a.flipEnvMap.value=c.isCubeTexture?-1:1,a.reflectivity.value=b.reflectivity,a.refractionRatio.value=b.refractionRatio,a.maxMipLevel.value=X.get(c).\_\_maxMipLevel;b.lightMap&&(a.lightMap.value=b.lightMap,a.lightMapIntensity.value=b.lightMapIntensity);b.aoMap&&(a.aoMap.value=b.aoMap,a.aoMapIntensity.value=b.aoMapIntensity);if(b.map)var d=b.map;else b.specularMap?d=b.specularMap:b.displacementMap?  
d=b.displacementMap:b.normalMap?d=b.normalMap:b.bumpMap?d=b.bumpMap:b.roughnessMap?d=b.roughnessMap:b.metalnessMap?d=b.metalnessMap:b.alphaMap?d=b.alphaMap:b.emissiveMap&&(d=b.emissiveMap);void 0!==d&&(d.isWebGLRenderTarget&&(d=d.texture),!0===d.matrixAutoUpdate&&d.updateMatrix(),a.uvTransform.value.copy(d.matrix));if(b.aoMap)var e=b.aoMap;else b.lightMap&&(e=b.lightMap);void 0!==e&&(e.isWebGLRenderTarget&&(e=e.texture),!0===e.matrixAutoUpdate&&e.updateMatrix(),a.uv2Transform.value.copy(e.matrix))}  
function q(a,b,c){a.roughness.value=b.roughness;a.metalness.value=b.metalness;b.roughnessMap&&(a.roughnessMap.value=b.roughnessMap);b.metalnessMap&&(a.metalnessMap.value=b.metalnessMap);b.emissiveMap&&(a.emissiveMap.value=b.emissiveMap);b.bumpMap&&(a.bumpMap.value=b.bumpMap,a.bumpScale.value=b.bumpScale,1===b.side&&(a.bumpScale.value\*=-1));b.normalMap&&(a.normalMap.value=b.normalMap,a.normalScale.value.copy(b.normalScale),1===b.side&&a.normalScale.value.negate());b.displacementMap&&(a.displacementMap.value=  
b.displacementMap,a.displacementScale.value=b.displacementScale,a.displacementBias.value=b.displacementBias);if(b.envMap||c)a.envMapIntensity.value=b.envMapIntensity}a=a||{};var v=void 0!==a.canvas?a.canvas:document.createElementNS("http://www.w3.org/1999/xhtml","canvas"),E=void 0!==a.context?a.context:null,w=void 0!==a.alpha?a.alpha:!1,z=void 0!==a.depth?a.depth:!0,ha=void 0!==a.stencil?a.stencil:!0,U=void 0!==a.antialias?a.antialias:!1,ca=void 0!==a.premultipliedAlpha?a.premultipliedAlpha:!0,B=  
void 0!==a.preserveDrawingBuffer?a.preserveDrawingBuffer:!1,y=void 0!==a.powerPreference?a.powerPreference:"default",F=void 0!==a.failIfMajorPerformanceCaveat?a.failIfMajorPerformanceCaveat:!1,C=null,A=null;this.domElement=v;this.debug={checkShaderErrors:!0};this.sortObjects=this.autoClearStencil=this.autoClearDepth=this.autoClearColor=this.autoClear=!0;this.clippingPlanes=[];this.localClippingEnabled=!1;this.gammaFactor=2;this.outputEncoding=3E3;this.physicallyCorrectLights=!1;this.toneMappingWhitePoint=  
this.toneMappingExposure=this.toneMapping=1;this.maxMorphTargets=8;this.maxMorphNormals=4;var H=this,G=!1,M=null,N=0,K=0,O=null,W=null,Ne=-1;var fa=b=null;var Oe=!1;var V=null,ba=null,Z=new ka,T=new ka,da=null,S=v.width,J=v.height,Q=1,la=null,ma=null,R=new ka(0,0,S,J),ja=new ka(0,0,S,J),kg=!1,lg=new Hc,Ua=new yj,na=!1,mg=!1,Md=new P,Hb=new n;try{w={alpha:w,depth:z,stencil:ha,antialias:U,premultipliedAlpha:ca,preserveDrawingBuffer:B,powerPreference:y,failIfMajorPerformanceCaveat:F,xrCompatible:!0};  
v.addEventListener("webglcontextlost",d,!1);v.addEventListener("webglcontextrestored",e,!1);var I=E||v.getContext("webgl",w)||v.getContext("experimental-webgl",w);if(null===I){if(null!==v.getContext("webgl"))throw Error("Error creating WebGL context with your selected attributes.");throw Error("Error creating WebGL context.");}void 0===I.getShaderPrecisionFormat&&(I.getShaderPrecisionFormat=function(){return{rangeMin:1,rangeMax:1,precision:1}})}catch(ai){throw console.error("THREE.WebGLRenderer: "+  
ai.message),ai;}var ra,Fa,Y,aa,X,ea,oa,xa,sa,ta,wa,va,pa,ya,Aa,Ba,qa;c();var ua=new $h(H,I);this.xr=ua;var Ea=new Xh(H,sa,Fa.maxTextureSize);this.shadowMap=Ea;this.getContext=function(){return I};this.getContextAttributes=function(){return I.getContextAttributes()};this.forceContextLoss=function(){var a=ra.get("WEBGL\_lose\_context");a&&a.loseContext()};this.forceContextRestore=function(){var a=ra.get("WEBGL\_lose\_context");a&&a.restoreContext()};this.getPixelRatio=function(){return Q};this.setPixelRatio=  
function(a){void 0!==a&&(Q=a,this.setSize(S,J,!1))};this.getSize=function(a){void 0===a&&(console.warn("WebGLRenderer: .getsize() now requires a Vector2 as an argument"),a=new t);return a.set(S,J)};this.setSize=function(a,b,c){ua.isPresenting?console.warn("THREE.WebGLRenderer: Can't change size while VR device is presenting."):(S=a,J=b,v.width=Math.floor(a\*Q),v.height=Math.floor(b\*Q),!1!==c&&(v.style.width=a+"px",v.style.height=b+"px"),this.setViewport(0,0,a,b))};this.getDrawingBufferSize=function(a){void 0===  
a&&(console.warn("WebGLRenderer: .getdrawingBufferSize() now requires a Vector2 as an argument"),a=new t);return a.set(S\*Q,J\*Q).floor()};this.setDrawingBufferSize=function(a,b,c){S=a;J=b;Q=c;v.width=Math.floor(a\*c);v.height=Math.floor(b\*c);this.setViewport(0,0,a,b)};this.getCurrentViewport=function(a){void 0===a&&(console.warn("WebGLRenderer: .getCurrentViewport() now requires a Vector4 as an argument"),a=new ka);return a.copy(Z)};this.getViewport=function(a){return a.copy(R)};this.setViewport=function(a,  
b,c,d){a.isVector4?R.set(a.x,a.y,a.z,a.w):R.set(a,b,c,d);Y.viewport(Z.copy(R).multiplyScalar(Q).floor())};this.getScissor=function(a){return a.copy(ja)};this.setScissor=function(a,b,c,d){a.isVector4?ja.set(a.x,a.y,a.z,a.w):ja.set(a,b,c,d);Y.scissor(T.copy(ja).multiplyScalar(Q).floor())};this.getScissorTest=function(){return kg};this.setScissorTest=function(a){Y.setScissorTest(kg=a)};this.setOpaqueSort=function(a){la=a};this.setTransparentSort=function(a){ma=a};this.getClearColor=function(){return pa.getClearColor()};  
this.setClearColor=function(){pa.setClearColor.apply(pa,arguments)};this.getClearAlpha=function(){return pa.getClearAlpha()};this.setClearAlpha=function(){pa.setClearAlpha.apply(pa,arguments)};this.clear=function(a,b,c){var d=0;if(void 0===a||a)d|=16384;if(void 0===b||b)d|=256;if(void 0===c||c)d|=1024;I.clear(d)};this.clearColor=function(){this.clear(!0,!1,!1)};this.clearDepth=function(){this.clear(!1,!0,!1)};this.clearStencil=function(){this.clear(!1,!1,!0)};this.dispose=function(){v.removeEventListener("webglcontextlost",  
d,!1);v.removeEventListener("webglcontextrestored",e,!1);wa.dispose();va.dispose();X.dispose();sa.dispose();ua.dispose();za.stop();this.forceContextLoss()};this.renderBufferImmediate=function(a,b){Y.initAttributes();var c=X.get(a);a.hasPositions&&!c.position&&(c.position=I.createBuffer());a.hasNormals&&!c.normal&&(c.normal=I.createBuffer());a.hasUvs&&!c.uv&&(c.uv=I.createBuffer());a.hasColors&&!c.color&&(c.color=I.createBuffer());b=b.getAttributes();a.hasPositions&&(I.bindBuffer(34962,c.position),  
I.bufferData(34962,a.positionArray,35048),Y.enableAttribute(b.position),I.vertexAttribPointer(b.position,3,5126,!1,0,0));a.hasNormals&&(I.bindBuffer(34962,c.normal),I.bufferData(34962,a.normalArray,35048),Y.enableAttribute(b.normal),I.vertexAttribPointer(b.normal,3,5126,!1,0,0));a.hasUvs&&(I.bindBuffer(34962,c.uv),I.bufferData(34962,a.uvArray,35048),Y.enableAttribute(b.uv),I.vertexAttribPointer(b.uv,2,5126,!1,0,0));a.hasColors&&(I.bindBuffer(34962,c.color),I.bufferData(34962,a.colorArray,35048),Y.enableAttribute(b.color),  
I.vertexAttribPointer(b.color,3,5126,!1,0,0));Y.disableUnusedAttributes();I.drawArrays(4,0,a.count);a.count=0};var Ga=new ob;this.renderBufferDirect=function(a,c,d,e,f,g){null===c&&(c=Ga);var h=f.isMesh&&0>f.matrixWorld.determinant(),l=x(a,c,e,f);Y.setMaterial(e,h);var m=!1;if(b!==d.id||fa!==l.id||Oe!==(!0===e.wireframe))b=d.id,fa=l.id,Oe=!0===e.wireframe,m=!0;if(e.morphTargets||e.morphNormals)ya.update(f,d,e,l),m=!0;a=d.index;c=d.attributes.position;if(null===a){if(void 0===c||0===c.count)return}else if(0===  
a.count)return;var u=1;!0===e.wireframe&&(a=xa.getWireframeAttribute(d),u=2);h=Aa;if(null!==a){var p=oa.get(a);h=Ba;h.setIndex(p)}if(m){if(!1!==Fa.isWebGL2||!f.isInstancedMesh&&!d.isInstancedBufferGeometry||null!==ra.get("ANGLE\_instanced\_arrays")){Y.initAttributes();m=d.attributes;l=l.getAttributes();var k=e.defaultAttributeValues;for(ha in l){var q=l[ha];if(0<=q){var r=m[ha];if(void 0!==r){var n=r.normalized,v=r.itemSize,w=oa.get(r);if(void 0!==w){var E=w.buffer,z=w.type;w=w.bytesPerElement;if(r.isInterleavedBufferAttribute){var B=  
r.data,t=B.stride;r=r.offset;B&&B.isInstancedInterleavedBuffer?(Y.enableAttributeAndDivisor(q,B.meshPerAttribute),void 0===d.maxInstancedCount&&(d.maxInstancedCount=B.meshPerAttribute\*B.count)):Y.enableAttribute(q);I.bindBuffer(34962,E);I.vertexAttribPointer(q,v,z,n,t\*w,r\*w)}else r.isInstancedBufferAttribute?(Y.enableAttributeAndDivisor(q,r.meshPerAttribute),void 0===d.maxInstancedCount&&(d.maxInstancedCount=r.meshPerAttribute\*r.count)):Y.enableAttribute(q),I.bindBuffer(34962,E),I.vertexAttribPointer(q,  
v,z,n,0,0)}}else if("instanceMatrix"===ha)w=oa.get(f.instanceMatrix),void 0!==w&&(E=w.buffer,z=w.type,Y.enableAttributeAndDivisor(q+0,1),Y.enableAttributeAndDivisor(q+1,1),Y.enableAttributeAndDivisor(q+2,1),Y.enableAttributeAndDivisor(q+3,1),I.bindBuffer(34962,E),I.vertexAttribPointer(q+0,4,z,!1,64,0),I.vertexAttribPointer(q+1,4,z,!1,64,16),I.vertexAttribPointer(q+2,4,z,!1,64,32),I.vertexAttribPointer(q+3,4,z,!1,64,48));else if(void 0!==k&&(n=k[ha],void 0!==n))switch(n.length){case 2:I.vertexAttrib2fv(q,  
n);break;case 3:I.vertexAttrib3fv(q,n);break;case 4:I.vertexAttrib4fv(q,n);break;default:I.vertexAttrib1fv(q,n)}}}Y.disableUnusedAttributes()}null!==a&&I.bindBuffer(34963,p.buffer)}var ha=d.drawRange.start\*u;m=null!==g?g.start\*u:0;p=Math.max(ha,m);g=Math.max(0,Math.min(null!==a?a.count:c.count,ha+d.drawRange.count\*u,m+(null!==g?g.count\*u:Infinity))-1-p+1);0!==g&&(f.isMesh?!0===e.wireframe?(Y.setLineWidth(e.wireframeLinewidth\*(null===O?Q:1)),h.setMode(1)):h.setMode(4):f.isLine?(e=e.linewidth,void 0===  
e&&(e=1),Y.setLineWidth(e\*(null===O?Q:1)),f.isLineSegments?h.setMode(1):f.isLineLoop?h.setMode(2):h.setMode(3)):f.isPoints?h.setMode(0):f.isSprite&&h.setMode(4),f.isInstancedMesh?h.renderInstances(d,p,g,f.count):d.isInstancedBufferGeometry?h.renderInstances(d,p,g,d.maxInstancedCount):h.render(p,g))};this.compile=function(a,b){A=va.get(a,b);A.init();a.traverse(function(a){a.isLight&&(A.pushLight(a),a.castShadow&&A.pushShadow(a))});A.setupLights(b);var c={};a.traverse(function(b){if(b.material)if(Array.isArray(b.material))for(var d=  
0;d<b.material.length;d++)!1===b.material[d].uuid in c&&(p(b.material[d],a,b),c[b.material[d].uuid]=!0);else!1===b.material.uuid in c&&(p(b.material,a,b),c[b.material.uuid]=!0)})};var Da=null,za=new Ah;za.setAnimationLoop(function(a){ua.isPresenting||Da&&Da(a)});"undefined"!==typeof window&&za.setContext(window);this.setAnimationLoop=function(a){Da=a;ua.setAnimationLoop(a);za.start()};this.render=function(a,c,d,e){if(void 0!==d){console.warn("THREE.WebGLRenderer.render(): the renderTarget argument has been removed. Use .setRenderTarget() instead.");  
var f=d}if(void 0!==e){console.warn("THREE.WebGLRenderer.render(): the forceClear argument has been removed. Use .clear() instead.");var g=e}c&&c.isCamera?G||(fa=b=null,Oe=!1,Ne=-1,V=null,!0===a.autoUpdate&&a.updateMatrixWorld(),null===c.parent&&c.updateMatrixWorld(),ua.enabled&&ua.isPresenting&&(c=ua.getCamera(c)),A=va.get(a,c),A.init(),a.onBeforeRender(H,a,c,f||O),Md.multiplyMatrices(c.projectionMatrix,c.matrixWorldInverse),lg.setFromProjectionMatrix(Md),mg=this.localClippingEnabled,na=Ua.init(this.clippingPlanes,  
mg,c),C=wa.get(a,c),C.init(),l(a,c,0,H.sortObjects),C.finish(),!0===H.sortObjects&&C.sort(la,ma),na&&Ua.beginShadows(),Ea.render(A.state.shadowsArray,a,c),A.setupLights(c),na&&Ua.endShadows(),this.info.autoReset&&this.info.reset(),void 0!==f&&this.setRenderTarget(f),pa.render(C,a,c,g),d=C.opaque,e=C.transparent,a.overrideMaterial?(f=a.overrideMaterial,d.length&&m(d,a,c,f),e.length&&m(e,a,c,f)):(d.length&&m(d,a,c),e.length&&m(e,a,c)),a.onAfterRender(H,a,c),null!==O&&(ea.updateRenderTargetMipmap(O),  
ea.updateMultisampleRenderTarget(O)),Y.buffers.depth.setTest(!0),Y.buffers.depth.setMask(!0),Y.buffers.color.setMask(!0),Y.setPolygonOffset(!1),A=C=null):console.error("THREE.WebGLRenderer.render: camera is not an instance of THREE.Camera.")};this.setFramebuffer=function(a){M!==a&&null===O&&I.bindFramebuffer(36160,a);M=a};this.getActiveCubeFace=function(){return N};this.getActiveMipmapLevel=function(){return K};this.getRenderTarget=function(){return O};this.setRenderTarget=function(a,b,c){O=a;N=b;  
K=c;a&&void 0===X.get(a).\_\_webglFramebuffer&&ea.setupRenderTarget(a);var d=M,e=!1;a?(d=X.get(a).\_\_webglFramebuffer,a.isWebGLCubeRenderTarget?(d=d[b||0],e=!0):d=a.isWebGLMultisampleRenderTarget?X.get(a).\_\_webglMultisampledFramebuffer:d,Z.copy(a.viewport),T.copy(a.scissor),da=a.scissorTest):(Z.copy(R).multiplyScalar(Q).floor(),T.copy(ja).multiplyScalar(Q).floor(),da=kg);W!==d&&(I.bindFramebuffer(36160,d),W=d);Y.viewport(Z);Y.scissor(T);Y.setScissorTest(da);e&&(a=X.get(a.texture),I.framebufferTexture2D(36160,  
36064,34069+(b||0),a.\_\_webglTexture,c||0))};this.readRenderTargetPixels=function(a,b,c,d,e,f,g){if(a&&a.isWebGLRenderTarget){var h=X.get(a).\_\_webglFramebuffer;a.isWebGLCubeRenderTarget&&void 0!==g&&(h=h[g]);if(h){g=!1;h!==W&&(I.bindFramebuffer(36160,h),g=!0);try{var l=a.texture,m=l.format,u=l.type;1023!==m&&qa.convert(m)!==I.getParameter(35739)?console.error("THREE.WebGLRenderer.readRenderTargetPixels: renderTarget is not in RGBA or implementation defined format."):1009===u||qa.convert(u)===I.getParameter(35738)||  
1015===u&&(Fa.isWebGL2||ra.get("OES\_texture\_float")||ra.get("WEBGL\_color\_buffer\_float"))||1016===u&&(Fa.isWebGL2?ra.get("EXT\_color\_buffer\_float"):ra.get("EXT\_color\_buffer\_half\_float"))?36053===I.checkFramebufferStatus(36160)?0<=b&&b<=a.width-d&&0<=c&&c<=a.height-e&&I.readPixels(b,c,d,e,qa.convert(m),qa.convert(u),f):console.error("THREE.WebGLRenderer.readRenderTargetPixels: readPixels from renderTarget failed. Framebuffer not complete."):console.error("THREE.WebGLRenderer.readRenderTargetPixels: renderTarget is not in UnsignedByteType or implementation defined type.")}finally{g&&  
I.bindFramebuffer(36160,W)}}}else console.error("THREE.WebGLRenderer.readRenderTargetPixels: renderTarget is not THREE.WebGLRenderTarget.")};this.copyFramebufferToTexture=function(a,b,c){void 0===c&&(c=0);var d=Math.pow(2,-c),e=Math.floor(b.image.width\*d);d=Math.floor(b.image.height\*d);var f=qa.convert(b.format);ea.setTexture2D(b,0);I.copyTexImage2D(3553,c,f,a.x,a.y,e,d,0);Y.unbindTexture()};this.copyTextureToTexture=function(a,b,c,d){var e=b.image.width,f=b.image.height,g=qa.convert(c.format),h=  
qa.convert(c.type);ea.setTexture2D(c,0);b.isDataTexture?I.texSubImage2D(3553,d||0,a.x,a.y,e,f,g,h,b.image.data):I.texSubImage2D(3553,d||0,a.x,a.y,g,h,b.image);Y.unbindTexture()};this.initTexture=function(a){ea.setTexture2D(a,0);Y.unbindTexture()};"undefined"!==typeof \_\_THREE\_DEVTOOLS\_\_&&\_\_THREE\_DEVTOOLS\_\_.dispatchEvent(new CustomEvent("observe",{detail:this}))}function Qe(a,b){this.name="";this.color=new A(a);this.density=void 0!==b?b:2.5E-4}function Re(a,b,c){this.name="";this.color=new A(a);this.near=  
void 0!==b?b:1;this.far=void 0!==c?c:1E3}function rb(a,b){this.array=a;this.stride=b;this.count=void 0!==a?a.length/b:0;this.usage=35044;this.updateRange={offset:0,count:-1};this.version=0}function Od(a,b,c,d){this.data=a;this.itemSize=b;this.offset=c;this.normalized=!0===d}function Ib(a){K.call(this);this.type="SpriteMaterial";this.color=new A(16777215);this.alphaMap=this.map=null;this.rotation=0;this.transparent=this.sizeAttenuation=!0;this.setValues(a)}function Pd(a){F.call(this);this.type="Sprite";  
if(void 0===Nc){Nc=new C;var b=new Float32Array([-.5,-.5,0,0,0,.5,-.5,0,1,0,.5,.5,0,1,1,-.5,.5,0,0,1]);b=new rb(b,5);Nc.setIndex([0,1,2,0,2,3]);Nc.setAttribute("position",new Od(b,3,0,!1));Nc.setAttribute("uv",new Od(b,2,3,!1))}this.geometry=Nc;this.material=void 0!==a?a:new Ib;this.center=new t(.5,.5)}function Se(a,b,c,d,e,f){Oc.subVectors(a,c).addScalar(.5).multiply(d);void 0!==e?(Qd.x=f\*Oc.x-e\*Oc.y,Qd.y=e\*Oc.x+f\*Oc.y):Qd.copy(Oc);a.copy(b);a.x+=Qd.x;a.y+=Qd.y;a.applyMatrix4(bi)}function Rd(){F.call(this);  
this.\_currentLevel=0;this.type="LOD";Object.defineProperties(this,{levels:{enumerable:!0,value:[]}});this.autoUpdate=!0}function Te(a,b){a&&a.isGeometry&&console.error("THREE.SkinnedMesh no longer supports THREE.Geometry. Use THREE.BufferGeometry instead.");S.call(this,a,b);this.type="SkinnedMesh";this.bindMode="attached";this.bindMatrix=new P;this.bindMatrixInverse=new P}function Ue(a,b){a=a||[];this.bones=a.slice(0);this.boneMatrices=new Float32Array(16\*this.bones.length);this.frame=-1;if(void 0===  
b)this.calculateInverses();else if(this.bones.length===b.length)this.boneInverses=b.slice(0);else for(console.warn("THREE.Skeleton boneInverses is the wrong length."),this.boneInverses=[],a=0,b=this.bones.length;a<b;a++)this.boneInverses.push(new P)}function pg(){F.call(this);this.type="Bone"}function Ve(a,b,c){S.call(this,a,b);this.instanceMatrix=new M(new Float32Array(16\*c),16);this.count=c;this.frustumCulled=!1}function la(a){K.call(this);this.type="LineBasicMaterial";this.color=new A(16777215);  
this.linewidth=1;this.linejoin=this.linecap="round";this.setValues(a)}function Ka(a,b,c){1===c&&console.error("THREE.Line: parameter THREE.LinePieces no longer supported. Use THREE.LineSegments instead.");F.call(this);this.type="Line";this.geometry=void 0!==a?a:new C;this.material=void 0!==b?b:new la}function ma(a,b){Ka.call(this,a,b);this.type="LineSegments"}function We(a,b){Ka.call(this,a,b);this.type="LineLoop"}function Va(a){K.call(this);this.type="PointsMaterial";this.color=new A(16777215);this.alphaMap=  
this.map=null;this.size=1;this.sizeAttenuation=!0;this.morphTargets=!1;this.setValues(a)}function Pc(a,b){F.call(this);this.type="Points";this.geometry=void 0!==a?a:new C;this.material=void 0!==b?b:new Va;this.updateMorphTargets()}function qg(a,b,c,d,e,f,g){var h=rg.distanceSqToPoint(a);h<c&&(c=new n,rg.closestPointToPoint(a,c),c.applyMatrix4(d),a=e.ray.origin.distanceTo(c),a<e.near||a>e.far||f.push({distance:a,distanceToRay:Math.sqrt(h),point:c,index:b,face:null,object:g}))}function sg(a,b,c,d,e,  
f,g,h,l){V.call(this,a,b,c,d,e,f,g,h,l);this.format=void 0!==g?g:1022;this.minFilter=void 0!==f?f:1006;this.magFilter=void 0!==e?e:1006;this.generateMipmaps=!1}function Qc(a,b,c,d,e,f,g,h,l,m,u,p){V.call(this,null,f,g,h,l,m,d,e,u,p);this.image={width:b,height:c};this.mipmaps=a;this.generateMipmaps=this.flipY=!1}function Sd(a,b,c,d,e,f,g,h,l){V.call(this,a,b,c,d,e,f,g,h,l);this.needsUpdate=!0}function Td(a,b,c,d,e,f,g,h,l,m){m=void 0!==m?m:1026;if(1026!==m&&1027!==m)throw Error("DepthTexture format must be either THREE.DepthFormat or THREE.DepthStencilFormat");  
void 0===c&&1026===m&&(c=1012);void 0===c&&1027===m&&(c=1020);V.call(this,null,d,e,f,g,h,m,c,l);this.image={width:a,height:b};this.magFilter=void 0!==g?g:1003;this.minFilter=void 0!==h?h:1003;this.generateMipmaps=this.flipY=!1}function Rc(a){C.call(this);this.type="WireframeGeometry";var b=[],c,d,e,f=[0,0],g={},h=["a","b","c"];if(a&&a.isGeometry){var l=a.faces;var m=0;for(d=l.length;m<d;m++){var u=l[m];for(c=0;3>c;c++){var p=u[h[c]];var k=u[h[(c+1)%3]];f[0]=Math.min(p,k);f[1]=Math.max(p,k);p=f[0]+  
","+f[1];void 0===g[p]&&(g[p]={index1:f[0],index2:f[1]})}}for(p in g)m=g[p],h=a.vertices[m.index1],b.push(h.x,h.y,h.z),h=a.vertices[m.index2],b.push(h.x,h.y,h.z)}else if(a&&a.isBufferGeometry)if(h=new n,null!==a.index){l=a.attributes.position;u=a.index;var r=a.groups;0===r.length&&(r=[{start:0,count:u.count,materialIndex:0}]);a=0;for(e=r.length;a<e;++a)for(m=r[a],c=m.start,d=m.count,m=c,d=c+d;m<d;m+=3)for(c=0;3>c;c++)p=u.getX(m+c),k=u.getX(m+(c+1)%3),f[0]=Math.min(p,k),f[1]=Math.max(p,k),p=f[0]+","+  
f[1],void 0===g[p]&&(g[p]={index1:f[0],index2:f[1]});for(p in g)m=g[p],h.fromBufferAttribute(l,m.index1),b.push(h.x,h.y,h.z),h.fromBufferAttribute(l,m.index2),b.push(h.x,h.y,h.z)}else for(l=a.attributes.position,m=0,d=l.count/3;m<d;m++)for(c=0;3>c;c++)g=3\*m+c,h.fromBufferAttribute(l,g),b.push(h.x,h.y,h.z),g=3\*m+(c+1)%3,h.fromBufferAttribute(l,g),b.push(h.x,h.y,h.z);this.setAttribute("position",new y(b,3))}function Ud(a,b,c){N.call(this);this.type="ParametricGeometry";this.parameters={func:a,slices:b,  
stacks:c};this.fromBufferGeometry(new Sc(a,b,c));this.mergeVertices()}function Sc(a,b,c){C.call(this);this.type="ParametricBufferGeometry";this.parameters={func:a,slices:b,stacks:c};var d=[],e=[],f=[],g=[],h=new n,l=new n,m=new n,u=new n,p=new n,k,r;3>a.length&&console.error("THREE.ParametricGeometry: Function must now modify a Vector3 as third parameter.");var q=b+1;for(k=0;k<=c;k++){var v=k/c;for(r=0;r<=b;r++){var E=r/b;a(E,v,l);e.push(l.x,l.y,l.z);0<=E-1E-5?(a(E-1E-5,v,m),u.subVectors(l,m)):(a(E+  
1E-5,v,m),u.subVectors(m,l));0<=v-1E-5?(a(E,v-1E-5,m),p.subVectors(l,m)):(a(E,v+1E-5,m),p.subVectors(m,l));h.crossVectors(u,p).normalize();f.push(h.x,h.y,h.z);g.push(E,v)}}for(k=0;k<c;k++)for(r=0;r<b;r++)a=k\*q+r+1,h=(k+1)\*q+r+1,l=(k+1)\*q+r,d.push(k\*q+r,a,l),d.push(a,h,l);this.setIndex(d);this.setAttribute("position",new y(e,3));this.setAttribute("normal",new y(f,3));this.setAttribute("uv",new y(g,2))}function Vd(a,b,c,d){N.call(this);this.type="PolyhedronGeometry";this.parameters={vertices:a,indices:b,  
radius:c,detail:d};this.fromBufferGeometry(new Ga(a,b,c,d));this.mergeVertices()}function Ga(a,b,c,d){function e(a){h.push(a.x,a.y,a.z)}function f(b,c){b\*=3;c.x=a[b+0];c.y=a[b+1];c.z=a[b+2]}function g(a,b,c,d){0>d&&1===a.x&&(l[b]=a.x-1);0===c.x&&0===c.z&&(l[b]=d/2/Math.PI+.5)}C.call(this);this.type="PolyhedronBufferGeometry";this.parameters={vertices:a,indices:b,radius:c,detail:d};c=c||1;d=d||0;var h=[],l=[];(function(a){for(var c=new n,d=new n,g=new n,h=0;h<b.length;h+=3){f(b[h+0],c);f(b[h+1],d);  
f(b[h+2],g);var l,m,k=c,w=d,z=g,t=Math.pow(2,a),U=[];for(m=0;m<=t;m++){U[m]=[];var ca=k.clone().lerp(z,m/t),B=w.clone().lerp(z,m/t),A=t-m;for(l=0;l<=A;l++)U[m][l]=0===l&&m===t?ca:ca.clone().lerp(B,l/A)}for(m=0;m<t;m++)for(l=0;l<2\*(t-m)-1;l++)k=Math.floor(l/2),0===l%2?(e(U[m][k+1]),e(U[m+1][k]),e(U[m][k])):(e(U[m][k+1]),e(U[m+1][k+1]),e(U[m+1][k]))}})(d);(function(a){for(var b=new n,c=0;c<h.length;c+=3)b.x=h[c+0],b.y=h[c+1],b.z=h[c+2],b.normalize().multiplyScalar(a),h[c+0]=b.x,h[c+1]=b.y,h[c+2]=b.z})(c);  
(function(){for(var a=new n,b=0;b<h.length;b+=3)a.x=h[b+0],a.y=h[b+1],a.z=h[b+2],l.push(Math.atan2(a.z,-a.x)/2/Math.PI+.5,1-(Math.atan2(-a.y,Math.sqrt(a.x\*a.x+a.z\*a.z))/Math.PI+.5));a=new n;b=new n;for(var c=new n,d=new n,e=new t,f=new t,k=new t,E=0,w=0;E<h.length;E+=9,w+=6){a.set(h[E+0],h[E+1],h[E+2]);b.set(h[E+3],h[E+4],h[E+5]);c.set(h[E+6],h[E+7],h[E+8]);e.set(l[w+0],l[w+1]);f.set(l[w+2],l[w+3]);k.set(l[w+4],l[w+5]);d.copy(a).add(b).add(c).divideScalar(3);var z=Math.atan2(d.z,-d.x);g(e,w+0,a,z);  
g(f,w+2,b,z);g(k,w+4,c,z)}for(a=0;a<l.length;a+=6)b=l[a+0],c=l[a+2],d=l[a+4],e=Math.min(b,c,d),.9<Math.max(b,c,d)&&.1>e&&(.2>b&&(l[a+0]+=1),.2>c&&(l[a+2]+=1),.2>d&&(l[a+4]+=1))})();this.setAttribute("position",new y(h,3));this.setAttribute("normal",new y(h.slice(),3));this.setAttribute("uv",new y(l,2));0===d?this.computeVertexNormals():this.normalizeNormals()}function Wd(a,b){N.call(this);this.type="TetrahedronGeometry";this.parameters={radius:a,detail:b};this.fromBufferGeometry(new Tc(a,b));this.mergeVertices()}  
function Tc(a,b){Ga.call(this,[1,1,1,-1,-1,1,-1,1,-1,1,-1,-1],[2,1,0,0,3,2,1,3,0,2,3,1],a,b);this.type="TetrahedronBufferGeometry";this.parameters={radius:a,detail:b}}function Xd(a,b){N.call(this);this.type="OctahedronGeometry";this.parameters={radius:a,detail:b};this.fromBufferGeometry(new cc(a,b));this.mergeVertices()}function cc(a,b){Ga.call(this,[1,0,0,-1,0,0,0,1,0,0,-1,0,0,0,1,0,0,-1],[0,2,4,0,4,3,0,3,5,0,5,2,1,2,5,1,5,3,1,3,4,1,4,2],a,b);this.type="OctahedronBufferGeometry";this.parameters=  
{radius:a,detail:b}}function Yd(a,b){N.call(this);this.type="IcosahedronGeometry";this.parameters={radius:a,detail:b};this.fromBufferGeometry(new Uc(a,b));this.mergeVertices()}function Uc(a,b){var c=(1+Math.sqrt(5))/2;Ga.call(this,[-1,c,0,1,c,0,-1,-c,0,1,-c,0,0,-1,c,0,1,c,0,-1,-c,0,1,-c,c,0,-1,c,0,1,-c,0,-1,-c,0,1],[0,11,5,0,5,1,0,1,7,0,7,10,0,10,11,1,5,9,5,11,4,11,10,2,10,7,6,7,1,8,3,9,4,3,4,2,3,2,6,3,6,8,3,8,9,4,9,5,2,4,11,6,2,10,8,6,7,9,8,1],a,b);this.type="IcosahedronBufferGeometry";this.parameters=  
{radius:a,detail:b}}function Zd(a,b){N.call(this);this.type="DodecahedronGeometry";this.parameters={radius:a,detail:b};this.fromBufferGeometry(new Vc(a,b));this.mergeVertices()}function Vc(a,b){var c=(1+Math.sqrt(5))/2,d=1/c;Ga.call(this,[-1,-1,-1,-1,-1,1,-1,1,-1,-1,1,1,1,-1,-1,1,-1,1,1,1,-1,1,1,1,0,-d,-c,0,-d,c,0,d,-c,0,d,c,-d,-c,0,-d,c,0,d,-c,0,d,c,0,-c,0,-d,c,0,-d,-c,0,d,c,0,d],[3,11,7,3,7,15,3,15,13,7,19,17,7,17,6,7,6,15,17,4,8,17,8,10,17,10,6,8,0,16,8,16,2,8,2,10,0,12,1,0,1,18,0,18,16,6,10,2,  
6,2,13,6,13,15,2,16,18,2,18,3,2,3,13,18,1,9,18,9,11,18,11,3,4,14,12,4,12,0,4,0,8,11,9,5,11,5,19,11,19,7,19,5,14,19,14,4,19,4,17,1,12,14,1,14,5,1,5,9],a,b);this.type="DodecahedronBufferGeometry";this.parameters={radius:a,detail:b}}function $d(a,b,c,d,e,f){N.call(this);this.type="TubeGeometry";this.parameters={path:a,tubularSegments:b,radius:c,radialSegments:d,closed:e};void 0!==f&&console.warn("THREE.TubeGeometry: taper has been removed.");a=new dc(a,b,c,d,e);this.tangents=a.tangents;this.normals=  
a.normals;this.binormals=a.binormals;this.fromBufferGeometry(a);this.mergeVertices()}function dc(a,b,c,d,e){function f(e){u=a.getPointAt(e/b,u);var f=g.normals[e];e=g.binormals[e];for(x=0;x<=d;x++){var m=x/d\*Math.PI\*2,k=Math.sin(m);m=-Math.cos(m);l.x=m\*f.x+k\*e.x;l.y=m\*f.y+k\*e.y;l.z=m\*f.z+k\*e.z;l.normalize();q.push(l.x,l.y,l.z);h.x=u.x+c\*l.x;h.y=u.y+c\*l.y;h.z=u.z+c\*l.z;r.push(h.x,h.y,h.z)}}C.call(this);this.type="TubeBufferGeometry";this.parameters={path:a,tubularSegments:b,radius:c,radialSegments:d,  
closed:e};b=b||64;c=c||1;d=d||8;e=e||!1;var g=a.computeFrenetFrames(b,e);this.tangents=g.tangents;this.normals=g.normals;this.binormals=g.binormals;var h=new n,l=new n,m=new t,u=new n,k,x,r=[],q=[],v=[],E=[];for(k=0;k<b;k++)f(k);f(!1===e?b:0);for(k=0;k<=b;k++)for(x=0;x<=d;x++)m.x=k/b,m.y=x/d,v.push(m.x,m.y);(function(){for(x=1;x<=b;x++)for(k=1;k<=d;k++){var a=(d+1)\*x+(k-1),c=(d+1)\*x+k,e=(d+1)\*(x-1)+k;E.push((d+1)\*(x-1)+(k-1),a,e);E.push(a,c,e)}})();this.setIndex(E);this.setAttribute("position",new y(r,  
3));this.setAttribute("normal",new y(q,3));this.setAttribute("uv",new y(v,2))}function ae(a,b,c,d,e,f,g){N.call(this);this.type="TorusKnotGeometry";this.parameters={radius:a,tube:b,tubularSegments:c,radialSegments:d,p:e,q:f};void 0!==g&&console.warn("THREE.TorusKnotGeometry: heightScale has been deprecated. Use .scale( x, y, z ) instead.");this.fromBufferGeometry(new Wc(a,b,c,d,e,f));this.mergeVertices()}function Wc(a,b,c,d,e,f){function g(a,b,c,d,e){var f=Math.sin(a);b=c/b\*a;c=Math.cos(b);e.x=d\*  
(2+c)\*.5\*Math.cos(a);e.y=d\*(2+c)\*f\*.5;e.z=d\*Math.sin(b)\*.5}C.call(this);this.type="TorusKnotBufferGeometry";this.parameters={radius:a,tube:b,tubularSegments:c,radialSegments:d,p:e,q:f};a=a||1;b=b||.4;c=Math.floor(c)||64;d=Math.floor(d)||8;e=e||2;f=f||3;var h=[],l=[],m=[],k=[],p,x=new n,r=new n,q=new n,v=new n,E=new n,w=new n,z=new n;for(p=0;p<=c;++p){var t=p/c\*e\*Math.PI\*2;g(t,e,f,a,q);g(t+.01,e,f,a,v);w.subVectors(v,q);z.addVectors(v,q);E.crossVectors(w,z);z.crossVectors(E,w);E.normalize();z.normalize();  
for(t=0;t<=d;++t){var U=t/d\*Math.PI\*2,ca=-b\*Math.cos(U);U=b\*Math.sin(U);x.x=q.x+(ca\*z.x+U\*E.x);x.y=q.y+(ca\*z.y+U\*E.y);x.z=q.z+(ca\*z.z+U\*E.z);l.push(x.x,x.y,x.z);r.subVectors(x,q).normalize();m.push(r.x,r.y,r.z);k.push(p/c);k.push(t/d)}}for(t=1;t<=c;t++)for(p=1;p<=d;p++)a=(d+1)\*t+(p-1),b=(d+1)\*t+p,e=(d+1)\*(t-1)+p,h.push((d+1)\*(t-1)+(p-1),a,e),h.push(a,b,e);this.setIndex(h);this.setAttribute("position",new y(l,3));this.setAttribute("normal",new y(m,3));this.setAttribute("uv",new y(k,2))}function be(a,  
b,c,d,e){N.call(this);this.type="TorusGeometry";this.parameters={radius:a,tube:b,radialSegments:c,tubularSegments:d,arc:e};this.fromBufferGeometry(new Xc(a,b,c,d,e));this.mergeVertices()}function Xc(a,b,c,d,e){C.call(this);this.type="TorusBufferGeometry";this.parameters={radius:a,tube:b,radialSegments:c,tubularSegments:d,arc:e};a=a||1;b=b||.4;c=Math.floor(c)||8;d=Math.floor(d)||6;e=e||2\*Math.PI;var f=[],g=[],h=[],l=[],m=new n,k=new n,p=new n,x,r;for(x=0;x<=c;x++)for(r=0;r<=d;r++){var q=r/d\*e,v=x/  
c\*Math.PI\*2;k.x=(a+b\*Math.cos(v))\*Math.cos(q);k.y=(a+b\*Math.cos(v))\*Math.sin(q);k.z=b\*Math.sin(v);g.push(k.x,k.y,k.z);m.x=a\*Math.cos(q);m.y=a\*Math.sin(q);p.subVectors(k,m).normalize();h.push(p.x,p.y,p.z);l.push(r/d);l.push(x/c)}for(x=1;x<=c;x++)for(r=1;r<=d;r++)a=(d+1)\*(x-1)+r-1,b=(d+1)\*(x-1)+r,e=(d+1)\*x+r,f.push((d+1)\*x+r-1,a,e),f.push(a,b,e);this.setIndex(f);this.setAttribute("position",new y(g,3));this.setAttribute("normal",new y(h,3));this.setAttribute("uv",new y(l,2))}function ci(a,b,c,d,e){for(var f,  
g=0,h=b,l=c-d;h<c;h+=d)g+=(a[l]-a[h])\*(a[h+1]+a[l+1]),l=h;if(e===0<g)for(e=b;e<c;e+=d)f=di(e,a[e],a[e+1],f);else for(e=c-d;e>=b;e-=d)f=di(e,a[e],a[e+1],f);f&&ec(f,f.next)&&(ce(f),f=f.next);return f}function de(a,b){if(!a)return a;b||(b=a);do{var c=!1;if(a.steiner||!ec(a,a.next)&&0!==xa(a.prev,a,a.next))a=a.next;else{ce(a);a=b=a.prev;if(a===a.next)break;c=!0}}while(c||a!==b);return b}function ee(a,b,c,d,e,f,g){if(a){if(!g&&f){var h=a,l=h;do null===l.z&&(l.z=tg(l.x,l.y,d,e,f)),l.prevZ=l.prev,l=l.nextZ=  
l.next;while(l!==h);l.prevZ.nextZ=null;l.prevZ=null;h=l;var m,k,p,x,r=1;do{l=h;var q=h=null;for(k=0;l;){k++;var n=l;for(m=p=0;m<r&&(p++,n=n.nextZ,n);m++);for(x=r;0<p||0<x&&n;)0!==p&&(0===x||!n||l.z<=n.z)?(m=l,l=l.nextZ,p--):(m=n,n=n.nextZ,x--),q?q.nextZ=m:h=m,m.prevZ=q,q=m;l=n}q.nextZ=null;r\*=2}while(1<k)}for(h=a;a.prev!==a.next;){l=a.prev;n=a.next;if(f)q=Kk(a,d,e,f);else a:if(q=a,k=q.prev,p=q,r=q.next,0<=xa(k,p,r))q=!1;else{for(m=q.next.next;m!==q.prev;){if(Yc(k.x,k.y,p.x,p.y,r.x,r.y,m.x,m.y)&&0<=  
xa(m.prev,m,m.next)){q=!1;break a}m=m.next}q=!0}if(q)b.push(l.i/c),b.push(a.i/c),b.push(n.i/c),ce(a),h=a=n.next;else if(a=n,a===h){if(!g)ee(de(a),b,c,d,e,f,1);else if(1===g){g=b;h=c;l=a;do n=l.prev,q=l.next.next,!ec(n,q)&&ei(n,l,l.next,q)&&fe(n,q)&&fe(q,n)&&(g.push(n.i/h),g.push(l.i/h),g.push(q.i/h),ce(l),ce(l.next),l=a=q),l=l.next;while(l!==a);a=l;ee(a,b,c,d,e,f,2)}else if(2===g)a:{g=a;do{for(h=g.next.next;h!==g.prev;){if(l=g.i!==h.i){l=g;n=h;if(q=l.next.i!==n.i&&l.prev.i!==n.i){b:{q=l;do{if(q.i!==  
l.i&&q.next.i!==l.i&&q.i!==n.i&&q.next.i!==n.i&&ei(q,q.next,l,n)){q=!0;break b}q=q.next}while(q!==l);q=!1}q=!q}if(q=q&&fe(l,n)&&fe(n,l)){q=l;k=!1;p=(l.x+n.x)/2;n=(l.y+n.y)/2;do q.y>n!==q.next.y>n&&q.next.y!==q.y&&p<(q.next.x-q.x)\*(n-q.y)/(q.next.y-q.y)+q.x&&(k=!k),q=q.next;while(q!==l);q=k}l=q}if(l){a=fi(g,h);g=de(g,g.next);a=de(a,a.next);ee(g,b,c,d,e,f);ee(a,b,c,d,e,f);break a}h=h.next}g=g.next}while(g!==a)}break}}}}function Kk(a,b,c,d){var e=a.prev,f=a.next;if(0<=xa(e,a,f))return!1;var g=e.x>a.x?  
e.x>f.x?e.x:f.x:a.x>f.x?a.x:f.x,h=e.y>a.y?e.y>f.y?e.y:f.y:a.y>f.y?a.y:f.y,l=tg(e.x<a.x?e.x<f.x?e.x:f.x:a.x<f.x?a.x:f.x,e.y<a.y?e.y<f.y?e.y:f.y:a.y<f.y?a.y:f.y,b,c,d);b=tg(g,h,b,c,d);c=a.prevZ;for(d=a.nextZ;c&&c.z>=l&&d&&d.z<=b;){if(c!==a.prev&&c!==a.next&&Yc(e.x,e.y,a.x,a.y,f.x,f.y,c.x,c.y)&&0<=xa(c.prev,c,c.next))return!1;c=c.prevZ;if(d!==a.prev&&d!==a.next&&Yc(e.x,e.y,a.x,a.y,f.x,f.y,d.x,d.y)&&0<=xa(d.prev,d,d.next))return!1;d=d.nextZ}for(;c&&c.z>=l;){if(c!==a.prev&&c!==a.next&&Yc(e.x,e.y,a.x,a.y,  
f.x,f.y,c.x,c.y)&&0<=xa(c.prev,c,c.next))return!1;c=c.prevZ}for(;d&&d.z<=b;){if(d!==a.prev&&d!==a.next&&Yc(e.x,e.y,a.x,a.y,f.x,f.y,d.x,d.y)&&0<=xa(d.prev,d,d.next))return!1;d=d.nextZ}return!0}function Lk(a,b){return a.x-b.x}function Mk(a,b){var c=b,d=a.x,e=a.y,f=-Infinity;do{if(e<=c.y&&e>=c.next.y&&c.next.y!==c.y){var g=c.x+(e-c.y)\*(c.next.x-c.x)/(c.next.y-c.y);if(g<=d&&g>f){f=g;if(g===d){if(e===c.y)return c;if(e===c.next.y)return c.next}var h=c.x<c.next.x?c:c.next}}c=c.next}while(c!==b);if(!h)return null;  
if(d===f)return h.prev;b=h;g=h.x;var l=h.y,m=Infinity;for(c=h.next;c!==b;){if(d>=c.x&&c.x>=g&&d!==c.x&&Yc(e<l?d:f,e,g,l,e<l?f:d,e,c.x,c.y)){var k=Math.abs(e-c.y)/(d-c.x);(k<m||k===m&&c.x>h.x)&&fe(c,a)&&(h=c,m=k)}c=c.next}return h}function tg(a,b,c,d,e){a=32767\*(a-c)\*e;b=32767\*(b-d)\*e;a=(a|a<<8)&16711935;a=(a|a<<4)&252645135;a=(a|a<<2)&858993459;b=(b|b<<8)&16711935;b=(b|b<<4)&252645135;b=(b|b<<2)&858993459;return(a|a<<1)&1431655765|((b|b<<1)&1431655765)<<1}function Nk(a){var b=a,c=a;do{if(b.x<c.x||  
b.x===c.x&&b.y<c.y)c=b;b=b.next}while(b!==a);return c}function Yc(a,b,c,d,e,f,g,h){return 0<=(e-g)\*(b-h)-(a-g)\*(f-h)&&0<=(a-g)\*(d-h)-(c-g)\*(b-h)&&0<=(c-g)\*(f-h)-(e-g)\*(d-h)}function xa(a,b,c){return(b.y-a.y)\*(c.x-b.x)-(b.x-a.x)\*(c.y-b.y)}function ec(a,b){return a.x===b.x&&a.y===b.y}function ei(a,b,c,d){return ec(a,c)&&ec(b,d)||ec(a,d)&&ec(c,b)?!0:0<xa(a,b,c)!==0<xa(a,b,d)&&0<xa(c,d,a)!==0<xa(c,d,b)}function fe(a,b){return 0>xa(a.prev,a,a.next)?0<=xa(a,b,a.next)&&0<=xa(a,a.prev,b):0>xa(a,b,a.prev)||  
0>xa(a,a.next,b)}function fi(a,b){var c=new ug(a.i,a.x,a.y),d=new ug(b.i,b.x,b.y),e=a.next,f=b.prev;a.next=b;b.prev=a;c.next=e;e.prev=c;d.next=c;c.prev=d;f.next=d;d.prev=f;return d}function di(a,b,c,d){a=new ug(a,b,c);d?(a.next=d.next,a.prev=d,d.next.prev=a,d.next=a):(a.prev=a,a.next=a);return a}function ce(a){a.next.prev=a.prev;a.prev.next=a.next;a.prevZ&&(a.prevZ.nextZ=a.nextZ);a.nextZ&&(a.nextZ.prevZ=a.prevZ)}function ug(a,b,c){this.i=a;this.x=b;this.y=c;this.nextZ=this.prevZ=this.z=this.next=  
this.prev=null;this.steiner=!1}function gi(a){var b=a.length;2<b&&a[b-1].equals(a[0])&&a.pop()}function hi(a,b){for(var c=0;c<b.length;c++)a.push(b[c].x),a.push(b[c].y)}function fc(a,b){N.call(this);this.type="ExtrudeGeometry";this.parameters={shapes:a,options:b};this.fromBufferGeometry(new fb(a,b));this.mergeVertices()}function fb(a,b){function c(a){function c(a,b,c){b||console.error("THREE.ExtrudeGeometry: vec does not exist");return b.clone().multiplyScalar(c).add(a)}function g(a,b,c){var d=a.x-  
b.x;var e=a.y-b.y;var f=c.x-a.x;var g=c.y-a.y,h=d\*d+e\*e;if(Math.abs(d\*g-e\*f)>Number.EPSILON){var l=Math.sqrt(h),m=Math.sqrt(f\*f+g\*g);h=b.x-e/l;b=b.y+d/l;g=((c.x-g/m-h)\*g-(c.y+f/m-b)\*f)/(d\*g-e\*f);f=h+d\*g-a.x;d=b+e\*g-a.y;e=f\*f+d\*d;if(2>=e)return new t(f,d);e=Math.sqrt(e/2)}else a=!1,d>Number.EPSILON?f>Number.EPSILON&&(a=!0):d<-Number.EPSILON?f<-Number.EPSILON&&(a=!0):Math.sign(e)===Math.sign(g)&&(a=!0),a?(f=-e,e=Math.sqrt(h)):(f=d,d=e,e=Math.sqrt(h/2));return new t(f/e,d/e)}function h(a,b){for(J=a.length;0<=  
--J;){var c=J;var f=J-1;0>f&&(f=a.length-1);var g,h=z+2\*y;for(g=0;g<h;g++){var l=W\*g,m=W\*(g+1),k=b+f+l,u=b+f+m;m=b+c+m;q(b+c+l);q(k);q(m);q(k);q(u);q(m);l=e.length/3;l=F.generateSideWallUV(d,e,l-6,l-3,l-2,l-1);v(l[0]);v(l[1]);v(l[3]);v(l[1]);v(l[2]);v(l[3])}}}function l(a,b,c){E.push(a);E.push(b);E.push(c)}function k(a,b,c){q(a);q(b);q(c);a=e.length/3;a=F.generateTopUV(d,e,a-3,a-2,a-1);v(a[0]);v(a[1]);v(a[2])}function q(a){e.push(E[3\*a]);e.push(E[3\*a+1]);e.push(E[3\*a+2])}function v(a){f.push(a.x);  
f.push(a.y)}var E=[],w=void 0!==b.curveSegments?b.curveSegments:12,z=void 0!==b.steps?b.steps:1,ha=void 0!==b.depth?b.depth:100,U=void 0!==b.bevelEnabled?b.bevelEnabled:!0,ca=void 0!==b.bevelThickness?b.bevelThickness:6,B=void 0!==b.bevelSize?b.bevelSize:ca-2,A=void 0!==b.bevelOffset?b.bevelOffset:0,y=void 0!==b.bevelSegments?b.bevelSegments:3,C=b.extrudePath,F=void 0!==b.UVGenerator?b.UVGenerator:Ok;void 0!==b.amount&&(console.warn("THREE.ExtrudeBufferGeometry: amount has been renamed to depth."),  
ha=b.amount);var H=!1;if(C){var D=C.getSpacedPoints(z);H=!0;U=!1;var G=C.computeFrenetFrames(z,!1);var M=new n;var N=new n;var K=new n}U||(A=B=ca=y=0);var O;w=a.extractPoints(w);a=w.shape;var L=w.holes;if(!sb.isClockWise(a)){a=a.reverse();var fa=0;for(O=L.length;fa<O;fa++){var P=L[fa];sb.isClockWise(P)&&(L[fa]=P.reverse())}}var X=sb.triangulateShape(a,L),V=a;fa=0;for(O=L.length;fa<O;fa++)P=L[fa],a=a.concat(P);var Z,W=a.length,T,ba=X.length;w=[];var J=0;var Q=V.length;var S=Q-1;for(Z=J+1;J<Q;J++,S++,  
Z++)S===Q&&(S=0),Z===Q&&(Z=0),w[J]=g(V[J],V[S],V[Z]);C=[];var ea=w.concat();fa=0;for(O=L.length;fa<O;fa++){P=L[fa];var aa=[];J=0;Q=P.length;S=Q-1;for(Z=J+1;J<Q;J++,S++,Z++)S===Q&&(S=0),Z===Q&&(Z=0),aa[J]=g(P[J],P[S],P[Z]);C.push(aa);ea=ea.concat(aa)}for(S=0;S<y;S++){Q=S/y;var da=ca\*Math.cos(Q\*Math.PI/2);Z=B\*Math.sin(Q\*Math.PI/2)+A;J=0;for(Q=V.length;J<Q;J++){var R=c(V[J],w[J],Z);l(R.x,R.y,-da)}fa=0;for(O=L.length;fa<O;fa++)for(P=L[fa],aa=C[fa],J=0,Q=P.length;J<Q;J++)R=c(P[J],aa[J],Z),l(R.x,R.y,-da)}Z=  
B+A;for(J=0;J<W;J++)R=U?c(a[J],ea[J],Z):a[J],H?(N.copy(G.normals[0]).multiplyScalar(R.x),M.copy(G.binormals[0]).multiplyScalar(R.y),K.copy(D[0]).add(N).add(M),l(K.x,K.y,K.z)):l(R.x,R.y,0);for(Q=1;Q<=z;Q++)for(J=0;J<W;J++)R=U?c(a[J],ea[J],Z):a[J],H?(N.copy(G.normals[Q]).multiplyScalar(R.x),M.copy(G.binormals[Q]).multiplyScalar(R.y),K.copy(D[Q]).add(N).add(M),l(K.x,K.y,K.z)):l(R.x,R.y,ha/z\*Q);for(S=y-1;0<=S;S--){Q=S/y;da=ca\*Math.cos(Q\*Math.PI/2);Z=B\*Math.sin(Q\*Math.PI/2)+A;J=0;for(Q=V.length;J<Q;J++)R=  
c(V[J],w[J],Z),l(R.x,R.y,ha+da);fa=0;for(O=L.length;fa<O;fa++)for(P=L[fa],aa=C[fa],J=0,Q=P.length;J<Q;J++)R=c(P[J],aa[J],Z),H?l(R.x,R.y+D[z-1].y,D[z-1].x+da):l(R.x,R.y,ha+da)}(function(){var a=e.length/3;if(U){var b=0\*W;for(J=0;J<ba;J++)T=X[J],k(T[2]+b,T[1]+b,T[0]+b);b=W\*(z+2\*y);for(J=0;J<ba;J++)T=X[J],k(T[0]+b,T[1]+b,T[2]+b)}else{for(J=0;J<ba;J++)T=X[J],k(T[2],T[1],T[0]);for(J=0;J<ba;J++)T=X[J],k(T[0]+W\*z,T[1]+W\*z,T[2]+W\*z)}d.addGroup(a,e.length/3-a,0)})();(function(){var a=e.length/3,b=0;h(V,b);  
b+=V.length;fa=0;for(O=L.length;fa<O;fa++)P=L[fa],h(P,b),b+=P.length;d.addGroup(a,e.length/3-a,1)})()}C.call(this);this.type="ExtrudeBufferGeometry";this.parameters={shapes:a,options:b};a=Array.isArray(a)?a:[a];for(var d=this,e=[],f=[],g=0,h=a.length;g<h;g++)c(a[g]);this.setAttribute("position",new y(e,3));this.setAttribute("uv",new y(f,2));this.computeVertexNormals()}function ii(a,b,c){c.shapes=[];if(Array.isArray(a))for(var d=0,e=a.length;d<e;d++)c.shapes.push(a[d].uuid);else c.shapes.push(a.uuid);  
void 0!==b.extrudePath&&(c.options.extrudePath=b.extrudePath.toJSON());return c}function ge(a,b){N.call(this);this.type="TextGeometry";this.parameters={text:a,parameters:b};this.fromBufferGeometry(new Zc(a,b));this.mergeVertices()}function Zc(a,b){b=b||{};var c=b.font;if(!c||!c.isFont)return console.error("THREE.TextGeometry: font parameter is not an instance of THREE.Font."),new N;a=c.generateShapes(a,b.size);b.depth=void 0!==b.height?b.height:50;void 0===b.bevelThickness&&(b.bevelThickness=10);  
void 0===b.bevelSize&&(b.bevelSize=8);void 0===b.bevelEnabled&&(b.bevelEnabled=!1);fb.call(this,a,b);this.type="TextBufferGeometry"}function he(a,b,c,d,e,f,g){N.call(this);this.type="SphereGeometry";this.parameters={radius:a,widthSegments:b,heightSegments:c,phiStart:d,phiLength:e,thetaStart:f,thetaLength:g};this.fromBufferGeometry(new gc(a,b,c,d,e,f,g));this.mergeVertices()}function gc(a,b,c,d,e,f,g){C.call(this);this.type="SphereBufferGeometry";this.parameters={radius:a,widthSegments:b,heightSegments:c,  
phiStart:d,phiLength:e,thetaStart:f,thetaLength:g};a=a||1;b=Math.max(3,Math.floor(b)||8);c=Math.max(2,Math.floor(c)||6);d=void 0!==d?d:0;e=void 0!==e?e:2\*Math.PI;f=void 0!==f?f:0;g=void 0!==g?g:Math.PI;var h=Math.min(f+g,Math.PI),l,m,k=0,p=[],x=new n,r=new n,q=[],v=[],E=[],w=[];for(m=0;m<=c;m++){var t=[],ha=m/c,U=0;0==m&&0==f?U=.5/b:m==c&&h==Math.PI&&(U=-.5/b);for(l=0;l<=b;l++){var ca=l/b;x.x=-a\*Math.cos(d+ca\*e)\*Math.sin(f+ha\*g);x.y=a\*Math.cos(f+ha\*g);x.z=a\*Math.sin(d+ca\*e)\*Math.sin(f+ha\*g);v.push(x.x,  
x.y,x.z);r.copy(x).normalize();E.push(r.x,r.y,r.z);w.push(ca+U,1-ha);t.push(k++)}p.push(t)}for(m=0;m<c;m++)for(l=0;l<b;l++)a=p[m][l+1],d=p[m][l],e=p[m+1][l],g=p[m+1][l+1],(0!==m||0<f)&&q.push(a,d,g),(m!==c-1||h<Math.PI)&&q.push(d,e,g);this.setIndex(q);this.setAttribute("position",new y(v,3));this.setAttribute("normal",new y(E,3));this.setAttribute("uv",new y(w,2))}function ie(a,b,c,d,e,f){N.call(this);this.type="RingGeometry";this.parameters={innerRadius:a,outerRadius:b,thetaSegments:c,phiSegments:d,  
thetaStart:e,thetaLength:f};this.fromBufferGeometry(new $c(a,b,c,d,e,f));this.mergeVertices()}function $c(a,b,c,d,e,f){C.call(this);this.type="RingBufferGeometry";this.parameters={innerRadius:a,outerRadius:b,thetaSegments:c,phiSegments:d,thetaStart:e,thetaLength:f};a=a||.5;b=b||1;e=void 0!==e?e:0;f=void 0!==f?f:2\*Math.PI;c=void 0!==c?Math.max(3,c):8;d=void 0!==d?Math.max(1,d):1;var g=[],h=[],l=[],m=[],k=a,p=(b-a)/d,x=new n,r=new t,q,v;for(q=0;q<=d;q++){for(v=0;v<=c;v++)a=e+v/c\*f,x.x=k\*Math.cos(a),  
x.y=k\*Math.sin(a),h.push(x.x,x.y,x.z),l.push(0,0,1),r.x=(x.x/b+1)/2,r.y=(x.y/b+1)/2,m.push(r.x,r.y);k+=p}for(q=0;q<d;q++)for(b=q\*(c+1),v=0;v<c;v++)a=v+b,e=a+c+1,f=a+c+2,k=a+1,g.push(a,e,k),g.push(e,f,k);this.setIndex(g);this.setAttribute("position",new y(h,3));this.setAttribute("normal",new y(l,3));this.setAttribute("uv",new y(m,2))}function je(a,b,c,d){N.call(this);this.type="LatheGeometry";this.parameters={points:a,segments:b,phiStart:c,phiLength:d};this.fromBufferGeometry(new ad(a,b,c,d));this.mergeVertices()}  
function ad(a,b,c,d){C.call(this);this.type="LatheBufferGeometry";this.parameters={points:a,segments:b,phiStart:c,phiLength:d};b=Math.floor(b)||12;c=c||0;d=d||2\*Math.PI;d=L.clamp(d,0,2\*Math.PI);var e=[],f=[],g=[],h=1/b,l=new n,m=new t,k;for(k=0;k<=b;k++){var p=c+k\*h\*d;var x=Math.sin(p),r=Math.cos(p);for(p=0;p<=a.length-1;p++)l.x=a[p].x\*x,l.y=a[p].y,l.z=a[p].x\*r,f.push(l.x,l.y,l.z),m.x=k/b,m.y=p/(a.length-1),g.push(m.x,m.y)}for(k=0;k<b;k++)for(p=0;p<a.length-1;p++)c=p+k\*a.length,h=c+a.length,l=c+a.length+  
1,m=c+1,e.push(c,h,m),e.push(h,l,m);this.setIndex(e);this.setAttribute("position",new y(f,3));this.setAttribute("uv",new y(g,2));this.computeVertexNormals();if(d===2\*Math.PI)for(d=this.attributes.normal.array,e=new n,f=new n,g=new n,c=b\*a.length\*3,p=k=0;k<a.length;k++,p+=3)e.x=d[p+0],e.y=d[p+1],e.z=d[p+2],f.x=d[c+p+0],f.y=d[c+p+1],f.z=d[c+p+2],g.addVectors(e,f).normalize(),d[p+0]=d[c+p+0]=g.x,d[p+1]=d[c+p+1]=g.y,d[p+2]=d[c+p+2]=g.z}function hc(a,b){N.call(this);this.type="ShapeGeometry";"object"===  
typeof b&&(console.warn("THREE.ShapeGeometry: Options parameter has been removed."),b=b.curveSegments);this.parameters={shapes:a,curveSegments:b};this.fromBufferGeometry(new ic(a,b));this.mergeVertices()}function ic(a,b){function c(a){var c,h=e.length/3;a=a.extractPoints(b);var m=a.shape,k=a.holes;!1===sb.isClockWise(m)&&(m=m.reverse());a=0;for(c=k.length;a<c;a++){var u=k[a];!0===sb.isClockWise(u)&&(k[a]=u.reverse())}var n=sb.triangulateShape(m,k);a=0;for(c=k.length;a<c;a++)u=k[a],m=m.concat(u);a=  
0;for(c=m.length;a<c;a++)u=m[a],e.push(u.x,u.y,0),f.push(0,0,1),g.push(u.x,u.y);a=0;for(c=n.length;a<c;a++)m=n[a],d.push(m[0]+h,m[1]+h,m[2]+h),l+=3}C.call(this);this.type="ShapeBufferGeometry";this.parameters={shapes:a,curveSegments:b};b=b||12;var d=[],e=[],f=[],g=[],h=0,l=0;if(!1===Array.isArray(a))c(a);else for(var m=0;m<a.length;m++)c(a[m]),this.addGroup(h,l,m),h+=l,l=0;this.setIndex(d);this.setAttribute("position",new y(e,3));this.setAttribute("normal",new y(f,3));this.setAttribute("uv",new y(g,  
2))}function ji(a,b){b.shapes=[];if(Array.isArray(a))for(var c=0,d=a.length;c<d;c++)b.shapes.push(a[c].uuid);else b.shapes.push(a.uuid);return b}function bd(a,b){C.call(this);this.type="EdgesGeometry";this.parameters={thresholdAngle:b};var c=[];b=Math.cos(L.DEG2RAD\*(void 0!==b?b:1));var d=[0,0],e={},f=["a","b","c"];if(a.isBufferGeometry){var g=new N;g.fromBufferGeometry(a)}else g=a.clone();g.mergeVertices();g.computeFaceNormals();a=g.vertices;g=g.faces;for(var h=0,l=g.length;h<l;h++)for(var m=g[h],  
k=0;3>k;k++){var p=m[f[k]];var n=m[f[(k+1)%3]];d[0]=Math.min(p,n);d[1]=Math.max(p,n);p=d[0]+","+d[1];void 0===e[p]?e[p]={index1:d[0],index2:d[1],face1:h,face2:void 0}:e[p].face2=h}for(p in e)if(d=e[p],void 0===d.face2||g[d.face1].normal.dot(g[d.face2].normal)<=b)f=a[d.index1],c.push(f.x,f.y,f.z),f=a[d.index2],c.push(f.x,f.y,f.z);this.setAttribute("position",new y(c,3))}function jc(a,b,c,d,e,f,g,h){N.call(this);this.type="CylinderGeometry";this.parameters={radiusTop:a,radiusBottom:b,height:c,radialSegments:d,  
heightSegments:e,openEnded:f,thetaStart:g,thetaLength:h};this.fromBufferGeometry(new tb(a,b,c,d,e,f,g,h));this.mergeVertices()}function tb(a,b,c,d,e,f,g,h){function l(c){var e,f=new t,l=new n,u=0,v=!0===c?a:b,z=!0===c?1:-1;var A=q;for(e=1;e<=d;e++)p.push(0,E\*z,0),x.push(0,z,0),r.push(.5,.5),q++;var y=q;for(e=0;e<=d;e++){var C=e/d\*h+g,D=Math.cos(C);C=Math.sin(C);l.x=v\*C;l.y=E\*z;l.z=v\*D;p.push(l.x,l.y,l.z);x.push(0,z,0);f.x=.5\*D+.5;f.y=.5\*C\*z+.5;r.push(f.x,f.y);q++}for(e=0;e<d;e++)f=A+e,l=y+e,!0===  
c?k.push(l,l+1,f):k.push(l+1,l,f),u+=3;m.addGroup(w,u,!0===c?1:2);w+=u}C.call(this);this.type="CylinderBufferGeometry";this.parameters={radiusTop:a,radiusBottom:b,height:c,radialSegments:d,heightSegments:e,openEnded:f,thetaStart:g,thetaLength:h};var m=this;a=void 0!==a?a:1;b=void 0!==b?b:1;c=c||1;d=Math.floor(d)||8;e=Math.floor(e)||1;f=void 0!==f?f:!1;g=void 0!==g?g:0;h=void 0!==h?h:2\*Math.PI;var k=[],p=[],x=[],r=[],q=0,v=[],E=c/2,w=0;(function(){var f,l,u=new n,t=new n,B=0,A=(b-a)/c;for(l=0;l<=e;l++){var C=  
[],y=l/e,D=y\*(b-a)+a;for(f=0;f<=d;f++){var H=f/d,F=H\*h+g,G=Math.sin(F);F=Math.cos(F);t.x=D\*G;t.y=-y\*c+E;t.z=D\*F;p.push(t.x,t.y,t.z);u.set(G,A,F).normalize();x.push(u.x,u.y,u.z);r.push(H,1-y);C.push(q++)}v.push(C)}for(f=0;f<d;f++)for(l=0;l<e;l++)u=v[l+1][f],t=v[l+1][f+1],A=v[l][f+1],k.push(v[l][f],u,A),k.push(u,t,A),B+=6;m.addGroup(w,B,0);w+=B})();!1===f&&(0<a&&l(!0),0<b&&l(!1));this.setIndex(k);this.setAttribute("position",new y(p,3));this.setAttribute("normal",new y(x,3));this.setAttribute("uv",  
new y(r,2))}function ke(a,b,c,d,e,f,g){jc.call(this,0,a,b,c,d,e,f,g);this.type="ConeGeometry";this.parameters={radius:a,height:b,radialSegments:c,heightSegments:d,openEnded:e,thetaStart:f,thetaLength:g}}function le(a,b,c,d,e,f,g){tb.call(this,0,a,b,c,d,e,f,g);this.type="ConeBufferGeometry";this.parameters={radius:a,height:b,radialSegments:c,heightSegments:d,openEnded:e,thetaStart:f,thetaLength:g}}function me(a,b,c,d){N.call(this);this.type="CircleGeometry";this.parameters={radius:a,segments:b,thetaStart:c,  
thetaLength:d};this.fromBufferGeometry(new cd(a,b,c,d));this.mergeVertices()}function cd(a,b,c,d){C.call(this);this.type="CircleBufferGeometry";this.parameters={radius:a,segments:b,thetaStart:c,thetaLength:d};a=a||1;b=void 0!==b?Math.max(3,b):8;c=void 0!==c?c:0;d=void 0!==d?d:2\*Math.PI;var e=[],f=[],g=[],h=[],l,m=new n,k=new t;f.push(0,0,0);g.push(0,0,1);h.push(.5,.5);var p=0;for(l=3;p<=b;p++,l+=3){var x=c+p/b\*d;m.x=a\*Math.cos(x);m.y=a\*Math.sin(x);f.push(m.x,m.y,m.z);g.push(0,0,1);k.x=(f[l]/a+1)/  
2;k.y=(f[l+1]/a+1)/2;h.push(k.x,k.y)}for(l=1;l<=b;l++)e.push(l,l+1,0);this.setIndex(e);this.setAttribute("position",new y(f,3));this.setAttribute("normal",new y(g,3));this.setAttribute("uv",new y(h,2))}function kc(a){K.call(this);this.type="ShadowMaterial";this.color=new A(0);this.transparent=!0;this.setValues(a)}function ub(a){Ba.call(this,a);this.type="RawShaderMaterial"}function gb(a){K.call(this);this.defines={STANDARD:""};this.type="MeshStandardMaterial";this.color=new A(16777215);this.roughness=  
1;this.metalness=0;this.lightMap=this.map=null;this.lightMapIntensity=1;this.aoMap=null;this.aoMapIntensity=1;this.emissive=new A(0);this.emissiveIntensity=1;this.bumpMap=this.emissiveMap=null;this.bumpScale=1;this.normalMap=null;this.normalMapType=0;this.normalScale=new t(1,1);this.displacementMap=null;this.displacementScale=1;this.displacementBias=0;this.envMap=this.alphaMap=this.metalnessMap=this.roughnessMap=null;this.envMapIntensity=1;this.refractionRatio=.98;this.wireframe=!1;this.wireframeLinewidth=  
1;this.wireframeLinejoin=this.wireframeLinecap="round";this.vertexTangents=this.morphNormals=this.morphTargets=this.skinning=!1;this.setValues(a)}function lc(a){gb.call(this);this.defines={STANDARD:"",PHYSICAL:""};this.type="MeshPhysicalMaterial";this.clearcoat=0;this.clearcoatMap=null;this.clearcoatRoughness=0;this.clearcoatRoughnessMap=null;this.clearcoatNormalScale=new t(1,1);this.clearcoatNormalMap=null;this.reflectivity=.5;this.sheen=null;this.transparency=0;this.setValues(a)}function Jb(a){K.call(this);  
this.type="MeshPhongMaterial";this.color=new A(16777215);this.specular=new A(1118481);this.shininess=30;this.lightMap=this.map=null;this.lightMapIntensity=1;this.aoMap=null;this.aoMapIntensity=1;this.emissive=new A(0);this.emissiveIntensity=1;this.bumpMap=this.emissiveMap=null;this.bumpScale=1;this.normalMap=null;this.normalMapType=0;this.normalScale=new t(1,1);this.displacementMap=null;this.displacementScale=1;this.displacementBias=0;this.envMap=this.alphaMap=this.specularMap=null;this.combine=0;  
this.reflectivity=1;this.refractionRatio=.98;this.wireframe=!1;this.wireframeLinewidth=1;this.wireframeLinejoin=this.wireframeLinecap="round";this.morphNormals=this.morphTargets=this.skinning=!1;this.setValues(a)}function mc(a){K.call(this);this.defines={TOON:""};this.type="MeshToonMaterial";this.color=new A(16777215);this.specular=new A(1118481);this.shininess=30;this.lightMap=this.gradientMap=this.map=null;this.lightMapIntensity=1;this.aoMap=null;this.aoMapIntensity=1;this.emissive=new A(0);this.emissiveIntensity=  
1;this.bumpMap=this.emissiveMap=null;this.bumpScale=1;this.normalMap=null;this.normalMapType=0;this.normalScale=new t(1,1);this.displacementMap=null;this.displacementScale=1;this.displacementBias=0;this.alphaMap=this.specularMap=null;this.wireframe=!1;this.wireframeLinewidth=1;this.wireframeLinejoin=this.wireframeLinecap="round";this.morphNormals=this.morphTargets=this.skinning=!1;this.setValues(a)}function nc(a){K.call(this);this.type="MeshNormalMaterial";this.bumpMap=null;this.bumpScale=1;this.normalMap=  
null;this.normalMapType=0;this.normalScale=new t(1,1);this.displacementMap=null;this.displacementScale=1;this.displacementBias=0;this.wireframe=!1;this.wireframeLinewidth=1;this.morphNormals=this.morphTargets=this.skinning=this.fog=!1;this.setValues(a)}function oc(a){K.call(this);this.type="MeshLambertMaterial";this.color=new A(16777215);this.lightMap=this.map=null;this.lightMapIntensity=1;this.aoMap=null;this.aoMapIntensity=1;this.emissive=new A(0);this.emissiveIntensity=1;this.envMap=this.alphaMap=  
this.specularMap=this.emissiveMap=null;this.combine=0;this.reflectivity=1;this.refractionRatio=.98;this.wireframe=!1;this.wireframeLinewidth=1;this.wireframeLinejoin=this.wireframeLinecap="round";this.morphNormals=this.morphTargets=this.skinning=!1;this.setValues(a)}function pc(a){K.call(this);this.defines={MATCAP:""};this.type="MeshMatcapMaterial";this.color=new A(16777215);this.bumpMap=this.map=this.matcap=null;this.bumpScale=1;this.normalMap=null;this.normalMapType=0;this.normalScale=new t(1,1);  
this.displacementMap=null;this.displacementScale=1;this.displacementBias=0;this.alphaMap=null;this.morphNormals=this.morphTargets=this.skinning=!1;this.setValues(a)}function qc(a){la.call(this);this.type="LineDashedMaterial";this.scale=1;this.dashSize=3;this.gapSize=1;this.setValues(a)}function La(a,b,c,d){this.parameterPositions=a;this.\_cachedIndex=0;this.resultBuffer=void 0!==d?d:new b.constructor(c);this.sampleValues=b;this.valueSize=c}function Xe(a,b,c,d){La.call(this,a,b,c,d);this.\_offsetNext=  
this.\_weightNext=this.\_offsetPrev=this.\_weightPrev=-0}function ne(a,b,c,d){La.call(this,a,b,c,d)}function Ye(a,b,c,d){La.call(this,a,b,c,d)}function sa(a,b,c,d){if(void 0===a)throw Error("THREE.KeyframeTrack: track name is undefined");if(void 0===b||0===b.length)throw Error("THREE.KeyframeTrack: no keyframes in track named "+a);this.name=a;this.times=R.convertArray(b,this.TimeBufferType);this.values=R.convertArray(c,this.ValueBufferType);this.setInterpolation(d||this.DefaultInterpolation)}function Ze(a,  
b,c){sa.call(this,a,b,c)}function $e(a,b,c,d){sa.call(this,a,b,c,d)}function dd(a,b,c,d){sa.call(this,a,b,c,d)}function af(a,b,c,d){La.call(this,a,b,c,d)}function oe(a,b,c,d){sa.call(this,a,b,c,d)}function bf(a,b,c,d){sa.call(this,a,b,c,d)}function ed(a,b,c,d){sa.call(this,a,b,c,d)}function Qa(a,b,c){this.name=a;this.tracks=c;this.duration=void 0!==b?b:-1;this.uuid=L.generateUUID();0>this.duration&&this.resetDuration()}function Pk(a){switch(a.toLowerCase()){case "scalar":case "double":case "float":case "number":case "integer":return dd;  
case "vector":case "vector2":case "vector3":case "vector4":return ed;case "color":return $e;case "quaternion":return oe;case "bool":case "boolean":return Ze;case "string":return bf}throw Error("THREE.KeyframeTrack: Unsupported typeName: "+a);}function Qk(a){if(void 0===a.type)throw Error("THREE.KeyframeTrack: track type undefined, can not parse");var b=Pk(a.type);if(void 0===a.times){var c=[],d=[];R.flattenJSON(a.keys,c,d,"value");a.times=c;a.values=d}return void 0!==b.parse?b.parse(a):new b(a.name,  
a.times,a.values,a.interpolation)}function vg(a,b,c){var d=this,e=!1,f=0,g=0,h=void 0,l=[];this.onStart=void 0;this.onLoad=a;this.onProgress=b;this.onError=c;this.itemStart=function(a){g++;if(!1===e&&void 0!==d.onStart)d.onStart(a,f,g);e=!0};this.itemEnd=function(a){f++;if(void 0!==d.onProgress)d.onProgress(a,f,g);if(f===g&&(e=!1,void 0!==d.onLoad))d.onLoad()};this.itemError=function(a){if(void 0!==d.onError)d.onError(a)};this.resolveURL=function(a){return h?h(a):a};this.setURLModifier=function(a){h=  
a;return this};this.addHandler=function(a,b){l.push(a,b);return this};this.removeHandler=function(a){a=l.indexOf(a);-1!==a&&l.splice(a,2);return this};this.getHandler=function(a){for(var b=0,c=l.length;b<c;b+=2){var d=l[b],e=l[b+1];d.global&&(d.lastIndex=0);if(d.test(a))return e}return null}}function W(a){this.manager=void 0!==a?a:ki;this.crossOrigin="anonymous";this.resourcePath=this.path=""}function Ra(a){W.call(this,a)}function wg(a){W.call(this,a)}function xg(a){W.call(this,a)}function cf(a){W.call(this,  
a)}function fd(a){W.call(this,a)}function df(a){W.call(this,a)}function ef(a){W.call(this,a)}function G(){this.type="Curve";this.arcLengthDivisions=200}function Ma(a,b,c,d,e,f,g,h){G.call(this);this.type="EllipseCurve";this.aX=a||0;this.aY=b||0;this.xRadius=c||1;this.yRadius=d||1;this.aStartAngle=e||0;this.aEndAngle=f||2\*Math.PI;this.aClockwise=g||!1;this.aRotation=h||0}function gd(a,b,c,d,e,f){Ma.call(this,a,b,c,c,d,e,f);this.type="ArcCurve"}function yg(){var a=0,b=0,c=0,d=0;return{initCatmullRom:function(e,  
f,g,h,l){e=l\*(g-e);h=l\*(h-f);a=f;b=e;c=-3\*f+3\*g-2\*e-h;d=2\*f-2\*g+e+h},initNonuniformCatmullRom:function(e,f,g,h,l,m,k){e=((f-e)/l-(g-e)/(l+m)+(g-f)/m)\*m;h=((g-f)/m-(h-f)/(m+k)+(h-g)/k)\*m;a=f;b=e;c=-3\*f+3\*g-2\*e-h;d=2\*f-2\*g+e+h},calc:function(e){var f=e\*e;return a+b\*e+c\*f+d\*f\*e}}}function pa(a,b,c,d){G.call(this);this.type="CatmullRomCurve3";this.points=a||[];this.closed=b||!1;this.curveType=c||"centripetal";this.tension=d||.5}function li(a,b,c,d,e){b=.5\*(d-b);e=.5\*(e-c);var f=a\*a;return(2\*c-2\*d+b+e)\*  
a\*f+(-3\*c+3\*d-2\*b-e)\*f+b\*a+c}function pe(a,b,c,d){var e=1-a;return e\*e\*b+2\*(1-a)\*a\*c+a\*a\*d}function qe(a,b,c,d,e){var f=1-a,g=1-a;return f\*f\*f\*b+3\*g\*g\*a\*c+3\*(1-a)\*a\*a\*d+a\*a\*a\*e}function Wa(a,b,c,d){G.call(this);this.type="CubicBezierCurve";this.v0=a||new t;this.v1=b||new t;this.v2=c||new t;this.v3=d||new t}function hb(a,b,c,d){G.call(this);this.type="CubicBezierCurve3";this.v0=a||new n;this.v1=b||new n;this.v2=c||new n;this.v3=d||new n}function Da(a,b){G.call(this);this.type="LineCurve";this.v1=a||  
new t;this.v2=b||new t}function Xa(a,b){G.call(this);this.type="LineCurve3";this.v1=a||new n;this.v2=b||new n}function Ya(a,b,c){G.call(this);this.type="QuadraticBezierCurve";this.v0=a||new t;this.v1=b||new t;this.v2=c||new t}function ib(a,b,c){G.call(this);this.type="QuadraticBezierCurve3";this.v0=a||new n;this.v1=b||new n;this.v2=c||new n}function Za(a){G.call(this);this.type="SplineCurve";this.points=a||[]}function vb(){G.call(this);this.type="CurvePath";this.curves=[];this.autoClose=!1}function $a(a){vb.call(this);  
this.type="Path";this.currentPoint=new t;a&&this.setFromPoints(a)}function Kb(a){$a.call(this,a);this.uuid=L.generateUUID();this.type="Shape";this.holes=[]}function da(a,b){F.call(this);this.type="Light";this.color=new A(a);this.intensity=void 0!==b?b:1;this.receiveShadow=void 0}function ff(a,b,c){da.call(this,a,c);this.type="HemisphereLight";this.castShadow=void 0;this.position.copy(F.DefaultUp);this.updateMatrix();this.groundColor=new A(b)}function jb(a){this.camera=a;this.bias=0;this.radius=1;  
this.mapSize=new t(512,512);this.mapPass=this.map=null;this.matrix=new P;this.\_frustum=new Hc;this.\_frameExtents=new t(1,1);this.\_viewportCount=1;this.\_viewports=[new ka(0,0,1,1)]}function gf(){jb.call(this,new aa(50,1,.5,500))}function hf(a,b,c,d,e,f){da.call(this,a,b);this.type="SpotLight";this.position.copy(F.DefaultUp);this.updateMatrix();this.target=new F;Object.defineProperty(this,"power",{get:function(){return this.intensity\*Math.PI},set:function(a){this.intensity=a/Math.PI}});this.distance=  
void 0!==c?c:0;this.angle=void 0!==d?d:Math.PI/3;this.penumbra=void 0!==e?e:0;this.decay=void 0!==f?f:1;this.shadow=new gf}function zg(){jb.call(this,new aa(90,1,.5,500));this.\_frameExtents=new t(4,2);this.\_viewportCount=6;this.\_viewports=[new ka(2,1,1,1),new ka(0,1,1,1),new ka(3,1,1,1),new ka(1,1,1,1),new ka(3,0,1,1),new ka(1,0,1,1)];this.\_cubeDirections=[new n(1,0,0),new n(-1,0,0),new n(0,0,1),new n(0,0,-1),new n(0,1,0),new n(0,-1,0)];this.\_cubeUps=[new n(0,1,0),new n(0,1,0),new n(0,1,0),new n(0,  
1,0),new n(0,0,1),new n(0,0,-1)]}function jf(a,b,c,d){da.call(this,a,b);this.type="PointLight";Object.defineProperty(this,"power",{get:function(){return 4\*this.intensity\*Math.PI},set:function(a){this.intensity=a/(4\*Math.PI)}});this.distance=void 0!==c?c:0;this.decay=void 0!==d?d:1;this.shadow=new zg}function hd(a,b,c,d,e,f){db.call(this);this.type="OrthographicCamera";this.zoom=1;this.view=null;this.left=void 0!==a?a:-1;this.right=void 0!==b?b:1;this.top=void 0!==c?c:1;this.bottom=void 0!==d?d:-1;  
this.near=void 0!==e?e:.1;this.far=void 0!==f?f:2E3;this.updateProjectionMatrix()}function kf(){jb.call(this,new hd(-5,5,5,-5,.5,500))}function lf(a,b){da.call(this,a,b);this.type="DirectionalLight";this.position.copy(F.DefaultUp);this.updateMatrix();this.target=new F;this.shadow=new kf}function mf(a,b){da.call(this,a,b);this.type="AmbientLight";this.castShadow=void 0}function nf(a,b,c,d){da.call(this,a,b);this.type="RectAreaLight";this.width=void 0!==c?c:10;this.height=void 0!==d?d:10}function of(a){W.call(this,  
a);this.textures={}}function pf(){C.call(this);this.type="InstancedBufferGeometry";this.maxInstancedCount=void 0}function qf(a,b,c,d){"number"===typeof c&&(d=c,c=!1,console.error("THREE.InstancedBufferAttribute: The constructor now expects normalized as the third argument."));M.call(this,a,b,c);this.meshPerAttribute=d||1}function rf(a){W.call(this,a)}function sf(a){W.call(this,a)}function Ag(a){"undefined"===typeof createImageBitmap&&console.warn("THREE.ImageBitmapLoader: createImageBitmap() not supported.");  
"undefined"===typeof fetch&&console.warn("THREE.ImageBitmapLoader: fetch() not supported.");W.call(this,a);this.options=void 0}function Bg(){this.type="ShapePath";this.color=new A;this.subPaths=[];this.currentPath=null}function Cg(a){this.type="Font";this.data=a}function Dg(a){W.call(this,a)}function tf(a){W.call(this,a)}function uf(){this.coefficients=[];for(var a=0;9>a;a++)this.coefficients.push(new n)}function ab(a,b){da.call(this,void 0,b);this.sh=void 0!==a?a:new uf}function Eg(a,b,c){ab.call(this,  
void 0,c);a=(new A).set(a);c=(new A).set(b);b=new n(a.r,a.g,a.b);a=new n(c.r,c.g,c.b);c=Math.sqrt(Math.PI);var d=c\*Math.sqrt(.75);this.sh.coefficients[0].copy(b).add(a).multiplyScalar(c);this.sh.coefficients[1].copy(b).sub(a).multiplyScalar(d)}function Fg(a,b){ab.call(this,void 0,b);a=(new A).set(a);this.sh.coefficients[0].set(a.r,a.g,a.b).multiplyScalar(2\*Math.sqrt(Math.PI))}function mi(){this.type="StereoCamera";this.aspect=1;this.eyeSep=.064;this.cameraL=new aa;this.cameraL.layers.enable(1);this.cameraL.matrixAutoUpdate=  
!1;this.cameraR=new aa;this.cameraR.layers.enable(2);this.cameraR.matrixAutoUpdate=!1;this.\_cache={focus:null,fov:null,aspect:null,near:null,far:null,zoom:null,eyeSep:null}}function Gg(a){this.autoStart=void 0!==a?a:!0;this.elapsedTime=this.oldTime=this.startTime=0;this.running=!1}function Hg(){F.call(this);this.type="AudioListener";this.context=Ig.getContext();this.gain=this.context.createGain();this.gain.connect(this.context.destination);this.filter=null;this.timeDelta=0;this.\_clock=new Gg}function id(a){F.call(this);  
this.type="Audio";this.listener=a;this.context=a.context;this.gain=this.context.createGain();this.gain.connect(a.getInput());this.autoplay=!1;this.buffer=null;this.detune=0;this.loop=!1;this.offset=this.loopEnd=this.loopStart=0;this.duration=void 0;this.playbackRate=1;this.isPlaying=!1;this.hasPlaybackControl=!0;this.sourceType="empty";this.\_pausedAt=this.\_startedAt=0;this.filters=[]}function Jg(a){id.call(this,a);this.panner=this.context.createPanner();this.panner.panningModel="HRTF";this.panner.connect(this.gain)}  
function Kg(a,b){this.analyser=a.context.createAnalyser();this.analyser.fftSize=void 0!==b?b:2048;this.data=new Uint8Array(this.analyser.frequencyBinCount);a.getOutput().connect(this.analyser)}function Lg(a,b,c){this.binding=a;this.valueSize=c;a=Float64Array;switch(b){case "quaternion":b=this.\_slerp;break;case "string":case "bool":a=Array;b=this.\_select;break;default:b=this.\_lerp}this.buffer=new a(4\*c);this.\_mixBufferRegion=b;this.referenceCount=this.useCount=this.cumulativeWeight=0}function ni(a,  
b,c){c=c||ya.parseTrackName(b);this.\_targetGroup=a;this.\_bindings=a.subscribe\_(b,c)}function ya(a,b,c){this.path=b;this.parsedPath=c||ya.parseTrackName(b);this.node=ya.findNode(a,this.parsedPath.nodeName)||a;this.rootNode=a}function oi(){this.uuid=L.generateUUID();this.\_objects=Array.prototype.slice.call(arguments);this.nCachedObjects\_=0;var a={};this.\_indicesByUUID=a;for(var b=0,c=arguments.length;b!==c;++b)a[arguments[b].uuid]=b;this.\_paths=[];this.\_parsedPaths=[];this.\_bindings=[];this.\_bindingsIndicesByPath=  
{};var d=this;this.stats={objects:{get total(){return d.\_objects.length},get inUse(){return this.total-d.nCachedObjects\_}},get bindingsPerObject(){return d.\_bindings.length}}}function pi(a,b,c){this.\_mixer=a;this.\_clip=b;this.\_localRoot=c||null;a=b.tracks;b=a.length;c=Array(b);for(var d={endingStart:2400,endingEnd:2400},e=0;e!==b;++e){var f=a[e].createInterpolant(null);c[e]=f;f.settings=d}this.\_interpolantSettings=d;this.\_interpolants=c;this.\_propertyBindings=Array(b);this.\_weightInterpolant=this.\_timeScaleInterpolant=  
this.\_byClipCacheIndex=this.\_cacheIndex=null;this.loop=2201;this.\_loopCount=-1;this.\_startTime=null;this.time=0;this.\_effectiveWeight=this.weight=this.\_effectiveTimeScale=this.timeScale=1;this.repetitions=Infinity;this.paused=!1;this.enabled=!0;this.clampWhenFinished=!1;this.zeroSlopeAtEnd=this.zeroSlopeAtStart=!0}function Mg(a){this.\_root=a;this.\_initMemoryManager();this.time=this.\_accuIndex=0;this.timeScale=1}function vf(a,b){"string"===typeof a&&(console.warn("THREE.Uniform: Type parameter is no longer needed."),  
a=b);this.value=a}function Ng(a,b,c){rb.call(this,a,b);this.meshPerAttribute=c||1}function Og(a,b,c,d){this.ray=new Vb(a,b);this.near=c||0;this.far=d||Infinity;this.camera=null;this.layers=new He;this.params={Mesh:{},Line:{threshold:1},LOD:{},Points:{threshold:1},Sprite:{}};Object.defineProperties(this.params,{PointCloud:{get:function(){console.warn("THREE.Raycaster: params.PointCloud has been renamed to params.Points.");return this.Points}}})}function qi(a,b){return a.distance-b.distance}function Pg(a,  
b,c,d){a.layers.test(b.layers)&&a.raycast(b,c);if(!0===d){a=a.children;d=0;for(var e=a.length;d<e;d++)Pg(a[d],b,c,!0)}}function ri(a,b,c){this.radius=void 0!==a?a:1;this.phi=void 0!==b?b:0;this.theta=void 0!==c?c:0;return this}function si(a,b,c){this.radius=void 0!==a?a:1;this.theta=void 0!==b?b:0;this.y=void 0!==c?c:0;return this}function Qg(a,b){this.min=void 0!==a?a:new t(Infinity,Infinity);this.max=void 0!==b?b:new t(-Infinity,-Infinity)}function Rg(a,b){this.start=void 0!==a?a:new n;this.end=  
void 0!==b?b:new n}function re(a){F.call(this);this.material=a;this.render=function(){}}function jd(a,b){F.call(this);this.light=a;this.light.updateMatrixWorld();this.matrix=a.matrixWorld;this.matrixAutoUpdate=!1;this.color=b;a=new C;b=[0,0,0,0,0,1,0,0,0,1,0,1,0,0,0,-1,0,1,0,0,0,0,1,1,0,0,0,0,-1,1];for(var c=0,d=1;32>c;c++,d++){var e=c/32\*Math.PI\*2,f=d/32\*Math.PI\*2;b.push(Math.cos(e),Math.sin(e),1,Math.cos(f),Math.sin(f),1)}a.setAttribute("position",new y(b,3));b=new la({fog:!1,toneMapped:!1});this.cone=  
new ma(a,b);this.add(this.cone);this.update()}function ti(a){var b=[];a&&a.isBone&&b.push(a);for(var c=0;c<a.children.length;c++)b.push.apply(b,ti(a.children[c]));return b}function rc(a){for(var b=ti(a),c=new C,d=[],e=[],f=new A(0,0,1),g=new A(0,1,0),h=0;h<b.length;h++){var l=b[h];l.parent&&l.parent.isBone&&(d.push(0,0,0),d.push(0,0,0),e.push(f.r,f.g,f.b),e.push(g.r,g.g,g.b))}c.setAttribute("position",new y(d,3));c.setAttribute("color",new y(e,3));d=new la({vertexColors:!0,depthTest:!1,depthWrite:!1,  
toneMapped:!1,transparent:!0});ma.call(this,c,d);this.root=a;this.bones=b;this.matrix=a.matrixWorld;this.matrixAutoUpdate=!1}function kd(a,b,c){this.light=a;this.light.updateMatrixWorld();this.color=c;a=new gc(b,4,2);b=new Oa({wireframe:!0,fog:!1,toneMapped:!1});S.call(this,a,b);this.matrix=this.light.matrixWorld;this.matrixAutoUpdate=!1;this.update()}function ld(a,b,c){F.call(this);this.light=a;this.light.updateMatrixWorld();this.matrix=a.matrixWorld;this.matrixAutoUpdate=!1;this.color=c;a=new cc(b);  
a.rotateY(.5\*Math.PI);this.material=new Oa({wireframe:!0,fog:!1,toneMapped:!1});void 0===this.color&&(this.material.vertexColors=!0);b=a.getAttribute("position");b=new Float32Array(3\*b.count);a.setAttribute("color",new M(b,3));this.add(new S(a,this.material));this.update()}function wf(a,b,c,d){a=a||10;b=b||10;c=new A(void 0!==c?c:4473924);d=new A(void 0!==d?d:8947848);var e=b/2,f=a/b,g=a/2;a=[];for(var h=[],l=0,m=0,k=-g;l<=b;l++,k+=f){a.push(-g,0,k,g,0,k);a.push(k,0,-g,k,0,g);var p=l===e?c:d;p.toArray(h,  
m);m+=3;p.toArray(h,m);m+=3;p.toArray(h,m);m+=3;p.toArray(h,m);m+=3}b=new C;b.setAttribute("position",new y(a,3));b.setAttribute("color",new y(h,3));c=new la({vertexColors:!0,toneMapped:!1});ma.call(this,b,c)}function xf(a,b,c,d,e,f){a=a||10;b=b||16;c=c||8;d=d||64;e=new A(void 0!==e?e:4473924);f=new A(void 0!==f?f:8947848);var g=[],h=[],l;for(l=0;l<=b;l++){var m=l/b\*2\*Math.PI;var k=Math.sin(m)\*a;m=Math.cos(m)\*a;g.push(0,0,0);g.push(k,0,m);var p=l&1?e:f;h.push(p.r,p.g,p.b);h.push(p.r,p.g,p.b)}for(l=  
0;l<=c;l++){p=l&1?e:f;var n=a-a/c\*l;for(b=0;b<d;b++)m=b/d\*2\*Math.PI,k=Math.sin(m)\*n,m=Math.cos(m)\*n,g.push(k,0,m),h.push(p.r,p.g,p.b),m=(b+1)/d\*2\*Math.PI,k=Math.sin(m)\*n,m=Math.cos(m)\*n,g.push(k,0,m),h.push(p.r,p.g,p.b)}a=new C;a.setAttribute("position",new y(g,3));a.setAttribute("color",new y(h,3));g=new la({vertexColors:!0,toneMapped:!1});ma.call(this,a,g)}function md(a,b,c){F.call(this);this.light=a;this.light.updateMatrixWorld();this.matrix=a.matrixWorld;this.matrixAutoUpdate=!1;this.color=c;  
void 0===b&&(b=1);a=new C;a.setAttribute("position",new y([-b,b,0,b,b,0,b,-b,0,-b,-b,0,-b,b,0],3));b=new la({fog:!1,toneMapped:!1});this.lightPlane=new Ka(a,b);this.add(this.lightPlane);a=new C;a.setAttribute("position",new y([0,0,0,0,0,1],3));this.targetLine=new Ka(a,b);this.add(this.targetLine);this.update()}function se(a){function b(a,b,d){c(a,d);c(b,d)}function c(a,b){f.push(0,0,0);g.push(b.r,b.g,b.b);void 0===h[a]&&(h[a]=[]);h[a].push(f.length/3-1)}var d=new C,e=new la({color:16777215,vertexColors:!0,  
toneMapped:!1}),f=[],g=[],h={},l=new A(16755200),m=new A(16711680),k=new A(43775),p=new A(16777215),n=new A(3355443);b("n1","n2",l);b("n2","n4",l);b("n4","n3",l);b("n3","n1",l);b("f1","f2",l);b("f2","f4",l);b("f4","f3",l);b("f3","f1",l);b("n1","f1",l);b("n2","f2",l);b("n3","f3",l);b("n4","f4",l);b("p","n1",m);b("p","n2",m);b("p","n3",m);b("p","n4",m);b("u1","u2",k);b("u2","u3",k);b("u3","u1",k);b("c","t",p);b("p","c",n);b("cn1","cn2",n);b("cn3","cn4",n);b("cf1","cf2",n);b("cf3","cf4",n);d.setAttribute("position",  
new y(f,3));d.setAttribute("color",new y(g,3));ma.call(this,d,e);this.camera=a;this.camera.updateProjectionMatrix&&this.camera.updateProjectionMatrix();this.matrix=a.matrixWorld;this.matrixAutoUpdate=!1;this.pointMap=h;this.update()}function na(a,b,c,d,e,f,g){yf.set(e,f,g).unproject(d);a=b[a];if(void 0!==a)for(c=c.getAttribute("position"),b=0,d=a.length;b<d;b++)c.setXYZ(a[b],yf.x,yf.y,yf.z)}function wb(a,b){this.object=a;void 0===b&&(b=16776960);a=new Uint16Array([0,1,1,2,2,3,3,0,4,5,5,6,6,7,7,4,  
0,4,1,5,2,6,3,7]);var c=new Float32Array(24),d=new C;d.setIndex(new M(a,1));d.setAttribute("position",new M(c,3));ma.call(this,d,new la({color:b,toneMapped:!1}));this.matrixAutoUpdate=!1;this.update()}function te(a,b){this.type="Box3Helper";this.box=a;b=b||16776960;a=new Uint16Array([0,1,1,2,2,3,3,0,4,5,5,6,6,7,7,4,0,4,1,5,2,6,3,7]);var c=new C;c.setIndex(new M(a,1));c.setAttribute("position",new y([1,1,1,-1,1,1,-1,-1,1,1,-1,1,1,1,-1,-1,1,-1,-1,-1,-1,1,-1,-1],3));ma.call(this,c,new la({color:b,toneMapped:!1}));  
this.geometry.computeBoundingSphere()}function ue(a,b,c){this.type="PlaneHelper";this.plane=a;this.size=void 0===b?1:b;a=void 0!==c?c:16776960;b=new C;b.setAttribute("position",new y([1,-1,1,-1,1,1,-1,-1,1,1,1,1,-1,1,1,-1,-1,1,1,-1,1,1,1,1,0,0,1,0,0,0],3));b.computeBoundingSphere();Ka.call(this,b,new la({color:a,toneMapped:!1}));b=new C;b.setAttribute("position",new y([1,1,1,-1,1,1,-1,-1,1,1,1,1,-1,-1,1,1,-1,1],3));b.computeBoundingSphere();this.add(new S(b,new Oa({color:a,opacity:.2,transparent:!0,  
depthWrite:!1,toneMapped:!1})))}function xb(a,b,c,d,e,f){F.call(this);void 0===a&&(a=new n(0,0,1));void 0===b&&(b=new n(0,0,0));void 0===c&&(c=1);void 0===d&&(d=16776960);void 0===e&&(e=.2\*c);void 0===f&&(f=.2\*e);void 0===zf&&(zf=new C,zf.setAttribute("position",new y([0,0,0,0,1,0],3)),Sg=new tb(0,.5,1,5,1),Sg.translate(0,-.5,0));this.position.copy(b);this.line=new Ka(zf,new la({color:d,toneMapped:!1}));this.line.matrixAutoUpdate=!1;this.add(this.line);this.cone=new S(Sg,new Oa({color:d,toneMapped:!1}));  
this.cone.matrixAutoUpdate=!1;this.add(this.cone);this.setDirection(a);this.setLength(c,e,f)}function ve(a){a=a||1;var b=[0,0,0,a,0,0,0,0,0,0,a,0,0,0,0,0,0,a];a=new C;a.setAttribute("position",new y(b,3));a.setAttribute("color",new y([1,0,0,1,.6,0,0,1,0,.6,1,0,0,0,1,0,.6,1],3));b=new la({vertexColors:!0,toneMapped:!1});ma.call(this,a,b)}function Tg(a){T=a;Ug(Af)}function ui(a){var b={magFilter:1003,minFilter:1003,generateMipmaps:!1,type:a?a.type:1009,format:a?a.format:1023,encoding:a?a.encoding:3002,  
depthBuffer:!1,stencilBuffer:!1},c=vi(b);c.depthBuffer=a?!1:!0;Bf=vi(b);return c}function wi(a){Bf.dispose();T.setRenderTarget(Vg);a.scissorTest=!1;a.setSize(a.width,a.height)}function Ug(a){var b=new ob;b.add(new S(we[0],a));T.compile(b,Wg)}function vi(a){a=new Ha(3\*kb,3\*kb,a);a.texture.mapping=306;a.texture.name="PMREM.cubeUv";a.scissorTest=!0;return a}function Xg(a,b,c,d,e){a.viewport.set(b,c,d,e);a.scissor.set(b,c,d,e)}function xi(a){var b=T.autoClear;T.autoClear=!1;for(var c=1;c<yi;c++)zi(a,  
c-1,c,Math.sqrt(Cf[c]\*Cf[c]-Cf[c-1]\*Cf[c-1]),Ai[(c-1)%Ai.length]);T.autoClear=b}function zi(a,b,c,d,e){Bi(a,Bf,b,c,d,"latitudinal",e);Bi(Bf,a,c,c,d,"longitudinal",e)}function Bi(a,b,c,d,e,f,g){"latitudinal"!==f&&"longitudinal"!==f&&console.error("blur direction must be either latitudinal or longitudinal!");var h=new ob;h.add(new S(we[d],Af));var l=Af.uniforms,m=Ci[c]-1;m=isFinite(e)?Math.PI/(2\*m):2\*Math.PI/39;var k=e/m,p=isFinite(e)?1+Math.floor(3\*k):20;20<p&&console.warn("sigmaRadians, "+e+", is too large and will clip, as it requested "+  
p+" samples when the maximum is set to 20");e=[];for(var n=0,r=0;20>r;++r){var q=r/k;q=Math.exp(-q\*q/2);e.push(q);0==r?n+=q:r<p&&(n+=2\*q)}for(r=0;r<e.length;r++)e[r]/=n;l.envMap.value=a.texture;l.samples.value=p;l.weights.value=e;l.latitudinal.value="latitudinal"===f;g&&(l.poleAxis.value=g);l.dTheta.value=m;l.mipInt.value=8-c;l.inputEncoding.value=lb[a.texture.encoding];l.outputEncoding.value=lb[a.texture.encoding];a=Ci[d];q=3\*Math.max(0,kb-2\*a);Xg(b,q,(0===d?0:2\*kb)+2\*a\*(4<d?d-8+4:0),3\*a,2\*a);T.setRenderTarget(b);  
T.render(h,Wg)}function Di(){var a=new t(1,1);a=new ub({uniforms:{envMap:{value:null},texelSize:{value:a},inputEncoding:{value:lb[3E3]},outputEncoding:{value:lb[3E3]}},vertexShader:Yg(),fragmentShader:"\nprecision mediump float;\nprecision mediump int;\nvarying vec3 vOutputDirection;\nuniform sampler2D envMap;\nuniform vec2 texelSize;\n\n"+Zg()+"\n\n#define RECIPROCAL\_PI 0.31830988618\n#define RECIPROCAL\_PI2 0.15915494\n\nvoid main() {\n\tgl\_FragColor = vec4(0.0);\n\tvec3 outputDirection = normalize(vOutputDirection);\n\tvec2 uv;\n\tuv.y = asin(clamp(outputDirection.y, -1.0, 1.0)) \* RECIPROCAL\_PI + 0.5;\n\tuv.x = atan(outputDirection.z, outputDirection.x) \* RECIPROCAL\_PI2 + 0.5;\n\tvec2 f = fract(uv / texelSize - 0.5);\n\tuv -= f \* texelSize;\n\tvec3 tl = envMapTexelToLinear(texture2D(envMap, uv)).rgb;\n\tuv.x += texelSize.x;\n\tvec3 tr = envMapTexelToLinear(texture2D(envMap, uv)).rgb;\n\tuv.y += texelSize.y;\n\tvec3 br = envMapTexelToLinear(texture2D(envMap, uv)).rgb;\n\tuv.x -= texelSize.x;\n\tvec3 bl = envMapTexelToLinear(texture2D(envMap, uv)).rgb;\n\tvec3 tm = mix(tl, tr, f.x);\n\tvec3 bm = mix(bl, br, f.x);\n\tgl\_FragColor.rgb = mix(tm, bm, f.y);\n\tgl\_FragColor = linearToOutputTexel(gl\_FragColor);\n}\n\t\t",  
blending:0,depthTest:!1,depthWrite:!1});a.type="EquirectangularToCubeUV";return a}function Ei(){var a=new ub({uniforms:{envMap:{value:null},inputEncoding:{value:lb[3E3]},outputEncoding:{value:lb[3E3]}},vertexShader:Yg(),fragmentShader:"\nprecision mediump float;\nprecision mediump int;\nvarying vec3 vOutputDirection;\nuniform samplerCube envMap;\n\n"+Zg()+"\n\nvoid main() {\n\tgl\_FragColor = vec4(0.0);\n\tgl\_FragColor.rgb = envMapTexelToLinear(textureCube(envMap, vec3( - vOutputDirection.x, vOutputDirection.yz ))).rgb;\n\tgl\_FragColor = linearToOutputTexel(gl\_FragColor);\n}\n\t\t",  
blending:0,depthTest:!1,depthWrite:!1});a.type="CubemapToCubeUV";return a}function Yg(){return"\nprecision mediump float;\nprecision mediump int;\nattribute vec3 position;\nattribute vec2 uv;\nattribute float faceIndex;\nvarying vec3 vOutputDirection;\nvec3 getDirection(vec2 uv, float face) {\n\tuv = 2.0 \* uv - 1.0;\n\tvec3 direction = vec3(uv, 1.0);\n\tif (face == 0.0) {\n\t\tdirection = direction.zyx;\n\t\tdirection.z \*= -1.0;\n\t} else if (face == 1.0) {\n\t\tdirection = direction.xzy;\n\t\tdirection.z \*= -1.0;\n\t} else if (face == 3.0) {\n\t\tdirection = direction.zyx;\n\t\tdirection.x \*= -1.0;\n\t} else if (face == 4.0) {\n\t\tdirection = direction.xzy;\n\t\tdirection.y \*= -1.0;\n\t} else if (face == 5.0) {\n\t\tdirection.xz \*= -1.0;\n\t}\n\treturn direction;\n}\nvoid main() {\n\tvOutputDirection = getDirection(uv, faceIndex);\n\tgl\_Position = vec4( position, 1.0 );\n}\n\t"}  
function Zg(){return"\nuniform int inputEncoding;\nuniform int outputEncoding;\n\n#include <encodings\_pars\_fragment>\n\nvec4 inputTexelToLinear(vec4 value){\n\tif(inputEncoding == 0){\n\t\treturn value;\n\t}else if(inputEncoding == 1){\n\t\treturn sRGBToLinear(value);\n\t}else if(inputEncoding == 2){\n\t\treturn RGBEToLinear(value);\n\t}else if(inputEncoding == 3){\n\t\treturn RGBMToLinear(value, 7.0);\n\t}else if(inputEncoding == 4){\n\t\treturn RGBMToLinear(value, 16.0);\n\t}else if(inputEncoding == 5){\n\t\treturn RGBDToLinear(value, 256.0);\n\t}else{\n\t\treturn GammaToLinear(value, 2.2);\n\t}\n}\n\nvec4 linearToOutputTexel(vec4 value){\n\tif(outputEncoding == 0){\n\t\treturn value;\n\t}else if(outputEncoding == 1){\n\t\treturn LinearTosRGB(value);\n\t}else if(outputEncoding == 2){\n\t\treturn LinearToRGBE(value);\n\t}else if(outputEncoding == 3){\n\t\treturn LinearToRGBM(value, 7.0);\n\t}else if(outputEncoding == 4){\n\t\treturn LinearToRGBM(value, 16.0);\n\t}else if(outputEncoding == 5){\n\t\treturn LinearToRGBD(value, 256.0);\n\t}else{\n\t\treturn LinearToGamma(value, 2.2);\n\t}\n}\n\nvec4 envMapTexelToLinear(vec4 color) {\n\treturn inputTexelToLinear(color);\n}\n\t"}  
function Fi(a){console.warn("THREE.ClosedSplineCurve3 has been deprecated. Use THREE.CatmullRomCurve3 instead.");pa.call(this,a);this.type="catmullrom";this.closed=!0}function Gi(a){console.warn("THREE.SplineCurve3 has been deprecated. Use THREE.CatmullRomCurve3 instead.");pa.call(this,a);this.type="catmullrom"}function $g(a){console.warn("THREE.Spline has been removed. Use THREE.CatmullRomCurve3 instead.");pa.call(this,a);this.type="catmullrom"}void 0===Number.EPSILON&&(Number.EPSILON=Math.pow(2,  
-52));void 0===Number.isInteger&&(Number.isInteger=function(a){return"number"===typeof a&&isFinite(a)&&Math.floor(a)===a});void 0===Math.sign&&(Math.sign=function(a){return 0>a?-1:0<a?1:+a});!1==="name"in Function.prototype&&Object.defineProperty(Function.prototype,"name",{get:function(){return this.toString().match(/^\s\*function\s\*([^\(\s]\*)/)[1]}});void 0===Object.assign&&(Object.assign=function(a){if(void 0===a||null===a)throw new TypeError("Cannot convert undefined or null to object");for(var b=  
Object(a),c=1;c<arguments.length;c++){var d=arguments[c];if(void 0!==d&&null!==d)for(var e in d)Object.prototype.hasOwnProperty.call(d,e)&&(b[e]=d[e])}return b});Object.assign(Ea.prototype,{addEventListener:function(a,b){void 0===this.\_listeners&&(this.\_listeners={});var c=this.\_listeners;void 0===c[a]&&(c[a]=[]);-1===c[a].indexOf(b)&&c[a].push(b)},hasEventListener:function(a,b){if(void 0===this.\_listeners)return!1;var c=this.\_listeners;return void 0!==c[a]&&-1!==c[a].indexOf(b)},removeEventListener:function(a,  
b){void 0!==this.\_listeners&&(a=this.\_listeners[a],void 0!==a&&(b=a.indexOf(b),-1!==b&&a.splice(b,1)))},dispatchEvent:function(a){if(void 0!==this.\_listeners){var b=this.\_listeners[a.type];if(void 0!==b){a.target=this;b=b.slice(0);for(var c=0,d=b.length;c<d;c++)b[c].call(this,a)}}}});for(var ta=[],xe=0;256>xe;xe++)ta[xe]=(16>xe?"0":"")+xe.toString(16);var L={DEG2RAD:Math.PI/180,RAD2DEG:180/Math.PI,generateUUID:function(){var a=4294967295\*Math.random()|0,b=4294967295\*Math.random()|0,c=4294967295\*Math.random()|  
0,d=4294967295\*Math.random()|0;return(ta[a&255]+ta[a>>8&255]+ta[a>>16&255]+ta[a>>24&255]+"-"+ta[b&255]+ta[b>>8&255]+"-"+ta[b>>16&15|64]+ta[b>>24&255]+"-"+ta[c&63|128]+ta[c>>8&255]+"-"+ta[c>>16&255]+ta[c>>24&255]+ta[d&255]+ta[d>>8&255]+ta[d>>16&255]+ta[d>>24&255]).toUpperCase()},clamp:function(a,b,c){return Math.max(b,Math.min(c,a))},euclideanModulo:function(a,b){return(a%b+b)%b},mapLinear:function(a,b,c,d,e){return d+(a-b)\*(e-d)/(c-b)},lerp:function(a,b,c){return(1-c)\*a+c\*b},smoothstep:function(a,  
b,c){if(a<=b)return 0;if(a>=c)return 1;a=(a-b)/(c-b);return a\*a\*(3-2\*a)},smootherstep:function(a,b,c){if(a<=b)return 0;if(a>=c)return 1;a=(a-b)/(c-b);return a\*a\*a\*(a\*(6\*a-15)+10)},randInt:function(a,b){return a+Math.floor(Math.random()\*(b-a+1))},randFloat:function(a,b){return a+Math.random()\*(b-a)},randFloatSpread:function(a){return a\*(.5-Math.random())},degToRad:function(a){return a\*L.DEG2RAD},radToDeg:function(a){return a\*L.RAD2DEG},isPowerOfTwo:function(a){return 0===(a&a-1)&&0!==a},ceilPowerOfTwo:function(a){return Math.pow(2,  
Math.ceil(Math.log(a)/Math.LN2))},floorPowerOfTwo:function(a){return Math.pow(2,Math.floor(Math.log(a)/Math.LN2))},setQuaternionFromProperEuler:function(a,b,c,d,e){var f=Math.cos,g=Math.sin,h=f(c/2);c=g(c/2);var l=f((b+d)/2),m=g((b+d)/2),k=f((b-d)/2),p=g((b-d)/2);f=f((d-b)/2);b=g((d-b)/2);"XYX"===e?a.set(h\*m,c\*k,c\*p,h\*l):"YZY"===e?a.set(c\*p,h\*m,c\*k,h\*l):"ZXZ"===e?a.set(c\*k,c\*p,h\*m,h\*l):"XZX"===e?a.set(h\*m,c\*b,c\*f,h\*l):"YXY"===e?a.set(c\*f,h\*m,c\*b,h\*l):"ZYZ"===e?a.set(c\*b,c\*f,h\*m,h\*l):console.warn("THREE.MathUtils: .setQuaternionFromProperEuler() encountered an unknown order.")}};  
Object.defineProperties(t.prototype,{width:{get:function(){return this.x},set:function(a){this.x=a}},height:{get:function(){return this.y},set:function(a){this.y=a}}});Object.assign(t.prototype,{isVector2:!0,set:function(a,b){this.x=a;this.y=b;return this},setScalar:function(a){this.y=this.x=a;return this},setX:function(a){this.x=a;return this},setY:function(a){this.y=a;return this},setComponent:function(a,b){switch(a){case 0:this.x=b;break;case 1:this.y=b;break;default:throw Error("index is out of range: "+  
a);}return this},getComponent:function(a){switch(a){case 0:return this.x;case 1:return this.y;default:throw Error("index is out of range: "+a);}},clone:function(){return new this.constructor(this.x,this.y)},copy:function(a){this.x=a.x;this.y=a.y;return this},add:function(a,b){if(void 0!==b)return console.warn("THREE.Vector2: .add() now only accepts one argument. Use .addVectors( a, b ) instead."),this.addVectors(a,b);this.x+=a.x;this.y+=a.y;return this},addScalar:function(a){this.x+=a;this.y+=a;return this},  
addVectors:function(a,b){this.x=a.x+b.x;this.y=a.y+b.y;return this},addScaledVector:function(a,b){this.x+=a.x\*b;this.y+=a.y\*b;return this},sub:function(a,b){if(void 0!==b)return console.warn("THREE.Vector2: .sub() now only accepts one argument. Use .subVectors( a, b ) instead."),this.subVectors(a,b);this.x-=a.x;this.y-=a.y;return this},subScalar:function(a){this.x-=a;this.y-=a;return this},subVectors:function(a,b){this.x=a.x-b.x;this.y=a.y-b.y;return this},multiply:function(a){this.x\*=a.x;this.y\*=  
a.y;return this},multiplyScalar:function(a){this.x\*=a;this.y\*=a;return this},divide:function(a){this.x/=a.x;this.y/=a.y;return this},divideScalar:function(a){return this.multiplyScalar(1/a)},applyMatrix3:function(a){var b=this.x,c=this.y;a=a.elements;this.x=a[0]\*b+a[3]\*c+a[6];this.y=a[1]\*b+a[4]\*c+a[7];return this},min:function(a){this.x=Math.min(this.x,a.x);this.y=Math.min(this.y,a.y);return this},max:function(a){this.x=Math.max(this.x,a.x);this.y=Math.max(this.y,a.y);return this},clamp:function(a,  
b){this.x=Math.max(a.x,Math.min(b.x,this.x));this.y=Math.max(a.y,Math.min(b.y,this.y));return this},clampScalar:function(a,b){this.x=Math.max(a,Math.min(b,this.x));this.y=Math.max(a,Math.min(b,this.y));return this},clampLength:function(a,b){var c=this.length();return this.divideScalar(c||1).multiplyScalar(Math.max(a,Math.min(b,c)))},floor:function(){this.x=Math.floor(this.x);this.y=Math.floor(this.y);return this},ceil:function(){this.x=Math.ceil(this.x);this.y=Math.ceil(this.y);return this},round:function(){this.x=  
Math.round(this.x);this.y=Math.round(this.y);return this},roundToZero:function(){this.x=0>this.x?Math.ceil(this.x):Math.floor(this.x);this.y=0>this.y?Math.ceil(this.y):Math.floor(this.y);return this},negate:function(){this.x=-this.x;this.y=-this.y;return this},dot:function(a){return this.x\*a.x+this.y\*a.y},cross:function(a){return this.x\*a.y-this.y\*a.x},lengthSq:function(){return this.x\*this.x+this.y\*this.y},length:function(){return Math.sqrt(this.x\*this.x+this.y\*this.y)},manhattanLength:function(){return Math.abs(this.x)+  
Math.abs(this.y)},normalize:function(){return this.divideScalar(this.length()||1)},angle:function(){return Math.atan2(-this.y,-this.x)+Math.PI},distanceTo:function(a){return Math.sqrt(this.distanceToSquared(a))},distanceToSquared:function(a){var b=this.x-a.x;a=this.y-a.y;return b\*b+a\*a},manhattanDistanceTo:function(a){return Math.abs(this.x-a.x)+Math.abs(this.y-a.y)},setLength:function(a){return this.normalize().multiplyScalar(a)},lerp:function(a,b){this.x+=(a.x-this.x)\*b;this.y+=(a.y-this.y)\*b;return this},  
lerpVectors:function(a,b,c){return this.subVectors(b,a).multiplyScalar(c).add(a)},equals:function(a){return a.x===this.x&&a.y===this.y},fromArray:function(a,b){void 0===b&&(b=0);this.x=a[b];this.y=a[b+1];return this},toArray:function(a,b){void 0===a&&(a=[]);void 0===b&&(b=0);a[b]=this.x;a[b+1]=this.y;return a},fromBufferAttribute:function(a,b,c){void 0!==c&&console.warn("THREE.Vector2: offset has been removed from .fromBufferAttribute().");this.x=a.getX(b);this.y=a.getY(b);return this},rotateAround:function(a,  
b){var c=Math.cos(b);b=Math.sin(b);var d=this.x-a.x,e=this.y-a.y;this.x=d\*c-e\*b+a.x;this.y=d\*b+e\*c+a.y;return this}});Object.assign(wa.prototype,{isMatrix3:!0,set:function(a,b,c,d,e,f,g,h,l){var m=this.elements;m[0]=a;m[1]=d;m[2]=g;m[3]=b;m[4]=e;m[5]=h;m[6]=c;m[7]=f;m[8]=l;return this},identity:function(){this.set(1,0,0,0,1,0,0,0,1);return this},clone:function(){return(new this.constructor).fromArray(this.elements)},copy:function(a){var b=this.elements;a=a.elements;b[0]=a[0];b[1]=a[1];b[2]=a[2];b[3]=  
a[3];b[4]=a[4];b[5]=a[5];b[6]=a[6];b[7]=a[7];b[8]=a[8];return this},extractBasis:function(a,b,c){a.setFromMatrix3Column(this,0);b.setFromMatrix3Column(this,1);c.setFromMatrix3Column(this,2);return this},setFromMatrix4:function(a){a=a.elements;this.set(a[0],a[4],a[8],a[1],a[5],a[9],a[2],a[6],a[10]);return this},multiply:function(a){return this.multiplyMatrices(this,a)},premultiply:function(a){return this.multiplyMatrices(a,this)},multiplyMatrices:function(a,b){var c=a.elements,d=b.elements;b=this.elements;  
a=c[0];var e=c[3],f=c[6],g=c[1],h=c[4],l=c[7],m=c[2],k=c[5];c=c[8];var p=d[0],n=d[3],r=d[6],q=d[1],v=d[4],E=d[7],w=d[2],t=d[5];d=d[8];b[0]=a\*p+e\*q+f\*w;b[3]=a\*n+e\*v+f\*t;b[6]=a\*r+e\*E+f\*d;b[1]=g\*p+h\*q+l\*w;b[4]=g\*n+h\*v+l\*t;b[7]=g\*r+h\*E+l\*d;b[2]=m\*p+k\*q+c\*w;b[5]=m\*n+k\*v+c\*t;b[8]=m\*r+k\*E+c\*d;return this},multiplyScalar:function(a){var b=this.elements;b[0]\*=a;b[3]\*=a;b[6]\*=a;b[1]\*=a;b[4]\*=a;b[7]\*=a;b[2]\*=a;b[5]\*=a;b[8]\*=a;return this},determinant:function(){var a=this.elements,b=a[0],c=a[1],d=a[2],e=a[3],  
f=a[4],g=a[5],h=a[6],l=a[7];a=a[8];return b\*f\*a-b\*g\*l-c\*e\*a+c\*g\*h+d\*e\*l-d\*f\*h},getInverse:function(a,b){void 0!==b&&console.warn("THREE.Matrix3: .getInverse() can no longer be configured to throw on degenerate.");var c=a.elements;a=this.elements;b=c[0];var d=c[1],e=c[2],f=c[3],g=c[4],h=c[5],l=c[6],m=c[7];c=c[8];var k=c\*g-h\*m,p=h\*l-c\*f,n=m\*f-g\*l,r=b\*k+d\*p+e\*n;if(0===r)return this.set(0,0,0,0,0,0,0,0,0);r=1/r;a[0]=k\*r;a[1]=(e\*m-c\*d)\*r;a[2]=(h\*d-e\*g)\*r;a[3]=p\*r;a[4]=(c\*b-e\*l)\*r;a[5]=(e\*f-h\*b)\*r;a[6]=  
n\*r;a[7]=(d\*l-m\*b)\*r;a[8]=(g\*b-d\*f)\*r;return this},transpose:function(){var a=this.elements;var b=a[1];a[1]=a[3];a[3]=b;b=a[2];a[2]=a[6];a[6]=b;b=a[5];a[5]=a[7];a[7]=b;return this},getNormalMatrix:function(a){return this.setFromMatrix4(a).getInverse(this).transpose()},transposeIntoArray:function(a){var b=this.elements;a[0]=b[0];a[1]=b[3];a[2]=b[6];a[3]=b[1];a[4]=b[4];a[5]=b[7];a[6]=b[2];a[7]=b[5];a[8]=b[8];return this},setUvTransform:function(a,b,c,d,e,f,g){var h=Math.cos(e);e=Math.sin(e);this.set(c\*  
h,c\*e,-c\*(h\*f+e\*g)+f+a,-d\*e,d\*h,-d\*(-e\*f+h\*g)+g+b,0,0,1)},scale:function(a,b){var c=this.elements;c[0]\*=a;c[3]\*=a;c[6]\*=a;c[1]\*=b;c[4]\*=b;c[7]\*=b;return this},rotate:function(a){var b=Math.cos(a);a=Math.sin(a);var c=this.elements,d=c[0],e=c[3],f=c[6],g=c[1],h=c[4],l=c[7];c[0]=b\*d+a\*g;c[3]=b\*e+a\*h;c[6]=b\*f+a\*l;c[1]=-a\*d+b\*g;c[4]=-a\*e+b\*h;c[7]=-a\*f+b\*l;return this},translate:function(a,b){var c=this.elements;c[0]+=a\*c[2];c[3]+=a\*c[5];c[6]+=a\*c[8];c[1]+=b\*c[2];c[4]+=b\*c[5];c[7]+=b\*c[8];return this},  
equals:function(a){var b=this.elements;a=a.elements;for(var c=0;9>c;c++)if(b[c]!==a[c])return!1;return!0},fromArray:function(a,b){void 0===b&&(b=0);for(var c=0;9>c;c++)this.elements[c]=a[c+b];return this},toArray:function(a,b){void 0===a&&(a=[]);void 0===b&&(b=0);var c=this.elements;a[b]=c[0];a[b+1]=c[1];a[b+2]=c[2];a[b+3]=c[3];a[b+4]=c[4];a[b+5]=c[5];a[b+6]=c[6];a[b+7]=c[7];a[b+8]=c[8];return a}});var nd,Lb={getDataURL:function(a){if("undefined"==typeof HTMLCanvasElement)return a.src;if(!(a instanceof  
HTMLCanvasElement)){void 0===nd&&(nd=document.createElementNS("http://www.w3.org/1999/xhtml","canvas"));nd.width=a.width;nd.height=a.height;var b=nd.getContext("2d");a instanceof ImageData?b.putImageData(a,0,0):b.drawImage(a,0,0,a.width,a.height);a=nd}return 2048<a.width||2048<a.height?a.toDataURL("image/jpeg",.6):a.toDataURL("image/png")}},pj=0;V.DEFAULT\_IMAGE=void 0;V.DEFAULT\_MAPPING=300;V.prototype=Object.assign(Object.create(Ea.prototype),{constructor:V,isTexture:!0,updateMatrix:function(){this.matrix.setUvTransform(this.offset.x,  
this.offset.y,this.repeat.x,this.repeat.y,this.rotation,this.center.x,this.center.y)},clone:function(){return(new this.constructor).copy(this)},copy:function(a){this.name=a.name;this.image=a.image;this.mipmaps=a.mipmaps.slice(0);this.mapping=a.mapping;this.wrapS=a.wrapS;this.wrapT=a.wrapT;this.magFilter=a.magFilter;this.minFilter=a.minFilter;this.anisotropy=a.anisotropy;this.format=a.format;this.internalFormat=a.internalFormat;this.type=a.type;this.offset.copy(a.offset);this.repeat.copy(a.repeat);  
this.center.copy(a.center);this.rotation=a.rotation;this.matrixAutoUpdate=a.matrixAutoUpdate;this.matrix.copy(a.matrix);this.generateMipmaps=a.generateMipmaps;this.premultiplyAlpha=a.premultiplyAlpha;this.flipY=a.flipY;this.unpackAlignment=a.unpackAlignment;this.encoding=a.encoding;return this},toJSON:function(a){var b=void 0===a||"string"===typeof a;if(!b&&void 0!==a.textures[this.uuid])return a.textures[this.uuid];var c={metadata:{version:4.5,type:"Texture",generator:"Texture.toJSON"},uuid:this.uuid,  
name:this.name,mapping:this.mapping,repeat:[this.repeat.x,this.repeat.y],offset:[this.offset.x,this.offset.y],center:[this.center.x,this.center.y],rotation:this.rotation,wrap:[this.wrapS,this.wrapT],format:this.format,type:this.type,encoding:this.encoding,minFilter:this.minFilter,magFilter:this.magFilter,anisotropy:this.anisotropy,flipY:this.flipY,premultiplyAlpha:this.premultiplyAlpha,unpackAlignment:this.unpackAlignment};if(void 0!==this.image){var d=this.image;void 0===d.uuid&&(d.uuid=L.generateUUID());  
if(!b&&void 0===a.images[d.uuid]){if(Array.isArray(d)){var e=[];for(var f=0,g=d.length;f<g;f++)e.push(Lb.getDataURL(d[f]))}else e=Lb.getDataURL(d);a.images[d.uuid]={uuid:d.uuid,url:e}}c.image=d.uuid}b||(a.textures[this.uuid]=c);return c},dispose:function(){this.dispatchEvent({type:"dispose"})},transformUv:function(a){if(300!==this.mapping)return a;a.applyMatrix3(this.matrix);if(0>a.x||1<a.x)switch(this.wrapS){case 1E3:a.x-=Math.floor(a.x);break;case 1001:a.x=0>a.x?0:1;break;case 1002:a.x=1===Math.abs(Math.floor(a.x)%  
2)?Math.ceil(a.x)-a.x:a.x-Math.floor(a.x)}if(0>a.y||1<a.y)switch(this.wrapT){case 1E3:a.y-=Math.floor(a.y);break;case 1001:a.y=0>a.y?0:1;break;case 1002:a.y=1===Math.abs(Math.floor(a.y)%2)?Math.ceil(a.y)-a.y:a.y-Math.floor(a.y)}this.flipY&&(a.y=1-a.y);return a}});Object.defineProperty(V.prototype,"needsUpdate",{set:function(a){!0===a&&this.version++}});Object.defineProperties(ka.prototype,{width:{get:function(){return this.z},set:function(a){this.z=a}},height:{get:function(){return this.w},set:function(a){this.w=  
a}}});Object.assign(ka.prototype,{isVector4:!0,set:function(a,b,c,d){this.x=a;this.y=b;this.z=c;this.w=d;return this},setScalar:function(a){this.w=this.z=this.y=this.x=a;return this},setX:function(a){this.x=a;return this},setY:function(a){this.y=a;return this},setZ:function(a){this.z=a;return this},setW:function(a){this.w=a;return this},setComponent:function(a,b){switch(a){case 0:this.x=b;break;case 1:this.y=b;break;case 2:this.z=b;break;case 3:this.w=b;break;default:throw Error("index is out of range: "+  
a);}return this},getComponent:function(a){switch(a){case 0:return this.x;case 1:return this.y;case 2:return this.z;case 3:return this.w;default:throw Error("index is out of range: "+a);}},clone:function(){return new this.constructor(this.x,this.y,this.z,this.w)},copy:function(a){this.x=a.x;this.y=a.y;this.z=a.z;this.w=void 0!==a.w?a.w:1;return this},add:function(a,b){if(void 0!==b)return console.warn("THREE.Vector4: .add() now only accepts one argument. Use .addVectors( a, b ) instead."),this.addVectors(a,  
b);this.x+=a.x;this.y+=a.y;this.z+=a.z;this.w+=a.w;return this},addScalar:function(a){this.x+=a;this.y+=a;this.z+=a;this.w+=a;return this},addVectors:function(a,b){this.x=a.x+b.x;this.y=a.y+b.y;this.z=a.z+b.z;this.w=a.w+b.w;return this},addScaledVector:function(a,b){this.x+=a.x\*b;this.y+=a.y\*b;this.z+=a.z\*b;this.w+=a.w\*b;return this},sub:function(a,b){if(void 0!==b)return console.warn("THREE.Vector4: .sub() now only accepts one argument. Use .subVectors( a, b ) instead."),this.subVectors(a,b);this.x-=  
a.x;this.y-=a.y;this.z-=a.z;this.w-=a.w;return this},subScalar:function(a){this.x-=a;this.y-=a;this.z-=a;this.w-=a;return this},subVectors:function(a,b){this.x=a.x-b.x;this.y=a.y-b.y;this.z=a.z-b.z;this.w=a.w-b.w;return this},multiplyScalar:function(a){this.x\*=a;this.y\*=a;this.z\*=a;this.w\*=a;return this},applyMatrix4:function(a){var b=this.x,c=this.y,d=this.z,e=this.w;a=a.elements;this.x=a[0]\*b+a[4]\*c+a[8]\*d+a[12]\*e;this.y=a[1]\*b+a[5]\*c+a[9]\*d+a[13]\*e;this.z=a[2]\*b+a[6]\*c+a[10]\*d+a[14]\*e;this.w=a[3]\*  
b+a[7]\*c+a[11]\*d+a[15]\*e;return this},divideScalar:function(a){return this.multiplyScalar(1/a)},setAxisAngleFromQuaternion:function(a){this.w=2\*Math.acos(a.w);var b=Math.sqrt(1-a.w\*a.w);1E-4>b?(this.x=1,this.z=this.y=0):(this.x=a.x/b,this.y=a.y/b,this.z=a.z/b);return this},setAxisAngleFromRotationMatrix:function(a){a=a.elements;var b=a[0];var c=a[4];var d=a[8],e=a[1],f=a[5],g=a[9];var h=a[2];var l=a[6];var m=a[10];if(.01>Math.abs(c-e)&&.01>Math.abs(d-h)&&.01>Math.abs(g-l)){if(.1>Math.abs(c+e)&&.1>  
Math.abs(d+h)&&.1>Math.abs(g+l)&&.1>Math.abs(b+f+m-3))return this.set(1,0,0,0),this;a=Math.PI;b=(b+1)/2;f=(f+1)/2;m=(m+1)/2;c=(c+e)/4;d=(d+h)/4;g=(g+l)/4;b>f&&b>m?.01>b?(l=0,c=h=.707106781):(l=Math.sqrt(b),h=c/l,c=d/l):f>m?.01>f?(l=.707106781,h=0,c=.707106781):(h=Math.sqrt(f),l=c/h,c=g/h):.01>m?(h=l=.707106781,c=0):(c=Math.sqrt(m),l=d/c,h=g/c);this.set(l,h,c,a);return this}a=Math.sqrt((l-g)\*(l-g)+(d-h)\*(d-h)+(e-c)\*(e-c));.001>Math.abs(a)&&(a=1);this.x=(l-g)/a;this.y=(d-h)/a;this.z=(e-c)/a;this.w=  
Math.acos((b+f+m-1)/2);return this},min:function(a){this.x=Math.min(this.x,a.x);this.y=Math.min(this.y,a.y);this.z=Math.min(this.z,a.z);this.w=Math.min(this.w,a.w);return this},max:function(a){this.x=Math.max(this.x,a.x);this.y=Math.max(this.y,a.y);this.z=Math.max(this.z,a.z);this.w=Math.max(this.w,a.w);return this},clamp:function(a,b){this.x=Math.max(a.x,Math.min(b.x,this.x));this.y=Math.max(a.y,Math.min(b.y,this.y));this.z=Math.max(a.z,Math.min(b.z,this.z));this.w=Math.max(a.w,Math.min(b.w,this.w));  
return this},clampScalar:function(a,b){this.x=Math.max(a,Math.min(b,this.x));this.y=Math.max(a,Math.min(b,this.y));this.z=Math.max(a,Math.min(b,this.z));this.w=Math.max(a,Math.min(b,this.w));return this},clampLength:function(a,b){var c=this.length();return this.divideScalar(c||1).multiplyScalar(Math.max(a,Math.min(b,c)))},floor:function(){this.x=Math.floor(this.x);this.y=Math.floor(this.y);this.z=Math.floor(this.z);this.w=Math.floor(this.w);return this},ceil:function(){this.x=Math.ceil(this.x);this.y=  
Math.ceil(this.y);this.z=Math.ceil(this.z);this.w=Math.ceil(this.w);return this},round:function(){this.x=Math.round(this.x);this.y=Math.round(this.y);this.z=Math.round(this.z);this.w=Math.round(this.w);return this},roundToZero:function(){this.x=0>this.x?Math.ceil(this.x):Math.floor(this.x);this.y=0>this.y?Math.ceil(this.y):Math.floor(this.y);this.z=0>this.z?Math.ceil(this.z):Math.floor(this.z);this.w=0>this.w?Math.ceil(this.w):Math.floor(this.w);return this},negate:function(){this.x=-this.x;this.y=  
-this.y;this.z=-this.z;this.w=-this.w;return this},dot:function(a){return this.x\*a.x+this.y\*a.y+this.z\*a.z+this.w\*a.w},lengthSq:function(){return this.x\*this.x+this.y\*this.y+this.z\*this.z+this.w\*this.w},length:function(){return Math.sqrt(this.x\*this.x+this.y\*this.y+this.z\*this.z+this.w\*this.w)},manhattanLength:function(){return Math.abs(this.x)+Math.abs(this.y)+Math.abs(this.z)+Math.abs(this.w)},normalize:function(){return this.divideScalar(this.length()||1)},setLength:function(a){return this.normalize().multiplyScalar(a)},  
lerp:function(a,b){this.x+=(a.x-this.x)\*b;this.y+=(a.y-this.y)\*b;this.z+=(a.z-this.z)\*b;this.w+=(a.w-this.w)\*b;return this},lerpVectors:function(a,b,c){return this.subVectors(b,a).multiplyScalar(c).add(a)},equals:function(a){return a.x===this.x&&a.y===this.y&&a.z===this.z&&a.w===this.w},fromArray:function(a,b){void 0===b&&(b=0);this.x=a[b];this.y=a[b+1];this.z=a[b+2];this.w=a[b+3];return this},toArray:function(a,b){void 0===a&&(a=[]);void 0===b&&(b=0);a[b]=this.x;a[b+1]=this.y;a[b+2]=this.z;a[b+3]=  
this.w;return a},fromBufferAttribute:function(a,b,c){void 0!==c&&console.warn("THREE.Vector4: offset has been removed from .fromBufferAttribute().");this.x=a.getX(b);this.y=a.getY(b);this.z=a.getZ(b);this.w=a.getW(b);return this}});Ha.prototype=Object.assign(Object.create(Ea.prototype),{constructor:Ha,isWebGLRenderTarget:!0,setSize:function(a,b){if(this.width!==a||this.height!==b)this.width=a,this.height=b,this.texture.image.width=a,this.texture.image.height=b,this.dispose();this.viewport.set(0,0,  
a,b);this.scissor.set(0,0,a,b)},clone:function(){return(new this.constructor).copy(this)},copy:function(a){this.width=a.width;this.height=a.height;this.viewport.copy(a.viewport);this.texture=a.texture.clone();this.depthBuffer=a.depthBuffer;this.stencilBuffer=a.stencilBuffer;this.depthTexture=a.depthTexture;return this},dispose:function(){this.dispatchEvent({type:"dispose"})}});Zf.prototype=Object.assign(Object.create(Ha.prototype),{constructor:Zf,isWebGLMultisampleRenderTarget:!0,copy:function(a){Ha.prototype.copy.call(this,  
a);this.samples=a.samples;return this}});Object.assign(Aa,{slerp:function(a,b,c,d){return c.copy(a).slerp(b,d)},slerpFlat:function(a,b,c,d,e,f,g){var h=c[d+0],l=c[d+1],m=c[d+2];c=c[d+3];d=e[f+0];var k=e[f+1],p=e[f+2];e=e[f+3];if(c!==e||h!==d||l!==k||m!==p){f=1-g;var n=h\*d+l\*k+m\*p+c\*e,r=0<=n?1:-1,q=1-n\*n;q>Number.EPSILON&&(q=Math.sqrt(q),n=Math.atan2(q,n\*r),f=Math.sin(f\*n)/q,g=Math.sin(g\*n)/q);r\*=g;h=h\*f+d\*r;l=l\*f+k\*r;m=m\*f+p\*r;c=c\*f+e\*r;f===1-g&&(g=1/Math.sqrt(h\*h+l\*l+m\*m+c\*c),h\*=g,l\*=g,m\*=g,c\*=g)}a[b]=  
h;a[b+1]=l;a[b+2]=m;a[b+3]=c}});Object.defineProperties(Aa.prototype,{x:{get:function(){return this.\_x},set:function(a){this.\_x=a;this.\_onChangeCallback()}},y:{get:function(){return this.\_y},set:function(a){this.\_y=a;this.\_onChangeCallback()}},z:{get:function(){return this.\_z},set:function(a){this.\_z=a;this.\_onChangeCallback()}},w:{get:function(){return this.\_w},set:function(a){this.\_w=a;this.\_onChangeCallback()}}});Object.assign(Aa.prototype,{isQuaternion:!0,set:function(a,b,c,d){this.\_x=a;this.\_y=  
b;this.\_z=c;this.\_w=d;this.\_onChangeCallback();return this},clone:function(){return new this.constructor(this.\_x,this.\_y,this.\_z,this.\_w)},copy:function(a){this.\_x=a.x;this.\_y=a.y;this.\_z=a.z;this.\_w=a.w;this.\_onChangeCallback();return this},setFromEuler:function(a,b){if(!a||!a.isEuler)throw Error("THREE.Quaternion: .setFromEuler() now expects an Euler rotation rather than a Vector3 and order.");var c=a.\_x,d=a.\_y,e=a.\_z;a=a.order;var f=Math.cos,g=Math.sin,h=f(c/2),l=f(d/2);f=f(e/2);c=g(c/2);d=g(d/  
2);e=g(e/2);"XYZ"===a?(this.\_x=c\*l\*f+h\*d\*e,this.\_y=h\*d\*f-c\*l\*e,this.\_z=h\*l\*e+c\*d\*f,this.\_w=h\*l\*f-c\*d\*e):"YXZ"===a?(this.\_x=c\*l\*f+h\*d\*e,this.\_y=h\*d\*f-c\*l\*e,this.\_z=h\*l\*e-c\*d\*f,this.\_w=h\*l\*f+c\*d\*e):"ZXY"===a?(this.\_x=c\*l\*f-h\*d\*e,this.\_y=h\*d\*f+c\*l\*e,this.\_z=h\*l\*e+c\*d\*f,this.\_w=h\*l\*f-c\*d\*e):"ZYX"===a?(this.\_x=c\*l\*f-h\*d\*e,this.\_y=h\*d\*f+c\*l\*e,this.\_z=h\*l\*e-c\*d\*f,this.\_w=h\*l\*f+c\*d\*e):"YZX"===a?(this.\_x=c\*l\*f+h\*d\*e,this.\_y=h\*d\*f+c\*l\*e,this.\_z=h\*l\*e-c\*d\*f,this.\_w=h\*l\*f-c\*d\*e):"XZY"===a&&(this.\_x=c\*l\*f-h\*d\*  
e,this.\_y=h\*d\*f-c\*l\*e,this.\_z=h\*l\*e+c\*d\*f,this.\_w=h\*l\*f+c\*d\*e);!1!==b&&this.\_onChangeCallback();return this},setFromAxisAngle:function(a,b){b/=2;var c=Math.sin(b);this.\_x=a.x\*c;this.\_y=a.y\*c;this.\_z=a.z\*c;this.\_w=Math.cos(b);this.\_onChangeCallback();return this},setFromRotationMatrix:function(a){var b=a.elements,c=b[0];a=b[4];var d=b[8],e=b[1],f=b[5],g=b[9],h=b[2],l=b[6];b=b[10];var m=c+f+b;0<m?(c=.5/Math.sqrt(m+1),this.\_w=.25/c,this.\_x=(l-g)\*c,this.\_y=(d-h)\*c,this.\_z=(e-a)\*c):c>f&&c>b?(c=2\*Math.sqrt(1+  
c-f-b),this.\_w=(l-g)/c,this.\_x=.25\*c,this.\_y=(a+e)/c,this.\_z=(d+h)/c):f>b?(c=2\*Math.sqrt(1+f-c-b),this.\_w=(d-h)/c,this.\_x=(a+e)/c,this.\_y=.25\*c,this.\_z=(g+l)/c):(c=2\*Math.sqrt(1+b-c-f),this.\_w=(e-a)/c,this.\_x=(d+h)/c,this.\_y=(g+l)/c,this.\_z=.25\*c);this.\_onChangeCallback();return this},setFromUnitVectors:function(a,b){var c=a.dot(b)+1;1E-6>c?(c=0,Math.abs(a.x)>Math.abs(a.z)?(this.\_x=-a.y,this.\_y=a.x,this.\_z=0):(this.\_x=0,this.\_y=-a.z,this.\_z=a.y)):(this.\_x=a.y\*b.z-a.z\*b.y,this.\_y=a.z\*b.x-a.x\*b.z,this.\_z=  
a.x\*b.y-a.y\*b.x);this.\_w=c;return this.normalize()},angleTo:function(a){return 2\*Math.acos(Math.abs(L.clamp(this.dot(a),-1,1)))},rotateTowards:function(a,b){var c=this.angleTo(a);if(0===c)return this;this.slerp(a,Math.min(1,b/c));return this},inverse:function(){return this.conjugate()},conjugate:function(){this.\_x\*=-1;this.\_y\*=-1;this.\_z\*=-1;this.\_onChangeCallback();return this},dot:function(a){return this.\_x\*a.\_x+this.\_y\*a.\_y+this.\_z\*a.\_z+this.\_w\*a.\_w},lengthSq:function(){return this.\_x\*this.\_x+  
this.\_y\*this.\_y+this.\_z\*this.\_z+this.\_w\*this.\_w},length:function(){return Math.sqrt(this.\_x\*this.\_x+this.\_y\*this.\_y+this.\_z\*this.\_z+this.\_w\*this.\_w)},normalize:function(){var a=this.length();0===a?(this.\_z=this.\_y=this.\_x=0,this.\_w=1):(a=1/a,this.\_x\*=a,this.\_y\*=a,this.\_z\*=a,this.\_w\*=a);this.\_onChangeCallback();return this},multiply:function(a,b){return void 0!==b?(console.warn("THREE.Quaternion: .multiply() now only accepts one argument. Use .multiplyQuaternions( a, b ) instead."),this.multiplyQuaternions(a,  
b)):this.multiplyQuaternions(this,a)},premultiply:function(a){return this.multiplyQuaternions(a,this)},multiplyQuaternions:function(a,b){var c=a.\_x,d=a.\_y,e=a.\_z;a=a.\_w;var f=b.\_x,g=b.\_y,h=b.\_z;b=b.\_w;this.\_x=c\*b+a\*f+d\*h-e\*g;this.\_y=d\*b+a\*g+e\*f-c\*h;this.\_z=e\*b+a\*h+c\*g-d\*f;this.\_w=a\*b-c\*f-d\*g-e\*h;this.\_onChangeCallback();return this},slerp:function(a,b){if(0===b)return this;if(1===b)return this.copy(a);var c=this.\_x,d=this.\_y,e=this.\_z,f=this.\_w,g=f\*a.\_w+c\*a.\_x+d\*a.\_y+e\*a.\_z;0>g?(this.\_w=-a.\_w,this.\_x=  
-a.\_x,this.\_y=-a.\_y,this.\_z=-a.\_z,g=-g):this.copy(a);if(1<=g)return this.\_w=f,this.\_x=c,this.\_y=d,this.\_z=e,this;a=1-g\*g;if(a<=Number.EPSILON)return g=1-b,this.\_w=g\*f+b\*this.\_w,this.\_x=g\*c+b\*this.\_x,this.\_y=g\*d+b\*this.\_y,this.\_z=g\*e+b\*this.\_z,this.normalize(),this.\_onChangeCallback(),this;a=Math.sqrt(a);var h=Math.atan2(a,g);g=Math.sin((1-b)\*h)/a;b=Math.sin(b\*h)/a;this.\_w=f\*g+this.\_w\*b;this.\_x=c\*g+this.\_x\*b;this.\_y=d\*g+this.\_y\*b;this.\_z=e\*g+this.\_z\*b;this.\_onChangeCallback();return this},equals:function(a){return a.\_x===  
this.\_x&&a.\_y===this.\_y&&a.\_z===this.\_z&&a.\_w===this.\_w},fromArray:function(a,b){void 0===b&&(b=0);this.\_x=a[b];this.\_y=a[b+1];this.\_z=a[b+2];this.\_w=a[b+3];this.\_onChangeCallback();return this},toArray:function(a,b){void 0===a&&(a=[]);void 0===b&&(b=0);a[b]=this.\_x;a[b+1]=this.\_y;a[b+2]=this.\_z;a[b+3]=this.\_w;return a},fromBufferAttribute:function(a,b){this.\_x=a.getX(b);this.\_y=a.getY(b);this.\_z=a.getZ(b);this.\_w=a.getW(b);return this},\_onChange:function(a){this.\_onChangeCallback=a;return this},  
\_onChangeCallback:function(){}});var ah=new n,Hi=new Aa;Object.assign(n.prototype,{isVector3:!0,set:function(a,b,c){this.x=a;this.y=b;this.z=c;return this},setScalar:function(a){this.z=this.y=this.x=a;return this},setX:function(a){this.x=a;return this},setY:function(a){this.y=a;return this},setZ:function(a){this.z=a;return this},setComponent:function(a,b){switch(a){case 0:this.x=b;break;case 1:this.y=b;break;case 2:this.z=b;break;default:throw Error("index is out of range: "+a);}return this},getComponent:function(a){switch(a){case 0:return this.x;  
case 1:return this.y;case 2:return this.z;default:throw Error("index is out of range: "+a);}},clone:function(){return new this.constructor(this.x,this.y,this.z)},copy:function(a){this.x=a.x;this.y=a.y;this.z=a.z;return this},add:function(a,b){if(void 0!==b)return console.warn("THREE.Vector3: .add() now only accepts one argument. Use .addVectors( a, b ) instead."),this.addVectors(a,b);this.x+=a.x;this.y+=a.y;this.z+=a.z;return this},addScalar:function(a){this.x+=a;this.y+=a;this.z+=a;return this},  
addVectors:function(a,b){this.x=a.x+b.x;this.y=a.y+b.y;this.z=a.z+b.z;return this},addScaledVector:function(a,b){this.x+=a.x\*b;this.y+=a.y\*b;this.z+=a.z\*b;return this},sub:function(a,b){if(void 0!==b)return console.warn("THREE.Vector3: .sub() now only accepts one argument. Use .subVectors( a, b ) instead."),this.subVectors(a,b);this.x-=a.x;this.y-=a.y;this.z-=a.z;return this},subScalar:function(a){this.x-=a;this.y-=a;this.z-=a;return this},subVectors:function(a,b){this.x=a.x-b.x;this.y=a.y-b.y;this.z=  
a.z-b.z;return this},multiply:function(a,b){if(void 0!==b)return console.warn("THREE.Vector3: .multiply() now only accepts one argument. Use .multiplyVectors( a, b ) instead."),this.multiplyVectors(a,b);this.x\*=a.x;this.y\*=a.y;this.z\*=a.z;return this},multiplyScalar:function(a){this.x\*=a;this.y\*=a;this.z\*=a;return this},multiplyVectors:function(a,b){this.x=a.x\*b.x;this.y=a.y\*b.y;this.z=a.z\*b.z;return this},applyEuler:function(a){a&&a.isEuler||console.error("THREE.Vector3: .applyEuler() now expects an Euler rotation rather than a Vector3 and order.");  
return this.applyQuaternion(Hi.setFromEuler(a))},applyAxisAngle:function(a,b){return this.applyQuaternion(Hi.setFromAxisAngle(a,b))},applyMatrix3:function(a){var b=this.x,c=this.y,d=this.z;a=a.elements;this.x=a[0]\*b+a[3]\*c+a[6]\*d;this.y=a[1]\*b+a[4]\*c+a[7]\*d;this.z=a[2]\*b+a[5]\*c+a[8]\*d;return this},applyNormalMatrix:function(a){return this.applyMatrix3(a).normalize()},applyMatrix4:function(a){var b=this.x,c=this.y,d=this.z;a=a.elements;var e=1/(a[3]\*b+a[7]\*c+a[11]\*d+a[15]);this.x=(a[0]\*b+a[4]\*c+a[8]\*  
d+a[12])\*e;this.y=(a[1]\*b+a[5]\*c+a[9]\*d+a[13])\*e;this.z=(a[2]\*b+a[6]\*c+a[10]\*d+a[14])\*e;return this},applyQuaternion:function(a){var b=this.x,c=this.y,d=this.z,e=a.x,f=a.y,g=a.z;a=a.w;var h=a\*b+f\*d-g\*c,l=a\*c+g\*b-e\*d,m=a\*d+e\*c-f\*b;b=-e\*b-f\*c-g\*d;this.x=h\*a+b\*-e+l\*-g-m\*-f;this.y=l\*a+b\*-f+m\*-e-h\*-g;this.z=m\*a+b\*-g+h\*-f-l\*-e;return this},project:function(a){return this.applyMatrix4(a.matrixWorldInverse).applyMatrix4(a.projectionMatrix)},unproject:function(a){return this.applyMatrix4(a.projectionMatrixInverse).applyMatrix4(a.matrixWorld)},  
transformDirection:function(a){var b=this.x,c=this.y,d=this.z;a=a.elements;this.x=a[0]\*b+a[4]\*c+a[8]\*d;this.y=a[1]\*b+a[5]\*c+a[9]\*d;this.z=a[2]\*b+a[6]\*c+a[10]\*d;return this.normalize()},divide:function(a){this.x/=a.x;this.y/=a.y;this.z/=a.z;return this},divideScalar:function(a){return this.multiplyScalar(1/a)},min:function(a){this.x=Math.min(this.x,a.x);this.y=Math.min(this.y,a.y);this.z=Math.min(this.z,a.z);return this},max:function(a){this.x=Math.max(this.x,a.x);this.y=Math.max(this.y,a.y);this.z=  
Math.max(this.z,a.z);return this},clamp:function(a,b){this.x=Math.max(a.x,Math.min(b.x,this.x));this.y=Math.max(a.y,Math.min(b.y,this.y));this.z=Math.max(a.z,Math.min(b.z,this.z));return this},clampScalar:function(a,b){this.x=Math.max(a,Math.min(b,this.x));this.y=Math.max(a,Math.min(b,this.y));this.z=Math.max(a,Math.min(b,this.z));return this},clampLength:function(a,b){var c=this.length();return this.divideScalar(c||1).multiplyScalar(Math.max(a,Math.min(b,c)))},floor:function(){this.x=Math.floor(this.x);  
this.y=Math.floor(this.y);this.z=Math.floor(this.z);return this},ceil:function(){this.x=Math.ceil(this.x);this.y=Math.ceil(this.y);this.z=Math.ceil(this.z);return this},round:function(){this.x=Math.round(this.x);this.y=Math.round(this.y);this.z=Math.round(this.z);return this},roundToZero:function(){this.x=0>this.x?Math.ceil(this.x):Math.floor(this.x);this.y=0>this.y?Math.ceil(this.y):Math.floor(this.y);this.z=0>this.z?Math.ceil(this.z):Math.floor(this.z);return this},negate:function(){this.x=-this.x;  
this.y=-this.y;this.z=-this.z;return this},dot:function(a){return this.x\*a.x+this.y\*a.y+this.z\*a.z},lengthSq:function(){return this.x\*this.x+this.y\*this.y+this.z\*this.z},length:function(){return Math.sqrt(this.x\*this.x+this.y\*this.y+this.z\*this.z)},manhattanLength:function(){return Math.abs(this.x)+Math.abs(this.y)+Math.abs(this.z)},normalize:function(){return this.divideScalar(this.length()||1)},setLength:function(a){return this.normalize().multiplyScalar(a)},lerp:function(a,b){this.x+=(a.x-this.x)\*  
b;this.y+=(a.y-this.y)\*b;this.z+=(a.z-this.z)\*b;return this},lerpVectors:function(a,b,c){return this.subVectors(b,a).multiplyScalar(c).add(a)},cross:function(a,b){return void 0!==b?(console.warn("THREE.Vector3: .cross() now only accepts one argument. Use .crossVectors( a, b ) instead."),this.crossVectors(a,b)):this.crossVectors(this,a)},crossVectors:function(a,b){var c=a.x,d=a.y;a=a.z;var e=b.x,f=b.y;b=b.z;this.x=d\*b-a\*f;this.y=a\*e-c\*b;this.z=c\*f-d\*e;return this},projectOnVector:function(a){var b=  
a.lengthSq();if(0===b)return this.set(0,0,0);b=a.dot(this)/b;return this.copy(a).multiplyScalar(b)},projectOnPlane:function(a){ah.copy(this).projectOnVector(a);return this.sub(ah)},reflect:function(a){return this.sub(ah.copy(a).multiplyScalar(2\*this.dot(a)))},angleTo:function(a){var b=Math.sqrt(this.lengthSq()\*a.lengthSq());if(0===b)return Math.PI/2;a=this.dot(a)/b;return Math.acos(L.clamp(a,-1,1))},distanceTo:function(a){return Math.sqrt(this.distanceToSquared(a))},distanceToSquared:function(a){var b=  
this.x-a.x,c=this.y-a.y;a=this.z-a.z;return b\*b+c\*c+a\*a},manhattanDistanceTo:function(a){return Math.abs(this.x-a.x)+Math.abs(this.y-a.y)+Math.abs(this.z-a.z)},setFromSpherical:function(a){return this.setFromSphericalCoords(a.radius,a.phi,a.theta)},setFromSphericalCoords:function(a,b,c){var d=Math.sin(b)\*a;this.x=d\*Math.sin(c);this.y=Math.cos(b)\*a;this.z=d\*Math.cos(c);return this},setFromCylindrical:function(a){return this.setFromCylindricalCoords(a.radius,a.theta,a.y)},setFromCylindricalCoords:function(a,  
b,c){this.x=a\*Math.sin(b);this.y=c;this.z=a\*Math.cos(b);return this},setFromMatrixPosition:function(a){a=a.elements;this.x=a[12];this.y=a[13];this.z=a[14];return this},setFromMatrixScale:function(a){var b=this.setFromMatrixColumn(a,0).length(),c=this.setFromMatrixColumn(a,1).length();a=this.setFromMatrixColumn(a,2).length();this.x=b;this.y=c;this.z=a;return this},setFromMatrixColumn:function(a,b){return this.fromArray(a.elements,4\*b)},setFromMatrix3Column:function(a,b){return this.fromArray(a.elements,  
3\*b)},equals:function(a){return a.x===this.x&&a.y===this.y&&a.z===this.z},fromArray:function(a,b){void 0===b&&(b=0);this.x=a[b];this.y=a[b+1];this.z=a[b+2];return this},toArray:function(a,b){void 0===a&&(a=[]);void 0===b&&(b=0);a[b]=this.x;a[b+1]=this.y;a[b+2]=this.z;return a},fromBufferAttribute:function(a,b,c){void 0!==c&&console.warn("THREE.Vector3: offset has been removed from .fromBufferAttribute().");this.x=a.getX(b);this.y=a.getY(b);this.z=a.getZ(b);return this}});var od=new n,X=new P,Rk=new n(0,  
0,0),Sk=new n(1,1,1),Mb=new n,Df=new n,qa=new n;Object.assign(P.prototype,{isMatrix4:!0,set:function(a,b,c,d,e,f,g,h,l,m,k,p,n,r,q,v){var u=this.elements;u[0]=a;u[4]=b;u[8]=c;u[12]=d;u[1]=e;u[5]=f;u[9]=g;u[13]=h;u[2]=l;u[6]=m;u[10]=k;u[14]=p;u[3]=n;u[7]=r;u[11]=q;u[15]=v;return this},identity:function(){this.set(1,0,0,0,0,1,0,0,0,0,1,0,0,0,0,1);return this},clone:function(){return(new P).fromArray(this.elements)},copy:function(a){var b=this.elements;a=a.elements;b[0]=a[0];b[1]=a[1];b[2]=a[2];b[3]=  
a[3];b[4]=a[4];b[5]=a[5];b[6]=a[6];b[7]=a[7];b[8]=a[8];b[9]=a[9];b[10]=a[10];b[11]=a[11];b[12]=a[12];b[13]=a[13];b[14]=a[14];b[15]=a[15];return this},copyPosition:function(a){var b=this.elements;a=a.elements;b[12]=a[12];b[13]=a[13];b[14]=a[14];return this},extractBasis:function(a,b,c){a.setFromMatrixColumn(this,0);b.setFromMatrixColumn(this,1);c.setFromMatrixColumn(this,2);return this},makeBasis:function(a,b,c){this.set(a.x,b.x,c.x,0,a.y,b.y,c.y,0,a.z,b.z,c.z,0,0,0,0,1);return this},extractRotation:function(a){var b=  
this.elements,c=a.elements,d=1/od.setFromMatrixColumn(a,0).length(),e=1/od.setFromMatrixColumn(a,1).length();a=1/od.setFromMatrixColumn(a,2).length();b[0]=c[0]\*d;b[1]=c[1]\*d;b[2]=c[2]\*d;b[3]=0;b[4]=c[4]\*e;b[5]=c[5]\*e;b[6]=c[6]\*e;b[7]=0;b[8]=c[8]\*a;b[9]=c[9]\*a;b[10]=c[10]\*a;b[11]=0;b[12]=0;b[13]=0;b[14]=0;b[15]=1;return this},makeRotationFromEuler:function(a){a&&a.isEuler||console.error("THREE.Matrix4: .makeRotationFromEuler() now expects a Euler rotation rather than a Vector3 and order.");var b=this.elements,  
c=a.x,d=a.y,e=a.z,f=Math.cos(c);c=Math.sin(c);var g=Math.cos(d);d=Math.sin(d);var h=Math.cos(e);e=Math.sin(e);if("XYZ"===a.order){a=f\*h;var l=f\*e,m=c\*h,k=c\*e;b[0]=g\*h;b[4]=-g\*e;b[8]=d;b[1]=l+m\*d;b[5]=a-k\*d;b[9]=-c\*g;b[2]=k-a\*d;b[6]=m+l\*d;b[10]=f\*g}else"YXZ"===a.order?(a=g\*h,l=g\*e,m=d\*h,k=d\*e,b[0]=a+k\*c,b[4]=m\*c-l,b[8]=f\*d,b[1]=f\*e,b[5]=f\*h,b[9]=-c,b[2]=l\*c-m,b[6]=k+a\*c,b[10]=f\*g):"ZXY"===a.order?(a=g\*h,l=g\*e,m=d\*h,k=d\*e,b[0]=a-k\*c,b[4]=-f\*e,b[8]=m+l\*c,b[1]=l+m\*c,b[5]=f\*h,b[9]=k-a\*c,b[2]=-f\*d,b[6]=  
c,b[10]=f\*g):"ZYX"===a.order?(a=f\*h,l=f\*e,m=c\*h,k=c\*e,b[0]=g\*h,b[4]=m\*d-l,b[8]=a\*d+k,b[1]=g\*e,b[5]=k\*d+a,b[9]=l\*d-m,b[2]=-d,b[6]=c\*g,b[10]=f\*g):"YZX"===a.order?(a=f\*g,l=f\*d,m=c\*g,k=c\*d,b[0]=g\*h,b[4]=k-a\*e,b[8]=m\*e+l,b[1]=e,b[5]=f\*h,b[9]=-c\*h,b[2]=-d\*h,b[6]=l\*e+m,b[10]=a-k\*e):"XZY"===a.order&&(a=f\*g,l=f\*d,m=c\*g,k=c\*d,b[0]=g\*h,b[4]=-e,b[8]=d\*h,b[1]=a\*e+k,b[5]=f\*h,b[9]=l\*e-m,b[2]=m\*e-l,b[6]=c\*h,b[10]=k\*e+a);b[3]=0;b[7]=0;b[11]=0;b[12]=0;b[13]=0;b[14]=0;b[15]=1;return this},makeRotationFromQuaternion:function(a){return this.compose(Rk,  
a,Sk)},lookAt:function(a,b,c){var d=this.elements;qa.subVectors(a,b);0===qa.lengthSq()&&(qa.z=1);qa.normalize();Mb.crossVectors(c,qa);0===Mb.lengthSq()&&(1===Math.abs(c.z)?qa.x+=1E-4:qa.z+=1E-4,qa.normalize(),Mb.crossVectors(c,qa));Mb.normalize();Df.crossVectors(qa,Mb);d[0]=Mb.x;d[4]=Df.x;d[8]=qa.x;d[1]=Mb.y;d[5]=Df.y;d[9]=qa.y;d[2]=Mb.z;d[6]=Df.z;d[10]=qa.z;return this},multiply:function(a,b){return void 0!==b?(console.warn("THREE.Matrix4: .multiply() now only accepts one argument. Use .multiplyMatrices( a, b ) instead."),  
this.multiplyMatrices(a,b)):this.multiplyMatrices(this,a)},premultiply:function(a){return this.multiplyMatrices(a,this)},multiplyMatrices:function(a,b){var c=a.elements,d=b.elements;b=this.elements;a=c[0];var e=c[4],f=c[8],g=c[12],h=c[1],l=c[5],m=c[9],k=c[13],p=c[2],n=c[6],r=c[10],q=c[14],v=c[3],t=c[7],w=c[11];c=c[15];var z=d[0],A=d[4],C=d[8],y=d[12],B=d[1],D=d[5],F=d[9],G=d[13],K=d[2],H=d[6],L=d[10],M=d[14],N=d[3],O=d[7],P=d[11];d=d[15];b[0]=a\*z+e\*B+f\*K+g\*N;b[4]=a\*A+e\*D+f\*H+g\*O;b[8]=a\*C+e\*F+f\*L+  
g\*P;b[12]=a\*y+e\*G+f\*M+g\*d;b[1]=h\*z+l\*B+m\*K+k\*N;b[5]=h\*A+l\*D+m\*H+k\*O;b[9]=h\*C+l\*F+m\*L+k\*P;b[13]=h\*y+l\*G+m\*M+k\*d;b[2]=p\*z+n\*B+r\*K+q\*N;b[6]=p\*A+n\*D+r\*H+q\*O;b[10]=p\*C+n\*F+r\*L+q\*P;b[14]=p\*y+n\*G+r\*M+q\*d;b[3]=v\*z+t\*B+w\*K+c\*N;b[7]=v\*A+t\*D+w\*H+c\*O;b[11]=v\*C+t\*F+w\*L+c\*P;b[15]=v\*y+t\*G+w\*M+c\*d;return this},multiplyScalar:function(a){var b=this.elements;b[0]\*=a;b[4]\*=a;b[8]\*=a;b[12]\*=a;b[1]\*=a;b[5]\*=a;b[9]\*=a;b[13]\*=a;b[2]\*=a;b[6]\*=a;b[10]\*=a;b[14]\*=a;b[3]\*=a;b[7]\*=a;b[11]\*=a;b[15]\*=a;return this},determinant:function(){var a=  
this.elements,b=a[0],c=a[4],d=a[8],e=a[12],f=a[1],g=a[5],h=a[9],l=a[13],m=a[2],k=a[6],p=a[10],n=a[14];return a[3]\*(+e\*h\*k-d\*l\*k-e\*g\*p+c\*l\*p+d\*g\*n-c\*h\*n)+a[7]\*(+b\*h\*n-b\*l\*p+e\*f\*p-d\*f\*n+d\*l\*m-e\*h\*m)+a[11]\*(+b\*l\*k-b\*g\*n-e\*f\*k+c\*f\*n+e\*g\*m-c\*l\*m)+a[15]\*(-d\*g\*m-b\*h\*k+b\*g\*p+d\*f\*k-c\*f\*p+c\*h\*m)},transpose:function(){var a=this.elements;var b=a[1];a[1]=a[4];a[4]=b;b=a[2];a[2]=a[8];a[8]=b;b=a[6];a[6]=a[9];a[9]=b;b=a[3];a[3]=a[12];a[12]=b;b=a[7];a[7]=a[13];a[13]=b;b=a[11];a[11]=a[14];a[14]=b;return this},setPosition:function(a,  
b,c){var d=this.elements;a.isVector3?(d[12]=a.x,d[13]=a.y,d[14]=a.z):(d[12]=a,d[13]=b,d[14]=c);return this},getInverse:function(a,b){void 0!==b&&console.warn("THREE.Matrix4: .getInverse() can no longer be configured to throw on degenerate.");b=this.elements;var c=a.elements;a=c[0];var d=c[1],e=c[2],f=c[3],g=c[4],h=c[5],l=c[6],m=c[7],k=c[8],p=c[9],n=c[10],r=c[11],q=c[12],v=c[13],t=c[14];c=c[15];var w=p\*t\*m-v\*n\*m+v\*l\*r-h\*t\*r-p\*l\*c+h\*n\*c,z=q\*n\*m-k\*t\*m-q\*l\*r+g\*t\*r+k\*l\*c-g\*n\*c,A=k\*v\*m-q\*p\*m+q\*h\*r-g\*v\*  
r-k\*h\*c+g\*p\*c,C=q\*p\*l-k\*v\*l-q\*h\*n+g\*v\*n+k\*h\*t-g\*p\*t,y=a\*w+d\*z+e\*A+f\*C;if(0===y)return this.set(0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0);y=1/y;b[0]=w\*y;b[1]=(v\*n\*f-p\*t\*f-v\*e\*r+d\*t\*r+p\*e\*c-d\*n\*c)\*y;b[2]=(h\*t\*f-v\*l\*f+v\*e\*m-d\*t\*m-h\*e\*c+d\*l\*c)\*y;b[3]=(p\*l\*f-h\*n\*f-p\*e\*m+d\*n\*m+h\*e\*r-d\*l\*r)\*y;b[4]=z\*y;b[5]=(k\*t\*f-q\*n\*f+q\*e\*r-a\*t\*r-k\*e\*c+a\*n\*c)\*y;b[6]=(q\*l\*f-g\*t\*f-q\*e\*m+a\*t\*m+g\*e\*c-a\*l\*c)\*y;b[7]=(g\*n\*f-k\*l\*f+k\*e\*m-a\*n\*m-g\*e\*r+a\*l\*r)\*y;b[8]=A\*y;b[9]=(q\*p\*f-k\*v\*f-q\*d\*r+a\*v\*r+k\*d\*c-a\*p\*c)\*y;b[10]=(g\*v\*f-q\*h\*f+q\*d\*m-  
a\*v\*m-g\*d\*c+a\*h\*c)\*y;b[11]=(k\*h\*f-g\*p\*f-k\*d\*m+a\*p\*m+g\*d\*r-a\*h\*r)\*y;b[12]=C\*y;b[13]=(k\*v\*e-q\*p\*e+q\*d\*n-a\*v\*n-k\*d\*t+a\*p\*t)\*y;b[14]=(q\*h\*e-g\*v\*e-q\*d\*l+a\*v\*l+g\*d\*t-a\*h\*t)\*y;b[15]=(g\*p\*e-k\*h\*e+k\*d\*l-a\*p\*l-g\*d\*n+a\*h\*n)\*y;return this},scale:function(a){var b=this.elements,c=a.x,d=a.y;a=a.z;b[0]\*=c;b[4]\*=d;b[8]\*=a;b[1]\*=c;b[5]\*=d;b[9]\*=a;b[2]\*=c;b[6]\*=d;b[10]\*=a;b[3]\*=c;b[7]\*=d;b[11]\*=a;return this},getMaxScaleOnAxis:function(){var a=this.elements;return Math.sqrt(Math.max(a[0]\*a[0]+a[1]\*a[1]+a[2]\*a[2],a[4]\*  
a[4]+a[5]\*a[5]+a[6]\*a[6],a[8]\*a[8]+a[9]\*a[9]+a[10]\*a[10]))},makeTranslation:function(a,b,c){this.set(1,0,0,a,0,1,0,b,0,0,1,c,0,0,0,1);return this},makeRotationX:function(a){var b=Math.cos(a);a=Math.sin(a);this.set(1,0,0,0,0,b,-a,0,0,a,b,0,0,0,0,1);return this},makeRotationY:function(a){var b=Math.cos(a);a=Math.sin(a);this.set(b,0,a,0,0,1,0,0,-a,0,b,0,0,0,0,1);return this},makeRotationZ:function(a){var b=Math.cos(a);a=Math.sin(a);this.set(b,-a,0,0,a,b,0,0,0,0,1,0,0,0,0,1);return this},makeRotationAxis:function(a,  
b){var c=Math.cos(b);b=Math.sin(b);var d=1-c,e=a.x,f=a.y;a=a.z;var g=d\*e,h=d\*f;this.set(g\*e+c,g\*f-b\*a,g\*a+b\*f,0,g\*f+b\*a,h\*f+c,h\*a-b\*e,0,g\*a-b\*f,h\*a+b\*e,d\*a\*a+c,0,0,0,0,1);return this},makeScale:function(a,b,c){this.set(a,0,0,0,0,b,0,0,0,0,c,0,0,0,0,1);return this},makeShear:function(a,b,c){this.set(1,b,c,0,a,1,c,0,a,b,1,0,0,0,0,1);return this},compose:function(a,b,c){var d=this.elements,e=b.\_x,f=b.\_y,g=b.\_z,h=b.\_w,l=e+e,m=f+f,k=g+g;b=e\*l;var p=e\*m;e\*=k;var n=f\*m;f\*=k;g\*=k;l\*=h;m\*=h;h\*=k;k=c.x;var r=  
c.y;c=c.z;d[0]=(1-(n+g))\*k;d[1]=(p+h)\*k;d[2]=(e-m)\*k;d[3]=0;d[4]=(p-h)\*r;d[5]=(1-(b+g))\*r;d[6]=(f+l)\*r;d[7]=0;d[8]=(e+m)\*c;d[9]=(f-l)\*c;d[10]=(1-(b+n))\*c;d[11]=0;d[12]=a.x;d[13]=a.y;d[14]=a.z;d[15]=1;return this},decompose:function(a,b,c){var d=this.elements,e=od.set(d[0],d[1],d[2]).length(),f=od.set(d[4],d[5],d[6]).length(),g=od.set(d[8],d[9],d[10]).length();0>this.determinant()&&(e=-e);a.x=d[12];a.y=d[13];a.z=d[14];X.copy(this);a=1/e;d=1/f;var h=1/g;X.elements[0]\*=a;X.elements[1]\*=a;X.elements[2]\*=  
a;X.elements[4]\*=d;X.elements[5]\*=d;X.elements[6]\*=d;X.elements[8]\*=h;X.elements[9]\*=h;X.elements[10]\*=h;b.setFromRotationMatrix(X);c.x=e;c.y=f;c.z=g;return this},makePerspective:function(a,b,c,d,e,f){void 0===f&&console.warn("THREE.Matrix4: .makePerspective() has been redefined and has a new signature. Please check the docs.");var g=this.elements;g[0]=2\*e/(b-a);g[4]=0;g[8]=(b+a)/(b-a);g[12]=0;g[1]=0;g[5]=2\*e/(c-d);g[9]=(c+d)/(c-d);g[13]=0;g[2]=0;g[6]=0;g[10]=-(f+e)/(f-e);g[14]=-2\*f\*e/(f-e);g[3]=  
0;g[7]=0;g[11]=-1;g[15]=0;return this},makeOrthographic:function(a,b,c,d,e,f){var g=this.elements,h=1/(b-a),l=1/(c-d),m=1/(f-e);g[0]=2\*h;g[4]=0;g[8]=0;g[12]=-((b+a)\*h);g[1]=0;g[5]=2\*l;g[9]=0;g[13]=-((c+d)\*l);g[2]=0;g[6]=0;g[10]=-2\*m;g[14]=-((f+e)\*m);g[3]=0;g[7]=0;g[11]=0;g[15]=1;return this},equals:function(a){var b=this.elements;a=a.elements;for(var c=0;16>c;c++)if(b[c]!==a[c])return!1;return!0},fromArray:function(a,b){void 0===b&&(b=0);for(var c=0;16>c;c++)this.elements[c]=a[c+b];return this},toArray:function(a,  
b){void 0===a&&(a=[]);void 0===b&&(b=0);var c=this.elements;a[b]=c[0];a[b+1]=c[1];a[b+2]=c[2];a[b+3]=c[3];a[b+4]=c[4];a[b+5]=c[5];a[b+6]=c[6];a[b+7]=c[7];a[b+8]=c[8];a[b+9]=c[9];a[b+10]=c[10];a[b+11]=c[11];a[b+12]=c[12];a[b+13]=c[13];a[b+14]=c[14];a[b+15]=c[15];return a}});var Ii=new P,Ji=new Aa;Tb.RotationOrders="XYZ YZX ZXY XZY YXZ ZYX".split(" ");Tb.DefaultOrder="XYZ";Object.defineProperties(Tb.prototype,{x:{get:function(){return this.\_x},set:function(a){this.\_x=a;this.\_onChangeCallback()}},y:{get:function(){return this.\_y},  
set:function(a){this.\_y=a;this.\_onChangeCallback()}},z:{get:function(){return this.\_z},set:function(a){this.\_z=a;this.\_onChangeCallback()}},order:{get:function(){return this.\_order},set:function(a){this.\_order=a;this.\_onChangeCallback()}}});Object.assign(Tb.prototype,{isEuler:!0,set:function(a,b,c,d){this.\_x=a;this.\_y=b;this.\_z=c;this.\_order=d||this.\_order;this.\_onChangeCallback();return this},clone:function(){return new this.constructor(this.\_x,this.\_y,this.\_z,this.\_order)},copy:function(a){this.\_x=  
a.\_x;this.\_y=a.\_y;this.\_z=a.\_z;this.\_order=a.\_order;this.\_onChangeCallback();return this},setFromRotationMatrix:function(a,b,c){var d=L.clamp,e=a.elements;a=e[0];var f=e[4],g=e[8],h=e[1],l=e[5],m=e[9],k=e[2],p=e[6];e=e[10];b=b||this.\_order;"XYZ"===b?(this.\_y=Math.asin(d(g,-1,1)),.9999999>Math.abs(g)?(this.\_x=Math.atan2(-m,e),this.\_z=Math.atan2(-f,a)):(this.\_x=Math.atan2(p,l),this.\_z=0)):"YXZ"===b?(this.\_x=Math.asin(-d(m,-1,1)),.9999999>Math.abs(m)?(this.\_y=Math.atan2(g,e),this.\_z=Math.atan2(h,l)):  
(this.\_y=Math.atan2(-k,a),this.\_z=0)):"ZXY"===b?(this.\_x=Math.asin(d(p,-1,1)),.9999999>Math.abs(p)?(this.\_y=Math.atan2(-k,e),this.\_z=Math.atan2(-f,l)):(this.\_y=0,this.\_z=Math.atan2(h,a))):"ZYX"===b?(this.\_y=Math.asin(-d(k,-1,1)),.9999999>Math.abs(k)?(this.\_x=Math.atan2(p,e),this.\_z=Math.atan2(h,a)):(this.\_x=0,this.\_z=Math.atan2(-f,l))):"YZX"===b?(this.\_z=Math.asin(d(h,-1,1)),.9999999>Math.abs(h)?(this.\_x=Math.atan2(-m,l),this.\_y=Math.atan2(-k,a)):(this.\_x=0,this.\_y=Math.atan2(g,e))):"XZY"===b?(this.\_z=  
Math.asin(-d(f,-1,1)),.9999999>Math.abs(f)?(this.\_x=Math.atan2(p,l),this.\_y=Math.atan2(g,a)):(this.\_x=Math.atan2(-m,e),this.\_y=0)):console.warn("THREE.Euler: .setFromRotationMatrix() given unsupported order: "+b);this.\_order=b;!1!==c&&this.\_onChangeCallback();return this},setFromQuaternion:function(a,b,c){Ii.makeRotationFromQuaternion(a);return this.setFromRotationMatrix(Ii,b,c)},setFromVector3:function(a,b){return this.set(a.x,a.y,a.z,b||this.\_order)},reorder:function(a){Ji.setFromEuler(this);return this.setFromQuaternion(Ji,  
a)},equals:function(a){return a.\_x===this.\_x&&a.\_y===this.\_y&&a.\_z===this.\_z&&a.\_order===this.\_order},fromArray:function(a){this.\_x=a[0];this.\_y=a[1];this.\_z=a[2];void 0!==a[3]&&(this.\_order=a[3]);this.\_onChangeCallback();return this},toArray:function(a,b){void 0===a&&(a=[]);void 0===b&&(b=0);a[b]=this.\_x;a[b+1]=this.\_y;a[b+2]=this.\_z;a[b+3]=this.\_order;return a},toVector3:function(a){return a?a.set(this.\_x,this.\_y,this.\_z):new n(this.\_x,this.\_y,this.\_z)},\_onChange:function(a){this.\_onChangeCallback=  
a;return this},\_onChangeCallback:function(){}});Object.assign(He.prototype,{set:function(a){this.mask=1<<a|0},enable:function(a){this.mask=this.mask|1<<a|0},enableAll:function(){this.mask=-1},toggle:function(a){this.mask^=1<<a|0},disable:function(a){this.mask&=~(1<<a|0)},disableAll:function(){this.mask=0},test:function(a){return 0!==(this.mask&a.mask)}});var qj=0,Ki=new n,pd=new Aa,yb=new P,Ef=new n,ye=new n,Tk=new n,Uk=new Aa,Li=new n(1,0,0),Mi=new n(0,1,0),Ni=new n(0,0,1),Vk={type:"added"},Wk={type:"removed"};  
F.DefaultUp=new n(0,1,0);F.DefaultMatrixAutoUpdate=!0;F.prototype=Object.assign(Object.create(Ea.prototype),{constructor:F,isObject3D:!0,onBeforeRender:function(){},onAfterRender:function(){},applyMatrix4:function(a){this.matrixAutoUpdate&&this.updateMatrix();this.matrix.premultiply(a);this.matrix.decompose(this.position,this.quaternion,this.scale)},applyQuaternion:function(a){this.quaternion.premultiply(a);return this},setRotationFromAxisAngle:function(a,b){this.quaternion.setFromAxisAngle(a,b)},  
setRotationFromEuler:function(a){this.quaternion.setFromEuler(a,!0)},setRotationFromMatrix:function(a){this.quaternion.setFromRotationMatrix(a)},setRotationFromQuaternion:function(a){this.quaternion.copy(a)},rotateOnAxis:function(a,b){pd.setFromAxisAngle(a,b);this.quaternion.multiply(pd);return this},rotateOnWorldAxis:function(a,b){pd.setFromAxisAngle(a,b);this.quaternion.premultiply(pd);return this},rotateX:function(a){return this.rotateOnAxis(Li,a)},rotateY:function(a){return this.rotateOnAxis(Mi,  
a)},rotateZ:function(a){return this.rotateOnAxis(Ni,a)},translateOnAxis:function(a,b){Ki.copy(a).applyQuaternion(this.quaternion);this.position.add(Ki.multiplyScalar(b));return this},translateX:function(a){return this.translateOnAxis(Li,a)},translateY:function(a){return this.translateOnAxis(Mi,a)},translateZ:function(a){return this.translateOnAxis(Ni,a)},localToWorld:function(a){return a.applyMatrix4(this.matrixWorld)},worldToLocal:function(a){return a.applyMatrix4(yb.getInverse(this.matrixWorld))},  
lookAt:function(a,b,c){a.isVector3?Ef.copy(a):Ef.set(a,b,c);a=this.parent;this.updateWorldMatrix(!0,!1);ye.setFromMatrixPosition(this.matrixWorld);this.isCamera||this.isLight?yb.lookAt(ye,Ef,this.up):yb.lookAt(Ef,ye,this.up);this.quaternion.setFromRotationMatrix(yb);a&&(yb.extractRotation(a.matrixWorld),pd.setFromRotationMatrix(yb),this.quaternion.premultiply(pd.inverse()))},add:function(a){if(1<arguments.length){for(var b=0;b<arguments.length;b++)this.add(arguments[b]);return this}if(a===this)return console.error("THREE.Object3D.add: object can't be added as a child of itself.",  
a),this;a&&a.isObject3D?(null!==a.parent&&a.parent.remove(a),a.parent=this,this.children.push(a),a.dispatchEvent(Vk)):console.error("THREE.Object3D.add: object not an instance of THREE.Object3D.",a);return this},remove:function(a){if(1<arguments.length){for(var b=0;b<arguments.length;b++)this.remove(arguments[b]);return this}b=this.children.indexOf(a);-1!==b&&(a.parent=null,this.children.splice(b,1),a.dispatchEvent(Wk));return this},attach:function(a){this.updateWorldMatrix(!0,!1);yb.getInverse(this.matrixWorld);  
null!==a.parent&&(a.parent.updateWorldMatrix(!0,!1),yb.multiply(a.parent.matrixWorld));a.applyMatrix4(yb);a.updateWorldMatrix(!1,!1);this.add(a);return this},getObjectById:function(a){return this.getObjectByProperty("id",a)},getObjectByName:function(a){return this.getObjectByProperty("name",a)},getObjectByProperty:function(a,b){if(this[a]===b)return this;for(var c=0,d=this.children.length;c<d;c++){var e=this.children[c].getObjectByProperty(a,b);if(void 0!==e)return e}},getWorldPosition:function(a){void 0===  
a&&(console.warn("THREE.Object3D: .getWorldPosition() target is now required"),a=new n);this.updateMatrixWorld(!0);return a.setFromMatrixPosition(this.matrixWorld)},getWorldQuaternion:function(a){void 0===a&&(console.warn("THREE.Object3D: .getWorldQuaternion() target is now required"),a=new Aa);this.updateMatrixWorld(!0);this.matrixWorld.decompose(ye,a,Tk);return a},getWorldScale:function(a){void 0===a&&(console.warn("THREE.Object3D: .getWorldScale() target is now required"),a=new n);this.updateMatrixWorld(!0);  
this.matrixWorld.decompose(ye,Uk,a);return a},getWorldDirection:function(a){void 0===a&&(console.warn("THREE.Object3D: .getWorldDirection() target is now required"),a=new n);this.updateMatrixWorld(!0);var b=this.matrixWorld.elements;return a.set(b[8],b[9],b[10]).normalize()},raycast:function(){},traverse:function(a){a(this);for(var b=this.children,c=0,d=b.length;c<d;c++)b[c].traverse(a)},traverseVisible:function(a){if(!1!==this.visible){a(this);for(var b=this.children,c=0,d=b.length;c<d;c++)b[c].traverseVisible(a)}},  
traverseAncestors:function(a){var b=this.parent;null!==b&&(a(b),b.traverseAncestors(a))},updateMatrix:function(){this.matrix.compose(this.position,this.quaternion,this.scale);this.matrixWorldNeedsUpdate=!0},updateMatrixWorld:function(a){this.matrixAutoUpdate&&this.updateMatrix();if(this.matrixWorldNeedsUpdate||a)null===this.parent?this.matrixWorld.copy(this.matrix):this.matrixWorld.multiplyMatrices(this.parent.matrixWorld,this.matrix),this.matrixWorldNeedsUpdate=!1,a=!0;for(var b=this.children,c=  
0,d=b.length;c<d;c++)b[c].updateMatrixWorld(a)},updateWorldMatrix:function(a,b){var c=this.parent;!0===a&&null!==c&&c.updateWorldMatrix(!0,!1);this.matrixAutoUpdate&&this.updateMatrix();null===this.parent?this.matrixWorld.copy(this.matrix):this.matrixWorld.multiplyMatrices(this.parent.matrixWorld,this.matrix);if(!0===b)for(a=this.children,b=0,c=a.length;b<c;b++)a[b].updateWorldMatrix(!1,!0)},toJSON:function(a){function b(b,c){void 0===b[c.uuid]&&(b[c.uuid]=c.toJSON(a));return c.uuid}function c(a){var b=  
[],c;for(c in a){var d=a[c];delete d.metadata;b.push(d)}return b}var d=void 0===a||"string"===typeof a,e={};d&&(a={geometries:{},materials:{},textures:{},images:{},shapes:{}},e.metadata={version:4.5,type:"Object",generator:"Object3D.toJSON"});var f={};f.uuid=this.uuid;f.type=this.type;""!==this.name&&(f.name=this.name);!0===this.castShadow&&(f.castShadow=!0);!0===this.receiveShadow&&(f.receiveShadow=!0);!1===this.visible&&(f.visible=!1);!1===this.frustumCulled&&(f.frustumCulled=!1);0!==this.renderOrder&&  
(f.renderOrder=this.renderOrder);"{}"!==JSON.stringify(this.userData)&&(f.userData=this.userData);f.layers=this.layers.mask;f.matrix=this.matrix.toArray();!1===this.matrixAutoUpdate&&(f.matrixAutoUpdate=!1);this.isInstancedMesh&&(f.type="InstancedMesh",f.count=this.count,f.instanceMatrix=this.instanceMatrix.toJSON());if(this.isMesh||this.isLine||this.isPoints){f.geometry=b(a.geometries,this.geometry);var g=this.geometry.parameters;if(void 0!==g&&void 0!==g.shapes)if(g=g.shapes,Array.isArray(g))for(var h=  
0,l=g.length;h<l;h++)b(a.shapes,g[h]);else b(a.shapes,g)}if(void 0!==this.material)if(Array.isArray(this.material)){g=[];h=0;for(l=this.material.length;h<l;h++)g.push(b(a.materials,this.material[h]));f.material=g}else f.material=b(a.materials,this.material);if(0<this.children.length)for(f.children=[],h=0;h<this.children.length;h++)f.children.push(this.children[h].toJSON(a).object);if(d){d=c(a.geometries);h=c(a.materials);l=c(a.textures);var m=c(a.images);g=c(a.shapes);0<d.length&&(e.geometries=d);  
0<h.length&&(e.materials=h);0<l.length&&(e.textures=l);0<m.length&&(e.images=m);0<g.length&&(e.shapes=g)}e.object=f;return e},clone:function(a){return(new this.constructor).copy(this,a)},copy:function(a,b){void 0===b&&(b=!0);this.name=a.name;this.up.copy(a.up);this.position.copy(a.position);this.quaternion.copy(a.quaternion);this.scale.copy(a.scale);this.matrix.copy(a.matrix);this.matrixWorld.copy(a.matrixWorld);this.matrixAutoUpdate=a.matrixAutoUpdate;this.matrixWorldNeedsUpdate=a.matrixWorldNeedsUpdate;  
this.layers.mask=a.layers.mask;this.visible=a.visible;this.castShadow=a.castShadow;this.receiveShadow=a.receiveShadow;this.frustumCulled=a.frustumCulled;this.renderOrder=a.renderOrder;this.userData=JSON.parse(JSON.stringify(a.userData));if(!0===b)for(b=0;b<a.children.length;b++)this.add(a.children[b].clone());return this}});ob.prototype=Object.assign(Object.create(F.prototype),{constructor:ob,isScene:!0,copy:function(a,b){F.prototype.copy.call(this,a,b);null!==a.background&&(this.background=a.background.clone());  
null!==a.environment&&(this.environment=a.environment.clone());null!==a.fog&&(this.fog=a.fog.clone());null!==a.overrideMaterial&&(this.overrideMaterial=a.overrideMaterial.clone());this.autoUpdate=a.autoUpdate;this.matrixAutoUpdate=a.matrixAutoUpdate;return this},toJSON:function(a){var b=F.prototype.toJSON.call(this,a);null!==this.background&&(b.object.background=this.background.toJSON(a));null!==this.environment&&(b.object.environment=this.environment.toJSON(a));null!==this.fog&&(b.object.fog=this.fog.toJSON());  
return b},dispose:function(){this.dispatchEvent({type:"dispose"})}});var zb=[new n,new n,new n,new n,new n,new n,new n,new n],ze=new n,bh=new Sa,qd=new n,rd=new n,sd=new n,Nb=new n,Ob=new n,sc=new n,Ae=new n,Ff=new n,Gf=new n,Ub=new n;Object.assign(Sa.prototype,{isBox3:!0,set:function(a,b){this.min.copy(a);this.max.copy(b);return this},setFromArray:function(a){for(var b=Infinity,c=Infinity,d=Infinity,e=-Infinity,f=-Infinity,g=-Infinity,h=0,l=a.length;h<l;h+=3){var m=a[h],k=a[h+1],p=a[h+2];m<b&&(b=  
m);k<c&&(c=k);p<d&&(d=p);m>e&&(e=m);k>f&&(f=k);p>g&&(g=p)}this.min.set(b,c,d);this.max.set(e,f,g);return this},setFromBufferAttribute:function(a){for(var b=Infinity,c=Infinity,d=Infinity,e=-Infinity,f=-Infinity,g=-Infinity,h=0,l=a.count;h<l;h++){var m=a.getX(h),k=a.getY(h),p=a.getZ(h);m<b&&(b=m);k<c&&(c=k);p<d&&(d=p);m>e&&(e=m);k>f&&(f=k);p>g&&(g=p)}this.min.set(b,c,d);this.max.set(e,f,g);return this},setFromPoints:function(a){this.makeEmpty();for(var b=0,c=a.length;b<c;b++)this.expandByPoint(a[b]);  
return this},setFromCenterAndSize:function(a,b){b=ze.copy(b).multiplyScalar(.5);this.min.copy(a).sub(b);this.max.copy(a).add(b);return this},setFromObject:function(a){this.makeEmpty();return this.expandByObject(a)},clone:function(){return(new this.constructor).copy(this)},copy:function(a){this.min.copy(a.min);this.max.copy(a.max);return this},makeEmpty:function(){this.min.x=this.min.y=this.min.z=Infinity;this.max.x=this.max.y=this.max.z=-Infinity;return this},isEmpty:function(){return this.max.x<  
this.min.x||this.max.y<this.min.y||this.max.z<this.min.z},getCenter:function(a){void 0===a&&(console.warn("THREE.Box3: .getCenter() target is now required"),a=new n);return this.isEmpty()?a.set(0,0,0):a.addVectors(this.min,this.max).multiplyScalar(.5)},getSize:function(a){void 0===a&&(console.warn("THREE.Box3: .getSize() target is now required"),a=new n);return this.isEmpty()?a.set(0,0,0):a.subVectors(this.max,this.min)},expandByPoint:function(a){this.min.min(a);this.max.max(a);return this},expandByVector:function(a){this.min.sub(a);  
this.max.add(a);return this},expandByScalar:function(a){this.min.addScalar(-a);this.max.addScalar(a);return this},expandByObject:function(a){a.updateWorldMatrix(!1,!1);var b=a.geometry;void 0!==b&&(null===b.boundingBox&&b.computeBoundingBox(),bh.copy(b.boundingBox),bh.applyMatrix4(a.matrixWorld),this.union(bh));a=a.children;b=0;for(var c=a.length;b<c;b++)this.expandByObject(a[b]);return this},containsPoint:function(a){return a.x<this.min.x||a.x>this.max.x||a.y<this.min.y||a.y>this.max.y||a.z<this.min.z||  
a.z>this.max.z?!1:!0},containsBox:function(a){return this.min.x<=a.min.x&&a.max.x<=this.max.x&&this.min.y<=a.min.y&&a.max.y<=this.max.y&&this.min.z<=a.min.z&&a.max.z<=this.max.z},getParameter:function(a,b){void 0===b&&(console.warn("THREE.Box3: .getParameter() target is now required"),b=new n);return b.set((a.x-this.min.x)/(this.max.x-this.min.x),(a.y-this.min.y)/(this.max.y-this.min.y),(a.z-this.min.z)/(this.max.z-this.min.z))},intersectsBox:function(a){return a.max.x<this.min.x||a.min.x>this.max.x||  
a.max.y<this.min.y||a.min.y>this.max.y||a.max.z<this.min.z||a.min.z>this.max.z?!1:!0},intersectsSphere:function(a){this.clampPoint(a.center,ze);return ze.distanceToSquared(a.center)<=a.radius\*a.radius},intersectsPlane:function(a){if(0<a.normal.x){var b=a.normal.x\*this.min.x;var c=a.normal.x\*this.max.x}else b=a.normal.x\*this.max.x,c=a.normal.x\*this.min.x;0<a.normal.y?(b+=a.normal.y\*this.min.y,c+=a.normal.y\*this.max.y):(b+=a.normal.y\*this.max.y,c+=a.normal.y\*this.min.y);0<a.normal.z?(b+=a.normal.z\*  
this.min.z,c+=a.normal.z\*this.max.z):(b+=a.normal.z\*this.max.z,c+=a.normal.z\*this.min.z);return b<=-a.constant&&c>=-a.constant},intersectsTriangle:function(a){if(this.isEmpty())return!1;this.getCenter(Ae);Ff.subVectors(this.max,Ae);qd.subVectors(a.a,Ae);rd.subVectors(a.b,Ae);sd.subVectors(a.c,Ae);Nb.subVectors(rd,qd);Ob.subVectors(sd,rd);sc.subVectors(qd,sd);a=[0,-Nb.z,Nb.y,0,-Ob.z,Ob.y,0,-sc.z,sc.y,Nb.z,0,-Nb.x,Ob.z,0,-Ob.x,sc.z,0,-sc.x,-Nb.y,Nb.x,0,-Ob.y,Ob.x,0,-sc.y,sc.x,0];if(!$f(a,qd,rd,sd,Ff))return!1;  
a=[1,0,0,0,1,0,0,0,1];if(!$f(a,qd,rd,sd,Ff))return!1;Gf.crossVectors(Nb,Ob);a=[Gf.x,Gf.y,Gf.z];return $f(a,qd,rd,sd,Ff)},clampPoint:function(a,b){void 0===b&&(console.warn("THREE.Box3: .clampPoint() target is now required"),b=new n);return b.copy(a).clamp(this.min,this.max)},distanceToPoint:function(a){return ze.copy(a).clamp(this.min,this.max).sub(a).length()},getBoundingSphere:function(a){void 0===a&&console.error("THREE.Box3: .getBoundingSphere() target is now required");this.getCenter(a.center);  
a.radius=.5\*this.getSize(ze).length();return a},intersect:function(a){this.min.max(a.min);this.max.min(a.max);this.isEmpty()&&this.makeEmpty();return this},union:function(a){this.min.min(a.min);this.max.max(a.max);return this},applyMatrix4:function(a){if(this.isEmpty())return this;zb[0].set(this.min.x,this.min.y,this.min.z).applyMatrix4(a);zb[1].set(this.min.x,this.min.y,this.max.z).applyMatrix4(a);zb[2].set(this.min.x,this.max.y,this.min.z).applyMatrix4(a);zb[3].set(this.min.x,this.max.y,this.max.z).applyMatrix4(a);  
zb[4].set(this.max.x,this.min.y,this.min.z).applyMatrix4(a);zb[5].set(this.max.x,this.min.y,this.max.z).applyMatrix4(a);zb[6].set(this.max.x,this.max.y,this.min.z).applyMatrix4(a);zb[7].set(this.max.x,this.max.y,this.max.z).applyMatrix4(a);this.setFromPoints(zb);return this},translate:function(a){this.min.add(a);this.max.add(a);return this},equals:function(a){return a.min.equals(this.min)&&a.max.equals(this.max)}});var Xk=new Sa;Object.assign(pb.prototype,{set:function(a,b){this.center.copy(a);this.radius=  
b;return this},setFromPoints:function(a,b){var c=this.center;void 0!==b?c.copy(b):Xk.setFromPoints(a).getCenter(c);for(var d=b=0,e=a.length;d<e;d++)b=Math.max(b,c.distanceToSquared(a[d]));this.radius=Math.sqrt(b);return this},clone:function(){return(new this.constructor).copy(this)},copy:function(a){this.center.copy(a.center);this.radius=a.radius;return this},empty:function(){return 0>=this.radius},containsPoint:function(a){return a.distanceToSquared(this.center)<=this.radius\*this.radius},distanceToPoint:function(a){return a.distanceTo(this.center)-  
this.radius},intersectsSphere:function(a){var b=this.radius+a.radius;return a.center.distanceToSquared(this.center)<=b\*b},intersectsBox:function(a){return a.intersectsSphere(this)},intersectsPlane:function(a){return Math.abs(a.distanceToPoint(this.center))<=this.radius},clampPoint:function(a,b){var c=this.center.distanceToSquared(a);void 0===b&&(console.warn("THREE.Sphere: .clampPoint() target is now required"),b=new n);b.copy(a);c>this.radius\*this.radius&&(b.sub(this.center).normalize(),b.multiplyScalar(this.radius).add(this.center));  
return b},getBoundingBox:function(a){void 0===a&&(console.warn("THREE.Sphere: .getBoundingBox() target is now required"),a=new Sa);a.set(this.center,this.center);a.expandByScalar(this.radius);return a},applyMatrix4:function(a){this.center.applyMatrix4(a);this.radius\*=a.getMaxScaleOnAxis();return this},translate:function(a){this.center.add(a);return this},equals:function(a){return a.center.equals(this.center)&&a.radius===this.radius}});var Ab=new n,ch=new n,Hf=new n,Pb=new n,dh=new n,If=new n,eh=new n;  
Object.assign(Vb.prototype,{set:function(a,b){this.origin.copy(a);this.direction.copy(b);return this},clone:function(){return(new this.constructor).copy(this)},copy:function(a){this.origin.copy(a.origin);this.direction.copy(a.direction);return this},at:function(a,b){void 0===b&&(console.warn("THREE.Ray: .at() target is now required"),b=new n);return b.copy(this.direction).multiplyScalar(a).add(this.origin)},lookAt:function(a){this.direction.copy(a).sub(this.origin).normalize();return this},recast:function(a){this.origin.copy(this.at(a,  
Ab));return this},closestPointToPoint:function(a,b){void 0===b&&(console.warn("THREE.Ray: .closestPointToPoint() target is now required"),b=new n);b.subVectors(a,this.origin);a=b.dot(this.direction);return 0>a?b.copy(this.origin):b.copy(this.direction).multiplyScalar(a).add(this.origin)},distanceToPoint:function(a){return Math.sqrt(this.distanceSqToPoint(a))},distanceSqToPoint:function(a){var b=Ab.subVectors(a,this.origin).dot(this.direction);if(0>b)return this.origin.distanceToSquared(a);Ab.copy(this.direction).multiplyScalar(b).add(this.origin);  
return Ab.distanceToSquared(a)},distanceSqToSegment:function(a,b,c,d){ch.copy(a).add(b).multiplyScalar(.5);Hf.copy(b).sub(a).normalize();Pb.copy(this.origin).sub(ch);var e=.5\*a.distanceTo(b),f=-this.direction.dot(Hf),g=Pb.dot(this.direction),h=-Pb.dot(Hf),l=Pb.lengthSq(),m=Math.abs(1-f\*f);if(0<m){a=f\*h-g;b=f\*g-h;var k=e\*m;0<=a?b>=-k?b<=k?(e=1/m,a\*=e,b\*=e,f=a\*(a+f\*b+2\*g)+b\*(f\*a+b+2\*h)+l):(b=e,a=Math.max(0,-(f\*b+g)),f=-a\*a+b\*(b+2\*h)+l):(b=-e,a=Math.max(0,-(f\*b+g)),f=-a\*a+b\*(b+2\*h)+l):b<=-k?(a=Math.max(0,  
-(-f\*e+g)),b=0<a?-e:Math.min(Math.max(-e,-h),e),f=-a\*a+b\*(b+2\*h)+l):b<=k?(a=0,b=Math.min(Math.max(-e,-h),e),f=b\*(b+2\*h)+l):(a=Math.max(0,-(f\*e+g)),b=0<a?e:Math.min(Math.max(-e,-h),e),f=-a\*a+b\*(b+2\*h)+l)}else b=0<f?-e:e,a=Math.max(0,-(f\*b+g)),f=-a\*a+b\*(b+2\*h)+l;c&&c.copy(this.direction).multiplyScalar(a).add(this.origin);d&&d.copy(Hf).multiplyScalar(b).add(ch);return f},intersectSphere:function(a,b){Ab.subVectors(a.center,this.origin);var c=Ab.dot(this.direction),d=Ab.dot(Ab)-c\*c;a=a.radius\*a.radius;  
if(d>a)return null;a=Math.sqrt(a-d);d=c-a;c+=a;return 0>d&&0>c?null:0>d?this.at(c,b):this.at(d,b)},intersectsSphere:function(a){return this.distanceSqToPoint(a.center)<=a.radius\*a.radius},distanceToPlane:function(a){var b=a.normal.dot(this.direction);if(0===b)return 0===a.distanceToPoint(this.origin)?0:null;a=-(this.origin.dot(a.normal)+a.constant)/b;return 0<=a?a:null},intersectPlane:function(a,b){a=this.distanceToPlane(a);return null===a?null:this.at(a,b)},intersectsPlane:function(a){var b=a.distanceToPoint(this.origin);  
return 0===b||0>a.normal.dot(this.direction)\*b?!0:!1},intersectBox:function(a,b){var c=1/this.direction.x;var d=1/this.direction.y;var e=1/this.direction.z,f=this.origin;if(0<=c){var g=(a.min.x-f.x)\*c;c\*=a.max.x-f.x}else g=(a.max.x-f.x)\*c,c\*=a.min.x-f.x;if(0<=d){var h=(a.min.y-f.y)\*d;d\*=a.max.y-f.y}else h=(a.max.y-f.y)\*d,d\*=a.min.y-f.y;if(g>d||h>c)return null;if(h>g||g!==g)g=h;if(d<c||c!==c)c=d;0<=e?(h=(a.min.z-f.z)\*e,a=(a.max.z-f.z)\*e):(h=(a.max.z-f.z)\*e,a=(a.min.z-f.z)\*e);if(g>a||h>c)return null;  
if(h>g||g!==g)g=h;if(a<c||c!==c)c=a;return 0>c?null:this.at(0<=g?g:c,b)},intersectsBox:function(a){return null!==this.intersectBox(a,Ab)},intersectTriangle:function(a,b,c,d,e){dh.subVectors(b,a);If.subVectors(c,a);eh.crossVectors(dh,If);b=this.direction.dot(eh);if(0<b){if(d)return null;d=1}else if(0>b)d=-1,b=-b;else return null;Pb.subVectors(this.origin,a);a=d\*this.direction.dot(If.crossVectors(Pb,If));if(0>a)return null;c=d\*this.direction.dot(dh.cross(Pb));if(0>c||a+c>b)return null;a=-d\*Pb.dot(eh);  
return 0>a?null:this.at(a/b,e)},applyMatrix4:function(a){this.origin.applyMatrix4(a);this.direction.transformDirection(a);return this},equals:function(a){return a.origin.equals(this.origin)&&a.direction.equals(this.direction)}});var fh=new n,Yk=new n,Zk=new wa;Object.assign(Ta.prototype,{isPlane:!0,set:function(a,b){this.normal.copy(a);this.constant=b;return this},setComponents:function(a,b,c,d){this.normal.set(a,b,c);this.constant=d;return this},setFromNormalAndCoplanarPoint:function(a,b){this.normal.copy(a);  
this.constant=-b.dot(this.normal);return this},setFromCoplanarPoints:function(a,b,c){b=fh.subVectors(c,b).cross(Yk.subVectors(a,b)).normalize();this.setFromNormalAndCoplanarPoint(b,a);return this},clone:function(){return(new this.constructor).copy(this)},copy:function(a){this.normal.copy(a.normal);this.constant=a.constant;return this},normalize:function(){var a=1/this.normal.length();this.normal.multiplyScalar(a);this.constant\*=a;return this},negate:function(){this.constant\*=-1;this.normal.negate();  
return this},distanceToPoint:function(a){return this.normal.dot(a)+this.constant},distanceToSphere:function(a){return this.distanceToPoint(a.center)-a.radius},projectPoint:function(a,b){void 0===b&&(console.warn("THREE.Plane: .projectPoint() target is now required"),b=new n);return b.copy(this.normal).multiplyScalar(-this.distanceToPoint(a)).add(a)},intersectLine:function(a,b){void 0===b&&(console.warn("THREE.Plane: .intersectLine() target is now required"),b=new n);var c=a.delta(fh),d=this.normal.dot(c);  
if(0===d){if(0===this.distanceToPoint(a.start))return b.copy(a.start)}else if(d=-(a.start.dot(this.normal)+this.constant)/d,!(0>d||1<d))return b.copy(c).multiplyScalar(d).add(a.start)},intersectsLine:function(a){var b=this.distanceToPoint(a.start);a=this.distanceToPoint(a.end);return 0>b&&0<a||0>a&&0<b},intersectsBox:function(a){return a.intersectsPlane(this)},intersectsSphere:function(a){return a.intersectsPlane(this)},coplanarPoint:function(a){void 0===a&&(console.warn("THREE.Plane: .coplanarPoint() target is now required"),  
a=new n);return a.copy(this.normal).multiplyScalar(-this.constant)},applyMatrix4:function(a,b){b=b||Zk.getNormalMatrix(a);a=this.coplanarPoint(fh).applyMatrix4(a);b=this.normal.applyMatrix3(b).normalize();this.constant=-a.dot(b);return this},translate:function(a){this.constant-=a.dot(this.normal);return this},equals:function(a){return a.normal.equals(this.normal)&&a.constant===this.constant}});var bb=new n,Bb=new n,gh=new n,Cb=new n,td=new n,ud=new n,Oi=new n,hh=new n,ih=new n,jh=new n;Object.assign(oa,  
{getNormal:function(a,b,c,d){void 0===d&&(console.warn("THREE.Triangle: .getNormal() target is now required"),d=new n);d.subVectors(c,b);bb.subVectors(a,b);d.cross(bb);a=d.lengthSq();return 0<a?d.multiplyScalar(1/Math.sqrt(a)):d.set(0,0,0)},getBarycoord:function(a,b,c,d,e){bb.subVectors(d,b);Bb.subVectors(c,b);gh.subVectors(a,b);a=bb.dot(bb);b=bb.dot(Bb);c=bb.dot(gh);var f=Bb.dot(Bb);d=Bb.dot(gh);var g=a\*f-b\*b;void 0===e&&(console.warn("THREE.Triangle: .getBarycoord() target is now required"),e=new n);  
if(0===g)return e.set(-2,-1,-1);g=1/g;f=(f\*c-b\*d)\*g;a=(a\*d-b\*c)\*g;return e.set(1-f-a,a,f)},containsPoint:function(a,b,c,d){oa.getBarycoord(a,b,c,d,Cb);return 0<=Cb.x&&0<=Cb.y&&1>=Cb.x+Cb.y},getUV:function(a,b,c,d,e,f,g,h){this.getBarycoord(a,b,c,d,Cb);h.set(0,0);h.addScaledVector(e,Cb.x);h.addScaledVector(f,Cb.y);h.addScaledVector(g,Cb.z);return h},isFrontFacing:function(a,b,c,d){bb.subVectors(c,b);Bb.subVectors(a,b);return 0>bb.cross(Bb).dot(d)?!0:!1}});Object.assign(oa.prototype,{set:function(a,  
b,c){this.a.copy(a);this.b.copy(b);this.c.copy(c);return this},setFromPointsAndIndices:function(a,b,c,d){this.a.copy(a[b]);this.b.copy(a[c]);this.c.copy(a[d]);return this},clone:function(){return(new this.constructor).copy(this)},copy:function(a){this.a.copy(a.a);this.b.copy(a.b);this.c.copy(a.c);return this},getArea:function(){bb.subVectors(this.c,this.b);Bb.subVectors(this.a,this.b);return.5\*bb.cross(Bb).length()},getMidpoint:function(a){void 0===a&&(console.warn("THREE.Triangle: .getMidpoint() target is now required"),  
a=new n);return a.addVectors(this.a,this.b).add(this.c).multiplyScalar(1/3)},getNormal:function(a){return oa.getNormal(this.a,this.b,this.c,a)},getPlane:function(a){void 0===a&&(console.warn("THREE.Triangle: .getPlane() target is now required"),a=new Ta);return a.setFromCoplanarPoints(this.a,this.b,this.c)},getBarycoord:function(a,b){return oa.getBarycoord(a,this.a,this.b,this.c,b)},getUV:function(a,b,c,d,e){return oa.getUV(a,this.a,this.b,this.c,b,c,d,e)},containsPoint:function(a){return oa.containsPoint(a,  
this.a,this.b,this.c)},isFrontFacing:function(a){return oa.isFrontFacing(this.a,this.b,this.c,a)},intersectsBox:function(a){return a.intersectsTriangle(this)},closestPointToPoint:function(a,b){void 0===b&&(console.warn("THREE.Triangle: .closestPointToPoint() target is now required"),b=new n);var c=this.a,d=this.b,e=this.c;td.subVectors(d,c);ud.subVectors(e,c);hh.subVectors(a,c);var f=td.dot(hh),g=ud.dot(hh);if(0>=f&&0>=g)return b.copy(c);ih.subVectors(a,d);var h=td.dot(ih),l=ud.dot(ih);if(0<=h&&l<=  
h)return b.copy(d);var m=f\*l-h\*g;if(0>=m&&0<=f&&0>=h)return d=f/(f-h),b.copy(c).addScaledVector(td,d);jh.subVectors(a,e);a=td.dot(jh);var k=ud.dot(jh);if(0<=k&&a<=k)return b.copy(e);f=a\*g-f\*k;if(0>=f&&0<=g&&0>=k)return m=g/(g-k),b.copy(c).addScaledVector(ud,m);g=h\*k-a\*l;if(0>=g&&0<=l-h&&0<=a-k)return Oi.subVectors(e,d),m=(l-h)/(l-h+(a-k)),b.copy(d).addScaledVector(Oi,m);e=1/(g+f+m);d=f\*e;m\*=e;return b.copy(c).addScaledVector(td,d).addScaledVector(ud,m)},equals:function(a){return a.a.equals(this.a)&&  
a.b.equals(this.b)&&a.c.equals(this.c)}});var Pi={aliceblue:15792383,antiquewhite:16444375,aqua:65535,aquamarine:8388564,azure:15794175,beige:16119260,bisque:16770244,black:0,blanchedalmond:16772045,blue:255,blueviolet:9055202,brown:10824234,burlywood:14596231,cadetblue:6266528,chartreuse:8388352,chocolate:13789470,coral:16744272,cornflowerblue:6591981,cornsilk:16775388,crimson:14423100,cyan:65535,darkblue:139,darkcyan:35723,darkgoldenrod:12092939,darkgray:11119017,darkgreen:25600,darkgrey:11119017,  
darkkhaki:12433259,darkmagenta:9109643,darkolivegreen:5597999,darkorange:16747520,darkorchid:10040012,darkred:9109504,darksalmon:15308410,darkseagreen:9419919,darkslateblue:4734347,darkslategray:3100495,darkslategrey:3100495,darkturquoise:52945,darkviolet:9699539,deeppink:16716947,deepskyblue:49151,dimgray:6908265,dimgrey:6908265,dodgerblue:2003199,firebrick:11674146,floralwhite:16775920,forestgreen:2263842,fuchsia:16711935,gainsboro:14474460,ghostwhite:16316671,gold:16766720,goldenrod:14329120,gray:8421504,  
green:32768,greenyellow:11403055,grey:8421504,honeydew:15794160,hotpink:16738740,indianred:13458524,indigo:4915330,ivory:16777200,khaki:15787660,lavender:15132410,lavenderblush:16773365,lawngreen:8190976,lemonchiffon:16775885,lightblue:11393254,lightcoral:15761536,lightcyan:14745599,lightgoldenrodyellow:16448210,lightgray:13882323,lightgreen:9498256,lightgrey:13882323,lightpink:16758465,lightsalmon:16752762,lightseagreen:2142890,lightskyblue:8900346,lightslategray:7833753,lightslategrey:7833753,lightsteelblue:11584734,  
lightyellow:16777184,lime:65280,limegreen:3329330,linen:16445670,magenta:16711935,maroon:8388608,mediumaquamarine:6737322,mediumblue:205,mediumorchid:12211667,mediumpurple:9662683,mediumseagreen:3978097,mediumslateblue:8087790,mediumspringgreen:64154,mediumturquoise:4772300,mediumvioletred:13047173,midnightblue:1644912,mintcream:16121850,mistyrose:16770273,moccasin:16770229,navajowhite:16768685,navy:128,oldlace:16643558,olive:8421376,olivedrab:7048739,orange:16753920,orangered:16729344,orchid:14315734,  
palegoldenrod:15657130,palegreen:10025880,paleturquoise:11529966,palevioletred:14381203,papayawhip:16773077,peachpuff:16767673,peru:13468991,pink:16761035,plum:14524637,powderblue:11591910,purple:8388736,rebeccapurple:6697881,red:16711680,rosybrown:12357519,royalblue:4286945,saddlebrown:9127187,salmon:16416882,sandybrown:16032864,seagreen:3050327,seashell:16774638,sienna:10506797,silver:12632256,skyblue:8900331,slateblue:6970061,slategray:7372944,slategrey:7372944,snow:16775930,springgreen:65407,  
steelblue:4620980,tan:13808780,teal:32896,thistle:14204888,tomato:16737095,turquoise:4251856,violet:15631086,wheat:16113331,white:16777215,whitesmoke:16119285,yellow:16776960,yellowgreen:10145074},za={h:0,s:0,l:0},Jf={h:0,s:0,l:0};Object.assign(A.prototype,{isColor:!0,r:1,g:1,b:1,set:function(a){a&&a.isColor?this.copy(a):"number"===typeof a?this.setHex(a):"string"===typeof a&&this.setStyle(a);return this},setScalar:function(a){this.b=this.g=this.r=a;return this},setHex:function(a){a=Math.floor(a);  
this.r=(a>>16&255)/255;this.g=(a>>8&255)/255;this.b=(a&255)/255;return this},setRGB:function(a,b,c){this.r=a;this.g=b;this.b=c;return this},setHSL:function(a,b,c){a=L.euclideanModulo(a,1);b=L.clamp(b,0,1);c=L.clamp(c,0,1);0===b?this.r=this.g=this.b=c:(b=.5>=c?c\*(1+b):c+b-c\*b,c=2\*c-b,this.r=ag(c,b,a+1/3),this.g=ag(c,b,a),this.b=ag(c,b,a-1/3));return this},setStyle:function(a){function b(b){void 0!==b&&1>parseFloat(b)&&console.warn("THREE.Color: Alpha component of "+a+" will be ignored.")}var c;if(c=  
/^((?:rgb|hsl)a?)\(\s\*([^\)]\*)\)/.exec(a)){var d=c[2];switch(c[1]){case "rgb":case "rgba":if(c=/^(\d+)\s\*,\s\*(\d+)\s\*,\s\*(\d+)\s\*(,\s\*([0-9]\*\.?[0-9]+)\s\*)?$/.exec(d))return this.r=Math.min(255,parseInt(c[1],10))/255,this.g=Math.min(255,parseInt(c[2],10))/255,this.b=Math.min(255,parseInt(c[3],10))/255,b(c[5]),this;if(c=/^(\d+)%\s\*,\s\*(\d+)%\s\*,\s\*(\d+)%\s\*(,\s\*([0-9]\*\.?[0-9]+)\s\*)?$/.exec(d))return this.r=Math.min(100,parseInt(c[1],10))/100,this.g=Math.min(100,parseInt(c[2],10))/100,this.b=Math.min(100,  
parseInt(c[3],10))/100,b(c[5]),this;break;case "hsl":case "hsla":if(c=/^([0-9]\*\.?[0-9]+)\s\*,\s\*(\d+)%\s\*,\s\*(\d+)%\s\*(,\s\*([0-9]\*\.?[0-9]+)\s\*)?$/.exec(d)){d=parseFloat(c[1])/360;var e=parseInt(c[2],10)/100,f=parseInt(c[3],10)/100;b(c[5]);return this.setHSL(d,e,f)}}}else if(c=/^#([A-Fa-f0-9]+)$/.exec(a)){c=c[1];d=c.length;if(3===d)return this.r=parseInt(c.charAt(0)+c.charAt(0),16)/255,this.g=parseInt(c.charAt(1)+c.charAt(1),16)/255,this.b=parseInt(c.charAt(2)+c.charAt(2),16)/255,this;if(6===d)return this.r=  
parseInt(c.charAt(0)+c.charAt(1),16)/255,this.g=parseInt(c.charAt(2)+c.charAt(3),16)/255,this.b=parseInt(c.charAt(4)+c.charAt(5),16)/255,this}return a&&0<a.length?this.setColorName(a):this},setColorName:function(a){var b=Pi[a];void 0!==b?this.setHex(b):console.warn("THREE.Color: Unknown color "+a);return this},clone:function(){return new this.constructor(this.r,this.g,this.b)},copy:function(a){this.r=a.r;this.g=a.g;this.b=a.b;return this},copyGammaToLinear:function(a,b){void 0===b&&(b=2);this.r=Math.pow(a.r,  
b);this.g=Math.pow(a.g,b);this.b=Math.pow(a.b,b);return this},copyLinearToGamma:function(a,b){void 0===b&&(b=2);b=0<b?1/b:1;this.r=Math.pow(a.r,b);this.g=Math.pow(a.g,b);this.b=Math.pow(a.b,b);return this},convertGammaToLinear:function(a){this.copyGammaToLinear(this,a);return this},convertLinearToGamma:function(a){this.copyLinearToGamma(this,a);return this},copySRGBToLinear:function(a){this.r=bg(a.r);this.g=bg(a.g);this.b=bg(a.b);return this},copyLinearToSRGB:function(a){this.r=cg(a.r);this.g=cg(a.g);  
this.b=cg(a.b);return this},convertSRGBToLinear:function(){this.copySRGBToLinear(this);return this},convertLinearToSRGB:function(){this.copyLinearToSRGB(this);return this},getHex:function(){return 255\*this.r<<16^255\*this.g<<8^255\*this.b<<0},getHexString:function(){return("000000"+this.getHex().toString(16)).slice(-6)},getHSL:function(a){void 0===a&&(console.warn("THREE.Color: .getHSL() target is now required"),a={h:0,s:0,l:0});var b=this.r,c=this.g,d=this.b,e=Math.max(b,c,d),f=Math.min(b,c,d),g,h=  
(f+e)/2;if(f===e)f=g=0;else{var l=e-f;f=.5>=h?l/(e+f):l/(2-e-f);switch(e){case b:g=(c-d)/l+(c<d?6:0);break;case c:g=(d-b)/l+2;break;case d:g=(b-c)/l+4}g/=6}a.h=g;a.s=f;a.l=h;return a},getStyle:function(){return"rgb("+(255\*this.r|0)+","+(255\*this.g|0)+","+(255\*this.b|0)+")"},offsetHSL:function(a,b,c){this.getHSL(za);za.h+=a;za.s+=b;za.l+=c;this.setHSL(za.h,za.s,za.l);return this},add:function(a){this.r+=a.r;this.g+=a.g;this.b+=a.b;return this},addColors:function(a,b){this.r=a.r+b.r;this.g=a.g+b.g;  
this.b=a.b+b.b;return this},addScalar:function(a){this.r+=a;this.g+=a;this.b+=a;return this},sub:function(a){this.r=Math.max(0,this.r-a.r);this.g=Math.max(0,this.g-a.g);this.b=Math.max(0,this.b-a.b);return this},multiply:function(a){this.r\*=a.r;this.g\*=a.g;this.b\*=a.b;return this},multiplyScalar:function(a){this.r\*=a;this.g\*=a;this.b\*=a;return this},lerp:function(a,b){this.r+=(a.r-this.r)\*b;this.g+=(a.g-this.g)\*b;this.b+=(a.b-this.b)\*b;return this},lerpHSL:function(a,b){this.getHSL(za);a.getHSL(Jf);  
a=L.lerp(za.h,Jf.h,b);var c=L.lerp(za.s,Jf.s,b);b=L.lerp(za.l,Jf.l,b);this.setHSL(a,c,b);return this},equals:function(a){return a.r===this.r&&a.g===this.g&&a.b===this.b},fromArray:function(a,b){void 0===b&&(b=0);this.r=a[b];this.g=a[b+1];this.b=a[b+2];return this},toArray:function(a,b){void 0===a&&(a=[]);void 0===b&&(b=0);a[b]=this.r;a[b+1]=this.g;a[b+2]=this.b;return a},toJSON:function(){return this.getHex()}});A.NAMES=Pi;Object.assign(Bc.prototype,{clone:function(){return(new this.constructor).copy(this)},  
copy:function(a){this.a=a.a;this.b=a.b;this.c=a.c;this.normal.copy(a.normal);this.color.copy(a.color);this.materialIndex=a.materialIndex;for(var b=0,c=a.vertexNormals.length;b<c;b++)this.vertexNormals[b]=a.vertexNormals[b].clone();b=0;for(c=a.vertexColors.length;b<c;b++)this.vertexColors[b]=a.vertexColors[b].clone();return this}});var rj=0;K.prototype=Object.assign(Object.create(Ea.prototype),{constructor:K,isMaterial:!0,onBeforeCompile:function(){},setValues:function(a){if(void 0!==a)for(var b in a){var c=  
a[b];if(void 0===c)console.warn("THREE.Material: '"+b+"' parameter is undefined.");else if("shading"===b)console.warn("THREE."+this.type+": .shading has been removed. Use the boolean .flatShading instead."),this.flatShading=1===c?!0:!1;else{var d=this[b];void 0===d?console.warn("THREE."+this.type+": '"+b+"' is not a property of this material."):d&&d.isColor?d.set(c):d&&d.isVector3&&c&&c.isVector3?d.copy(c):this[b]=c}}},toJSON:function(a){function b(a){var b=[],c;for(c in a){var d=a[c];delete d.metadata;  
b.push(d)}return b}var c=void 0===a||"string"===typeof a;c&&(a={textures:{},images:{}});var d={metadata:{version:4.5,type:"Material",generator:"Material.toJSON"}};d.uuid=this.uuid;d.type=this.type;""!==this.name&&(d.name=this.name);this.color&&this.color.isColor&&(d.color=this.color.getHex());void 0!==this.roughness&&(d.roughness=this.roughness);void 0!==this.metalness&&(d.metalness=this.metalness);this.sheen&&this.sheen.isColor&&(d.sheen=this.sheen.getHex());this.emissive&&this.emissive.isColor&&  
(d.emissive=this.emissive.getHex());this.emissiveIntensity&&1!==this.emissiveIntensity&&(d.emissiveIntensity=this.emissiveIntensity);this.specular&&this.specular.isColor&&(d.specular=this.specular.getHex());void 0!==this.shininess&&(d.shininess=this.shininess);void 0!==this.clearcoat&&(d.clearcoat=this.clearcoat);void 0!==this.clearcoatRoughness&&(d.clearcoatRoughness=this.clearcoatRoughness);this.clearcoatMap&&this.clearcoatMap.isTexture&&(d.clearcoatMap=this.clearcoatMap.toJSON(a).uuid);this.clearcoatRoughnessMap&&  
this.clearcoatRoughnessMap.isTexture&&(d.clearcoatRoughnessMap=this.clearcoatRoughnessMap.toJSON(a).uuid);this.clearcoatNormalMap&&this.clearcoatNormalMap.isTexture&&(d.clearcoatNormalMap=this.clearcoatNormalMap.toJSON(a).uuid,d.clearcoatNormalScale=this.clearcoatNormalScale.toArray());this.map&&this.map.isTexture&&(d.map=this.map.toJSON(a).uuid);this.matcap&&this.matcap.isTexture&&(d.matcap=this.matcap.toJSON(a).uuid);this.alphaMap&&this.alphaMap.isTexture&&(d.alphaMap=this.alphaMap.toJSON(a).uuid);  
this.lightMap&&this.lightMap.isTexture&&(d.lightMap=this.lightMap.toJSON(a).uuid);this.aoMap&&this.aoMap.isTexture&&(d.aoMap=this.aoMap.toJSON(a).uuid,d.aoMapIntensity=this.aoMapIntensity);this.bumpMap&&this.bumpMap.isTexture&&(d.bumpMap=this.bumpMap.toJSON(a).uuid,d.bumpScale=this.bumpScale);this.normalMap&&this.normalMap.isTexture&&(d.normalMap=this.normalMap.toJSON(a).uuid,d.normalMapType=this.normalMapType,d.normalScale=this.normalScale.toArray());this.displacementMap&&this.displacementMap.isTexture&&  
(d.displacementMap=this.displacementMap.toJSON(a).uuid,d.displacementScale=this.displacementScale,d.displacementBias=this.displacementBias);this.roughnessMap&&this.roughnessMap.isTexture&&(d.roughnessMap=this.roughnessMap.toJSON(a).uuid);this.metalnessMap&&this.metalnessMap.isTexture&&(d.metalnessMap=this.metalnessMap.toJSON(a).uuid);this.emissiveMap&&this.emissiveMap.isTexture&&(d.emissiveMap=this.emissiveMap.toJSON(a).uuid);this.specularMap&&this.specularMap.isTexture&&(d.specularMap=this.specularMap.toJSON(a).uuid);  
this.envMap&&this.envMap.isTexture&&(d.envMap=this.envMap.toJSON(a).uuid,d.reflectivity=this.reflectivity,d.refractionRatio=this.refractionRatio,void 0!==this.combine&&(d.combine=this.combine),void 0!==this.envMapIntensity&&(d.envMapIntensity=this.envMapIntensity));this.gradientMap&&this.gradientMap.isTexture&&(d.gradientMap=this.gradientMap.toJSON(a).uuid);void 0!==this.size&&(d.size=this.size);void 0!==this.sizeAttenuation&&(d.sizeAttenuation=this.sizeAttenuation);1!==this.blending&&(d.blending=  
this.blending);!0===this.flatShading&&(d.flatShading=this.flatShading);0!==this.side&&(d.side=this.side);this.vertexColors&&(d.vertexColors=!0);1>this.opacity&&(d.opacity=this.opacity);!0===this.transparent&&(d.transparent=this.transparent);d.depthFunc=this.depthFunc;d.depthTest=this.depthTest;d.depthWrite=this.depthWrite;d.stencilWrite=this.stencilWrite;d.stencilWriteMask=this.stencilWriteMask;d.stencilFunc=this.stencilFunc;d.stencilRef=this.stencilRef;d.stencilFuncMask=this.stencilFuncMask;d.stencilFail=  
this.stencilFail;d.stencilZFail=this.stencilZFail;d.stencilZPass=this.stencilZPass;this.rotation&&0!==this.rotation&&(d.rotation=this.rotation);!0===this.polygonOffset&&(d.polygonOffset=!0);0!==this.polygonOffsetFactor&&(d.polygonOffsetFactor=this.polygonOffsetFactor);0!==this.polygonOffsetUnits&&(d.polygonOffsetUnits=this.polygonOffsetUnits);this.linewidth&&1!==this.linewidth&&(d.linewidth=this.linewidth);void 0!==this.dashSize&&(d.dashSize=this.dashSize);void 0!==this.gapSize&&(d.gapSize=this.gapSize);  
void 0!==this.scale&&(d.scale=this.scale);!0===this.dithering&&(d.dithering=!0);0<this.alphaTest&&(d.alphaTest=this.alphaTest);!0===this.premultipliedAlpha&&(d.premultipliedAlpha=this.premultipliedAlpha);!0===this.wireframe&&(d.wireframe=this.wireframe);1<this.wireframeLinewidth&&(d.wireframeLinewidth=this.wireframeLinewidth);"round"!==this.wireframeLinecap&&(d.wireframeLinecap=this.wireframeLinecap);"round"!==this.wireframeLinejoin&&(d.wireframeLinejoin=this.wireframeLinejoin);!0===this.morphTargets&&  
(d.morphTargets=!0);!0===this.morphNormals&&(d.morphNormals=!0);!0===this.skinning&&(d.skinning=!0);!1===this.visible&&(d.visible=!1);!1===this.toneMapped&&(d.toneMapped=!1);"{}"!==JSON.stringify(this.userData)&&(d.userData=this.userData);c&&(c=b(a.textures),a=b(a.images),0<c.length&&(d.textures=c),0<a.length&&(d.images=a));return d},clone:function(){return(new this.constructor).copy(this)},copy:function(a){this.name=a.name;this.fog=a.fog;this.blending=a.blending;this.side=a.side;this.flatShading=  
a.flatShading;this.vertexColors=a.vertexColors;this.opacity=a.opacity;this.transparent=a.transparent;this.blendSrc=a.blendSrc;this.blendDst=a.blendDst;this.blendEquation=a.blendEquation;this.blendSrcAlpha=a.blendSrcAlpha;this.blendDstAlpha=a.blendDstAlpha;this.blendEquationAlpha=a.blendEquationAlpha;this.depthFunc=a.depthFunc;this.depthTest=a.depthTest;this.depthWrite=a.depthWrite;this.stencilWriteMask=a.stencilWriteMask;this.stencilFunc=a.stencilFunc;this.stencilRef=a.stencilRef;this.stencilFuncMask=  
a.stencilFuncMask;this.stencilFail=a.stencilFail;this.stencilZFail=a.stencilZFail;this.stencilZPass=a.stencilZPass;this.stencilWrite=a.stencilWrite;var b=a.clippingPlanes,c=null;if(null!==b){var d=b.length;c=Array(d);for(var e=0;e!==d;++e)c[e]=b[e].clone()}this.clippingPlanes=c;this.clipIntersection=a.clipIntersection;this.clipShadows=a.clipShadows;this.shadowSide=a.shadowSide;this.colorWrite=a.colorWrite;this.precision=a.precision;this.polygonOffset=a.polygonOffset;this.polygonOffsetFactor=a.polygonOffsetFactor;  
this.polygonOffsetUnits=a.polygonOffsetUnits;this.dithering=a.dithering;this.alphaTest=a.alphaTest;this.premultipliedAlpha=a.premultipliedAlpha;this.visible=a.visible;this.toneMapped=a.toneMapped;this.userData=JSON.parse(JSON.stringify(a.userData));return this},dispose:function(){this.dispatchEvent({type:"dispose"})}});Object.defineProperty(K.prototype,"needsUpdate",{set:function(a){!0===a&&this.version++}});Oa.prototype=Object.create(K.prototype);Oa.prototype.constructor=Oa;Oa.prototype.isMeshBasicMaterial=  
!0;Oa.prototype.copy=function(a){K.prototype.copy.call(this,a);this.color.copy(a.color);this.map=a.map;this.lightMap=a.lightMap;this.lightMapIntensity=a.lightMapIntensity;this.aoMap=a.aoMap;this.aoMapIntensity=a.aoMapIntensity;this.specularMap=a.specularMap;this.alphaMap=a.alphaMap;this.envMap=a.envMap;this.combine=a.combine;this.reflectivity=a.reflectivity;this.refractionRatio=a.refractionRatio;this.wireframe=a.wireframe;this.wireframeLinewidth=a.wireframeLinewidth;this.wireframeLinecap=a.wireframeLinecap;  
this.wireframeLinejoin=a.wireframeLinejoin;this.skinning=a.skinning;this.morphTargets=a.morphTargets;return this};var ba=new n;Object.defineProperty(M.prototype,"needsUpdate",{set:function(a){!0===a&&this.version++}});Object.assign(M.prototype,{isBufferAttribute:!0,onUploadCallback:function(){},setUsage:function(a){this.usage=a;return this},copy:function(a){this.name=a.name;this.array=new a.array.constructor(a.array);this.itemSize=a.itemSize;this.count=a.count;this.normalized=a.normalized;this.usage=  
a.usage;return this},copyAt:function(a,b,c){a\*=this.itemSize;c\*=b.itemSize;for(var d=0,e=this.itemSize;d<e;d++)this.array[a+d]=b.array[c+d];return this},copyArray:function(a){this.array.set(a);return this},copyColorsArray:function(a){for(var b=this.array,c=0,d=0,e=a.length;d<e;d++){var f=a[d];void 0===f&&(console.warn("THREE.BufferAttribute.copyColorsArray(): color is undefined",d),f=new A);b[c++]=f.r;b[c++]=f.g;b[c++]=f.b}return this},copyVector2sArray:function(a){for(var b=this.array,c=0,d=0,e=  
a.length;d<e;d++){var f=a[d];void 0===f&&(console.warn("THREE.BufferAttribute.copyVector2sArray(): vector is undefined",d),f=new t);b[c++]=f.x;b[c++]=f.y}return this},copyVector3sArray:function(a){for(var b=this.array,c=0,d=0,e=a.length;d<e;d++){var f=a[d];void 0===f&&(console.warn("THREE.BufferAttribute.copyVector3sArray(): vector is undefined",d),f=new n);b[c++]=f.x;b[c++]=f.y;b[c++]=f.z}return this},copyVector4sArray:function(a){for(var b=this.array,c=0,d=0,e=a.length;d<e;d++){var f=a[d];void 0===  
f&&(console.warn("THREE.BufferAttribute.copyVector4sArray(): vector is undefined",d),f=new ka);b[c++]=f.x;b[c++]=f.y;b[c++]=f.z;b[c++]=f.w}return this},applyMatrix3:function(a){for(var b=0,c=this.count;b<c;b++)ba.x=this.getX(b),ba.y=this.getY(b),ba.z=this.getZ(b),ba.applyMatrix3(a),this.setXYZ(b,ba.x,ba.y,ba.z);return this},applyMatrix4:function(a){for(var b=0,c=this.count;b<c;b++)ba.x=this.getX(b),ba.y=this.getY(b),ba.z=this.getZ(b),ba.applyMatrix4(a),this.setXYZ(b,ba.x,ba.y,ba.z);return this},applyNormalMatrix:function(a){for(var b=  
0,c=this.count;b<c;b++)ba.x=this.getX(b),ba.y=this.getY(b),ba.z=this.getZ(b),ba.applyNormalMatrix(a),this.setXYZ(b,ba.x,ba.y,ba.z);return this},transformDirection:function(a){for(var b=0,c=this.count;b<c;b++)ba.x=this.getX(b),ba.y=this.getY(b),ba.z=this.getZ(b),ba.transformDirection(a),this.setXYZ(b,ba.x,ba.y,ba.z);return this},set:function(a,b){void 0===b&&(b=0);this.array.set(a,b);return this},getX:function(a){return this.array[a\*this.itemSize]},setX:function(a,b){this.array[a\*this.itemSize]=b;  
return this},getY:function(a){return this.array[a\*this.itemSize+1]},setY:function(a,b){this.array[a\*this.itemSize+1]=b;return this},getZ:function(a){return this.array[a\*this.itemSize+2]},setZ:function(a,b){this.array[a\*this.itemSize+2]=b;return this},getW:function(a){return this.array[a\*this.itemSize+3]},setW:function(a,b){this.array[a\*this.itemSize+3]=b;return this},setXY:function(a,b,c){a\*=this.itemSize;this.array[a+0]=b;this.array[a+1]=c;return this},setXYZ:function(a,b,c,d){a\*=this.itemSize;this.array[a+  
0]=b;this.array[a+1]=c;this.array[a+2]=d;return this},setXYZW:function(a,b,c,d,e){a\*=this.itemSize;this.array[a+0]=b;this.array[a+1]=c;this.array[a+2]=d;this.array[a+3]=e;return this},onUpload:function(a){this.onUploadCallback=a;return this},clone:function(){return(new this.constructor(this.array,this.itemSize)).copy(this)},toJSON:function(){return{itemSize:this.itemSize,type:this.array.constructor.name,array:Array.prototype.slice.call(this.array),normalized:this.normalized}}});Bd.prototype=Object.create(M.prototype);  
Bd.prototype.constructor=Bd;Cd.prototype=Object.create(M.prototype);Cd.prototype.constructor=Cd;Dd.prototype=Object.create(M.prototype);Dd.prototype.constructor=Dd;Ed.prototype=Object.create(M.prototype);Ed.prototype.constructor=Ed;Wb.prototype=Object.create(M.prototype);Wb.prototype.constructor=Wb;Fd.prototype=Object.create(M.prototype);Fd.prototype.constructor=Fd;Xb.prototype=Object.create(M.prototype);Xb.prototype.constructor=Xb;y.prototype=Object.create(M.prototype);y.prototype.constructor=y;  
Gd.prototype=Object.create(M.prototype);Gd.prototype.constructor=Gd;Object.assign(xh.prototype,{computeGroups:function(a){var b=[],c=void 0;a=a.faces;for(var d=0;d<a.length;d++){var e=a[d];if(e.materialIndex!==c){c=e.materialIndex;void 0!==f&&(f.count=3\*d-f.start,b.push(f));var f={start:3\*d,materialIndex:c}}}void 0!==f&&(f.count=3\*d-f.start,b.push(f));this.groups=b},fromGeometry:function(a){var b=a.faces,c=a.vertices,d=a.faceVertexUvs,e=d[0]&&0<d[0].length,f=d[1]&&0<d[1].length,g=a.morphTargets,h=  
g.length;if(0<h){var l=[];for(var m=0;m<h;m++)l[m]={name:g[m].name,data:[]};this.morphTargets.position=l}var k=a.morphNormals,p=k.length;if(0<p){var n=[];for(m=0;m<p;m++)n[m]={name:k[m].name,data:[]};this.morphTargets.normal=n}var r=a.skinIndices,q=a.skinWeights,v=r.length===c.length,E=q.length===c.length;0<c.length&&0===b.length&&console.error("THREE.DirectGeometry: Faceless geometries are not supported.");for(m=0;m<b.length;m++){var w=b[m];this.vertices.push(c[w.a],c[w.b],c[w.c]);var z=w.vertexNormals;  
3===z.length?this.normals.push(z[0],z[1],z[2]):(z=w.normal,this.normals.push(z,z,z));z=w.vertexColors;3===z.length?this.colors.push(z[0],z[1],z[2]):(z=w.color,this.colors.push(z,z,z));!0===e&&(z=d[0][m],void 0!==z?this.uvs.push(z[0],z[1],z[2]):(console.warn("THREE.DirectGeometry.fromGeometry(): Undefined vertexUv ",m),this.uvs.push(new t,new t,new t)));!0===f&&(z=d[1][m],void 0!==z?this.uvs2.push(z[0],z[1],z[2]):(console.warn("THREE.DirectGeometry.fromGeometry(): Undefined vertexUv2 ",m),this.uvs2.push(new t,  
new t,new t)));for(z=0;z<h;z++){var y=g[z].vertices;l[z].data.push(y[w.a],y[w.b],y[w.c])}for(z=0;z<p;z++)y=k[z].vertexNormals[m],n[z].data.push(y.a,y.b,y.c);v&&this.skinIndices.push(r[w.a],r[w.b],r[w.c]);E&&this.skinWeights.push(q[w.a],q[w.b],q[w.c])}this.computeGroups(a);this.verticesNeedUpdate=a.verticesNeedUpdate;this.normalsNeedUpdate=a.normalsNeedUpdate;this.colorsNeedUpdate=a.colorsNeedUpdate;this.uvsNeedUpdate=a.uvsNeedUpdate;this.groupsNeedUpdate=a.groupsNeedUpdate;null!==a.boundingSphere&&  
(this.boundingSphere=a.boundingSphere.clone());null!==a.boundingBox&&(this.boundingBox=a.boundingBox.clone());return this}});var sj=1,mb=new P,kh=new F,vd=new n,Na=new Sa,Be=new Sa,ea=new n;C.prototype=Object.assign(Object.create(Ea.prototype),{constructor:C,isBufferGeometry:!0,getIndex:function(){return this.index},setIndex:function(a){Array.isArray(a)?this.index=new (65535<yh(a)?Xb:Wb)(a,1):this.index=a},getAttribute:function(a){return this.attributes[a]},setAttribute:function(a,b){this.attributes[a]=  
b;return this},deleteAttribute:function(a){delete this.attributes[a];return this},addGroup:function(a,b,c){this.groups.push({start:a,count:b,materialIndex:void 0!==c?c:0})},clearGroups:function(){this.groups=[]},setDrawRange:function(a,b){this.drawRange.start=a;this.drawRange.count=b},applyMatrix4:function(a){var b=this.attributes.position;void 0!==b&&(b.applyMatrix4(a),b.needsUpdate=!0);b=this.attributes.normal;if(void 0!==b){var c=(new wa).getNormalMatrix(a);b.applyNormalMatrix(c);b.needsUpdate=  
!0}b=this.attributes.tangent;void 0!==b&&(b.transformDirection(a),b.needsUpdate=!0);null!==this.boundingBox&&this.computeBoundingBox();null!==this.boundingSphere&&this.computeBoundingSphere();return this},rotateX:function(a){mb.makeRotationX(a);this.applyMatrix4(mb);return this},rotateY:function(a){mb.makeRotationY(a);this.applyMatrix4(mb);return this},rotateZ:function(a){mb.makeRotationZ(a);this.applyMatrix4(mb);return this},translate:function(a,b,c){mb.makeTranslation(a,b,c);this.applyMatrix4(mb);  
return this},scale:function(a,b,c){mb.makeScale(a,b,c);this.applyMatrix4(mb);return this},lookAt:function(a){kh.lookAt(a);kh.updateMatrix();this.applyMatrix4(kh.matrix);return this},center:function(){this.computeBoundingBox();this.boundingBox.getCenter(vd).negate();this.translate(vd.x,vd.y,vd.z);return this},setFromObject:function(a){var b=a.geometry;if(a.isPoints||a.isLine){a=new y(3\*b.vertices.length,3);var c=new y(3\*b.colors.length,3);this.setAttribute("position",a.copyVector3sArray(b.vertices));  
this.setAttribute("color",c.copyColorsArray(b.colors));b.lineDistances&&b.lineDistances.length===b.vertices.length&&(a=new y(b.lineDistances.length,1),this.setAttribute("lineDistance",a.copyArray(b.lineDistances)));null!==b.boundingSphere&&(this.boundingSphere=b.boundingSphere.clone());null!==b.boundingBox&&(this.boundingBox=b.boundingBox.clone())}else a.isMesh&&b&&b.isGeometry&&this.fromGeometry(b);return this},setFromPoints:function(a){for(var b=[],c=0,d=a.length;c<d;c++){var e=a[c];b.push(e.x,  
e.y,e.z||0)}this.setAttribute("position",new y(b,3));return this},updateFromObject:function(a){var b=a.geometry;if(a.isMesh){var c=b.\_\_directGeometry;!0===b.elementsNeedUpdate&&(c=void 0,b.elementsNeedUpdate=!1);if(void 0===c)return this.fromGeometry(b);c.verticesNeedUpdate=b.verticesNeedUpdate;c.normalsNeedUpdate=b.normalsNeedUpdate;c.colorsNeedUpdate=b.colorsNeedUpdate;c.uvsNeedUpdate=b.uvsNeedUpdate;c.groupsNeedUpdate=b.groupsNeedUpdate;b.verticesNeedUpdate=!1;b.normalsNeedUpdate=!1;b.colorsNeedUpdate=  
!1;b.uvsNeedUpdate=!1;b.groupsNeedUpdate=!1;b=c}!0===b.verticesNeedUpdate&&(c=this.attributes.position,void 0!==c&&(c.copyVector3sArray(b.vertices),c.needsUpdate=!0),b.verticesNeedUpdate=!1);!0===b.normalsNeedUpdate&&(c=this.attributes.normal,void 0!==c&&(c.copyVector3sArray(b.normals),c.needsUpdate=!0),b.normalsNeedUpdate=!1);!0===b.colorsNeedUpdate&&(c=this.attributes.color,void 0!==c&&(c.copyColorsArray(b.colors),c.needsUpdate=!0),b.colorsNeedUpdate=!1);b.uvsNeedUpdate&&(c=this.attributes.uv,void 0!==  
c&&(c.copyVector2sArray(b.uvs),c.needsUpdate=!0),b.uvsNeedUpdate=!1);b.lineDistancesNeedUpdate&&(c=this.attributes.lineDistance,void 0!==c&&(c.copyArray(b.lineDistances),c.needsUpdate=!0),b.lineDistancesNeedUpdate=!1);b.groupsNeedUpdate&&(b.computeGroups(a.geometry),this.groups=b.groups,b.groupsNeedUpdate=!1);return this},fromGeometry:function(a){a.\_\_directGeometry=(new xh).fromGeometry(a);return this.fromDirectGeometry(a.\_\_directGeometry)},fromDirectGeometry:function(a){var b=new Float32Array(3\*  
a.vertices.length);this.setAttribute("position",(new M(b,3)).copyVector3sArray(a.vertices));0<a.normals.length&&(b=new Float32Array(3\*a.normals.length),this.setAttribute("normal",(new M(b,3)).copyVector3sArray(a.normals)));0<a.colors.length&&(b=new Float32Array(3\*a.colors.length),this.setAttribute("color",(new M(b,3)).copyColorsArray(a.colors)));0<a.uvs.length&&(b=new Float32Array(2\*a.uvs.length),this.setAttribute("uv",(new M(b,2)).copyVector2sArray(a.uvs)));0<a.uvs2.length&&(b=new Float32Array(2\*  
a.uvs2.length),this.setAttribute("uv2",(new M(b,2)).copyVector2sArray(a.uvs2)));this.groups=a.groups;for(var c in a.morphTargets){b=[];for(var d=a.morphTargets[c],e=0,f=d.length;e<f;e++){var g=d[e],h=new y(3\*g.data.length,3);h.name=g.name;b.push(h.copyVector3sArray(g.data))}this.morphAttributes[c]=b}0<a.skinIndices.length&&(c=new y(4\*a.skinIndices.length,4),this.setAttribute("skinIndex",c.copyVector4sArray(a.skinIndices)));0<a.skinWeights.length&&(c=new y(4\*a.skinWeights.length,4),this.setAttribute("skinWeight",  
c.copyVector4sArray(a.skinWeights)));null!==a.boundingSphere&&(this.boundingSphere=a.boundingSphere.clone());null!==a.boundingBox&&(this.boundingBox=a.boundingBox.clone());return this},computeBoundingBox:function(){null===this.boundingBox&&(this.boundingBox=new Sa);var a=this.attributes.position,b=this.morphAttributes.position;if(void 0!==a){if(this.boundingBox.setFromBufferAttribute(a),b){a=0;for(var c=b.length;a<c;a++)Na.setFromBufferAttribute(b[a]),this.morphTargetsRelative?(ea.addVectors(this.boundingBox.min,  
Na.min),this.boundingBox.expandByPoint(ea),ea.addVectors(this.boundingBox.max,Na.max),this.boundingBox.expandByPoint(ea)):(this.boundingBox.expandByPoint(Na.min),this.boundingBox.expandByPoint(Na.max))}}else this.boundingBox.makeEmpty();(isNaN(this.boundingBox.min.x)||isNaN(this.boundingBox.min.y)||isNaN(this.boundingBox.min.z))&&console.error('THREE.BufferGeometry.computeBoundingBox: Computed min/max have NaN values. The "position" attribute is likely to have NaN values.',this)},computeBoundingSphere:function(){null===  
this.boundingSphere&&(this.boundingSphere=new pb);var a=this.attributes.position,b=this.morphAttributes.position;if(a){var c=this.boundingSphere.center;Na.setFromBufferAttribute(a);if(b)for(var d=0,e=b.length;d<e;d++){var f=b[d];Be.setFromBufferAttribute(f);this.morphTargetsRelative?(ea.addVectors(Na.min,Be.min),Na.expandByPoint(ea),ea.addVectors(Na.max,Be.max),Na.expandByPoint(ea)):(Na.expandByPoint(Be.min),Na.expandByPoint(Be.max))}Na.getCenter(c);var g=0;d=0;for(e=a.count;d<e;d++)ea.fromBufferAttribute(a,  
d),g=Math.max(g,c.distanceToSquared(ea));if(b)for(d=0,e=b.length;d<e;d++){f=b[d];for(var h=this.morphTargetsRelative,l=0,m=f.count;l<m;l++)ea.fromBufferAttribute(f,l),h&&(vd.fromBufferAttribute(a,l),ea.add(vd)),g=Math.max(g,c.distanceToSquared(ea))}this.boundingSphere.radius=Math.sqrt(g);isNaN(this.boundingSphere.radius)&&console.error('THREE.BufferGeometry.computeBoundingSphere(): Computed radius is NaN. The "position" attribute is likely to have NaN values.',this)}},computeFaceNormals:function(){},  
computeVertexNormals:function(){var a=this.index,b=this.attributes;if(b.position){var c=b.position.array;if(void 0===b.normal)this.setAttribute("normal",new M(new Float32Array(c.length),3));else for(var d=b.normal.array,e=0,f=d.length;e<f;e++)d[e]=0;d=b.normal.array;var g=new n,h=new n,l=new n,m=new n,k=new n;if(a){var p=a.array;e=0;for(f=a.count;e<f;e+=3){a=3\*p[e+0];var x=3\*p[e+1];var r=3\*p[e+2];g.fromArray(c,a);h.fromArray(c,x);l.fromArray(c,r);m.subVectors(l,h);k.subVectors(g,h);m.cross(k);d[a]+=  
m.x;d[a+1]+=m.y;d[a+2]+=m.z;d[x]+=m.x;d[x+1]+=m.y;d[x+2]+=m.z;d[r]+=m.x;d[r+1]+=m.y;d[r+2]+=m.z}}else for(e=0,f=c.length;e<f;e+=9)g.fromArray(c,e),h.fromArray(c,e+3),l.fromArray(c,e+6),m.subVectors(l,h),k.subVectors(g,h),m.cross(k),d[e]=m.x,d[e+1]=m.y,d[e+2]=m.z,d[e+3]=m.x,d[e+4]=m.y,d[e+5]=m.z,d[e+6]=m.x,d[e+7]=m.y,d[e+8]=m.z;this.normalizeNormals();b.normal.needsUpdate=!0}},merge:function(a,b){if(a&&a.isBufferGeometry){void 0===b&&(b=0,console.warn("THREE.BufferGeometry.merge(): Overwriting original geometry, starting at offset=0. Use BufferGeometryUtils.mergeBufferGeometries() for lossless merge."));  
var c=this.attributes,d;for(d in c)if(void 0!==a.attributes[d]){var e=c[d].array,f=a.attributes[d],g=f.array,h=f.itemSize\*b;f=Math.min(g.length,e.length-h);for(var l=0;l<f;l++,h++)e[h]=g[l]}return this}console.error("THREE.BufferGeometry.merge(): geometry not an instance of THREE.BufferGeometry.",a)},normalizeNormals:function(){for(var a=this.attributes.normal,b=0,c=a.count;b<c;b++)ea.x=a.getX(b),ea.y=a.getY(b),ea.z=a.getZ(b),ea.normalize(),a.setXYZ(b,ea.x,ea.y,ea.z)},toNonIndexed:function(){function a(a,  
b){var c=a.array;a=a.itemSize;for(var d=new c.constructor(b.length\*a),e,f=0,g=0,h=b.length;g<h;g++){e=b[g]\*a;for(var l=0;l<a;l++)d[f++]=c[e++]}return new M(d,a)}if(null===this.index)return console.warn("THREE.BufferGeometry.toNonIndexed(): Geometry is already non-indexed."),this;var b=new C,c=this.index.array,d=this.attributes,e;for(e in d){var f=d[e];f=a(f,c);b.setAttribute(e,f)}var g=this.morphAttributes;for(e in g){var h=[],l=g[e];d=0;for(var m=l.length;d<m;d++)f=l[d],f=a(f,c),h.push(f);b.morphAttributes[e]=  
h}b.morphTargetsRelative=this.morphTargetsRelative;c=this.groups;d=0;for(e=c.length;d<e;d++)f=c[d],b.addGroup(f.start,f.count,f.materialIndex);return b},toJSON:function(){var a={metadata:{version:4.5,type:"BufferGeometry",generator:"BufferGeometry.toJSON"}};a.uuid=this.uuid;a.type=this.type;""!==this.name&&(a.name=this.name);0<Object.keys(this.userData).length&&(a.userData=this.userData);if(void 0!==this.parameters){var b=this.parameters;for(m in b)void 0!==b[m]&&(a[m]=b[m]);return a}a.data={attributes:{}};  
b=this.index;null!==b&&(a.data.index={type:b.array.constructor.name,array:Array.prototype.slice.call(b.array)});var c=this.attributes;for(m in c){b=c[m];var d=b.toJSON();""!==b.name&&(d.name=b.name);a.data.attributes[m]=d}c={};var e=!1;for(m in this.morphAttributes){for(var f=this.morphAttributes[m],g=[],h=0,l=f.length;h<l;h++)b=f[h],d=b.toJSON(),""!==b.name&&(d.name=b.name),g.push(d);0<g.length&&(c[m]=g,e=!0)}e&&(a.data.morphAttributes=c,a.data.morphTargetsRelative=this.morphTargetsRelative);var m=  
this.groups;0<m.length&&(a.data.groups=JSON.parse(JSON.stringify(m)));m=this.boundingSphere;null!==m&&(a.data.boundingSphere={center:m.center.toArray(),radius:m.radius});return a},clone:function(){return(new C).copy(this)},copy:function(a){var b;this.index=null;this.attributes={};this.morphAttributes={};this.groups=[];this.boundingSphere=this.boundingBox=null;this.name=a.name;var c=a.index;null!==c&&this.setIndex(c.clone());c=a.attributes;for(g in c)this.setAttribute(g,c[g].clone());var d=a.morphAttributes;  
for(g in d){var e=[],f=d[g];c=0;for(b=f.length;c<b;c++)e.push(f[c].clone());this.morphAttributes[g]=e}this.morphTargetsRelative=a.morphTargetsRelative;var g=a.groups;c=0;for(b=g.length;c<b;c++)d=g[c],this.addGroup(d.start,d.count,d.materialIndex);g=a.boundingBox;null!==g&&(this.boundingBox=g.clone());g=a.boundingSphere;null!==g&&(this.boundingSphere=g.clone());this.drawRange.start=a.drawRange.start;this.drawRange.count=a.drawRange.count;this.userData=a.userData;return this},dispose:function(){this.dispatchEvent({type:"dispose"})}});  
var Qi=new P,tc=new Vb,lh=new pb,Yb=new n,Zb=new n,$b=new n,dg=new n,eg=new n,fg=new n,Ke=new n,Le=new n,Me=new n,Cc=new t,Dc=new t,Ec=new t,Hd=new n,Ie=new n;S.prototype=Object.assign(Object.create(F.prototype),{constructor:S,isMesh:!0,copy:function(a){F.prototype.copy.call(this,a);void 0!==a.morphTargetInfluences&&(this.morphTargetInfluences=a.morphTargetInfluences.slice());void 0!==a.morphTargetDictionary&&(this.morphTargetDictionary=Object.assign({},a.morphTargetDictionary));return this},updateMorphTargets:function(){var a=  
this.geometry;if(a.isBufferGeometry){a=a.morphAttributes;var b=Object.keys(a);if(0<b.length){var c=a[b[0]];if(void 0!==c)for(this.morphTargetInfluences=[],this.morphTargetDictionary={},a=0,b=c.length;a<b;a++){var d=c[a].name||String(a);this.morphTargetInfluences.push(0);this.morphTargetDictionary[d]=a}}}else a=a.morphTargets,void 0!==a&&0<a.length&&console.error("THREE.Mesh.updateMorphTargets() no longer supports THREE.Geometry. Use THREE.BufferGeometry instead.")},raycast:function(a,b){var c=this.geometry,  
d=this.material,e=this.matrixWorld;if(void 0!==d&&(null===c.boundingSphere&&c.computeBoundingSphere(),lh.copy(c.boundingSphere),lh.applyMatrix4(e),!1!==a.ray.intersectsSphere(lh)&&(Qi.getInverse(e),tc.copy(a.ray).applyMatrix4(Qi),null===c.boundingBox||!1!==tc.intersectsBox(c.boundingBox))))if(c.isBufferGeometry){var f=c.index;e=c.attributes.position;var g=c.morphAttributes.position,h=c.morphTargetsRelative,l=c.attributes.uv,m=c.attributes.uv2,k=c.groups,p=c.drawRange,n,r;if(null!==f)if(Array.isArray(d)){var q=  
0;for(n=k.length;q<n;q++){var v=k[q];var E=d[v.materialIndex];var w=Math.max(v.start,p.start);for(r=c=Math.min(v.start+v.count,p.start+p.count);w<r;w+=3){c=f.getX(w);var z=f.getX(w+1);var y=f.getX(w+2);if(c=Je(this,E,a,tc,e,g,h,l,m,c,z,y))c.faceIndex=Math.floor(w/3),c.face.materialIndex=v.materialIndex,b.push(c)}}}else for(w=Math.max(0,p.start),c=Math.min(f.count,p.start+p.count),q=w,n=c;q<n;q+=3){if(c=f.getX(q),z=f.getX(q+1),y=f.getX(q+2),c=Je(this,d,a,tc,e,g,h,l,m,c,z,y))c.faceIndex=Math.floor(q/  
3),b.push(c)}else if(void 0!==e)if(Array.isArray(d))for(q=0,n=k.length;q<n;q++)for(v=k[q],E=d[v.materialIndex],w=Math.max(v.start,p.start),r=c=Math.min(v.start+v.count,p.start+p.count);w<r;w+=3){if(c=w,z=w+1,y=w+2,c=Je(this,E,a,tc,e,g,h,l,m,c,z,y))c.faceIndex=Math.floor(w/3),c.face.materialIndex=v.materialIndex,b.push(c)}else for(w=Math.max(0,p.start),c=Math.min(e.count,p.start+p.count),q=w,n=c;q<n;q+=3)if(c=q,z=q+1,y=q+2,c=Je(this,d,a,tc,e,g,h,l,m,c,z,y))c.faceIndex=Math.floor(q/3),b.push(c)}else if(c.isGeometry)for(e=  
Array.isArray(d),g=c.vertices,h=c.faces,c=c.faceVertexUvs[0],0<c.length&&(f=c),p=0,q=h.length;p<q;p++)if(n=h[p],c=e?d[n.materialIndex]:d,void 0!==c&&(l=g[n.a],m=g[n.b],k=g[n.c],c=zh(this,c,a,tc,l,m,k,Hd)))f&&f[p]&&(v=f[p],Cc.copy(v[0]),Dc.copy(v[1]),Ec.copy(v[2]),c.uv=oa.getUV(Hd,l,m,k,Cc,Dc,Ec,new t)),c.face=n,c.faceIndex=p,b.push(c)},clone:function(){return(new this.constructor(this.geometry,this.material)).copy(this)}});var tj=0,nb=new P,mh=new F,Kf=new n;N.prototype=Object.assign(Object.create(Ea.prototype),  
{constructor:N,isGeometry:!0,applyMatrix4:function(a){for(var b=(new wa).getNormalMatrix(a),c=0,d=this.vertices.length;c<d;c++)this.vertices[c].applyMatrix4(a);c=0;for(d=this.faces.length;c<d;c++){a=this.faces[c];a.normal.applyMatrix3(b).normalize();for(var e=0,f=a.vertexNormals.length;e<f;e++)a.vertexNormals[e].applyMatrix3(b).normalize()}null!==this.boundingBox&&this.computeBoundingBox();null!==this.boundingSphere&&this.computeBoundingSphere();this.normalsNeedUpdate=this.verticesNeedUpdate=!0;return this},  
rotateX:function(a){nb.makeRotationX(a);this.applyMatrix4(nb);return this},rotateY:function(a){nb.makeRotationY(a);this.applyMatrix4(nb);return this},rotateZ:function(a){nb.makeRotationZ(a);this.applyMatrix4(nb);return this},translate:function(a,b,c){nb.makeTranslation(a,b,c);this.applyMatrix4(nb);return this},scale:function(a,b,c){nb.makeScale(a,b,c);this.applyMatrix4(nb);return this},lookAt:function(a){mh.lookAt(a);mh.updateMatrix();this.applyMatrix4(mh.matrix);return this},fromBufferGeometry:function(a){function b(a,  
b,d,e){var f=void 0===h?[]:[c.colors[a].clone(),c.colors[b].clone(),c.colors[d].clone()],k=void 0===g?[]:[(new n).fromArray(g,3\*a),(new n).fromArray(g,3\*b),(new n).fromArray(g,3\*d)];e=new Bc(a,b,d,k,f,e);c.faces.push(e);void 0!==l&&c.faceVertexUvs[0].push([(new t).fromArray(l,2\*a),(new t).fromArray(l,2\*b),(new t).fromArray(l,2\*d)]);void 0!==m&&c.faceVertexUvs[1].push([(new t).fromArray(m,2\*a),(new t).fromArray(m,2\*b),(new t).fromArray(m,2\*d)])}var c=this,d=null!==a.index?a.index.array:void 0,e=a.attributes;  
if(void 0===e.position)return console.error("THREE.Geometry.fromBufferGeometry(): Position attribute required for conversion."),this;var f=e.position.array,g=void 0!==e.normal?e.normal.array:void 0,h=void 0!==e.color?e.color.array:void 0,l=void 0!==e.uv?e.uv.array:void 0,m=void 0!==e.uv2?e.uv2.array:void 0;void 0!==m&&(this.faceVertexUvs[1]=[]);for(e=0;e<f.length;e+=3)c.vertices.push((new n).fromArray(f,e)),void 0!==h&&c.colors.push((new A).fromArray(h,e));var k=a.groups;if(0<k.length)for(e=0;e<k.length;e++){f=  
k[e];var p=f.start,x=p;for(p+=f.count;x<p;x+=3)void 0!==d?b(d[x],d[x+1],d[x+2],f.materialIndex):b(x,x+1,x+2,f.materialIndex)}else if(void 0!==d)for(e=0;e<d.length;e+=3)b(d[e],d[e+1],d[e+2]);else for(e=0;e<f.length/3;e+=3)b(e,e+1,e+2);this.computeFaceNormals();null!==a.boundingBox&&(this.boundingBox=a.boundingBox.clone());null!==a.boundingSphere&&(this.boundingSphere=a.boundingSphere.clone());return this},center:function(){this.computeBoundingBox();this.boundingBox.getCenter(Kf).negate();this.translate(Kf.x,  
Kf.y,Kf.z);return this},normalize:function(){this.computeBoundingSphere();var a=this.boundingSphere.center,b=this.boundingSphere.radius;b=0===b?1:1/b;var c=new P;c.set(b,0,0,-b\*a.x,0,b,0,-b\*a.y,0,0,b,-b\*a.z,0,0,0,1);this.applyMatrix4(c);return this},computeFaceNormals:function(){for(var a=new n,b=new n,c=0,d=this.faces.length;c<d;c++){var e=this.faces[c],f=this.vertices[e.a],g=this.vertices[e.b];a.subVectors(this.vertices[e.c],g);b.subVectors(f,g);a.cross(b);a.normalize();e.normal.copy(a)}},computeVertexNormals:function(a){void 0===  
a&&(a=!0);var b;var c=Array(this.vertices.length);var d=0;for(b=this.vertices.length;d<b;d++)c[d]=new n;if(a){var e=new n,f=new n;a=0;for(d=this.faces.length;a<d;a++){b=this.faces[a];var g=this.vertices[b.a];var h=this.vertices[b.b];var l=this.vertices[b.c];e.subVectors(l,h);f.subVectors(g,h);e.cross(f);c[b.a].add(e);c[b.b].add(e);c[b.c].add(e)}}else for(this.computeFaceNormals(),a=0,d=this.faces.length;a<d;a++)b=this.faces[a],c[b.a].add(b.normal),c[b.b].add(b.normal),c[b.c].add(b.normal);d=0;for(b=  
this.vertices.length;d<b;d++)c[d].normalize();a=0;for(d=this.faces.length;a<d;a++)b=this.faces[a],g=b.vertexNormals,3===g.length?(g[0].copy(c[b.a]),g[1].copy(c[b.b]),g[2].copy(c[b.c])):(g[0]=c[b.a].clone(),g[1]=c[b.b].clone(),g[2]=c[b.c].clone());0<this.faces.length&&(this.normalsNeedUpdate=!0)},computeFlatVertexNormals:function(){var a;this.computeFaceNormals();var b=0;for(a=this.faces.length;b<a;b++){var c=this.faces[b];var d=c.vertexNormals;3===d.length?(d[0].copy(c.normal),d[1].copy(c.normal),  
d[2].copy(c.normal)):(d[0]=c.normal.clone(),d[1]=c.normal.clone(),d[2]=c.normal.clone())}0<this.faces.length&&(this.normalsNeedUpdate=!0)},computeMorphNormals:function(){var a,b;var c=0;for(b=this.faces.length;c<b;c++){var d=this.faces[c];d.\_\_originalFaceNormal?d.\_\_originalFaceNormal.copy(d.normal):d.\_\_originalFaceNormal=d.normal.clone();d.\_\_originalVertexNormals||(d.\_\_originalVertexNormals=[]);var e=0;for(a=d.vertexNormals.length;e<a;e++)d.\_\_originalVertexNormals[e]?d.\_\_originalVertexNormals[e].copy(d.vertexNormals[e]):  
d.\_\_originalVertexNormals[e]=d.vertexNormals[e].clone()}var f=new N;f.faces=this.faces;e=0;for(a=this.morphTargets.length;e<a;e++){if(!this.morphNormals[e]){this.morphNormals[e]={};this.morphNormals[e].faceNormals=[];this.morphNormals[e].vertexNormals=[];d=this.morphNormals[e].faceNormals;var g=this.morphNormals[e].vertexNormals;c=0;for(b=this.faces.length;c<b;c++){var h=new n;var l={a:new n,b:new n,c:new n};d.push(h);g.push(l)}}g=this.morphNormals[e];f.vertices=this.morphTargets[e].vertices;f.computeFaceNormals();  
f.computeVertexNormals();c=0;for(b=this.faces.length;c<b;c++)d=this.faces[c],h=g.faceNormals[c],l=g.vertexNormals[c],h.copy(d.normal),l.a.copy(d.vertexNormals[0]),l.b.copy(d.vertexNormals[1]),l.c.copy(d.vertexNormals[2])}c=0;for(b=this.faces.length;c<b;c++)d=this.faces[c],d.normal=d.\_\_originalFaceNormal,d.vertexNormals=d.\_\_originalVertexNormals},computeBoundingBox:function(){null===this.boundingBox&&(this.boundingBox=new Sa);this.boundingBox.setFromPoints(this.vertices)},computeBoundingSphere:function(){null===  
this.boundingSphere&&(this.boundingSphere=new pb);this.boundingSphere.setFromPoints(this.vertices)},merge:function(a,b,c){if(a&&a.isGeometry){var d,e=this.vertices.length,f=this.vertices,g=a.vertices,h=this.faces,l=a.faces,m=this.colors,k=a.colors;void 0===c&&(c=0);void 0!==b&&(d=(new wa).getNormalMatrix(b));for(var p=0,n=g.length;p<n;p++){var r=g[p].clone();void 0!==b&&r.applyMatrix4(b);f.push(r)}p=0;for(n=k.length;p<n;p++)m.push(k[p].clone());p=0;for(n=l.length;p<n;p++){g=l[p];var q=g.vertexNormals;  
k=g.vertexColors;m=new Bc(g.a+e,g.b+e,g.c+e);m.normal.copy(g.normal);void 0!==d&&m.normal.applyMatrix3(d).normalize();b=0;for(f=q.length;b<f;b++)r=q[b].clone(),void 0!==d&&r.applyMatrix3(d).normalize(),m.vertexNormals.push(r);m.color.copy(g.color);b=0;for(f=k.length;b<f;b++)r=k[b],m.vertexColors.push(r.clone());m.materialIndex=g.materialIndex+c;h.push(m)}p=0;for(n=a.faceVertexUvs.length;p<n;p++)for(c=a.faceVertexUvs[p],void 0===this.faceVertexUvs[p]&&(this.faceVertexUvs[p]=[]),b=0,f=c.length;b<f;b++){d=  
c[b];e=[];h=0;for(l=d.length;h<l;h++)e.push(d[h].clone());this.faceVertexUvs[p].push(e)}}else console.error("THREE.Geometry.merge(): geometry not an instance of THREE.Geometry.",a)},mergeMesh:function(a){a&&a.isMesh?(a.matrixAutoUpdate&&a.updateMatrix(),this.merge(a.geometry,a.matrix)):console.error("THREE.Geometry.mergeMesh(): mesh not an instance of THREE.Mesh.",a)},mergeVertices:function(){var a={},b=[],c=[],d=Math.pow(10,4),e;var f=0;for(e=this.vertices.length;f<e;f++){var g=this.vertices[f];  
g=Math.round(g.x\*d)+"\_"+Math.round(g.y\*d)+"\_"+Math.round(g.z\*d);void 0===a[g]?(a[g]=f,b.push(this.vertices[f]),c[f]=b.length-1):c[f]=c[a[g]]}a=[];f=0;for(e=this.faces.length;f<e;f++)for(d=this.faces[f],d.a=c[d.a],d.b=c[d.b],d.c=c[d.c],d=[d.a,d.b,d.c],g=0;3>g;g++)if(d[g]===d[(g+1)%3]){a.push(f);break}for(f=a.length-1;0<=f;f--)for(d=a[f],this.faces.splice(d,1),c=0,e=this.faceVertexUvs.length;c<e;c++)this.faceVertexUvs[c].splice(d,1);f=this.vertices.length-b.length;this.vertices=b;return f},setFromPoints:function(a){this.vertices=  
[];for(var b=0,c=a.length;b<c;b++){var d=a[b];this.vertices.push(new n(d.x,d.y,d.z||0))}return this},sortFacesByMaterialIndex:function(){for(var a=this.faces,b=a.length,c=0;c<b;c++)a[c].\_id=c;a.sort(function(a,b){return a.materialIndex-b.materialIndex});var d=this.faceVertexUvs[0],e=this.faceVertexUvs[1],f,g;d&&d.length===b&&(f=[]);e&&e.length===b&&(g=[]);for(c=0;c<b;c++){var h=a[c].\_id;f&&f.push(d[h]);g&&g.push(e[h])}f&&(this.faceVertexUvs[0]=f);g&&(this.faceVertexUvs[1]=g)},toJSON:function(){function a(a,  
b,c){return c?a|1<<b:a&~(1<<b)}function b(a){var b=a.x.toString()+a.y.toString()+a.z.toString();if(void 0!==m[b])return m[b];m[b]=l.length/3;l.push(a.x,a.y,a.z);return m[b]}function c(a){var b=a.r.toString()+a.g.toString()+a.b.toString();if(void 0!==p[b])return p[b];p[b]=k.length;k.push(a.getHex());return p[b]}function d(a){var b=a.x.toString()+a.y.toString();if(void 0!==r[b])return r[b];r[b]=n.length/2;n.push(a.x,a.y);return r[b]}var e={metadata:{version:4.5,type:"Geometry",generator:"Geometry.toJSON"}};  
e.uuid=this.uuid;e.type=this.type;""!==this.name&&(e.name=this.name);if(void 0!==this.parameters){var f=this.parameters,g;for(g in f)void 0!==f[g]&&(e[g]=f[g]);return e}f=[];for(g=0;g<this.vertices.length;g++){var h=this.vertices[g];f.push(h.x,h.y,h.z)}h=[];var l=[],m={},k=[],p={},n=[],r={};for(g=0;g<this.faces.length;g++){var q=this.faces[g],v=void 0!==this.faceVertexUvs[0][g],t=0<q.normal.length(),w=0<q.vertexNormals.length,z=1!==q.color.r||1!==q.color.g||1!==q.color.b,y=0<q.vertexColors.length,  
A=0;A=a(A,0,0);A=a(A,1,!0);A=a(A,2,!1);A=a(A,3,v);A=a(A,4,t);A=a(A,5,w);A=a(A,6,z);A=a(A,7,y);h.push(A);h.push(q.a,q.b,q.c);h.push(q.materialIndex);v&&(v=this.faceVertexUvs[0][g],h.push(d(v[0]),d(v[1]),d(v[2])));t&&h.push(b(q.normal));w&&(t=q.vertexNormals,h.push(b(t[0]),b(t[1]),b(t[2])));z&&h.push(c(q.color));y&&(q=q.vertexColors,h.push(c(q[0]),c(q[1]),c(q[2])))}e.data={};e.data.vertices=f;e.data.normals=l;0<k.length&&(e.data.colors=k);0<n.length&&(e.data.uvs=[n]);e.data.faces=h;return e},clone:function(){return(new N).copy(this)},  
copy:function(a){var b,c,d;this.vertices=[];this.colors=[];this.faces=[];this.faceVertexUvs=[[]];this.morphTargets=[];this.morphNormals=[];this.skinWeights=[];this.skinIndices=[];this.lineDistances=[];this.boundingSphere=this.boundingBox=null;this.name=a.name;var e=a.vertices;var f=0;for(b=e.length;f<b;f++)this.vertices.push(e[f].clone());e=a.colors;f=0;for(b=e.length;f<b;f++)this.colors.push(e[f].clone());e=a.faces;f=0;for(b=e.length;f<b;f++)this.faces.push(e[f].clone());f=0;for(b=a.faceVertexUvs.length;f<  
b;f++){var g=a.faceVertexUvs[f];void 0===this.faceVertexUvs[f]&&(this.faceVertexUvs[f]=[]);e=0;for(c=g.length;e<c;e++){var h=g[e],l=[];var m=0;for(d=h.length;m<d;m++)l.push(h[m].clone());this.faceVertexUvs[f].push(l)}}m=a.morphTargets;f=0;for(b=m.length;f<b;f++){d={};d.name=m[f].name;if(void 0!==m[f].vertices)for(d.vertices=[],e=0,c=m[f].vertices.length;e<c;e++)d.vertices.push(m[f].vertices[e].clone());if(void 0!==m[f].normals)for(d.normals=[],e=0,c=m[f].normals.length;e<c;e++)d.normals.push(m[f].normals[e].clone());  
this.morphTargets.push(d)}m=a.morphNormals;f=0;for(b=m.length;f<b;f++){d={};if(void 0!==m[f].vertexNormals)for(d.vertexNormals=[],e=0,c=m[f].vertexNormals.length;e<c;e++)g=m[f].vertexNormals[e],h={},h.a=g.a.clone(),h.b=g.b.clone(),h.c=g.c.clone(),d.vertexNormals.push(h);if(void 0!==m[f].faceNormals)for(d.faceNormals=[],e=0,c=m[f].faceNormals.length;e<c;e++)d.faceNormals.push(m[f].faceNormals[e].clone());this.morphNormals.push(d)}e=a.skinWeights;f=0;for(b=e.length;f<b;f++)this.skinWeights.push(e[f].clone());  
e=a.skinIndices;f=0;for(b=e.length;f<b;f++)this.skinIndices.push(e[f].clone());e=a.lineDistances;f=0;for(b=e.length;f<b;f++)this.lineDistances.push(e[f]);f=a.boundingBox;null!==f&&(this.boundingBox=f.clone());f=a.boundingSphere;null!==f&&(this.boundingSphere=f.clone());this.elementsNeedUpdate=a.elementsNeedUpdate;this.verticesNeedUpdate=a.verticesNeedUpdate;this.uvsNeedUpdate=a.uvsNeedUpdate;this.normalsNeedUpdate=a.normalsNeedUpdate;this.colorsNeedUpdate=a.colorsNeedUpdate;this.lineDistancesNeedUpdate=  
a.lineDistancesNeedUpdate;this.groupsNeedUpdate=a.groupsNeedUpdate;return this},dispose:function(){this.dispatchEvent({type:"dispose"})}});var nh=function(a){function b(b,d,e,f,g,h){a.call(this);this.type="BoxGeometry";this.parameters={width:b,height:d,depth:e,widthSegments:f,heightSegments:g,depthSegments:h};this.fromBufferGeometry(new Jd(b,d,e,f,g,h));this.mergeVertices()}a&&(b.\_\_proto\_\_=a);b.prototype=Object.create(a&&a.prototype);return b.prototype.constructor=b}(N),Jd=function(a){function b(b,  
d,e,f,g,h){function c(a,b,c,d,e,f,g,h,l,u,t){var w=f/l,z=g/u,y=f/2,E=g/2,B=h/2;g=l+1;var A=u+1,C=f=0,D,F,G=new n;for(F=0;F<A;F++){var K=F\*z-E;for(D=0;D<g;D++)G[a]=(D\*w-y)\*d,G[b]=K\*e,G[c]=B,p.push(G.x,G.y,G.z),G[a]=0,G[b]=0,G[c]=0<h?1:-1,x.push(G.x,G.y,G.z),r.push(D/l),r.push(1-F/u),f+=1}for(F=0;F<u;F++)for(D=0;D<l;D++)a=q+D+g\*(F+1),b=q+(D+1)+g\*(F+1),c=q+(D+1)+g\*F,k.push(q+D+g\*F,a,c),k.push(a,b,c),C+=6;m.addGroup(v,C,t);v+=C;q+=f}a.call(this);this.type="BoxBufferGeometry";this.parameters={width:b,  
height:d,depth:e,widthSegments:f,heightSegments:g,depthSegments:h};var m=this;b=b||1;d=d||1;e=e||1;f=Math.floor(f)||1;g=Math.floor(g)||1;h=Math.floor(h)||1;var k=[],p=[],x=[],r=[],q=0,v=0;c("z","y","x",-1,-1,e,d,b,h,g,0);c("z","y","x",1,-1,e,d,-b,h,g,1);c("x","z","y",1,1,b,e,d,f,h,2);c("x","z","y",1,-1,b,e,-d,f,h,3);c("x","y","z",1,-1,b,d,e,f,g,4);c("x","y","z",-1,-1,b,d,-e,f,g,5);this.setIndex(k);this.setAttribute("position",new y(p,3));this.setAttribute("normal",new y(x,3));this.setAttribute("uv",  
new y(r,2))}a&&(b.\_\_proto\_\_=a);b.prototype=Object.create(a&&a.prototype);return b.prototype.constructor=b}(C),Uh={clone:Fc,merge:va};Ba.prototype=Object.create(K.prototype);Ba.prototype.constructor=Ba;Ba.prototype.isShaderMaterial=!0;Ba.prototype.copy=function(a){K.prototype.copy.call(this,a);this.fragmentShader=a.fragmentShader;this.vertexShader=a.vertexShader;this.uniforms=Fc(a.uniforms);this.defines=Object.assign({},a.defines);this.wireframe=a.wireframe;this.wireframeLinewidth=a.wireframeLinewidth;  
this.lights=a.lights;this.clipping=a.clipping;this.skinning=a.skinning;this.morphTargets=a.morphTargets;this.morphNormals=a.morphNormals;this.extensions=a.extensions;return this};Ba.prototype.toJSON=function(a){var b=K.prototype.toJSON.call(this,a);b.uniforms={};for(var c in this.uniforms){var d=this.uniforms[c].value;b.uniforms[c]=d&&d.isTexture?{type:"t",value:d.toJSON(a).uuid}:d&&d.isColor?{type:"c",value:d.getHex()}:d&&d.isVector2?{type:"v2",value:d.toArray()}:d&&d.isVector3?{type:"v3",value:d.toArray()}:  
d&&d.isVector4?{type:"v4",value:d.toArray()}:d&&d.isMatrix3?{type:"m3",value:d.toArray()}:d&&d.isMatrix4?{type:"m4",value:d.toArray()}:{value:d}}0<Object.keys(this.defines).length&&(b.defines=this.defines);b.vertexShader=this.vertexShader;b.fragmentShader=this.fragmentShader;a={};for(var e in this.extensions)!0===this.extensions[e]&&(a[e]=!0);0<Object.keys(a).length&&(b.extensions=a);return b};db.prototype=Object.assign(Object.create(F.prototype),{constructor:db,isCamera:!0,copy:function(a,b){F.prototype.copy.call(this,  
a,b);this.matrixWorldInverse.copy(a.matrixWorldInverse);this.projectionMatrix.copy(a.projectionMatrix);this.projectionMatrixInverse.copy(a.projectionMatrixInverse);return this},getWorldDirection:function(a){void 0===a&&(console.warn("THREE.Camera: .getWorldDirection() target is now required"),a=new n);this.updateMatrixWorld(!0);var b=this.matrixWorld.elements;return a.set(-b[8],-b[9],-b[10]).normalize()},updateMatrixWorld:function(a){F.prototype.updateMatrixWorld.call(this,a);this.matrixWorldInverse.getInverse(this.matrixWorld)},  
updateWorldMatrix:function(a,b){F.prototype.updateWorldMatrix.call(this,a,b);this.matrixWorldInverse.getInverse(this.matrixWorld)},clone:function(){return(new this.constructor).copy(this)}});aa.prototype=Object.assign(Object.create(db.prototype),{constructor:aa,isPerspectiveCamera:!0,copy:function(a,b){db.prototype.copy.call(this,a,b);this.fov=a.fov;this.zoom=a.zoom;this.near=a.near;this.far=a.far;this.focus=a.focus;this.aspect=a.aspect;this.view=null===a.view?null:Object.assign({},a.view);this.filmGauge=  
a.filmGauge;this.filmOffset=a.filmOffset;return this},setFocalLength:function(a){a=.5\*this.getFilmHeight()/a;this.fov=2\*L.RAD2DEG\*Math.atan(a);this.updateProjectionMatrix()},getFocalLength:function(){var a=Math.tan(.5\*L.DEG2RAD\*this.fov);return.5\*this.getFilmHeight()/a},getEffectiveFOV:function(){return 2\*L.RAD2DEG\*Math.atan(Math.tan(.5\*L.DEG2RAD\*this.fov)/this.zoom)},getFilmWidth:function(){return this.filmGauge\*Math.min(this.aspect,1)},getFilmHeight:function(){return this.filmGauge/Math.max(this.aspect,  
1)},setViewOffset:function(a,b,c,d,e,f){this.aspect=a/b;null===this.view&&(this.view={enabled:!0,fullWidth:1,fullHeight:1,offsetX:0,offsetY:0,width:1,height:1});this.view.enabled=!0;this.view.fullWidth=a;this.view.fullHeight=b;this.view.offsetX=c;this.view.offsetY=d;this.view.width=e;this.view.height=f;this.updateProjectionMatrix()},clearViewOffset:function(){null!==this.view&&(this.view.enabled=!1);this.updateProjectionMatrix()},updateProjectionMatrix:function(){var a=this.near,b=a\*Math.tan(.5\*L.DEG2RAD\*  
this.fov)/this.zoom,c=2\*b,d=this.aspect\*c,e=-.5\*d,f=this.view;if(null!==this.view&&this.view.enabled){var g=f.fullWidth,h=f.fullHeight;e+=f.offsetX\*d/g;b-=f.offsetY\*c/h;d\*=f.width/g;c\*=f.height/h}f=this.filmOffset;0!==f&&(e+=a\*f/this.getFilmWidth());this.projectionMatrix.makePerspective(e,e+d,b,b-c,a,this.far);this.projectionMatrixInverse.getInverse(this.projectionMatrix)},toJSON:function(a){a=F.prototype.toJSON.call(this,a);a.object.fov=this.fov;a.object.zoom=this.zoom;a.object.near=this.near;a.object.far=  
this.far;a.object.focus=this.focus;a.object.aspect=this.aspect;null!==this.view&&(a.object.view=Object.assign({},this.view));a.object.filmGauge=this.filmGauge;a.object.filmOffset=this.filmOffset;return a}});Gc.prototype=Object.create(F.prototype);Gc.prototype.constructor=Gc;Db.prototype=Object.create(Ha.prototype);Db.prototype.constructor=Db;Db.prototype.isWebGLCubeRenderTarget=!0;Db.prototype.fromEquirectangularTexture=function(a,b){this.texture.type=b.type;this.texture.format=b.format;this.texture.encoding=  
b.encoding;var c=new ob,d=new Ba({type:"CubemapFromEquirect",uniforms:Fc({tEquirect:{value:null}}),vertexShader:"varying vec3 vWorldDirection;\nvec3 transformDirection( in vec3 dir, in mat4 matrix ) {\n\treturn normalize( ( matrix \* vec4( dir, 0.0 ) ).xyz );\n}\nvoid main() {\n\tvWorldDirection = transformDirection( position, modelMatrix );\n\t#include <begin\_vertex>\n\t#include <project\_vertex>\n}",fragmentShader:"uniform sampler2D tEquirect;\nvarying vec3 vWorldDirection;\n#define RECIPROCAL\_PI 0.31830988618\n#define RECIPROCAL\_PI2 0.15915494\nvoid main() {\n\tvec3 direction = normalize( vWorldDirection );\n\tvec2 sampleUV;\n\tsampleUV.y = asin( clamp( direction.y, - 1.0, 1.0 ) ) \* RECIPROCAL\_PI + 0.5;\n\tsampleUV.x = atan( direction.z, direction.x ) \* RECIPROCAL\_PI2 + 0.5;\n\tgl\_FragColor = texture2D( tEquirect, sampleUV );\n}",  
side:1,blending:0});d.uniforms.tEquirect.value=b;b=new S(new Jd(5,5,5),d);c.add(b);d=new Gc(1,10,1);d.renderTarget=this;d.renderTarget.texture.name="CubeCameraTexture";d.update(a,c);b.geometry.dispose();b.material.dispose();return this};ac.prototype=Object.create(V.prototype);ac.prototype.constructor=ac;ac.prototype.isDataTexture=!0;var wd=new pb,Lf=new n;Object.assign(Hc.prototype,{set:function(a,b,c,d,e,f){var g=this.planes;g[0].copy(a);g[1].copy(b);g[2].copy(c);g[3].copy(d);g[4].copy(e);g[5].copy(f);  
return this},clone:function(){return(new this.constructor).copy(this)},copy:function(a){for(var b=this.planes,c=0;6>c;c++)b[c].copy(a.planes[c]);return this},setFromProjectionMatrix:function(a){var b=this.planes,c=a.elements;a=c[0];var d=c[1],e=c[2],f=c[3],g=c[4],h=c[5],l=c[6],m=c[7],k=c[8],p=c[9],n=c[10],r=c[11],q=c[12],v=c[13],t=c[14];c=c[15];b[0].setComponents(f-a,m-g,r-k,c-q).normalize();b[1].setComponents(f+a,m+g,r+k,c+q).normalize();b[2].setComponents(f+d,m+h,r+p,c+v).normalize();b[3].setComponents(f-  
d,m-h,r-p,c-v).normalize();b[4].setComponents(f-e,m-l,r-n,c-t).normalize();b[5].setComponents(f+e,m+l,r+n,c+t).normalize();return this},intersectsObject:function(a){var b=a.geometry;null===b.boundingSphere&&b.computeBoundingSphere();wd.copy(b.boundingSphere).applyMatrix4(a.matrixWorld);return this.intersectsSphere(wd)},intersectsSprite:function(a){wd.center.set(0,0,0);wd.radius=.7071067811865476;wd.applyMatrix4(a.matrixWorld);return this.intersectsSphere(wd)},intersectsSphere:function(a){var b=this.planes,  
c=a.center;a=-a.radius;for(var d=0;6>d;d++)if(b[d].distanceToPoint(c)<a)return!1;return!0},intersectsBox:function(a){for(var b=this.planes,c=0;6>c;c++){var d=b[c];Lf.x=0<d.normal.x?a.max.x:a.min.x;Lf.y=0<d.normal.y?a.max.y:a.min.y;Lf.z=0<d.normal.z?a.max.z:a.min.z;if(0>d.distanceToPoint(Lf))return!1}return!0},containsPoint:function(a){for(var b=this.planes,c=0;6>c;c++)if(0>b[c].distanceToPoint(a))return!1;return!0}});var D={common:{diffuse:{value:new A(15658734)},opacity:{value:1},map:{value:null},  
uvTransform:{value:new wa},uv2Transform:{value:new wa},alphaMap:{value:null}},specularmap:{specularMap:{value:null}},envmap:{envMap:{value:null},flipEnvMap:{value:-1},reflectivity:{value:1},refractionRatio:{value:.98},maxMipLevel:{value:0}},aomap:{aoMap:{value:null},aoMapIntensity:{value:1}},lightmap:{lightMap:{value:null},lightMapIntensity:{value:1}},emissivemap:{emissiveMap:{value:null}},bumpmap:{bumpMap:{value:null},bumpScale:{value:1}},normalmap:{normalMap:{value:null},normalScale:{value:new t(1,  
1)}},displacementmap:{displacementMap:{value:null},displacementScale:{value:1},displacementBias:{value:0}},roughnessmap:{roughnessMap:{value:null}},metalnessmap:{metalnessMap:{value:null}},gradientmap:{gradientMap:{value:null}},fog:{fogDensity:{value:2.5E-4},fogNear:{value:1},fogFar:{value:2E3},fogColor:{value:new A(16777215)}},lights:{ambientLightColor:{value:[]},lightProbe:{value:[]},directionalLights:{value:[],properties:{direction:{},color:{}}},directionalLightShadows:{value:[],properties:{shadowBias:{},  
shadowRadius:{},shadowMapSize:{}}},directionalShadowMap:{value:[]},directionalShadowMatrix:{value:[]},spotLights:{value:[],properties:{color:{},position:{},direction:{},distance:{},coneCos:{},penumbraCos:{},decay:{}}},spotLightShadows:{value:[],properties:{shadowBias:{},shadowRadius:{},shadowMapSize:{}}},spotShadowMap:{value:[]},spotShadowMatrix:{value:[]},pointLights:{value:[],properties:{color:{},position:{},decay:{},distance:{}}},pointLightShadows:{value:[],properties:{shadowBias:{},shadowRadius:{},  
shadowMapSize:{},shadowCameraNear:{},shadowCameraFar:{}}},pointShadowMap:{value:[]},pointShadowMatrix:{value:[]},hemisphereLights:{value:[],properties:{direction:{},skyColor:{},groundColor:{}}},rectAreaLights:{value:[],properties:{color:{},position:{},width:{},height:{}}}},points:{diffuse:{value:new A(15658734)},opacity:{value:1},size:{value:1},scale:{value:1},map:{value:null},alphaMap:{value:null},uvTransform:{value:new wa}},sprite:{diffuse:{value:new A(15658734)},opacity:{value:1},center:{value:new t(.5,  
.5)},rotation:{value:0},map:{value:null},alphaMap:{value:null},uvTransform:{value:new wa}}};Id.prototype=Object.create(N.prototype);Id.prototype.constructor=Id;bc.prototype=Object.create(C.prototype);bc.prototype.constructor=bc;var O={alphamap\_fragment:"#ifdef USE\_ALPHAMAP\n\tdiffuseColor.a \*= texture2D( alphaMap, vUv ).g;\n#endif",alphamap\_pars\_fragment:"#ifdef USE\_ALPHAMAP\n\tuniform sampler2D alphaMap;\n#endif",alphatest\_fragment:"#ifdef ALPHATEST\n\tif ( diffuseColor.a < ALPHATEST ) discard;\n#endif",  
aomap\_fragment:"#ifdef USE\_AOMAP\n\tfloat ambientOcclusion = ( texture2D( aoMap, vUv2 ).r - 1.0 ) \* aoMapIntensity + 1.0;\n\treflectedLight.indirectDiffuse \*= ambientOcclusion;\n\t#if defined( USE\_ENVMAP ) && defined( STANDARD )\n\t\tfloat dotNV = saturate( dot( geometry.normal, geometry.viewDir ) );\n\t\treflectedLight.indirectSpecular \*= computeSpecularOcclusion( dotNV, ambientOcclusion, material.specularRoughness );\n\t#endif\n#endif",aomap\_pars\_fragment:"#ifdef USE\_AOMAP\n\tuniform sampler2D aoMap;\n\tuniform float aoMapIntensity;\n#endif",  
begin\_vertex:"vec3 transformed = vec3( position );",beginnormal\_vertex:"vec3 objectNormal = vec3( normal );\n#ifdef USE\_TANGENT\n\tvec3 objectTangent = vec3( tangent.xyz );\n#endif",bsdfs:"vec2 integrateSpecularBRDF( const in float dotNV, const in float roughness ) {\n\tconst vec4 c0 = vec4( - 1, - 0.0275, - 0.572, 0.022 );\n\tconst vec4 c1 = vec4( 1, 0.0425, 1.04, - 0.04 );\n\tvec4 r = roughness \* c0 + c1;\n\tfloat a004 = min( r.x \* r.x, exp2( - 9.28 \* dotNV ) ) \* r.x + r.y;\n\treturn vec2( -1.04, 1.04 ) \* a004 + r.zw;\n}\nfloat punctualLightIntensityToIrradianceFactor( const in float lightDistance, const in float cutoffDistance, const in float decayExponent ) {\n#if defined ( PHYSICALLY\_CORRECT\_LIGHTS )\n\tfloat distanceFalloff = 1.0 / max( pow( lightDistance, decayExponent ), 0.01 );\n\tif( cutoffDistance > 0.0 ) {\n\t\tdistanceFalloff \*= pow2( saturate( 1.0 - pow4( lightDistance / cutoffDistance ) ) );\n\t}\n\treturn distanceFalloff;\n#else\n\tif( cutoffDistance > 0.0 && decayExponent > 0.0 ) {\n\t\treturn pow( saturate( -lightDistance / cutoffDistance + 1.0 ), decayExponent );\n\t}\n\treturn 1.0;\n#endif\n}\nvec3 BRDF\_Diffuse\_Lambert( const in vec3 diffuseColor ) {\n\treturn RECIPROCAL\_PI \* diffuseColor;\n}\nvec3 F\_Schlick( const in vec3 specularColor, const in float dotLH ) {\n\tfloat fresnel = exp2( ( -5.55473 \* dotLH - 6.98316 ) \* dotLH );\n\treturn ( 1.0 - specularColor ) \* fresnel + specularColor;\n}\nvec3 F\_Schlick\_RoughnessDependent( const in vec3 F0, const in float dotNV, const in float roughness ) {\n\tfloat fresnel = exp2( ( -5.55473 \* dotNV - 6.98316 ) \* dotNV );\n\tvec3 Fr = max( vec3( 1.0 - roughness ), F0 ) - F0;\n\treturn Fr \* fresnel + F0;\n}\nfloat G\_GGX\_Smith( const in float alpha, const in float dotNL, const in float dotNV ) {\n\tfloat a2 = pow2( alpha );\n\tfloat gl = dotNL + sqrt( a2 + ( 1.0 - a2 ) \* pow2( dotNL ) );\n\tfloat gv = dotNV + sqrt( a2 + ( 1.0 - a2 ) \* pow2( dotNV ) );\n\treturn 1.0 / ( gl \* gv );\n}\nfloat G\_GGX\_SmithCorrelated( const in float alpha, const in float dotNL, const in float dotNV ) {\n\tfloat a2 = pow2( alpha );\n\tfloat gv = dotNL \* sqrt( a2 + ( 1.0 - a2 ) \* pow2( dotNV ) );\n\tfloat gl = dotNV \* sqrt( a2 + ( 1.0 - a2 ) \* pow2( dotNL ) );\n\treturn 0.5 / max( gv + gl, EPSILON );\n}\nfloat D\_GGX( const in float alpha, const in float dotNH ) {\n\tfloat a2 = pow2( alpha );\n\tfloat denom = pow2( dotNH ) \* ( a2 - 1.0 ) + 1.0;\n\treturn RECIPROCAL\_PI \* a2 / pow2( denom );\n}\nvec3 BRDF\_Specular\_GGX( const in IncidentLight incidentLight, const in vec3 viewDir, const in vec3 normal, const in vec3 specularColor, const in float roughness ) {\n\tfloat alpha = pow2( roughness );\n\tvec3 halfDir = normalize( incidentLight.direction + viewDir );\n\tfloat dotNL = saturate( dot( normal, incidentLight.direction ) );\n\tfloat dotNV = saturate( dot( normal, viewDir ) );\n\tfloat dotNH = saturate( dot( normal, halfDir ) );\n\tfloat dotLH = saturate( dot( incidentLight.direction, halfDir ) );\n\tvec3 F = F\_Schlick( specularColor, dotLH );\n\tfloat G = G\_GGX\_SmithCorrelated( alpha, dotNL, dotNV );\n\tfloat D = D\_GGX( alpha, dotNH );\n\treturn F \* ( G \* D );\n}\nvec2 LTC\_Uv( const in vec3 N, const in vec3 V, const in float roughness ) {\n\tconst float LUT\_SIZE = 64.0;\n\tconst float LUT\_SCALE = ( LUT\_SIZE - 1.0 ) / LUT\_SIZE;\n\tconst float LUT\_BIAS = 0.5 / LUT\_SIZE;\n\tfloat dotNV = saturate( dot( N, V ) );\n\tvec2 uv = vec2( roughness, sqrt( 1.0 - dotNV ) );\n\tuv = uv \* LUT\_SCALE + LUT\_BIAS;\n\treturn uv;\n}\nfloat LTC\_ClippedSphereFormFactor( const in vec3 f ) {\n\tfloat l = length( f );\n\treturn max( ( l \* l + f.z ) / ( l + 1.0 ), 0.0 );\n}\nvec3 LTC\_EdgeVectorFormFactor( const in vec3 v1, const in vec3 v2 ) {\n\tfloat x = dot( v1, v2 );\n\tfloat y = abs( x );\n\tfloat a = 0.8543985 + ( 0.4965155 + 0.0145206 \* y ) \* y;\n\tfloat b = 3.4175940 + ( 4.1616724 + y ) \* y;\n\tfloat v = a / b;\n\tfloat theta\_sintheta = ( x > 0.0 ) ? v : 0.5 \* inversesqrt( max( 1.0 - x \* x, 1e-7 ) ) - v;\n\treturn cross( v1, v2 ) \* theta\_sintheta;\n}\nvec3 LTC\_Evaluate( const in vec3 N, const in vec3 V, const in vec3 P, const in mat3 mInv, const in vec3 rectCoords[ 4 ] ) {\n\tvec3 v1 = rectCoords[ 1 ] - rectCoords[ 0 ];\n\tvec3 v2 = rectCoords[ 3 ] - rectCoords[ 0 ];\n\tvec3 lightNormal = cross( v1, v2 );\n\tif( dot( lightNormal, P - rectCoords[ 0 ] ) < 0.0 ) return vec3( 0.0 );\n\tvec3 T1, T2;\n\tT1 = normalize( V - N \* dot( V, N ) );\n\tT2 = - cross( N, T1 );\n\tmat3 mat = mInv \* transposeMat3( mat3( T1, T2, N ) );\n\tvec3 coords[ 4 ];\n\tcoords[ 0 ] = mat \* ( rectCoords[ 0 ] - P );\n\tcoords[ 1 ] = mat \* ( rectCoords[ 1 ] - P );\n\tcoords[ 2 ] = mat \* ( rectCoords[ 2 ] - P );\n\tcoords[ 3 ] = mat \* ( rectCoords[ 3 ] - P );\n\tcoords[ 0 ] = normalize( coords[ 0 ] );\n\tcoords[ 1 ] = normalize( coords[ 1 ] );\n\tcoords[ 2 ] = normalize( coords[ 2 ] );\n\tcoords[ 3 ] = normalize( coords[ 3 ] );\n\tvec3 vectorFormFactor = vec3( 0.0 );\n\tvectorFormFactor += LTC\_EdgeVectorFormFactor( coords[ 0 ], coords[ 1 ] );\n\tvectorFormFactor += LTC\_EdgeVectorFormFactor( coords[ 1 ], coords[ 2 ] );\n\tvectorFormFactor += LTC\_EdgeVectorFormFactor( coords[ 2 ], coords[ 3 ] );\n\tvectorFormFactor += LTC\_EdgeVectorFormFactor( coords[ 3 ], coords[ 0 ] );\n\tfloat result = LTC\_ClippedSphereFormFactor( vectorFormFactor );\n\treturn vec3( result );\n}\nvec3 BRDF\_Specular\_GGX\_Environment( const in vec3 viewDir, const in vec3 normal, const in vec3 specularColor, const in float roughness ) {\n\tfloat dotNV = saturate( dot( normal, viewDir ) );\n\tvec2 brdf = integrateSpecularBRDF( dotNV, roughness );\n\treturn specularColor \* brdf.x + brdf.y;\n}\nvoid BRDF\_Specular\_Multiscattering\_Environment( const in GeometricContext geometry, const in vec3 specularColor, const in float roughness, inout vec3 singleScatter, inout vec3 multiScatter ) {\n\tfloat dotNV = saturate( dot( geometry.normal, geometry.viewDir ) );\n\tvec3 F = F\_Schlick\_RoughnessDependent( specularColor, dotNV, roughness );\n\tvec2 brdf = integrateSpecularBRDF( dotNV, roughness );\n\tvec3 FssEss = F \* brdf.x + brdf.y;\n\tfloat Ess = brdf.x + brdf.y;\n\tfloat Ems = 1.0 - Ess;\n\tvec3 Favg = specularColor + ( 1.0 - specularColor ) \* 0.047619;\tvec3 Fms = FssEss \* Favg / ( 1.0 - Ems \* Favg );\n\tsingleScatter += FssEss;\n\tmultiScatter += Fms \* Ems;\n}\nfloat G\_BlinnPhong\_Implicit( ) {\n\treturn 0.25;\n}\nfloat D\_BlinnPhong( const in float shininess, const in float dotNH ) {\n\treturn RECIPROCAL\_PI \* ( shininess \* 0.5 + 1.0 ) \* pow( dotNH, shininess );\n}\nvec3 BRDF\_Specular\_BlinnPhong( const in IncidentLight incidentLight, const in GeometricContext geometry, const in vec3 specularColor, const in float shininess ) {\n\tvec3 halfDir = normalize( incidentLight.direction + geometry.viewDir );\n\tfloat dotNH = saturate( dot( geometry.normal, halfDir ) );\n\tfloat dotLH = saturate( dot( incidentLight.direction, halfDir ) );\n\tvec3 F = F\_Schlick( specularColor, dotLH );\n\tfloat G = G\_BlinnPhong\_Implicit( );\n\tfloat D = D\_BlinnPhong( shininess, dotNH );\n\treturn F \* ( G \* D );\n}\nfloat GGXRoughnessToBlinnExponent( const in float ggxRoughness ) {\n\treturn ( 2.0 / pow2( ggxRoughness + 0.0001 ) - 2.0 );\n}\nfloat BlinnExponentToGGXRoughness( const in float blinnExponent ) {\n\treturn sqrt( 2.0 / ( blinnExponent + 2.0 ) );\n}\n#if defined( USE\_SHEEN )\nfloat D\_Charlie(float roughness, float NoH) {\n\tfloat invAlpha = 1.0 / roughness;\n\tfloat cos2h = NoH \* NoH;\n\tfloat sin2h = max(1.0 - cos2h, 0.0078125);\treturn (2.0 + invAlpha) \* pow(sin2h, invAlpha \* 0.5) / (2.0 \* PI);\n}\nfloat V\_Neubelt(float NoV, float NoL) {\n\treturn saturate(1.0 / (4.0 \* (NoL + NoV - NoL \* NoV)));\n}\nvec3 BRDF\_Specular\_Sheen( const in float roughness, const in vec3 L, const in GeometricContext geometry, vec3 specularColor ) {\n\tvec3 N = geometry.normal;\n\tvec3 V = geometry.viewDir;\n\tvec3 H = normalize( V + L );\n\tfloat dotNH = saturate( dot( N, H ) );\n\treturn specularColor \* D\_Charlie( roughness, dotNH ) \* V\_Neubelt( dot(N, V), dot(N, L) );\n}\n#endif",  
bumpmap\_pars\_fragment:"#ifdef USE\_BUMPMAP\n\tuniform sampler2D bumpMap;\n\tuniform float bumpScale;\n\tvec2 dHdxy\_fwd() {\n\t\tvec2 dSTdx = dFdx( vUv );\n\t\tvec2 dSTdy = dFdy( vUv );\n\t\tfloat Hll = bumpScale \* texture2D( bumpMap, vUv ).x;\n\t\tfloat dBx = bumpScale \* texture2D( bumpMap, vUv + dSTdx ).x - Hll;\n\t\tfloat dBy = bumpScale \* texture2D( bumpMap, vUv + dSTdy ).x - Hll;\n\t\treturn vec2( dBx, dBy );\n\t}\n\tvec3 perturbNormalArb( vec3 surf\_pos, vec3 surf\_norm, vec2 dHdxy ) {\n\t\tvec3 vSigmaX = vec3( dFdx( surf\_pos.x ), dFdx( surf\_pos.y ), dFdx( surf\_pos.z ) );\n\t\tvec3 vSigmaY = vec3( dFdy( surf\_pos.x ), dFdy( surf\_pos.y ), dFdy( surf\_pos.z ) );\n\t\tvec3 vN = surf\_norm;\n\t\tvec3 R1 = cross( vSigmaY, vN );\n\t\tvec3 R2 = cross( vN, vSigmaX );\n\t\tfloat fDet = dot( vSigmaX, R1 );\n\t\tfDet \*= ( float( gl\_FrontFacing ) \* 2.0 - 1.0 );\n\t\tvec3 vGrad = sign( fDet ) \* ( dHdxy.x \* R1 + dHdxy.y \* R2 );\n\t\treturn normalize( abs( fDet ) \* surf\_norm - vGrad );\n\t}\n#endif",  
clipping\_planes\_fragment:"#if NUM\_CLIPPING\_PLANES > 0\n\tvec4 plane;\n\t#pragma unroll\_loop\_start\n\tfor ( int i = 0; i < UNION\_CLIPPING\_PLANES; i ++ ) {\n\t\tplane = clippingPlanes[ i ];\n\t\tif ( dot( vClipPosition, plane.xyz ) > plane.w ) discard;\n\t}\n\t#pragma unroll\_loop\_end\n\t#if UNION\_CLIPPING\_PLANES < NUM\_CLIPPING\_PLANES\n\t\tbool clipped = true;\n\t\t#pragma unroll\_loop\_start\n\t\tfor ( int i = UNION\_CLIPPING\_PLANES; i < NUM\_CLIPPING\_PLANES; i ++ ) {\n\t\t\tplane = clippingPlanes[ i ];\n\t\t\tclipped = ( dot( vClipPosition, plane.xyz ) > plane.w ) && clipped;\n\t\t}\n\t\t#pragma unroll\_loop\_end\n\t\tif ( clipped ) discard;\n\t#endif\n#endif",  
clipping\_planes\_pars\_fragment:"#if NUM\_CLIPPING\_PLANES > 0\n\tvarying vec3 vClipPosition;\n\tuniform vec4 clippingPlanes[ NUM\_CLIPPING\_PLANES ];\n#endif",clipping\_planes\_pars\_vertex:"#if NUM\_CLIPPING\_PLANES > 0\n\tvarying vec3 vClipPosition;\n#endif",clipping\_planes\_vertex:"#if NUM\_CLIPPING\_PLANES > 0\n\tvClipPosition = - mvPosition.xyz;\n#endif",color\_fragment:"#ifdef USE\_COLOR\n\tdiffuseColor.rgb \*= vColor;\n#endif",color\_pars\_fragment:"#ifdef USE\_COLOR\n\tvarying vec3 vColor;\n#endif",color\_pars\_vertex:"#ifdef USE\_COLOR\n\tvarying vec3 vColor;\n#endif",  
color\_vertex:"#ifdef USE\_COLOR\n\tvColor.xyz = color.xyz;\n#endif",common:"#define PI 3.14159265359\n#define PI2 6.28318530718\n#define PI\_HALF 1.5707963267949\n#define RECIPROCAL\_PI 0.31830988618\n#define RECIPROCAL\_PI2 0.15915494\n#define LOG2 1.442695\n#define EPSILON 1e-6\n#ifndef saturate\n#define saturate(a) clamp( a, 0.0, 1.0 )\n#endif\n#define whiteComplement(a) ( 1.0 - saturate( a ) )\nfloat pow2( const in float x ) { return x\*x; }\nfloat pow3( const in float x ) { return x\*x\*x; }\nfloat pow4( const in float x ) { float x2 = x\*x; return x2\*x2; }\nfloat average( const in vec3 color ) { return dot( color, vec3( 0.3333 ) ); }\nhighp float rand( const in vec2 uv ) {\n\tconst highp float a = 12.9898, b = 78.233, c = 43758.5453;\n\thighp float dt = dot( uv.xy, vec2( a,b ) ), sn = mod( dt, PI );\n\treturn fract(sin(sn) \* c);\n}\n#ifdef HIGH\_PRECISION\n\tfloat precisionSafeLength( vec3 v ) { return length( v ); }\n#else\n\tfloat max3( vec3 v ) { return max( max( v.x, v.y ), v.z ); }\n\tfloat precisionSafeLength( vec3 v ) {\n\t\tfloat maxComponent = max3( abs( v ) );\n\t\treturn length( v / maxComponent ) \* maxComponent;\n\t}\n#endif\nstruct IncidentLight {\n\tvec3 color;\n\tvec3 direction;\n\tbool visible;\n};\nstruct ReflectedLight {\n\tvec3 directDiffuse;\n\tvec3 directSpecular;\n\tvec3 indirectDiffuse;\n\tvec3 indirectSpecular;\n};\nstruct GeometricContext {\n\tvec3 position;\n\tvec3 normal;\n\tvec3 viewDir;\n#ifdef CLEARCOAT\n\tvec3 clearcoatNormal;\n#endif\n};\nvec3 transformDirection( in vec3 dir, in mat4 matrix ) {\n\treturn normalize( ( matrix \* vec4( dir, 0.0 ) ).xyz );\n}\nvec3 inverseTransformDirection( in vec3 dir, in mat4 matrix ) {\n\treturn normalize( ( vec4( dir, 0.0 ) \* matrix ).xyz );\n}\nvec3 projectOnPlane(in vec3 point, in vec3 pointOnPlane, in vec3 planeNormal ) {\n\tfloat distance = dot( planeNormal, point - pointOnPlane );\n\treturn - distance \* planeNormal + point;\n}\nfloat sideOfPlane( in vec3 point, in vec3 pointOnPlane, in vec3 planeNormal ) {\n\treturn sign( dot( point - pointOnPlane, planeNormal ) );\n}\nvec3 linePlaneIntersect( in vec3 pointOnLine, in vec3 lineDirection, in vec3 pointOnPlane, in vec3 planeNormal ) {\n\treturn lineDirection \* ( dot( planeNormal, pointOnPlane - pointOnLine ) / dot( planeNormal, lineDirection ) ) + pointOnLine;\n}\nmat3 transposeMat3( const in mat3 m ) {\n\tmat3 tmp;\n\ttmp[ 0 ] = vec3( m[ 0 ].x, m[ 1 ].x, m[ 2 ].x );\n\ttmp[ 1 ] = vec3( m[ 0 ].y, m[ 1 ].y, m[ 2 ].y );\n\ttmp[ 2 ] = vec3( m[ 0 ].z, m[ 1 ].z, m[ 2 ].z );\n\treturn tmp;\n}\nfloat linearToRelativeLuminance( const in vec3 color ) {\n\tvec3 weights = vec3( 0.2126, 0.7152, 0.0722 );\n\treturn dot( weights, color.rgb );\n}\nbool isPerspectiveMatrix( mat4 m ) {\n return m[ 2 ][ 3 ] == - 1.0;\n}",  
cube\_uv\_reflection\_fragment:"#ifdef ENVMAP\_TYPE\_CUBE\_UV\n#define cubeUV\_maxMipLevel 8.0\n#define cubeUV\_minMipLevel 4.0\n#define cubeUV\_maxTileSize 256.0\n#define cubeUV\_minTileSize 16.0\nfloat getFace(vec3 direction) {\n vec3 absDirection = abs(direction);\n float face = -1.0;\n if (absDirection.x > absDirection.z) {\n if (absDirection.x > absDirection.y)\n face = direction.x > 0.0 ? 0.0 : 3.0;\n else\n face = direction.y > 0.0 ? 1.0 : 4.0;\n } else {\n if (absDirection.z > absDirection.y)\n face = direction.z > 0.0 ? 2.0 : 5.0;\n else\n face = direction.y > 0.0 ? 1.0 : 4.0;\n }\n return face;\n}\nvec2 getUV(vec3 direction, float face) {\n vec2 uv;\n if (face == 0.0) {\n uv = vec2(-direction.z, direction.y) / abs(direction.x);\n } else if (face == 1.0) {\n uv = vec2(direction.x, -direction.z) / abs(direction.y);\n } else if (face == 2.0) {\n uv = direction.xy / abs(direction.z);\n } else if (face == 3.0) {\n uv = vec2(direction.z, direction.y) / abs(direction.x);\n } else if (face == 4.0) {\n uv = direction.xz / abs(direction.y);\n } else {\n uv = vec2(-direction.x, direction.y) / abs(direction.z);\n }\n return 0.5 \* (uv + 1.0);\n}\nvec3 bilinearCubeUV(sampler2D envMap, vec3 direction, float mipInt) {\n float face = getFace(direction);\n float filterInt = max(cubeUV\_minMipLevel - mipInt, 0.0);\n mipInt = max(mipInt, cubeUV\_minMipLevel);\n float faceSize = exp2(mipInt);\n float texelSize = 1.0 / (3.0 \* cubeUV\_maxTileSize);\n vec2 uv = getUV(direction, face) \* (faceSize - 1.0);\n vec2 f = fract(uv);\n uv += 0.5 - f;\n if (face > 2.0) {\n uv.y += faceSize;\n face -= 3.0;\n }\n uv.x += face \* faceSize;\n if(mipInt < cubeUV\_maxMipLevel){\n uv.y += 2.0 \* cubeUV\_maxTileSize;\n }\n uv.y += filterInt \* 2.0 \* cubeUV\_minTileSize;\n uv.x += 3.0 \* max(0.0, cubeUV\_maxTileSize - 2.0 \* faceSize);\n uv \*= texelSize;\n vec3 tl = envMapTexelToLinear(texture2D(envMap, uv)).rgb;\n uv.x += texelSize;\n vec3 tr = envMapTexelToLinear(texture2D(envMap, uv)).rgb;\n uv.y += texelSize;\n vec3 br = envMapTexelToLinear(texture2D(envMap, uv)).rgb;\n uv.x -= texelSize;\n vec3 bl = envMapTexelToLinear(texture2D(envMap, uv)).rgb;\n vec3 tm = mix(tl, tr, f.x);\n vec3 bm = mix(bl, br, f.x);\n return mix(tm, bm, f.y);\n}\n#define r0 1.0\n#define v0 0.339\n#define m0 -2.0\n#define r1 0.8\n#define v1 0.276\n#define m1 -1.0\n#define r4 0.4\n#define v4 0.046\n#define m4 2.0\n#define r5 0.305\n#define v5 0.016\n#define m5 3.0\n#define r6 0.21\n#define v6 0.0038\n#define m6 4.0\nfloat roughnessToMip(float roughness) {\n float mip = 0.0;\n if (roughness >= r1) {\n mip = (r0 - roughness) \* (m1 - m0) / (r0 - r1) + m0;\n } else if (roughness >= r4) {\n mip = (r1 - roughness) \* (m4 - m1) / (r1 - r4) + m1;\n } else if (roughness >= r5) {\n mip = (r4 - roughness) \* (m5 - m4) / (r4 - r5) + m4;\n } else if (roughness >= r6) {\n mip = (r5 - roughness) \* (m6 - m5) / (r5 - r6) + m5;\n } else {\n mip = -2.0 \* log2(1.16 \* roughness); }\n return mip;\n}\nvec4 textureCubeUV(sampler2D envMap, vec3 sampleDir, float roughness) {\n float mip = clamp(roughnessToMip(roughness), m0, cubeUV\_maxMipLevel);\n float mipF = fract(mip);\n float mipInt = floor(mip);\n vec3 color0 = bilinearCubeUV(envMap, sampleDir, mipInt);\n if (mipF == 0.0) {\n return vec4(color0, 1.0);\n } else {\n vec3 color1 = bilinearCubeUV(envMap, sampleDir, mipInt + 1.0);\n return vec4(mix(color0, color1, mipF), 1.0);\n }\n}\n#endif",  
defaultnormal\_vertex:"vec3 transformedNormal = objectNormal;\n#ifdef USE\_INSTANCING\n\tmat3 m = mat3( instanceMatrix );\n\ttransformedNormal /= vec3( dot( m[ 0 ], m[ 0 ] ), dot( m[ 1 ], m[ 1 ] ), dot( m[ 2 ], m[ 2 ] ) );\n\ttransformedNormal = m \* transformedNormal;\n#endif\ntransformedNormal = normalMatrix \* transformedNormal;\n#ifdef FLIP\_SIDED\n\ttransformedNormal = - transformedNormal;\n#endif\n#ifdef USE\_TANGENT\n\tvec3 transformedTangent = ( modelViewMatrix \* vec4( objectTangent, 0.0 ) ).xyz;\n\t#ifdef FLIP\_SIDED\n\t\ttransformedTangent = - transformedTangent;\n\t#endif\n#endif",  
displacementmap\_pars\_vertex:"#ifdef USE\_DISPLACEMENTMAP\n\tuniform sampler2D displacementMap;\n\tuniform float displacementScale;\n\tuniform float displacementBias;\n#endif",displacementmap\_vertex:"#ifdef USE\_DISPLACEMENTMAP\n\ttransformed += normalize( objectNormal ) \* ( texture2D( displacementMap, vUv ).x \* displacementScale + displacementBias );\n#endif",emissivemap\_fragment:"#ifdef USE\_EMISSIVEMAP\n\tvec4 emissiveColor = texture2D( emissiveMap, vUv );\n\temissiveColor.rgb = emissiveMapTexelToLinear( emissiveColor ).rgb;\n\ttotalEmissiveRadiance \*= emissiveColor.rgb;\n#endif",  
emissivemap\_pars\_fragment:"#ifdef USE\_EMISSIVEMAP\n\tuniform sampler2D emissiveMap;\n#endif",encodings\_fragment:"gl\_FragColor = linearToOutputTexel( gl\_FragColor );",encodings\_pars\_fragment:"\nvec4 LinearToLinear( in vec4 value ) {\n\treturn value;\n}\nvec4 GammaToLinear( in vec4 value, in float gammaFactor ) {\n\treturn vec4( pow( value.rgb, vec3( gammaFactor ) ), value.a );\n}\nvec4 LinearToGamma( in vec4 value, in float gammaFactor ) {\n\treturn vec4( pow( value.rgb, vec3( 1.0 / gammaFactor ) ), value.a );\n}\nvec4 sRGBToLinear( in vec4 value ) {\n\treturn vec4( mix( pow( value.rgb \* 0.9478672986 + vec3( 0.0521327014 ), vec3( 2.4 ) ), value.rgb \* 0.0773993808, vec3( lessThanEqual( value.rgb, vec3( 0.04045 ) ) ) ), value.a );\n}\nvec4 LinearTosRGB( in vec4 value ) {\n\treturn vec4( mix( pow( value.rgb, vec3( 0.41666 ) ) \* 1.055 - vec3( 0.055 ), value.rgb \* 12.92, vec3( lessThanEqual( value.rgb, vec3( 0.0031308 ) ) ) ), value.a );\n}\nvec4 RGBEToLinear( in vec4 value ) {\n\treturn vec4( value.rgb \* exp2( value.a \* 255.0 - 128.0 ), 1.0 );\n}\nvec4 LinearToRGBE( in vec4 value ) {\n\tfloat maxComponent = max( max( value.r, value.g ), value.b );\n\tfloat fExp = clamp( ceil( log2( maxComponent ) ), -128.0, 127.0 );\n\treturn vec4( value.rgb / exp2( fExp ), ( fExp + 128.0 ) / 255.0 );\n}\nvec4 RGBMToLinear( in vec4 value, in float maxRange ) {\n\treturn vec4( value.rgb \* value.a \* maxRange, 1.0 );\n}\nvec4 LinearToRGBM( in vec4 value, in float maxRange ) {\n\tfloat maxRGB = max( value.r, max( value.g, value.b ) );\n\tfloat M = clamp( maxRGB / maxRange, 0.0, 1.0 );\n\tM = ceil( M \* 255.0 ) / 255.0;\n\treturn vec4( value.rgb / ( M \* maxRange ), M );\n}\nvec4 RGBDToLinear( in vec4 value, in float maxRange ) {\n\treturn vec4( value.rgb \* ( ( maxRange / 255.0 ) / value.a ), 1.0 );\n}\nvec4 LinearToRGBD( in vec4 value, in float maxRange ) {\n\tfloat maxRGB = max( value.r, max( value.g, value.b ) );\n\tfloat D = max( maxRange / maxRGB, 1.0 );\n\tD = clamp( floor( D ) / 255.0, 0.0, 1.0 );\n\treturn vec4( value.rgb \* ( D \* ( 255.0 / maxRange ) ), D );\n}\nconst mat3 cLogLuvM = mat3( 0.2209, 0.3390, 0.4184, 0.1138, 0.6780, 0.7319, 0.0102, 0.1130, 0.2969 );\nvec4 LinearToLogLuv( in vec4 value ) {\n\tvec3 Xp\_Y\_XYZp = cLogLuvM \* value.rgb;\n\tXp\_Y\_XYZp = max( Xp\_Y\_XYZp, vec3( 1e-6, 1e-6, 1e-6 ) );\n\tvec4 vResult;\n\tvResult.xy = Xp\_Y\_XYZp.xy / Xp\_Y\_XYZp.z;\n\tfloat Le = 2.0 \* log2(Xp\_Y\_XYZp.y) + 127.0;\n\tvResult.w = fract( Le );\n\tvResult.z = ( Le - ( floor( vResult.w \* 255.0 ) ) / 255.0 ) / 255.0;\n\treturn vResult;\n}\nconst mat3 cLogLuvInverseM = mat3( 6.0014, -2.7008, -1.7996, -1.3320, 3.1029, -5.7721, 0.3008, -1.0882, 5.6268 );\nvec4 LogLuvToLinear( in vec4 value ) {\n\tfloat Le = value.z \* 255.0 + value.w;\n\tvec3 Xp\_Y\_XYZp;\n\tXp\_Y\_XYZp.y = exp2( ( Le - 127.0 ) / 2.0 );\n\tXp\_Y\_XYZp.z = Xp\_Y\_XYZp.y / value.y;\n\tXp\_Y\_XYZp.x = value.x \* Xp\_Y\_XYZp.z;\n\tvec3 vRGB = cLogLuvInverseM \* Xp\_Y\_XYZp.rgb;\n\treturn vec4( max( vRGB, 0.0 ), 1.0 );\n}",  
envmap\_fragment:"#ifdef USE\_ENVMAP\n\t#ifdef ENV\_WORLDPOS\n\t\tvec3 cameraToFrag;\n\t\t\n\t\tif ( isOrthographic ) {\n\t\t\tcameraToFrag = normalize( vec3( - viewMatrix[ 0 ][ 2 ], - viewMatrix[ 1 ][ 2 ], - viewMatrix[ 2 ][ 2 ] ) );\n\t\t} else {\n\t\t\tcameraToFrag = normalize( vWorldPosition - cameraPosition );\n\t\t}\n\t\tvec3 worldNormal = inverseTransformDirection( normal, viewMatrix );\n\t\t#ifdef ENVMAP\_MODE\_REFLECTION\n\t\t\tvec3 reflectVec = reflect( cameraToFrag, worldNormal );\n\t\t#else\n\t\t\tvec3 reflectVec = refract( cameraToFrag, worldNormal, refractionRatio );\n\t\t#endif\n\t#else\n\t\tvec3 reflectVec = vReflect;\n\t#endif\n\t#ifdef ENVMAP\_TYPE\_CUBE\n\t\tvec4 envColor = textureCube( envMap, vec3( flipEnvMap \* reflectVec.x, reflectVec.yz ) );\n\t#elif defined( ENVMAP\_TYPE\_CUBE\_UV )\n\t\tvec4 envColor = textureCubeUV( envMap, reflectVec, 0.0 );\n\t#elif defined( ENVMAP\_TYPE\_EQUIREC )\n\t\tvec2 sampleUV;\n\t\treflectVec = normalize( reflectVec );\n\t\tsampleUV.y = asin( clamp( reflectVec.y, - 1.0, 1.0 ) ) \* RECIPROCAL\_PI + 0.5;\n\t\tsampleUV.x = atan( reflectVec.z, reflectVec.x ) \* RECIPROCAL\_PI2 + 0.5;\n\t\tvec4 envColor = texture2D( envMap, sampleUV );\n\t#elif defined( ENVMAP\_TYPE\_SPHERE )\n\t\treflectVec = normalize( reflectVec );\n\t\tvec3 reflectView = normalize( ( viewMatrix \* vec4( reflectVec, 0.0 ) ).xyz + vec3( 0.0, 0.0, 1.0 ) );\n\t\tvec4 envColor = texture2D( envMap, reflectView.xy \* 0.5 + 0.5 );\n\t#else\n\t\tvec4 envColor = vec4( 0.0 );\n\t#endif\n\t#ifndef ENVMAP\_TYPE\_CUBE\_UV\n\t\tenvColor = envMapTexelToLinear( envColor );\n\t#endif\n\t#ifdef ENVMAP\_BLENDING\_MULTIPLY\n\t\toutgoingLight = mix( outgoingLight, outgoingLight \* envColor.xyz, specularStrength \* reflectivity );\n\t#elif defined( ENVMAP\_BLENDING\_MIX )\n\t\toutgoingLight = mix( outgoingLight, envColor.xyz, specularStrength \* reflectivity );\n\t#elif defined( ENVMAP\_BLENDING\_ADD )\n\t\toutgoingLight += envColor.xyz \* specularStrength \* reflectivity;\n\t#endif\n#endif",  
envmap\_common\_pars\_fragment:"#ifdef USE\_ENVMAP\n\tuniform float envMapIntensity;\n\tuniform float flipEnvMap;\n\tuniform int maxMipLevel;\n\t#ifdef ENVMAP\_TYPE\_CUBE\n\t\tuniform samplerCube envMap;\n\t#else\n\t\tuniform sampler2D envMap;\n\t#endif\n\t\n#endif",envmap\_pars\_fragment:"#ifdef USE\_ENVMAP\n\tuniform float reflectivity;\n\t#if defined( USE\_BUMPMAP ) || defined( USE\_NORMALMAP ) || defined( PHONG )\n\t\t#define ENV\_WORLDPOS\n\t#endif\n\t#ifdef ENV\_WORLDPOS\n\t\tvarying vec3 vWorldPosition;\n\t\tuniform float refractionRatio;\n\t#else\n\t\tvarying vec3 vReflect;\n\t#endif\n#endif",  
envmap\_pars\_vertex:"#ifdef USE\_ENVMAP\n\t#if defined( USE\_BUMPMAP ) || defined( USE\_NORMALMAP ) ||defined( PHONG )\n\t\t#define ENV\_WORLDPOS\n\t#endif\n\t#ifdef ENV\_WORLDPOS\n\t\t\n\t\tvarying vec3 vWorldPosition;\n\t#else\n\t\tvarying vec3 vReflect;\n\t\tuniform float refractionRatio;\n\t#endif\n#endif",envmap\_physical\_pars\_fragment:"#if defined( USE\_ENVMAP )\n\t#ifdef ENVMAP\_MODE\_REFRACTION\n\t\tuniform float refractionRatio;\n\t#endif\n\tvec3 getLightProbeIndirectIrradiance( const in GeometricContext geometry, const in int maxMIPLevel ) {\n\t\tvec3 worldNormal = inverseTransformDirection( geometry.normal, viewMatrix );\n\t\t#ifdef ENVMAP\_TYPE\_CUBE\n\t\t\tvec3 queryVec = vec3( flipEnvMap \* worldNormal.x, worldNormal.yz );\n\t\t\t#ifdef TEXTURE\_LOD\_EXT\n\t\t\t\tvec4 envMapColor = textureCubeLodEXT( envMap, queryVec, float( maxMIPLevel ) );\n\t\t\t#else\n\t\t\t\tvec4 envMapColor = textureCube( envMap, queryVec, float( maxMIPLevel ) );\n\t\t\t#endif\n\t\t\tenvMapColor.rgb = envMapTexelToLinear( envMapColor ).rgb;\n\t\t#elif defined( ENVMAP\_TYPE\_CUBE\_UV )\n\t\t\tvec4 envMapColor = textureCubeUV( envMap, worldNormal, 1.0 );\n\t\t#else\n\t\t\tvec4 envMapColor = vec4( 0.0 );\n\t\t#endif\n\t\treturn PI \* envMapColor.rgb \* envMapIntensity;\n\t}\n\tfloat getSpecularMIPLevel( const in float roughness, const in int maxMIPLevel ) {\n\t\tfloat maxMIPLevelScalar = float( maxMIPLevel );\n\t\tfloat sigma = PI \* roughness \* roughness / ( 1.0 + roughness );\n\t\tfloat desiredMIPLevel = maxMIPLevelScalar + log2( sigma );\n\t\treturn clamp( desiredMIPLevel, 0.0, maxMIPLevelScalar );\n\t}\n\tvec3 getLightProbeIndirectRadiance( const in vec3 viewDir, const in vec3 normal, const in float roughness, const in int maxMIPLevel ) {\n\t\t#ifdef ENVMAP\_MODE\_REFLECTION\n\t\t vec3 reflectVec = reflect( -viewDir, normal );\n\t\t reflectVec = normalize( mix( reflectVec, normal, roughness \* roughness) );\n\t\t#else\n\t\t vec3 reflectVec = refract( -viewDir, normal, refractionRatio );\n\t\t#endif\n\t\treflectVec = inverseTransformDirection( reflectVec, viewMatrix );\n\t\tfloat specularMIPLevel = getSpecularMIPLevel( roughness, maxMIPLevel );\n\t\t#ifdef ENVMAP\_TYPE\_CUBE\n\t\t\tvec3 queryReflectVec = vec3( flipEnvMap \* reflectVec.x, reflectVec.yz );\n\t\t\t#ifdef TEXTURE\_LOD\_EXT\n\t\t\t\tvec4 envMapColor = textureCubeLodEXT( envMap, queryReflectVec, specularMIPLevel );\n\t\t\t#else\n\t\t\t\tvec4 envMapColor = textureCube( envMap, queryReflectVec, specularMIPLevel );\n\t\t\t#endif\n\t\t\tenvMapColor.rgb = envMapTexelToLinear( envMapColor ).rgb;\n\t\t#elif defined( ENVMAP\_TYPE\_CUBE\_UV )\n\t\t\tvec4 envMapColor = textureCubeUV( envMap, reflectVec, roughness );\n\t\t#elif defined( ENVMAP\_TYPE\_EQUIREC )\n\t\t\tvec2 sampleUV;\n\t\t\tsampleUV.y = asin( clamp( reflectVec.y, - 1.0, 1.0 ) ) \* RECIPROCAL\_PI + 0.5;\n\t\t\tsampleUV.x = atan( reflectVec.z, reflectVec.x ) \* RECIPROCAL\_PI2 + 0.5;\n\t\t\t#ifdef TEXTURE\_LOD\_EXT\n\t\t\t\tvec4 envMapColor = texture2DLodEXT( envMap, sampleUV, specularMIPLevel );\n\t\t\t#else\n\t\t\t\tvec4 envMapColor = texture2D( envMap, sampleUV, specularMIPLevel );\n\t\t\t#endif\n\t\t\tenvMapColor.rgb = envMapTexelToLinear( envMapColor ).rgb;\n\t\t#elif defined( ENVMAP\_TYPE\_SPHERE )\n\t\t\tvec3 reflectView = normalize( ( viewMatrix \* vec4( reflectVec, 0.0 ) ).xyz + vec3( 0.0,0.0,1.0 ) );\n\t\t\t#ifdef TEXTURE\_LOD\_EXT\n\t\t\t\tvec4 envMapColor = texture2DLodEXT( envMap, reflectView.xy \* 0.5 + 0.5, specularMIPLevel );\n\t\t\t#else\n\t\t\t\tvec4 envMapColor = texture2D( envMap, reflectView.xy \* 0.5 + 0.5, specularMIPLevel );\n\t\t\t#endif\n\t\t\tenvMapColor.rgb = envMapTexelToLinear( envMapColor ).rgb;\n\t\t#endif\n\t\treturn envMapColor.rgb \* envMapIntensity;\n\t}\n#endif",  
envmap\_vertex:"#ifdef USE\_ENVMAP\n\t#ifdef ENV\_WORLDPOS\n\t\tvWorldPosition = worldPosition.xyz;\n\t#else\n\t\tvec3 cameraToVertex;\n\t\tif ( isOrthographic ) { \n\t\t\tcameraToVertex = normalize( vec3( - viewMatrix[ 0 ][ 2 ], - viewMatrix[ 1 ][ 2 ], - viewMatrix[ 2 ][ 2 ] ) );\n\t\t} else {\n\t\t\tcameraToVertex = normalize( worldPosition.xyz - cameraPosition );\n\t\t}\n\t\tvec3 worldNormal = inverseTransformDirection( transformedNormal, viewMatrix );\n\t\t#ifdef ENVMAP\_MODE\_REFLECTION\n\t\t\tvReflect = reflect( cameraToVertex, worldNormal );\n\t\t#else\n\t\t\tvReflect = refract( cameraToVertex, worldNormal, refractionRatio );\n\t\t#endif\n\t#endif\n#endif",  
fog\_vertex:"#ifdef USE\_FOG\n\tfogDepth = -mvPosition.z;\n#endif",fog\_pars\_vertex:"#ifdef USE\_FOG\n\tvarying float fogDepth;\n#endif",fog\_fragment:"#ifdef USE\_FOG\n\t#ifdef FOG\_EXP2\n\t\tfloat fogFactor = 1.0 - exp( - fogDensity \* fogDensity \* fogDepth \* fogDepth );\n\t#else\n\t\tfloat fogFactor = smoothstep( fogNear, fogFar, fogDepth );\n\t#endif\n\tgl\_FragColor.rgb = mix( gl\_FragColor.rgb, fogColor, fogFactor );\n#endif",fog\_pars\_fragment:"#ifdef USE\_FOG\n\tuniform vec3 fogColor;\n\tvarying float fogDepth;\n\t#ifdef FOG\_EXP2\n\t\tuniform float fogDensity;\n\t#else\n\t\tuniform float fogNear;\n\t\tuniform float fogFar;\n\t#endif\n#endif",  
gradientmap\_pars\_fragment:"#ifdef USE\_GRADIENTMAP\n\tuniform sampler2D gradientMap;\n#endif\nvec3 getGradientIrradiance( vec3 normal, vec3 lightDirection ) {\n\tfloat dotNL = dot( normal, lightDirection );\n\tvec2 coord = vec2( dotNL \* 0.5 + 0.5, 0.0 );\n\t#ifdef USE\_GRADIENTMAP\n\t\treturn texture2D( gradientMap, coord ).rgb;\n\t#else\n\t\treturn ( coord.x < 0.7 ) ? vec3( 0.7 ) : vec3( 1.0 );\n\t#endif\n}",lightmap\_fragment:"#ifdef USE\_LIGHTMAP\n\tvec4 lightMapTexel= texture2D( lightMap, vUv2 );\n\treflectedLight.indirectDiffuse += PI \* lightMapTexelToLinear( lightMapTexel ).rgb \* lightMapIntensity;\n#endif",  
lightmap\_pars\_fragment:"#ifdef USE\_LIGHTMAP\n\tuniform sampler2D lightMap;\n\tuniform float lightMapIntensity;\n#endif",lights\_lambert\_vertex:"vec3 diffuse = vec3( 1.0 );\nGeometricContext geometry;\ngeometry.position = mvPosition.xyz;\ngeometry.normal = normalize( transformedNormal );\ngeometry.viewDir = ( isOrthographic ) ? vec3( 0, 0, 1 ) : normalize( -mvPosition.xyz );\nGeometricContext backGeometry;\nbackGeometry.position = geometry.position;\nbackGeometry.normal = -geometry.normal;\nbackGeometry.viewDir = geometry.viewDir;\nvLightFront = vec3( 0.0 );\nvIndirectFront = vec3( 0.0 );\n#ifdef DOUBLE\_SIDED\n\tvLightBack = vec3( 0.0 );\n\tvIndirectBack = vec3( 0.0 );\n#endif\nIncidentLight directLight;\nfloat dotNL;\nvec3 directLightColor\_Diffuse;\n#if NUM\_POINT\_LIGHTS > 0\n\t#pragma unroll\_loop\_start\n\tfor ( int i = 0; i < NUM\_POINT\_LIGHTS; i ++ ) {\n\t\tgetPointDirectLightIrradiance( pointLights[ i ], geometry, directLight );\n\t\tdotNL = dot( geometry.normal, directLight.direction );\n\t\tdirectLightColor\_Diffuse = PI \* directLight.color;\n\t\tvLightFront += saturate( dotNL ) \* directLightColor\_Diffuse;\n\t\t#ifdef DOUBLE\_SIDED\n\t\t\tvLightBack += saturate( -dotNL ) \* directLightColor\_Diffuse;\n\t\t#endif\n\t}\n\t#pragma unroll\_loop\_end\n#endif\n#if NUM\_SPOT\_LIGHTS > 0\n\t#pragma unroll\_loop\_start\n\tfor ( int i = 0; i < NUM\_SPOT\_LIGHTS; i ++ ) {\n\t\tgetSpotDirectLightIrradiance( spotLights[ i ], geometry, directLight );\n\t\tdotNL = dot( geometry.normal, directLight.direction );\n\t\tdirectLightColor\_Diffuse = PI \* directLight.color;\n\t\tvLightFront += saturate( dotNL ) \* directLightColor\_Diffuse;\n\t\t#ifdef DOUBLE\_SIDED\n\t\t\tvLightBack += saturate( -dotNL ) \* directLightColor\_Diffuse;\n\t\t#endif\n\t}\n\t#pragma unroll\_loop\_end\n#endif\n#if NUM\_DIR\_LIGHTS > 0\n\t#pragma unroll\_loop\_start\n\tfor ( int i = 0; i < NUM\_DIR\_LIGHTS; i ++ ) {\n\t\tgetDirectionalDirectLightIrradiance( directionalLights[ i ], geometry, directLight );\n\t\tdotNL = dot( geometry.normal, directLight.direction );\n\t\tdirectLightColor\_Diffuse = PI \* directLight.color;\n\t\tvLightFront += saturate( dotNL ) \* directLightColor\_Diffuse;\n\t\t#ifdef DOUBLE\_SIDED\n\t\t\tvLightBack += saturate( -dotNL ) \* directLightColor\_Diffuse;\n\t\t#endif\n\t}\n\t#pragma unroll\_loop\_end\n#endif\n#if NUM\_HEMI\_LIGHTS > 0\n\t#pragma unroll\_loop\_start\n\tfor ( int i = 0; i < NUM\_HEMI\_LIGHTS; i ++ ) {\n\t\tvIndirectFront += getHemisphereLightIrradiance( hemisphereLights[ i ], geometry );\n\t\t#ifdef DOUBLE\_SIDED\n\t\t\tvIndirectBack += getHemisphereLightIrradiance( hemisphereLights[ i ], backGeometry );\n\t\t#endif\n\t}\n\t#pragma unroll\_loop\_end\n#endif",  
lights\_pars\_begin:"uniform bool receiveShadow;\nuniform vec3 ambientLightColor;\nuniform vec3 lightProbe[ 9 ];\nvec3 shGetIrradianceAt( in vec3 normal, in vec3 shCoefficients[ 9 ] ) {\n\tfloat x = normal.x, y = normal.y, z = normal.z;\n\tvec3 result = shCoefficients[ 0 ] \* 0.886227;\n\tresult += shCoefficients[ 1 ] \* 2.0 \* 0.511664 \* y;\n\tresult += shCoefficients[ 2 ] \* 2.0 \* 0.511664 \* z;\n\tresult += shCoefficients[ 3 ] \* 2.0 \* 0.511664 \* x;\n\tresult += shCoefficients[ 4 ] \* 2.0 \* 0.429043 \* x \* y;\n\tresult += shCoefficients[ 5 ] \* 2.0 \* 0.429043 \* y \* z;\n\tresult += shCoefficients[ 6 ] \* ( 0.743125 \* z \* z - 0.247708 );\n\tresult += shCoefficients[ 7 ] \* 2.0 \* 0.429043 \* x \* z;\n\tresult += shCoefficients[ 8 ] \* 0.429043 \* ( x \* x - y \* y );\n\treturn result;\n}\nvec3 getLightProbeIrradiance( const in vec3 lightProbe[ 9 ], const in GeometricContext geometry ) {\n\tvec3 worldNormal = inverseTransformDirection( geometry.normal, viewMatrix );\n\tvec3 irradiance = shGetIrradianceAt( worldNormal, lightProbe );\n\treturn irradiance;\n}\nvec3 getAmbientLightIrradiance( const in vec3 ambientLightColor ) {\n\tvec3 irradiance = ambientLightColor;\n\t#ifndef PHYSICALLY\_CORRECT\_LIGHTS\n\t\tirradiance \*= PI;\n\t#endif\n\treturn irradiance;\n}\n#if NUM\_DIR\_LIGHTS > 0\n\tstruct DirectionalLight {\n\t\tvec3 direction;\n\t\tvec3 color;\n\t};\n\tuniform DirectionalLight directionalLights[ NUM\_DIR\_LIGHTS ];\n\t#if defined( USE\_SHADOWMAP ) && NUM\_DIR\_LIGHT\_SHADOWS > 0\n\t\tstruct DirectionalLightShadow {\n\t\t\tfloat shadowBias;\n\t\t\tfloat shadowRadius;\n\t\t\tvec2 shadowMapSize;\n\t\t};\n\t\tuniform DirectionalLightShadow directionalLightShadows[ NUM\_DIR\_LIGHT\_SHADOWS ];\n\t#endif\n\tvoid getDirectionalDirectLightIrradiance( const in DirectionalLight directionalLight, const in GeometricContext geometry, out IncidentLight directLight ) {\n\t\tdirectLight.color = directionalLight.color;\n\t\tdirectLight.direction = directionalLight.direction;\n\t\tdirectLight.visible = true;\n\t}\n#endif\n#if NUM\_POINT\_LIGHTS > 0\n\tstruct PointLight {\n\t\tvec3 position;\n\t\tvec3 color;\n\t\tfloat distance;\n\t\tfloat decay;\n\t};\n\tuniform PointLight pointLights[ NUM\_POINT\_LIGHTS ];\n\t#if defined( USE\_SHADOWMAP ) && NUM\_POINT\_LIGHT\_SHADOWS > 0\n\t\tstruct PointLightShadow {\n\t\t\tfloat shadowBias;\n\t\t\tfloat shadowRadius;\n\t\t\tvec2 shadowMapSize;\n\t\t\tfloat shadowCameraNear;\n\t\t\tfloat shadowCameraFar;\n\t\t};\n\t\tuniform PointLightShadow pointLightShadows[ NUM\_POINT\_LIGHT\_SHADOWS ];\n\t#endif\n\tvoid getPointDirectLightIrradiance( const in PointLight pointLight, const in GeometricContext geometry, out IncidentLight directLight ) {\n\t\tvec3 lVector = pointLight.position - geometry.position;\n\t\tdirectLight.direction = normalize( lVector );\n\t\tfloat lightDistance = length( lVector );\n\t\tdirectLight.color = pointLight.color;\n\t\tdirectLight.color \*= punctualLightIntensityToIrradianceFactor( lightDistance, pointLight.distance, pointLight.decay );\n\t\tdirectLight.visible = ( directLight.color != vec3( 0.0 ) );\n\t}\n#endif\n#if NUM\_SPOT\_LIGHTS > 0\n\tstruct SpotLight {\n\t\tvec3 position;\n\t\tvec3 direction;\n\t\tvec3 color;\n\t\tfloat distance;\n\t\tfloat decay;\n\t\tfloat coneCos;\n\t\tfloat penumbraCos;\n\t};\n\tuniform SpotLight spotLights[ NUM\_SPOT\_LIGHTS ];\n\t#if defined( USE\_SHADOWMAP ) && NUM\_SPOT\_LIGHT\_SHADOWS > 0\n\t\tstruct SpotLightShadow {\n\t\t\tfloat shadowBias;\n\t\t\tfloat shadowRadius;\n\t\t\tvec2 shadowMapSize;\n\t\t};\n\t\tuniform SpotLightShadow spotLightShadows[ NUM\_SPOT\_LIGHT\_SHADOWS ];\n\t#endif\n\tvoid getSpotDirectLightIrradiance( const in SpotLight spotLight, const in GeometricContext geometry, out IncidentLight directLight ) {\n\t\tvec3 lVector = spotLight.position - geometry.position;\n\t\tdirectLight.direction = normalize( lVector );\n\t\tfloat lightDistance = length( lVector );\n\t\tfloat angleCos = dot( directLight.direction, spotLight.direction );\n\t\tif ( angleCos > spotLight.coneCos ) {\n\t\t\tfloat spotEffect = smoothstep( spotLight.coneCos, spotLight.penumbraCos, angleCos );\n\t\t\tdirectLight.color = spotLight.color;\n\t\t\tdirectLight.color \*= spotEffect \* punctualLightIntensityToIrradianceFactor( lightDistance, spotLight.distance, spotLight.decay );\n\t\t\tdirectLight.visible = true;\n\t\t} else {\n\t\t\tdirectLight.color = vec3( 0.0 );\n\t\t\tdirectLight.visible = false;\n\t\t}\n\t}\n#endif\n#if NUM\_RECT\_AREA\_LIGHTS > 0\n\tstruct RectAreaLight {\n\t\tvec3 color;\n\t\tvec3 position;\n\t\tvec3 halfWidth;\n\t\tvec3 halfHeight;\n\t};\n\tuniform sampler2D ltc\_1;\tuniform sampler2D ltc\_2;\n\tuniform RectAreaLight rectAreaLights[ NUM\_RECT\_AREA\_LIGHTS ];\n#endif\n#if NUM\_HEMI\_LIGHTS > 0\n\tstruct HemisphereLight {\n\t\tvec3 direction;\n\t\tvec3 skyColor;\n\t\tvec3 groundColor;\n\t};\n\tuniform HemisphereLight hemisphereLights[ NUM\_HEMI\_LIGHTS ];\n\tvec3 getHemisphereLightIrradiance( const in HemisphereLight hemiLight, const in GeometricContext geometry ) {\n\t\tfloat dotNL = dot( geometry.normal, hemiLight.direction );\n\t\tfloat hemiDiffuseWeight = 0.5 \* dotNL + 0.5;\n\t\tvec3 irradiance = mix( hemiLight.groundColor, hemiLight.skyColor, hemiDiffuseWeight );\n\t\t#ifndef PHYSICALLY\_CORRECT\_LIGHTS\n\t\t\tirradiance \*= PI;\n\t\t#endif\n\t\treturn irradiance;\n\t}\n#endif",  
lights\_toon\_fragment:"ToonMaterial material;\nmaterial.diffuseColor = diffuseColor.rgb;\nmaterial.specularColor = specular;\nmaterial.specularShininess = shininess;\nmaterial.specularStrength = specularStrength;",lights\_toon\_pars\_fragment:"varying vec3 vViewPosition;\n#ifndef FLAT\_SHADED\n\tvarying vec3 vNormal;\n#endif\nstruct ToonMaterial {\n\tvec3\tdiffuseColor;\n\tvec3\tspecularColor;\n\tfloat\tspecularShininess;\n\tfloat\tspecularStrength;\n};\nvoid RE\_Direct\_Toon( const in IncidentLight directLight, const in GeometricContext geometry, const in ToonMaterial material, inout ReflectedLight reflectedLight ) {\n\tvec3 irradiance = getGradientIrradiance( geometry.normal, directLight.direction ) \* directLight.color;\n\t#ifndef PHYSICALLY\_CORRECT\_LIGHTS\n\t\tirradiance \*= PI;\n\t#endif\n\treflectedLight.directDiffuse += irradiance \* BRDF\_Diffuse\_Lambert( material.diffuseColor );\n\treflectedLight.directSpecular += irradiance \* BRDF\_Specular\_BlinnPhong( directLight, geometry, material.specularColor, material.specularShininess ) \* material.specularStrength;\n}\nvoid RE\_IndirectDiffuse\_Toon( const in vec3 irradiance, const in GeometricContext geometry, const in ToonMaterial material, inout ReflectedLight reflectedLight ) {\n\treflectedLight.indirectDiffuse += irradiance \* BRDF\_Diffuse\_Lambert( material.diffuseColor );\n}\n#define RE\_Direct\t\t\t\tRE\_Direct\_Toon\n#define RE\_IndirectDiffuse\t\tRE\_IndirectDiffuse\_Toon\n#define Material\_LightProbeLOD( material )\t(0)",  
lights\_phong\_fragment:"BlinnPhongMaterial material;\nmaterial.diffuseColor = diffuseColor.rgb;\nmaterial.specularColor = specular;\nmaterial.specularShininess = shininess;\nmaterial.specularStrength = specularStrength;",lights\_phong\_pars\_fragment:"varying vec3 vViewPosition;\n#ifndef FLAT\_SHADED\n\tvarying vec3 vNormal;\n#endif\nstruct BlinnPhongMaterial {\n\tvec3\tdiffuseColor;\n\tvec3\tspecularColor;\n\tfloat\tspecularShininess;\n\tfloat\tspecularStrength;\n};\nvoid RE\_Direct\_BlinnPhong( const in IncidentLight directLight, const in GeometricContext geometry, const in BlinnPhongMaterial material, inout ReflectedLight reflectedLight ) {\n\tfloat dotNL = saturate( dot( geometry.normal, directLight.direction ) );\n\tvec3 irradiance = dotNL \* directLight.color;\n\t#ifndef PHYSICALLY\_CORRECT\_LIGHTS\n\t\tirradiance \*= PI;\n\t#endif\n\treflectedLight.directDiffuse += irradiance \* BRDF\_Diffuse\_Lambert( material.diffuseColor );\n\treflectedLight.directSpecular += irradiance \* BRDF\_Specular\_BlinnPhong( directLight, geometry, material.specularColor, material.specularShininess ) \* material.specularStrength;\n}\nvoid RE\_IndirectDiffuse\_BlinnPhong( const in vec3 irradiance, const in GeometricContext geometry, const in BlinnPhongMaterial material, inout ReflectedLight reflectedLight ) {\n\treflectedLight.indirectDiffuse += irradiance \* BRDF\_Diffuse\_Lambert( material.diffuseColor );\n}\n#define RE\_Direct\t\t\t\tRE\_Direct\_BlinnPhong\n#define RE\_IndirectDiffuse\t\tRE\_IndirectDiffuse\_BlinnPhong\n#define Material\_LightProbeLOD( material )\t(0)",  
lights\_physical\_fragment:"PhysicalMaterial material;\nmaterial.diffuseColor = diffuseColor.rgb \* ( 1.0 - metalnessFactor );\nvec3 dxy = max( abs( dFdx( geometryNormal ) ), abs( dFdy( geometryNormal ) ) );\nfloat geometryRoughness = max( max( dxy.x, dxy.y ), dxy.z );\nmaterial.specularRoughness = max( roughnessFactor, 0.0525 );material.specularRoughness += geometryRoughness;\nmaterial.specularRoughness = min( material.specularRoughness, 1.0 );\n#ifdef REFLECTIVITY\n\tmaterial.specularColor = mix( vec3( MAXIMUM\_SPECULAR\_COEFFICIENT \* pow2( reflectivity ) ), diffuseColor.rgb, metalnessFactor );\n#else\n\tmaterial.specularColor = mix( vec3( DEFAULT\_SPECULAR\_COEFFICIENT ), diffuseColor.rgb, metalnessFactor );\n#endif\n#ifdef CLEARCOAT\n\tmaterial.clearcoat = clearcoat;\n\tmaterial.clearcoatRoughness = clearcoatRoughness;\n\t#ifdef USE\_CLEARCOATMAP\n\t\tmaterial.clearcoat \*= texture2D( clearcoatMap, vUv ).x;\n\t#endif\n\t#ifdef USE\_CLEARCOAT\_ROUGHNESSMAP\n\t\tmaterial.clearcoatRoughness \*= texture2D( clearcoatRoughnessMap, vUv ).y;\n\t#endif\n\tmaterial.clearcoat = saturate( material.clearcoat );\tmaterial.clearcoatRoughness = max( material.clearcoatRoughness, 0.0525 );\n\tmaterial.clearcoatRoughness += geometryRoughness;\n\tmaterial.clearcoatRoughness = min( material.clearcoatRoughness, 1.0 );\n#endif\n#ifdef USE\_SHEEN\n\tmaterial.sheenColor = sheen;\n#endif",  
lights\_physical\_pars\_fragment:"struct PhysicalMaterial {\n\tvec3\tdiffuseColor;\n\tfloat\tspecularRoughness;\n\tvec3\tspecularColor;\n#ifdef CLEARCOAT\n\tfloat clearcoat;\n\tfloat clearcoatRoughness;\n#endif\n#ifdef USE\_SHEEN\n\tvec3 sheenColor;\n#endif\n};\n#define MAXIMUM\_SPECULAR\_COEFFICIENT 0.16\n#define DEFAULT\_SPECULAR\_COEFFICIENT 0.04\nfloat clearcoatDHRApprox( const in float roughness, const in float dotNL ) {\n\treturn DEFAULT\_SPECULAR\_COEFFICIENT + ( 1.0 - DEFAULT\_SPECULAR\_COEFFICIENT ) \* ( pow( 1.0 - dotNL, 5.0 ) \* pow( 1.0 - roughness, 2.0 ) );\n}\n#if NUM\_RECT\_AREA\_LIGHTS > 0\n\tvoid RE\_Direct\_RectArea\_Physical( const in RectAreaLight rectAreaLight, const in GeometricContext geometry, const in PhysicalMaterial material, inout ReflectedLight reflectedLight ) {\n\t\tvec3 normal = geometry.normal;\n\t\tvec3 viewDir = geometry.viewDir;\n\t\tvec3 position = geometry.position;\n\t\tvec3 lightPos = rectAreaLight.position;\n\t\tvec3 halfWidth = rectAreaLight.halfWidth;\n\t\tvec3 halfHeight = rectAreaLight.halfHeight;\n\t\tvec3 lightColor = rectAreaLight.color;\n\t\tfloat roughness = material.specularRoughness;\n\t\tvec3 rectCoords[ 4 ];\n\t\trectCoords[ 0 ] = lightPos + halfWidth - halfHeight;\t\trectCoords[ 1 ] = lightPos - halfWidth - halfHeight;\n\t\trectCoords[ 2 ] = lightPos - halfWidth + halfHeight;\n\t\trectCoords[ 3 ] = lightPos + halfWidth + halfHeight;\n\t\tvec2 uv = LTC\_Uv( normal, viewDir, roughness );\n\t\tvec4 t1 = texture2D( ltc\_1, uv );\n\t\tvec4 t2 = texture2D( ltc\_2, uv );\n\t\tmat3 mInv = mat3(\n\t\t\tvec3( t1.x, 0, t1.y ),\n\t\t\tvec3( 0, 1, 0 ),\n\t\t\tvec3( t1.z, 0, t1.w )\n\t\t);\n\t\tvec3 fresnel = ( material.specularColor \* t2.x + ( vec3( 1.0 ) - material.specularColor ) \* t2.y );\n\t\treflectedLight.directSpecular += lightColor \* fresnel \* LTC\_Evaluate( normal, viewDir, position, mInv, rectCoords );\n\t\treflectedLight.directDiffuse += lightColor \* material.diffuseColor \* LTC\_Evaluate( normal, viewDir, position, mat3( 1.0 ), rectCoords );\n\t}\n#endif\nvoid RE\_Direct\_Physical( const in IncidentLight directLight, const in GeometricContext geometry, const in PhysicalMaterial material, inout ReflectedLight reflectedLight ) {\n\tfloat dotNL = saturate( dot( geometry.normal, directLight.direction ) );\n\tvec3 irradiance = dotNL \* directLight.color;\n\t#ifndef PHYSICALLY\_CORRECT\_LIGHTS\n\t\tirradiance \*= PI;\n\t#endif\n\t#ifdef CLEARCOAT\n\t\tfloat ccDotNL = saturate( dot( geometry.clearcoatNormal, directLight.direction ) );\n\t\tvec3 ccIrradiance = ccDotNL \* directLight.color;\n\t\t#ifndef PHYSICALLY\_CORRECT\_LIGHTS\n\t\t\tccIrradiance \*= PI;\n\t\t#endif\n\t\tfloat clearcoatDHR = material.clearcoat \* clearcoatDHRApprox( material.clearcoatRoughness, ccDotNL );\n\t\treflectedLight.directSpecular += ccIrradiance \* material.clearcoat \* BRDF\_Specular\_GGX( directLight, geometry.viewDir, geometry.clearcoatNormal, vec3( DEFAULT\_SPECULAR\_COEFFICIENT ), material.clearcoatRoughness );\n\t#else\n\t\tfloat clearcoatDHR = 0.0;\n\t#endif\n\t#ifdef USE\_SHEEN\n\t\treflectedLight.directSpecular += ( 1.0 - clearcoatDHR ) \* irradiance \* BRDF\_Specular\_Sheen(\n\t\t\tmaterial.specularRoughness,\n\t\t\tdirectLight.direction,\n\t\t\tgeometry,\n\t\t\tmaterial.sheenColor\n\t\t);\n\t#else\n\t\treflectedLight.directSpecular += ( 1.0 - clearcoatDHR ) \* irradiance \* BRDF\_Specular\_GGX( directLight, geometry.viewDir, geometry.normal, material.specularColor, material.specularRoughness);\n\t#endif\n\treflectedLight.directDiffuse += ( 1.0 - clearcoatDHR ) \* irradiance \* BRDF\_Diffuse\_Lambert( material.diffuseColor );\n}\nvoid RE\_IndirectDiffuse\_Physical( const in vec3 irradiance, const in GeometricContext geometry, const in PhysicalMaterial material, inout ReflectedLight reflectedLight ) {\n\treflectedLight.indirectDiffuse += irradiance \* BRDF\_Diffuse\_Lambert( material.diffuseColor );\n}\nvoid RE\_IndirectSpecular\_Physical( const in vec3 radiance, const in vec3 irradiance, const in vec3 clearcoatRadiance, const in GeometricContext geometry, const in PhysicalMaterial material, inout ReflectedLight reflectedLight) {\n\t#ifdef CLEARCOAT\n\t\tfloat ccDotNV = saturate( dot( geometry.clearcoatNormal, geometry.viewDir ) );\n\t\treflectedLight.indirectSpecular += clearcoatRadiance \* material.clearcoat \* BRDF\_Specular\_GGX\_Environment( geometry.viewDir, geometry.clearcoatNormal, vec3( DEFAULT\_SPECULAR\_COEFFICIENT ), material.clearcoatRoughness );\n\t\tfloat ccDotNL = ccDotNV;\n\t\tfloat clearcoatDHR = material.clearcoat \* clearcoatDHRApprox( material.clearcoatRoughness, ccDotNL );\n\t#else\n\t\tfloat clearcoatDHR = 0.0;\n\t#endif\n\tfloat clearcoatInv = 1.0 - clearcoatDHR;\n\tvec3 singleScattering = vec3( 0.0 );\n\tvec3 multiScattering = vec3( 0.0 );\n\tvec3 cosineWeightedIrradiance = irradiance \* RECIPROCAL\_PI;\n\tBRDF\_Specular\_Multiscattering\_Environment( geometry, material.specularColor, material.specularRoughness, singleScattering, multiScattering );\n\tvec3 diffuse = material.diffuseColor \* ( 1.0 - ( singleScattering + multiScattering ) );\n\treflectedLight.indirectSpecular += clearcoatInv \* radiance \* singleScattering;\n\treflectedLight.indirectSpecular += multiScattering \* cosineWeightedIrradiance;\n\treflectedLight.indirectDiffuse += diffuse \* cosineWeightedIrradiance;\n}\n#define RE\_Direct\t\t\t\tRE\_Direct\_Physical\n#define RE\_Direct\_RectArea\t\tRE\_Direct\_RectArea\_Physical\n#define RE\_IndirectDiffuse\t\tRE\_IndirectDiffuse\_Physical\n#define RE\_IndirectSpecular\t\tRE\_IndirectSpecular\_Physical\nfloat computeSpecularOcclusion( const in float dotNV, const in float ambientOcclusion, const in float roughness ) {\n\treturn saturate( pow( dotNV + ambientOcclusion, exp2( - 16.0 \* roughness - 1.0 ) ) - 1.0 + ambientOcclusion );\n}",  
lights\_fragment\_begin:"\nGeometricContext geometry;\ngeometry.position = - vViewPosition;\ngeometry.normal = normal;\ngeometry.viewDir = ( isOrthographic ) ? vec3( 0, 0, 1 ) : normalize( vViewPosition );\n#ifdef CLEARCOAT\n\tgeometry.clearcoatNormal = clearcoatNormal;\n#endif\nIncidentLight directLight;\n#if ( NUM\_POINT\_LIGHTS > 0 ) && defined( RE\_Direct )\n\tPointLight pointLight;\n\t#if defined( USE\_SHADOWMAP ) && NUM\_POINT\_LIGHT\_SHADOWS > 0\n\tPointLightShadow pointLightShadow;\n\t#endif\n\t#pragma unroll\_loop\_start\n\tfor ( int i = 0; i < NUM\_POINT\_LIGHTS; i ++ ) {\n\t\tpointLight = pointLights[ i ];\n\t\tgetPointDirectLightIrradiance( pointLight, geometry, directLight );\n\t\t#if defined( USE\_SHADOWMAP ) && ( UNROLLED\_LOOP\_INDEX < NUM\_POINT\_LIGHT\_SHADOWS )\n\t\tpointLightShadow = pointLightShadows[ i ];\n\t\tdirectLight.color \*= all( bvec2( directLight.visible, receiveShadow ) ) ? getPointShadow( pointShadowMap[ i ], pointLightShadow.shadowMapSize, pointLightShadow.shadowBias, pointLightShadow.shadowRadius, vPointShadowCoord[ i ], pointLightShadow.shadowCameraNear, pointLightShadow.shadowCameraFar ) : 1.0;\n\t\t#endif\n\t\tRE\_Direct( directLight, geometry, material, reflectedLight );\n\t}\n\t#pragma unroll\_loop\_end\n#endif\n#if ( NUM\_SPOT\_LIGHTS > 0 ) && defined( RE\_Direct )\n\tSpotLight spotLight;\n\t#if defined( USE\_SHADOWMAP ) && NUM\_SPOT\_LIGHT\_SHADOWS > 0\n\tSpotLightShadow spotLightShadow;\n\t#endif\n\t#pragma unroll\_loop\_start\n\tfor ( int i = 0; i < NUM\_SPOT\_LIGHTS; i ++ ) {\n\t\tspotLight = spotLights[ i ];\n\t\tgetSpotDirectLightIrradiance( spotLight, geometry, directLight );\n\t\t#if defined( USE\_SHADOWMAP ) && ( UNROLLED\_LOOP\_INDEX < NUM\_SPOT\_LIGHT\_SHADOWS )\n\t\tspotLightShadow = spotLightShadows[ i ];\n\t\tdirectLight.color \*= all( bvec2( directLight.visible, receiveShadow ) ) ? getShadow( spotShadowMap[ i ], spotLightShadow.shadowMapSize, spotLightShadow.shadowBias, spotLightShadow.shadowRadius, vSpotShadowCoord[ i ] ) : 1.0;\n\t\t#endif\n\t\tRE\_Direct( directLight, geometry, material, reflectedLight );\n\t}\n\t#pragma unroll\_loop\_end\n#endif\n#if ( NUM\_DIR\_LIGHTS > 0 ) && defined( RE\_Direct )\n\tDirectionalLight directionalLight;\n\t#if defined( USE\_SHADOWMAP ) && NUM\_DIR\_LIGHT\_SHADOWS > 0\n\tDirectionalLightShadow directionalLightShadow;\n\t#endif\n\t#pragma unroll\_loop\_start\n\tfor ( int i = 0; i < NUM\_DIR\_LIGHTS; i ++ ) {\n\t\tdirectionalLight = directionalLights[ i ];\n\t\tgetDirectionalDirectLightIrradiance( directionalLight, geometry, directLight );\n\t\t#if defined( USE\_SHADOWMAP ) && ( UNROLLED\_LOOP\_INDEX < NUM\_DIR\_LIGHT\_SHADOWS )\n\t\tdirectionalLightShadow = directionalLightShadows[ i ];\n\t\tdirectLight.color \*= all( bvec2( directLight.visible, receiveShadow ) ) ? getShadow( directionalShadowMap[ i ], directionalLightShadow.shadowMapSize, directionalLightShadow.shadowBias, directionalLightShadow.shadowRadius, vDirectionalShadowCoord[ i ] ) : 1.0;\n\t\t#endif\n\t\tRE\_Direct( directLight, geometry, material, reflectedLight );\n\t}\n\t#pragma unroll\_loop\_end\n#endif\n#if ( NUM\_RECT\_AREA\_LIGHTS > 0 ) && defined( RE\_Direct\_RectArea )\n\tRectAreaLight rectAreaLight;\n\t#pragma unroll\_loop\_start\n\tfor ( int i = 0; i < NUM\_RECT\_AREA\_LIGHTS; i ++ ) {\n\t\trectAreaLight = rectAreaLights[ i ];\n\t\tRE\_Direct\_RectArea( rectAreaLight, geometry, material, reflectedLight );\n\t}\n\t#pragma unroll\_loop\_end\n#endif\n#if defined( RE\_IndirectDiffuse )\n\tvec3 iblIrradiance = vec3( 0.0 );\n\tvec3 irradiance = getAmbientLightIrradiance( ambientLightColor );\n\tirradiance += getLightProbeIrradiance( lightProbe, geometry );\n\t#if ( NUM\_HEMI\_LIGHTS > 0 )\n\t\t#pragma unroll\_loop\_start\n\t\tfor ( int i = 0; i < NUM\_HEMI\_LIGHTS; i ++ ) {\n\t\t\tirradiance += getHemisphereLightIrradiance( hemisphereLights[ i ], geometry );\n\t\t}\n\t\t#pragma unroll\_loop\_end\n\t#endif\n#endif\n#if defined( RE\_IndirectSpecular )\n\tvec3 radiance = vec3( 0.0 );\n\tvec3 clearcoatRadiance = vec3( 0.0 );\n#endif",  
lights\_fragment\_maps:"#if defined( RE\_IndirectDiffuse )\n\t#ifdef USE\_LIGHTMAP\n\t\tvec4 lightMapTexel= texture2D( lightMap, vUv2 );\n\t\tvec3 lightMapIrradiance = lightMapTexelToLinear( lightMapTexel ).rgb \* lightMapIntensity;\n\t\t#ifndef PHYSICALLY\_CORRECT\_LIGHTS\n\t\t\tlightMapIrradiance \*= PI;\n\t\t#endif\n\t\tirradiance += lightMapIrradiance;\n\t#endif\n\t#if defined( USE\_ENVMAP ) && defined( STANDARD ) && defined( ENVMAP\_TYPE\_CUBE\_UV )\n\t\tiblIrradiance += getLightProbeIndirectIrradiance( geometry, maxMipLevel );\n\t#endif\n#endif\n#if defined( USE\_ENVMAP ) && defined( RE\_IndirectSpecular )\n\tradiance += getLightProbeIndirectRadiance( geometry.viewDir, geometry.normal, material.specularRoughness, maxMipLevel );\n\t#ifdef CLEARCOAT\n\t\tclearcoatRadiance += getLightProbeIndirectRadiance( geometry.viewDir, geometry.clearcoatNormal, material.clearcoatRoughness, maxMipLevel );\n\t#endif\n#endif",  
lights\_fragment\_end:"#if defined( RE\_IndirectDiffuse )\n\tRE\_IndirectDiffuse( irradiance, geometry, material, reflectedLight );\n#endif\n#if defined( RE\_IndirectSpecular )\n\tRE\_IndirectSpecular( radiance, iblIrradiance, clearcoatRadiance, geometry, material, reflectedLight );\n#endif",logdepthbuf\_fragment:"#if defined( USE\_LOGDEPTHBUF ) && defined( USE\_LOGDEPTHBUF\_EXT )\n\tgl\_FragDepthEXT = vIsPerspective == 0.0 ? gl\_FragCoord.z : log2( vFragDepth ) \* logDepthBufFC \* 0.5;\n#endif",logdepthbuf\_pars\_fragment:"#if defined( USE\_LOGDEPTHBUF ) && defined( USE\_LOGDEPTHBUF\_EXT )\n\tuniform float logDepthBufFC;\n\tvarying float vFragDepth;\n\tvarying float vIsPerspective;\n#endif",  
logdepthbuf\_pars\_vertex:"#ifdef USE\_LOGDEPTHBUF\n\t#ifdef USE\_LOGDEPTHBUF\_EXT\n\t\tvarying float vFragDepth;\n\t\tvarying float vIsPerspective;\n\t#else\n\t\tuniform float logDepthBufFC;\n\t#endif\n#endif",logdepthbuf\_vertex:"#ifdef USE\_LOGDEPTHBUF\n\t#ifdef USE\_LOGDEPTHBUF\_EXT\n\t\tvFragDepth = 1.0 + gl\_Position.w;\n\t\tvIsPerspective = float( isPerspectiveMatrix( projectionMatrix ) );\n\t#else\n\t\tif ( isPerspectiveMatrix( projectionMatrix ) ) {\n\t\t\tgl\_Position.z = log2( max( EPSILON, gl\_Position.w + 1.0 ) ) \* logDepthBufFC - 1.0;\n\t\t\tgl\_Position.z \*= gl\_Position.w;\n\t\t}\n\t#endif\n#endif",  
map\_fragment:"#ifdef USE\_MAP\n\tvec4 texelColor = texture2D( map, vUv );\n\ttexelColor = mapTexelToLinear( texelColor );\n\tdiffuseColor \*= texelColor;\n#endif",map\_pars\_fragment:"#ifdef USE\_MAP\n\tuniform sampler2D map;\n#endif",map\_particle\_fragment:"#if defined( USE\_MAP ) || defined( USE\_ALPHAMAP )\n\tvec2 uv = ( uvTransform \* vec3( gl\_PointCoord.x, 1.0 - gl\_PointCoord.y, 1 ) ).xy;\n#endif\n#ifdef USE\_MAP\n\tvec4 mapTexel = texture2D( map, uv );\n\tdiffuseColor \*= mapTexelToLinear( mapTexel );\n#endif\n#ifdef USE\_ALPHAMAP\n\tdiffuseColor.a \*= texture2D( alphaMap, uv ).g;\n#endif",  
map\_particle\_pars\_fragment:"#if defined( USE\_MAP ) || defined( USE\_ALPHAMAP )\n\tuniform mat3 uvTransform;\n#endif\n#ifdef USE\_MAP\n\tuniform sampler2D map;\n#endif\n#ifdef USE\_ALPHAMAP\n\tuniform sampler2D alphaMap;\n#endif",metalnessmap\_fragment:"float metalnessFactor = metalness;\n#ifdef USE\_METALNESSMAP\n\tvec4 texelMetalness = texture2D( metalnessMap, vUv );\n\tmetalnessFactor \*= texelMetalness.b;\n#endif",metalnessmap\_pars\_fragment:"#ifdef USE\_METALNESSMAP\n\tuniform sampler2D metalnessMap;\n#endif",  
morphnormal\_vertex:"#ifdef USE\_MORPHNORMALS\n\tobjectNormal \*= morphTargetBaseInfluence;\n\tobjectNormal += morphNormal0 \* morphTargetInfluences[ 0 ];\n\tobjectNormal += morphNormal1 \* morphTargetInfluences[ 1 ];\n\tobjectNormal += morphNormal2 \* morphTargetInfluences[ 2 ];\n\tobjectNormal += morphNormal3 \* morphTargetInfluences[ 3 ];\n#endif",morphtarget\_pars\_vertex:"#ifdef USE\_MORPHTARGETS\n\tuniform float morphTargetBaseInfluence;\n\t#ifndef USE\_MORPHNORMALS\n\tuniform float morphTargetInfluences[ 8 ];\n\t#else\n\tuniform float morphTargetInfluences[ 4 ];\n\t#endif\n#endif",  
morphtarget\_vertex:"#ifdef USE\_MORPHTARGETS\n\ttransformed \*= morphTargetBaseInfluence;\n\ttransformed += morphTarget0 \* morphTargetInfluences[ 0 ];\n\ttransformed += morphTarget1 \* morphTargetInfluences[ 1 ];\n\ttransformed += morphTarget2 \* morphTargetInfluences[ 2 ];\n\ttransformed += morphTarget3 \* morphTargetInfluences[ 3 ];\n\t#ifndef USE\_MORPHNORMALS\n\ttransformed += morphTarget4 \* morphTargetInfluences[ 4 ];\n\ttransformed += morphTarget5 \* morphTargetInfluences[ 5 ];\n\ttransformed += morphTarget6 \* morphTargetInfluences[ 6 ];\n\ttransformed += morphTarget7 \* morphTargetInfluences[ 7 ];\n\t#endif\n#endif",  
normal\_fragment\_begin:"#ifdef FLAT\_SHADED\n\tvec3 fdx = vec3( dFdx( vViewPosition.x ), dFdx( vViewPosition.y ), dFdx( vViewPosition.z ) );\n\tvec3 fdy = vec3( dFdy( vViewPosition.x ), dFdy( vViewPosition.y ), dFdy( vViewPosition.z ) );\n\tvec3 normal = normalize( cross( fdx, fdy ) );\n#else\n\tvec3 normal = normalize( vNormal );\n\t#ifdef DOUBLE\_SIDED\n\t\tnormal = normal \* ( float( gl\_FrontFacing ) \* 2.0 - 1.0 );\n\t#endif\n\t#ifdef USE\_TANGENT\n\t\tvec3 tangent = normalize( vTangent );\n\t\tvec3 bitangent = normalize( vBitangent );\n\t\t#ifdef DOUBLE\_SIDED\n\t\t\ttangent = tangent \* ( float( gl\_FrontFacing ) \* 2.0 - 1.0 );\n\t\t\tbitangent = bitangent \* ( float( gl\_FrontFacing ) \* 2.0 - 1.0 );\n\t\t#endif\n\t\t#if defined( TANGENTSPACE\_NORMALMAP ) || defined( USE\_CLEARCOAT\_NORMALMAP )\n\t\t\tmat3 vTBN = mat3( tangent, bitangent, normal );\n\t\t#endif\n\t#endif\n#endif\nvec3 geometryNormal = normal;",  
normal\_fragment\_maps:"#ifdef OBJECTSPACE\_NORMALMAP\n\tnormal = texture2D( normalMap, vUv ).xyz \* 2.0 - 1.0;\n\t#ifdef FLIP\_SIDED\n\t\tnormal = - normal;\n\t#endif\n\t#ifdef DOUBLE\_SIDED\n\t\tnormal = normal \* ( float( gl\_FrontFacing ) \* 2.0 - 1.0 );\n\t#endif\n\tnormal = normalize( normalMatrix \* normal );\n#elif defined( TANGENTSPACE\_NORMALMAP )\n\tvec3 mapN = texture2D( normalMap, vUv ).xyz \* 2.0 - 1.0;\n\tmapN.xy \*= normalScale;\n\t#ifdef USE\_TANGENT\n\t\tnormal = normalize( vTBN \* mapN );\n\t#else\n\t\tnormal = perturbNormal2Arb( -vViewPosition, normal, mapN );\n\t#endif\n#elif defined( USE\_BUMPMAP )\n\tnormal = perturbNormalArb( -vViewPosition, normal, dHdxy\_fwd() );\n#endif",  
normalmap\_pars\_fragment:"#ifdef USE\_NORMALMAP\n\tuniform sampler2D normalMap;\n\tuniform vec2 normalScale;\n#endif\n#ifdef OBJECTSPACE\_NORMALMAP\n\tuniform mat3 normalMatrix;\n#endif\n#if ! defined ( USE\_TANGENT ) && ( defined ( TANGENTSPACE\_NORMALMAP ) || defined ( USE\_CLEARCOAT\_NORMALMAP ) )\n\tvec3 perturbNormal2Arb( vec3 eye\_pos, vec3 surf\_norm, vec3 mapN ) {\n\t\tvec3 q0 = vec3( dFdx( eye\_pos.x ), dFdx( eye\_pos.y ), dFdx( eye\_pos.z ) );\n\t\tvec3 q1 = vec3( dFdy( eye\_pos.x ), dFdy( eye\_pos.y ), dFdy( eye\_pos.z ) );\n\t\tvec2 st0 = dFdx( vUv.st );\n\t\tvec2 st1 = dFdy( vUv.st );\n\t\tfloat scale = sign( st1.t \* st0.s - st0.t \* st1.s );\n\t\tvec3 S = normalize( ( q0 \* st1.t - q1 \* st0.t ) \* scale );\n\t\tvec3 T = normalize( ( - q0 \* st1.s + q1 \* st0.s ) \* scale );\n\t\tvec3 N = normalize( surf\_norm );\n\t\tmat3 tsn = mat3( S, T, N );\n\t\tmapN.xy \*= ( float( gl\_FrontFacing ) \* 2.0 - 1.0 );\n\t\treturn normalize( tsn \* mapN );\n\t}\n#endif",  
clearcoat\_normal\_fragment\_begin:"#ifdef CLEARCOAT\n\tvec3 clearcoatNormal = geometryNormal;\n#endif",clearcoat\_normal\_fragment\_maps:"#ifdef USE\_CLEARCOAT\_NORMALMAP\n\tvec3 clearcoatMapN = texture2D( clearcoatNormalMap, vUv ).xyz \* 2.0 - 1.0;\n\tclearcoatMapN.xy \*= clearcoatNormalScale;\n\t#ifdef USE\_TANGENT\n\t\tclearcoatNormal = normalize( vTBN \* clearcoatMapN );\n\t#else\n\t\tclearcoatNormal = perturbNormal2Arb( - vViewPosition, clearcoatNormal, clearcoatMapN );\n\t#endif\n#endif",clearcoat\_pars\_fragment:"#ifdef USE\_CLEARCOATMAP\n\tuniform sampler2D clearcoatMap;\n#endif\n#ifdef USE\_CLEARCOAT\_ROUGHNESSMAP\n\tuniform sampler2D clearcoatRoughnessMap;\n#endif\n#ifdef USE\_CLEARCOAT\_NORMALMAP\n\tuniform sampler2D clearcoatNormalMap;\n\tuniform vec2 clearcoatNormalScale;\n#endif",  
packing:"vec3 packNormalToRGB( const in vec3 normal ) {\n\treturn normalize( normal ) \* 0.5 + 0.5;\n}\nvec3 unpackRGBToNormal( const in vec3 rgb ) {\n\treturn 2.0 \* rgb.xyz - 1.0;\n}\nconst float PackUpscale = 256. / 255.;const float UnpackDownscale = 255. / 256.;\nconst vec3 PackFactors = vec3( 256. \* 256. \* 256., 256. \* 256., 256. );\nconst vec4 UnpackFactors = UnpackDownscale / vec4( PackFactors, 1. );\nconst float ShiftRight8 = 1. / 256.;\nvec4 packDepthToRGBA( const in float v ) {\n\tvec4 r = vec4( fract( v \* PackFactors ), v );\n\tr.yzw -= r.xyz \* ShiftRight8;\treturn r \* PackUpscale;\n}\nfloat unpackRGBAToDepth( const in vec4 v ) {\n\treturn dot( v, UnpackFactors );\n}\nvec4 pack2HalfToRGBA( vec2 v ) {\n\tvec4 r = vec4( v.x, fract( v.x \* 255.0 ), v.y, fract( v.y \* 255.0 ));\n\treturn vec4( r.x - r.y / 255.0, r.y, r.z - r.w / 255.0, r.w);\n}\nvec2 unpackRGBATo2Half( vec4 v ) {\n\treturn vec2( v.x + ( v.y / 255.0 ), v.z + ( v.w / 255.0 ) );\n}\nfloat viewZToOrthographicDepth( const in float viewZ, const in float near, const in float far ) {\n\treturn ( viewZ + near ) / ( near - far );\n}\nfloat orthographicDepthToViewZ( const in float linearClipZ, const in float near, const in float far ) {\n\treturn linearClipZ \* ( near - far ) - near;\n}\nfloat viewZToPerspectiveDepth( const in float viewZ, const in float near, const in float far ) {\n\treturn (( near + viewZ ) \* far ) / (( far - near ) \* viewZ );\n}\nfloat perspectiveDepthToViewZ( const in float invClipZ, const in float near, const in float far ) {\n\treturn ( near \* far ) / ( ( far - near ) \* invClipZ - far );\n}",  
premultiplied\_alpha\_fragment:"#ifdef PREMULTIPLIED\_ALPHA\n\tgl\_FragColor.rgb \*= gl\_FragColor.a;\n#endif",project\_vertex:"vec4 mvPosition = vec4( transformed, 1.0 );\n#ifdef USE\_INSTANCING\n\tmvPosition = instanceMatrix \* mvPosition;\n#endif\nmvPosition = modelViewMatrix \* mvPosition;\ngl\_Position = projectionMatrix \* mvPosition;",dithering\_fragment:"#ifdef DITHERING\n\tgl\_FragColor.rgb = dithering( gl\_FragColor.rgb );\n#endif",dithering\_pars\_fragment:"#ifdef DITHERING\n\tvec3 dithering( vec3 color ) {\n\t\tfloat grid\_position = rand( gl\_FragCoord.xy );\n\t\tvec3 dither\_shift\_RGB = vec3( 0.25 / 255.0, -0.25 / 255.0, 0.25 / 255.0 );\n\t\tdither\_shift\_RGB = mix( 2.0 \* dither\_shift\_RGB, -2.0 \* dither\_shift\_RGB, grid\_position );\n\t\treturn color + dither\_shift\_RGB;\n\t}\n#endif",  
roughnessmap\_fragment:"float roughnessFactor = roughness;\n#ifdef USE\_ROUGHNESSMAP\n\tvec4 texelRoughness = texture2D( roughnessMap, vUv );\n\troughnessFactor \*= texelRoughness.g;\n#endif",roughnessmap\_pars\_fragment:"#ifdef USE\_ROUGHNESSMAP\n\tuniform sampler2D roughnessMap;\n#endif",shadowmap\_pars\_fragment:"#ifdef USE\_SHADOWMAP\n\t#if NUM\_DIR\_LIGHT\_SHADOWS > 0\n\t\tuniform sampler2D directionalShadowMap[ NUM\_DIR\_LIGHT\_SHADOWS ];\n\t\tvarying vec4 vDirectionalShadowCoord[ NUM\_DIR\_LIGHT\_SHADOWS ];\n\t#endif\n\t#if NUM\_SPOT\_LIGHT\_SHADOWS > 0\n\t\tuniform sampler2D spotShadowMap[ NUM\_SPOT\_LIGHT\_SHADOWS ];\n\t\tvarying vec4 vSpotShadowCoord[ NUM\_SPOT\_LIGHT\_SHADOWS ];\n\t#endif\n\t#if NUM\_POINT\_LIGHT\_SHADOWS > 0\n\t\tuniform sampler2D pointShadowMap[ NUM\_POINT\_LIGHT\_SHADOWS ];\n\t\tvarying vec4 vPointShadowCoord[ NUM\_POINT\_LIGHT\_SHADOWS ];\n\t#endif\n\tfloat texture2DCompare( sampler2D depths, vec2 uv, float compare ) {\n\t\treturn step( compare, unpackRGBAToDepth( texture2D( depths, uv ) ) );\n\t}\n\tvec2 texture2DDistribution( sampler2D shadow, vec2 uv ) {\n\t\treturn unpackRGBATo2Half( texture2D( shadow, uv ) );\n\t}\n\tfloat VSMShadow (sampler2D shadow, vec2 uv, float compare ){\n\t\tfloat occlusion = 1.0;\n\t\tvec2 distribution = texture2DDistribution( shadow, uv );\n\t\tfloat hard\_shadow = step( compare , distribution.x );\n\t\tif (hard\_shadow != 1.0 ) {\n\t\t\tfloat distance = compare - distribution.x ;\n\t\t\tfloat variance = max( 0.00000, distribution.y \* distribution.y );\n\t\t\tfloat softness\_probability = variance / (variance + distance \* distance );\t\t\tsoftness\_probability = clamp( ( softness\_probability - 0.3 ) / ( 0.95 - 0.3 ), 0.0, 1.0 );\t\t\tocclusion = clamp( max( hard\_shadow, softness\_probability ), 0.0, 1.0 );\n\t\t}\n\t\treturn occlusion;\n\t}\n\tfloat getShadow( sampler2D shadowMap, vec2 shadowMapSize, float shadowBias, float shadowRadius, vec4 shadowCoord ) {\n\t\tfloat shadow = 1.0;\n\t\tshadowCoord.xyz /= shadowCoord.w;\n\t\tshadowCoord.z += shadowBias;\n\t\tbvec4 inFrustumVec = bvec4 ( shadowCoord.x >= 0.0, shadowCoord.x <= 1.0, shadowCoord.y >= 0.0, shadowCoord.y <= 1.0 );\n\t\tbool inFrustum = all( inFrustumVec );\n\t\tbvec2 frustumTestVec = bvec2( inFrustum, shadowCoord.z <= 1.0 );\n\t\tbool frustumTest = all( frustumTestVec );\n\t\tif ( frustumTest ) {\n\t\t#if defined( SHADOWMAP\_TYPE\_PCF )\n\t\t\tvec2 texelSize = vec2( 1.0 ) / shadowMapSize;\n\t\t\tfloat dx0 = - texelSize.x \* shadowRadius;\n\t\t\tfloat dy0 = - texelSize.y \* shadowRadius;\n\t\t\tfloat dx1 = + texelSize.x \* shadowRadius;\n\t\t\tfloat dy1 = + texelSize.y \* shadowRadius;\n\t\t\tfloat dx2 = dx0 / 2.0;\n\t\t\tfloat dy2 = dy0 / 2.0;\n\t\t\tfloat dx3 = dx1 / 2.0;\n\t\t\tfloat dy3 = dy1 / 2.0;\n\t\t\tshadow = (\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy + vec2( dx0, dy0 ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy + vec2( 0.0, dy0 ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy + vec2( dx1, dy0 ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy + vec2( dx2, dy2 ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy + vec2( 0.0, dy2 ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy + vec2( dx3, dy2 ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy + vec2( dx0, 0.0 ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy + vec2( dx2, 0.0 ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy, shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy + vec2( dx3, 0.0 ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy + vec2( dx1, 0.0 ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy + vec2( dx2, dy3 ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy + vec2( 0.0, dy3 ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy + vec2( dx3, dy3 ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy + vec2( dx0, dy1 ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy + vec2( 0.0, dy1 ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, shadowCoord.xy + vec2( dx1, dy1 ), shadowCoord.z )\n\t\t\t) \* ( 1.0 / 17.0 );\n\t\t#elif defined( SHADOWMAP\_TYPE\_PCF\_SOFT )\n\t\t\tvec2 texelSize = vec2( 1.0 ) / shadowMapSize;\n\t\t\tfloat dx = texelSize.x;\n\t\t\tfloat dy = texelSize.y;\n\t\t\tvec2 uv = shadowCoord.xy;\n\t\t\tvec2 f = fract( uv \* shadowMapSize + 0.5 );\n\t\t\tuv -= f \* texelSize;\n\t\t\tshadow = (\n\t\t\t\ttexture2DCompare( shadowMap, uv, shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, uv + vec2( dx, 0.0 ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, uv + vec2( 0.0, dy ), shadowCoord.z ) +\n\t\t\t\ttexture2DCompare( shadowMap, uv + texelSize, shadowCoord.z ) +\n\t\t\t\tmix( texture2DCompare( shadowMap, uv + vec2( -dx, 0.0 ), shadowCoord.z ), \n\t\t\t\t\t texture2DCompare( shadowMap, uv + vec2( 2.0 \* dx, 0.0 ), shadowCoord.z ),\n\t\t\t\t\t f.x ) +\n\t\t\t\tmix( texture2DCompare( shadowMap, uv + vec2( -dx, dy ), shadowCoord.z ), \n\t\t\t\t\t texture2DCompare( shadowMap, uv + vec2( 2.0 \* dx, dy ), shadowCoord.z ),\n\t\t\t\t\t f.x ) +\n\t\t\t\tmix( texture2DCompare( shadowMap, uv + vec2( 0.0, -dy ), shadowCoord.z ), \n\t\t\t\t\t texture2DCompare( shadowMap, uv + vec2( 0.0, 2.0 \* dy ), shadowCoord.z ),\n\t\t\t\t\t f.y ) +\n\t\t\t\tmix( texture2DCompare( shadowMap, uv + vec2( dx, -dy ), shadowCoord.z ), \n\t\t\t\t\t texture2DCompare( shadowMap, uv + vec2( dx, 2.0 \* dy ), shadowCoord.z ),\n\t\t\t\t\t f.y ) +\n\t\t\t\tmix( mix( texture2DCompare( shadowMap, uv + vec2( -dx, -dy ), shadowCoord.z ), \n\t\t\t\t\t\t texture2DCompare( shadowMap, uv + vec2( 2.0 \* dx, -dy ), shadowCoord.z ),\n\t\t\t\t\t\t f.x ),\n\t\t\t\t\t mix( texture2DCompare( shadowMap, uv + vec2( -dx, 2.0 \* dy ), shadowCoord.z ), \n\t\t\t\t\t\t texture2DCompare( shadowMap, uv + vec2( 2.0 \* dx, 2.0 \* dy ), shadowCoord.z ),\n\t\t\t\t\t\t f.x ),\n\t\t\t\t\t f.y )\n\t\t\t) \* ( 1.0 / 9.0 );\n\t\t#elif defined( SHADOWMAP\_TYPE\_VSM )\n\t\t\tshadow = VSMShadow( shadowMap, shadowCoord.xy, shadowCoord.z );\n\t\t#else\n\t\t\tshadow = texture2DCompare( shadowMap, shadowCoord.xy, shadowCoord.z );\n\t\t#endif\n\t\t}\n\t\treturn shadow;\n\t}\n\tvec2 cubeToUV( vec3 v, float texelSizeY ) {\n\t\tvec3 absV = abs( v );\n\t\tfloat scaleToCube = 1.0 / max( absV.x, max( absV.y, absV.z ) );\n\t\tabsV \*= scaleToCube;\n\t\tv \*= scaleToCube \* ( 1.0 - 2.0 \* texelSizeY );\n\t\tvec2 planar = v.xy;\n\t\tfloat almostATexel = 1.5 \* texelSizeY;\n\t\tfloat almostOne = 1.0 - almostATexel;\n\t\tif ( absV.z >= almostOne ) {\n\t\t\tif ( v.z > 0.0 )\n\t\t\t\tplanar.x = 4.0 - v.x;\n\t\t} else if ( absV.x >= almostOne ) {\n\t\t\tfloat signX = sign( v.x );\n\t\t\tplanar.x = v.z \* signX + 2.0 \* signX;\n\t\t} else if ( absV.y >= almostOne ) {\n\t\t\tfloat signY = sign( v.y );\n\t\t\tplanar.x = v.x + 2.0 \* signY + 2.0;\n\t\t\tplanar.y = v.z \* signY - 2.0;\n\t\t}\n\t\treturn vec2( 0.125, 0.25 ) \* planar + vec2( 0.375, 0.75 );\n\t}\n\tfloat getPointShadow( sampler2D shadowMap, vec2 shadowMapSize, float shadowBias, float shadowRadius, vec4 shadowCoord, float shadowCameraNear, float shadowCameraFar ) {\n\t\tvec2 texelSize = vec2( 1.0 ) / ( shadowMapSize \* vec2( 4.0, 2.0 ) );\n\t\tvec3 lightToPosition = shadowCoord.xyz;\n\t\tfloat dp = ( length( lightToPosition ) - shadowCameraNear ) / ( shadowCameraFar - shadowCameraNear );\t\tdp += shadowBias;\n\t\tvec3 bd3D = normalize( lightToPosition );\n\t\t#if defined( SHADOWMAP\_TYPE\_PCF ) || defined( SHADOWMAP\_TYPE\_PCF\_SOFT ) || defined( SHADOWMAP\_TYPE\_VSM )\n\t\t\tvec2 offset = vec2( - 1, 1 ) \* shadowRadius \* texelSize.y;\n\t\t\treturn (\n\t\t\t\ttexture2DCompare( shadowMap, cubeToUV( bd3D + offset.xyy, texelSize.y ), dp ) +\n\t\t\t\ttexture2DCompare( shadowMap, cubeToUV( bd3D + offset.yyy, texelSize.y ), dp ) +\n\t\t\t\ttexture2DCompare( shadowMap, cubeToUV( bd3D + offset.xyx, texelSize.y ), dp ) +\n\t\t\t\ttexture2DCompare( shadowMap, cubeToUV( bd3D + offset.yyx, texelSize.y ), dp ) +\n\t\t\t\ttexture2DCompare( shadowMap, cubeToUV( bd3D, texelSize.y ), dp ) +\n\t\t\t\ttexture2DCompare( shadowMap, cubeToUV( bd3D + offset.xxy, texelSize.y ), dp ) +\n\t\t\t\ttexture2DCompare( shadowMap, cubeToUV( bd3D + offset.yxy, texelSize.y ), dp ) +\n\t\t\t\ttexture2DCompare( shadowMap, cubeToUV( bd3D + offset.xxx, texelSize.y ), dp ) +\n\t\t\t\ttexture2DCompare( shadowMap, cubeToUV( bd3D + offset.yxx, texelSize.y ), dp )\n\t\t\t) \* ( 1.0 / 9.0 );\n\t\t#else\n\t\t\treturn texture2DCompare( shadowMap, cubeToUV( bd3D, texelSize.y ), dp );\n\t\t#endif\n\t}\n#endif",  
shadowmap\_pars\_vertex:"#ifdef USE\_SHADOWMAP\n\t#if NUM\_DIR\_LIGHT\_SHADOWS > 0\n\t\tuniform mat4 directionalShadowMatrix[ NUM\_DIR\_LIGHT\_SHADOWS ];\n\t\tvarying vec4 vDirectionalShadowCoord[ NUM\_DIR\_LIGHT\_SHADOWS ];\n\t#endif\n\t#if NUM\_SPOT\_LIGHT\_SHADOWS > 0\n\t\tuniform mat4 spotShadowMatrix[ NUM\_SPOT\_LIGHT\_SHADOWS ];\n\t\tvarying vec4 vSpotShadowCoord[ NUM\_SPOT\_LIGHT\_SHADOWS ];\n\t#endif\n\t#if NUM\_POINT\_LIGHT\_SHADOWS > 0\n\t\tuniform mat4 pointShadowMatrix[ NUM\_POINT\_LIGHT\_SHADOWS ];\n\t\tvarying vec4 vPointShadowCoord[ NUM\_POINT\_LIGHT\_SHADOWS ];\n\t#endif\n#endif",  
shadowmap\_vertex:"#ifdef USE\_SHADOWMAP\n\t#if NUM\_DIR\_LIGHT\_SHADOWS > 0\n\t#pragma unroll\_loop\_start\n\tfor ( int i = 0; i < NUM\_DIR\_LIGHT\_SHADOWS; i ++ ) {\n\t\tvDirectionalShadowCoord[ i ] = directionalShadowMatrix[ i ] \* worldPosition;\n\t}\n\t#pragma unroll\_loop\_end\n\t#endif\n\t#if NUM\_SPOT\_LIGHT\_SHADOWS > 0\n\t#pragma unroll\_loop\_start\n\tfor ( int i = 0; i < NUM\_SPOT\_LIGHT\_SHADOWS; i ++ ) {\n\t\tvSpotShadowCoord[ i ] = spotShadowMatrix[ i ] \* worldPosition;\n\t}\n\t#pragma unroll\_loop\_end\n\t#endif\n\t#if NUM\_POINT\_LIGHT\_SHADOWS > 0\n\t#pragma unroll\_loop\_start\n\tfor ( int i = 0; i < NUM\_POINT\_LIGHT\_SHADOWS; i ++ ) {\n\t\tvPointShadowCoord[ i ] = pointShadowMatrix[ i ] \* worldPosition;\n\t}\n\t#pragma unroll\_loop\_end\n\t#endif\n#endif",  
shadowmask\_pars\_fragment:"float getShadowMask() {\n\tfloat shadow = 1.0;\n\t#ifdef USE\_SHADOWMAP\n\t#if NUM\_DIR\_LIGHT\_SHADOWS > 0\n\tDirectionalLightShadow directionalLight;\n\t#pragma unroll\_loop\_start\n\tfor ( int i = 0; i < NUM\_DIR\_LIGHT\_SHADOWS; i ++ ) {\n\t\tdirectionalLight = directionalLightShadows[ i ];\n\t\tshadow \*= receiveShadow ? getShadow( directionalShadowMap[ i ], directionalLight.shadowMapSize, directionalLight.shadowBias, directionalLight.shadowRadius, vDirectionalShadowCoord[ i ] ) : 1.0;\n\t}\n\t#pragma unroll\_loop\_end\n\t#endif\n\t#if NUM\_SPOT\_LIGHT\_SHADOWS > 0\n\tSpotLightShadow spotLight;\n\t#pragma unroll\_loop\_start\n\tfor ( int i = 0; i < NUM\_SPOT\_LIGHT\_SHADOWS; i ++ ) {\n\t\tspotLight = spotLightShadows[ i ];\n\t\tshadow \*= receiveShadow ? getShadow( spotShadowMap[ i ], spotLight.shadowMapSize, spotLight.shadowBias, spotLight.shadowRadius, vSpotShadowCoord[ i ] ) : 1.0;\n\t}\n\t#pragma unroll\_loop\_end\n\t#endif\n\t#if NUM\_POINT\_LIGHT\_SHADOWS > 0\n\tPointLightShadow pointLight;\n\t#pragma unroll\_loop\_start\n\tfor ( int i = 0; i < NUM\_POINT\_LIGHT\_SHADOWS; i ++ ) {\n\t\tpointLight = pointLightShadows[ i ];\n\t\tshadow \*= receiveShadow ? getPointShadow( pointShadowMap[ i ], pointLight.shadowMapSize, pointLight.shadowBias, pointLight.shadowRadius, vPointShadowCoord[ i ], pointLight.shadowCameraNear, pointLight.shadowCameraFar ) : 1.0;\n\t}\n\t#pragma unroll\_loop\_end\n\t#endif\n\t#endif\n\treturn shadow;\n}",  
skinbase\_vertex:"#ifdef USE\_SKINNING\n\tmat4 boneMatX = getBoneMatrix( skinIndex.x );\n\tmat4 boneMatY = getBoneMatrix( skinIndex.y );\n\tmat4 boneMatZ = getBoneMatrix( skinIndex.z );\n\tmat4 boneMatW = getBoneMatrix( skinIndex.w );\n#endif",skinning\_pars\_vertex:"#ifdef USE\_SKINNING\n\tuniform mat4 bindMatrix;\n\tuniform mat4 bindMatrixInverse;\n\t#ifdef BONE\_TEXTURE\n\t\tuniform highp sampler2D boneTexture;\n\t\tuniform int boneTextureSize;\n\t\tmat4 getBoneMatrix( const in float i ) {\n\t\t\tfloat j = i \* 4.0;\n\t\t\tfloat x = mod( j, float( boneTextureSize ) );\n\t\t\tfloat y = floor( j / float( boneTextureSize ) );\n\t\t\tfloat dx = 1.0 / float( boneTextureSize );\n\t\t\tfloat dy = 1.0 / float( boneTextureSize );\n\t\t\ty = dy \* ( y + 0.5 );\n\t\t\tvec4 v1 = texture2D( boneTexture, vec2( dx \* ( x + 0.5 ), y ) );\n\t\t\tvec4 v2 = texture2D( boneTexture, vec2( dx \* ( x + 1.5 ), y ) );\n\t\t\tvec4 v3 = texture2D( boneTexture, vec2( dx \* ( x + 2.5 ), y ) );\n\t\t\tvec4 v4 = texture2D( boneTexture, vec2( dx \* ( x + 3.5 ), y ) );\n\t\t\tmat4 bone = mat4( v1, v2, v3, v4 );\n\t\t\treturn bone;\n\t\t}\n\t#else\n\t\tuniform mat4 boneMatrices[ MAX\_BONES ];\n\t\tmat4 getBoneMatrix( const in float i ) {\n\t\t\tmat4 bone = boneMatrices[ int(i) ];\n\t\t\treturn bone;\n\t\t}\n\t#endif\n#endif",  
skinning\_vertex:"#ifdef USE\_SKINNING\n\tvec4 skinVertex = bindMatrix \* vec4( transformed, 1.0 );\n\tvec4 skinned = vec4( 0.0 );\n\tskinned += boneMatX \* skinVertex \* skinWeight.x;\n\tskinned += boneMatY \* skinVertex \* skinWeight.y;\n\tskinned += boneMatZ \* skinVertex \* skinWeight.z;\n\tskinned += boneMatW \* skinVertex \* skinWeight.w;\n\ttransformed = ( bindMatrixInverse \* skinned ).xyz;\n#endif",skinnormal\_vertex:"#ifdef USE\_SKINNING\n\tmat4 skinMatrix = mat4( 0.0 );\n\tskinMatrix += skinWeight.x \* boneMatX;\n\tskinMatrix += skinWeight.y \* boneMatY;\n\tskinMatrix += skinWeight.z \* boneMatZ;\n\tskinMatrix += skinWeight.w \* boneMatW;\n\tskinMatrix = bindMatrixInverse \* skinMatrix \* bindMatrix;\n\tobjectNormal = vec4( skinMatrix \* vec4( objectNormal, 0.0 ) ).xyz;\n\t#ifdef USE\_TANGENT\n\t\tobjectTangent = vec4( skinMatrix \* vec4( objectTangent, 0.0 ) ).xyz;\n\t#endif\n#endif",  
specularmap\_fragment:"float specularStrength;\n#ifdef USE\_SPECULARMAP\n\tvec4 texelSpecular = texture2D( specularMap, vUv );\n\tspecularStrength = texelSpecular.r;\n#else\n\tspecularStrength = 1.0;\n#endif",specularmap\_pars\_fragment:"#ifdef USE\_SPECULARMAP\n\tuniform sampler2D specularMap;\n#endif",tonemapping\_fragment:"#if defined( TONE\_MAPPING )\n\tgl\_FragColor.rgb = toneMapping( gl\_FragColor.rgb );\n#endif",tonemapping\_pars\_fragment:"#ifndef saturate\n#define saturate(a) clamp( a, 0.0, 1.0 )\n#endif\nuniform float toneMappingExposure;\nuniform float toneMappingWhitePoint;\nvec3 LinearToneMapping( vec3 color ) {\n\treturn toneMappingExposure \* color;\n}\nvec3 ReinhardToneMapping( vec3 color ) {\n\tcolor \*= toneMappingExposure;\n\treturn saturate( color / ( vec3( 1.0 ) + color ) );\n}\n#define Uncharted2Helper( x ) max( ( ( x \* ( 0.15 \* x + 0.10 \* 0.50 ) + 0.20 \* 0.02 ) / ( x \* ( 0.15 \* x + 0.50 ) + 0.20 \* 0.30 ) ) - 0.02 / 0.30, vec3( 0.0 ) )\nvec3 Uncharted2ToneMapping( vec3 color ) {\n\tcolor \*= toneMappingExposure;\n\treturn saturate( Uncharted2Helper( color ) / Uncharted2Helper( vec3( toneMappingWhitePoint ) ) );\n}\nvec3 OptimizedCineonToneMapping( vec3 color ) {\n\tcolor \*= toneMappingExposure;\n\tcolor = max( vec3( 0.0 ), color - 0.004 );\n\treturn pow( ( color \* ( 6.2 \* color + 0.5 ) ) / ( color \* ( 6.2 \* color + 1.7 ) + 0.06 ), vec3( 2.2 ) );\n}\nvec3 ACESFilmicToneMapping( vec3 color ) {\n\tcolor \*= toneMappingExposure;\n\treturn saturate( ( color \* ( 2.51 \* color + 0.03 ) ) / ( color \* ( 2.43 \* color + 0.59 ) + 0.14 ) );\n}",  
uv\_pars\_fragment:"#if ( defined( USE\_UV ) && ! defined( UVS\_VERTEX\_ONLY ) )\n\tvarying vec2 vUv;\n#endif",uv\_pars\_vertex:"#ifdef USE\_UV\n\t#ifdef UVS\_VERTEX\_ONLY\n\t\tvec2 vUv;\n\t#else\n\t\tvarying vec2 vUv;\n\t#endif\n\tuniform mat3 uvTransform;\n#endif",uv\_vertex:"#ifdef USE\_UV\n\tvUv = ( uvTransform \* vec3( uv, 1 ) ).xy;\n#endif",uv2\_pars\_fragment:"#if defined( USE\_LIGHTMAP ) || defined( USE\_AOMAP )\n\tvarying vec2 vUv2;\n#endif",uv2\_pars\_vertex:"#if defined( USE\_LIGHTMAP ) || defined( USE\_AOMAP )\n\tattribute vec2 uv2;\n\tvarying vec2 vUv2;\n\tuniform mat3 uv2Transform;\n#endif",  
uv2\_vertex:"#if defined( USE\_LIGHTMAP ) || defined( USE\_AOMAP )\n\tvUv2 = ( uv2Transform \* vec3( uv2, 1 ) ).xy;\n#endif",worldpos\_vertex:"#if defined( USE\_ENVMAP ) || defined( DISTANCE ) || defined ( USE\_SHADOWMAP )\n\tvec4 worldPosition = vec4( transformed, 1.0 );\n\t#ifdef USE\_INSTANCING\n\t\tworldPosition = instanceMatrix \* worldPosition;\n\t#endif\n\tworldPosition = modelMatrix \* worldPosition;\n#endif",background\_frag:"uniform sampler2D t2D;\nvarying vec2 vUv;\nvoid main() {\n\tvec4 texColor = texture2D( t2D, vUv );\n\tgl\_FragColor = mapTexelToLinear( texColor );\n\t#include <tonemapping\_fragment>\n\t#include <encodings\_fragment>\n}",  
background\_vert:"varying vec2 vUv;\nuniform mat3 uvTransform;\nvoid main() {\n\tvUv = ( uvTransform \* vec3( uv, 1 ) ).xy;\n\tgl\_Position = vec4( position.xy, 1.0, 1.0 );\n}",cube\_frag:"#include <envmap\_common\_pars\_fragment>\nuniform float opacity;\nvarying vec3 vWorldDirection;\n#include <cube\_uv\_reflection\_fragment>\nvoid main() {\n\tvec3 vReflect = vWorldDirection;\n\t#include <envmap\_fragment>\n\tgl\_FragColor = envColor;\n\tgl\_FragColor.a \*= opacity;\n\t#include <tonemapping\_fragment>\n\t#include <encodings\_fragment>\n}",  
cube\_vert:"varying vec3 vWorldDirection;\n#include <common>\nvoid main() {\n\tvWorldDirection = transformDirection( position, modelMatrix );\n\t#include <begin\_vertex>\n\t#include <project\_vertex>\n\tgl\_Position.z = gl\_Position.w;\n}",depth\_frag:"#if DEPTH\_PACKING == 3200\n\tuniform float opacity;\n#endif\n#include <common>\n#include <packing>\n#include <uv\_pars\_fragment>\n#include <map\_pars\_fragment>\n#include <alphamap\_pars\_fragment>\n#include <logdepthbuf\_pars\_fragment>\n#include <clipping\_planes\_pars\_fragment>\nvarying vec2 vHighPrecisionZW;\nvoid main() {\n\t#include <clipping\_planes\_fragment>\n\tvec4 diffuseColor = vec4( 1.0 );\n\t#if DEPTH\_PACKING == 3200\n\t\tdiffuseColor.a = opacity;\n\t#endif\n\t#include <map\_fragment>\n\t#include <alphamap\_fragment>\n\t#include <alphatest\_fragment>\n\t#include <logdepthbuf\_fragment>\n\tfloat fragCoordZ = 0.5 \* vHighPrecisionZW[0] / vHighPrecisionZW[1] + 0.5;\n\t#if DEPTH\_PACKING == 3200\n\t\tgl\_FragColor = vec4( vec3( 1.0 - fragCoordZ ), opacity );\n\t#elif DEPTH\_PACKING == 3201\n\t\tgl\_FragColor = packDepthToRGBA( fragCoordZ );\n\t#endif\n}",  
depth\_vert:"#include <common>\n#include <uv\_pars\_vertex>\n#include <displacementmap\_pars\_vertex>\n#include <morphtarget\_pars\_vertex>\n#include <skinning\_pars\_vertex>\n#include <logdepthbuf\_pars\_vertex>\n#include <clipping\_planes\_pars\_vertex>\nvarying vec2 vHighPrecisionZW;\nvoid main() {\n\t#include <uv\_vertex>\n\t#include <skinbase\_vertex>\n\t#ifdef USE\_DISPLACEMENTMAP\n\t\t#include <beginnormal\_vertex>\n\t\t#include <morphnormal\_vertex>\n\t\t#include <skinnormal\_vertex>\n\t#endif\n\t#include <begin\_vertex>\n\t#include <morphtarget\_vertex>\n\t#include <skinning\_vertex>\n\t#include <displacementmap\_vertex>\n\t#include <project\_vertex>\n\t#include <logdepthbuf\_vertex>\n\t#include <clipping\_planes\_vertex>\n\tvHighPrecisionZW = gl\_Position.zw;\n}",  
distanceRGBA\_frag:"#define DISTANCE\nuniform vec3 referencePosition;\nuniform float nearDistance;\nuniform float farDistance;\nvarying vec3 vWorldPosition;\n#include <common>\n#include <packing>\n#include <uv\_pars\_fragment>\n#include <map\_pars\_fragment>\n#include <alphamap\_pars\_fragment>\n#include <clipping\_planes\_pars\_fragment>\nvoid main () {\n\t#include <clipping\_planes\_fragment>\n\tvec4 diffuseColor = vec4( 1.0 );\n\t#include <map\_fragment>\n\t#include <alphamap\_fragment>\n\t#include <alphatest\_fragment>\n\tfloat dist = length( vWorldPosition - referencePosition );\n\tdist = ( dist - nearDistance ) / ( farDistance - nearDistance );\n\tdist = saturate( dist );\n\tgl\_FragColor = packDepthToRGBA( dist );\n}",  
distanceRGBA\_vert:"#define DISTANCE\nvarying vec3 vWorldPosition;\n#include <common>\n#include <uv\_pars\_vertex>\n#include <displacementmap\_pars\_vertex>\n#include <morphtarget\_pars\_vertex>\n#include <skinning\_pars\_vertex>\n#include <clipping\_planes\_pars\_vertex>\nvoid main() {\n\t#include <uv\_vertex>\n\t#include <skinbase\_vertex>\n\t#ifdef USE\_DISPLACEMENTMAP\n\t\t#include <beginnormal\_vertex>\n\t\t#include <morphnormal\_vertex>\n\t\t#include <skinnormal\_vertex>\n\t#endif\n\t#include <begin\_vertex>\n\t#include <morphtarget\_vertex>\n\t#include <skinning\_vertex>\n\t#include <displacementmap\_vertex>\n\t#include <project\_vertex>\n\t#include <worldpos\_vertex>\n\t#include <clipping\_planes\_vertex>\n\tvWorldPosition = worldPosition.xyz;\n}",  
equirect\_frag:"uniform sampler2D tEquirect;\nvarying vec3 vWorldDirection;\n#include <common>\nvoid main() {\n\tvec3 direction = normalize( vWorldDirection );\n\tvec2 sampleUV;\n\tsampleUV.y = asin( clamp( direction.y, - 1.0, 1.0 ) ) \* RECIPROCAL\_PI + 0.5;\n\tsampleUV.x = atan( direction.z, direction.x ) \* RECIPROCAL\_PI2 + 0.5;\n\tvec4 texColor = texture2D( tEquirect, sampleUV );\n\tgl\_FragColor = mapTexelToLinear( texColor );\n\t#include <tonemapping\_fragment>\n\t#include <encodings\_fragment>\n}",  
equirect\_vert:"varying vec3 vWorldDirection;\n#include <common>\nvoid main() {\n\tvWorldDirection = transformDirection( position, modelMatrix );\n\t#include <begin\_vertex>\n\t#include <project\_vertex>\n}",linedashed\_frag:"uniform vec3 diffuse;\nuniform float opacity;\nuniform float dashSize;\nuniform float totalSize;\nvarying float vLineDistance;\n#include <common>\n#include <color\_pars\_fragment>\n#include <fog\_pars\_fragment>\n#include <logdepthbuf\_pars\_fragment>\n#include <clipping\_planes\_pars\_fragment>\nvoid main() {\n\t#include <clipping\_planes\_fragment>\n\tif ( mod( vLineDistance, totalSize ) > dashSize ) {\n\t\tdiscard;\n\t}\n\tvec3 outgoingLight = vec3( 0.0 );\n\tvec4 diffuseColor = vec4( diffuse, opacity );\n\t#include <logdepthbuf\_fragment>\n\t#include <color\_fragment>\n\toutgoingLight = diffuseColor.rgb;\n\tgl\_FragColor = vec4( outgoingLight, diffuseColor.a );\n\t#include <tonemapping\_fragment>\n\t#include <encodings\_fragment>\n\t#include <fog\_fragment>\n\t#include <premultiplied\_alpha\_fragment>\n}",  
linedashed\_vert:"uniform float scale;\nattribute float lineDistance;\nvarying float vLineDistance;\n#include <common>\n#include <color\_pars\_vertex>\n#include <fog\_pars\_vertex>\n#include <logdepthbuf\_pars\_vertex>\n#include <clipping\_planes\_pars\_vertex>\nvoid main() {\n\tvLineDistance = scale \* lineDistance;\n\t#include <color\_vertex>\n\t#include <begin\_vertex>\n\t#include <project\_vertex>\n\t#include <logdepthbuf\_vertex>\n\t#include <clipping\_planes\_vertex>\n\t#include <fog\_vertex>\n}",meshbasic\_frag:"uniform vec3 diffuse;\nuniform float opacity;\n#ifndef FLAT\_SHADED\n\tvarying vec3 vNormal;\n#endif\n#include <common>\n#include <color\_pars\_fragment>\n#include <uv\_pars\_fragment>\n#include <uv2\_pars\_fragment>\n#include <map\_pars\_fragment>\n#include <alphamap\_pars\_fragment>\n#include <aomap\_pars\_fragment>\n#include <lightmap\_pars\_fragment>\n#include <envmap\_common\_pars\_fragment>\n#include <envmap\_pars\_fragment>\n#include <cube\_uv\_reflection\_fragment>\n#include <fog\_pars\_fragment>\n#include <specularmap\_pars\_fragment>\n#include <logdepthbuf\_pars\_fragment>\n#include <clipping\_planes\_pars\_fragment>\nvoid main() {\n\t#include <clipping\_planes\_fragment>\n\tvec4 diffuseColor = vec4( diffuse, opacity );\n\t#include <logdepthbuf\_fragment>\n\t#include <map\_fragment>\n\t#include <color\_fragment>\n\t#include <alphamap\_fragment>\n\t#include <alphatest\_fragment>\n\t#include <specularmap\_fragment>\n\tReflectedLight reflectedLight = ReflectedLight( vec3( 0.0 ), vec3( 0.0 ), vec3( 0.0 ), vec3( 0.0 ) );\n\t#ifdef USE\_LIGHTMAP\n\t\n\t\tvec4 lightMapTexel= texture2D( lightMap, vUv2 );\n\t\treflectedLight.indirectDiffuse += lightMapTexelToLinear( lightMapTexel ).rgb \* lightMapIntensity;\n\t#else\n\t\treflectedLight.indirectDiffuse += vec3( 1.0 );\n\t#endif\n\t#include <aomap\_fragment>\n\treflectedLight.indirectDiffuse \*= diffuseColor.rgb;\n\tvec3 outgoingLight = reflectedLight.indirectDiffuse;\n\t#include <envmap\_fragment>\n\tgl\_FragColor = vec4( outgoingLight, diffuseColor.a );\n\t#include <tonemapping\_fragment>\n\t#include <encodings\_fragment>\n\t#include <fog\_fragment>\n\t#include <premultiplied\_alpha\_fragment>\n}",  
meshbasic\_vert:"#include <common>\n#include <uv\_pars\_vertex>\n#include <uv2\_pars\_vertex>\n#include <envmap\_pars\_vertex>\n#include <color\_pars\_vertex>\n#include <fog\_pars\_vertex>\n#include <morphtarget\_pars\_vertex>\n#include <skinning\_pars\_vertex>\n#include <logdepthbuf\_pars\_vertex>\n#include <clipping\_planes\_pars\_vertex>\nvoid main() {\n\t#include <uv\_vertex>\n\t#include <uv2\_vertex>\n\t#include <color\_vertex>\n\t#include <skinbase\_vertex>\n\t#ifdef USE\_ENVMAP\n\t#include <beginnormal\_vertex>\n\t#include <morphnormal\_vertex>\n\t#include <skinnormal\_vertex>\n\t#include <defaultnormal\_vertex>\n\t#endif\n\t#include <begin\_vertex>\n\t#include <morphtarget\_vertex>\n\t#include <skinning\_vertex>\n\t#include <project\_vertex>\n\t#include <logdepthbuf\_vertex>\n\t#include <worldpos\_vertex>\n\t#include <clipping\_planes\_vertex>\n\t#include <envmap\_vertex>\n\t#include <fog\_vertex>\n}",  
meshlambert\_frag:"uniform vec3 diffuse;\nuniform vec3 emissive;\nuniform float opacity;\nvarying vec3 vLightFront;\nvarying vec3 vIndirectFront;\n#ifdef DOUBLE\_SIDED\n\tvarying vec3 vLightBack;\n\tvarying vec3 vIndirectBack;\n#endif\n#include <common>\n#include <packing>\n#include <dithering\_pars\_fragment>\n#include <color\_pars\_fragment>\n#include <uv\_pars\_fragment>\n#include <uv2\_pars\_fragment>\n#include <map\_pars\_fragment>\n#include <alphamap\_pars\_fragment>\n#include <aomap\_pars\_fragment>\n#include <lightmap\_pars\_fragment>\n#include <emissivemap\_pars\_fragment>\n#include <envmap\_common\_pars\_fragment>\n#include <envmap\_pars\_fragment>\n#include <cube\_uv\_reflection\_fragment>\n#include <bsdfs>\n#include <lights\_pars\_begin>\n#include <fog\_pars\_fragment>\n#include <shadowmap\_pars\_fragment>\n#include <shadowmask\_pars\_fragment>\n#include <specularmap\_pars\_fragment>\n#include <logdepthbuf\_pars\_fragment>\n#include <clipping\_planes\_pars\_fragment>\nvoid main() {\n\t#include <clipping\_planes\_fragment>\n\tvec4 diffuseColor = vec4( diffuse, opacity );\n\tReflectedLight reflectedLight = ReflectedLight( vec3( 0.0 ), vec3( 0.0 ), vec3( 0.0 ), vec3( 0.0 ) );\n\tvec3 totalEmissiveRadiance = emissive;\n\t#include <logdepthbuf\_fragment>\n\t#include <map\_fragment>\n\t#include <color\_fragment>\n\t#include <alphamap\_fragment>\n\t#include <alphatest\_fragment>\n\t#include <specularmap\_fragment>\n\t#include <emissivemap\_fragment>\n\treflectedLight.indirectDiffuse = getAmbientLightIrradiance( ambientLightColor );\n\t#ifdef DOUBLE\_SIDED\n\t\treflectedLight.indirectDiffuse += ( gl\_FrontFacing ) ? vIndirectFront : vIndirectBack;\n\t#else\n\t\treflectedLight.indirectDiffuse += vIndirectFront;\n\t#endif\n\t#include <lightmap\_fragment>\n\treflectedLight.indirectDiffuse \*= BRDF\_Diffuse\_Lambert( diffuseColor.rgb );\n\t#ifdef DOUBLE\_SIDED\n\t\treflectedLight.directDiffuse = ( gl\_FrontFacing ) ? vLightFront : vLightBack;\n\t#else\n\t\treflectedLight.directDiffuse = vLightFront;\n\t#endif\n\treflectedLight.directDiffuse \*= BRDF\_Diffuse\_Lambert( diffuseColor.rgb ) \* getShadowMask();\n\t#include <aomap\_fragment>\n\tvec3 outgoingLight = reflectedLight.directDiffuse + reflectedLight.indirectDiffuse + totalEmissiveRadiance;\n\t#include <envmap\_fragment>\n\tgl\_FragColor = vec4( outgoingLight, diffuseColor.a );\n\t#include <tonemapping\_fragment>\n\t#include <encodings\_fragment>\n\t#include <fog\_fragment>\n\t#include <premultiplied\_alpha\_fragment>\n\t#include <dithering\_fragment>\n}",  
meshlambert\_vert:"#define LAMBERT\nvarying vec3 vLightFront;\nvarying vec3 vIndirectFront;\n#ifdef DOUBLE\_SIDED\n\tvarying vec3 vLightBack;\n\tvarying vec3 vIndirectBack;\n#endif\n#include <common>\n#include <uv\_pars\_vertex>\n#include <uv2\_pars\_vertex>\n#include <envmap\_pars\_vertex>\n#include <bsdfs>\n#include <lights\_pars\_begin>\n#include <color\_pars\_vertex>\n#include <fog\_pars\_vertex>\n#include <morphtarget\_pars\_vertex>\n#include <skinning\_pars\_vertex>\n#include <shadowmap\_pars\_vertex>\n#include <logdepthbuf\_pars\_vertex>\n#include <clipping\_planes\_pars\_vertex>\nvoid main() {\n\t#include <uv\_vertex>\n\t#include <uv2\_vertex>\n\t#include <color\_vertex>\n\t#include <beginnormal\_vertex>\n\t#include <morphnormal\_vertex>\n\t#include <skinbase\_vertex>\n\t#include <skinnormal\_vertex>\n\t#include <defaultnormal\_vertex>\n\t#include <begin\_vertex>\n\t#include <morphtarget\_vertex>\n\t#include <skinning\_vertex>\n\t#include <project\_vertex>\n\t#include <logdepthbuf\_vertex>\n\t#include <clipping\_planes\_vertex>\n\t#include <worldpos\_vertex>\n\t#include <envmap\_vertex>\n\t#include <lights\_lambert\_vertex>\n\t#include <shadowmap\_vertex>\n\t#include <fog\_vertex>\n}",  
meshmatcap\_frag:"#define MATCAP\nuniform vec3 diffuse;\nuniform float opacity;\nuniform sampler2D matcap;\nvarying vec3 vViewPosition;\n#ifndef FLAT\_SHADED\n\tvarying vec3 vNormal;\n#endif\n#include <common>\n#include <color\_pars\_fragment>\n#include <uv\_pars\_fragment>\n#include <map\_pars\_fragment>\n#include <alphamap\_pars\_fragment>\n#include <fog\_pars\_fragment>\n#include <bumpmap\_pars\_fragment>\n#include <normalmap\_pars\_fragment>\n#include <logdepthbuf\_pars\_fragment>\n#include <clipping\_planes\_pars\_fragment>\nvoid main() {\n\t#include <clipping\_planes\_fragment>\n\tvec4 diffuseColor = vec4( diffuse, opacity );\n\t#include <logdepthbuf\_fragment>\n\t#include <map\_fragment>\n\t#include <color\_fragment>\n\t#include <alphamap\_fragment>\n\t#include <alphatest\_fragment>\n\t#include <normal\_fragment\_begin>\n\t#include <normal\_fragment\_maps>\n\tvec3 viewDir = normalize( vViewPosition );\n\tvec3 x = normalize( vec3( viewDir.z, 0.0, - viewDir.x ) );\n\tvec3 y = cross( viewDir, x );\n\tvec2 uv = vec2( dot( x, normal ), dot( y, normal ) ) \* 0.495 + 0.5;\n\t#ifdef USE\_MATCAP\n\t\tvec4 matcapColor = texture2D( matcap, uv );\n\t\tmatcapColor = matcapTexelToLinear( matcapColor );\n\t#else\n\t\tvec4 matcapColor = vec4( 1.0 );\n\t#endif\n\tvec3 outgoingLight = diffuseColor.rgb \* matcapColor.rgb;\n\tgl\_FragColor = vec4( outgoingLight, diffuseColor.a );\n\t#include <tonemapping\_fragment>\n\t#include <encodings\_fragment>\n\t#include <fog\_fragment>\n\t#include <premultiplied\_alpha\_fragment>\n}",  
meshmatcap\_vert:"#define MATCAP\nvarying vec3 vViewPosition;\n#ifndef FLAT\_SHADED\n\tvarying vec3 vNormal;\n#endif\n#include <common>\n#include <uv\_pars\_vertex>\n#include <color\_pars\_vertex>\n#include <displacementmap\_pars\_vertex>\n#include <fog\_pars\_vertex>\n#include <morphtarget\_pars\_vertex>\n#include <skinning\_pars\_vertex>\n#include <logdepthbuf\_pars\_vertex>\n#include <clipping\_planes\_pars\_vertex>\nvoid main() {\n\t#include <uv\_vertex>\n\t#include <color\_vertex>\n\t#include <beginnormal\_vertex>\n\t#include <morphnormal\_vertex>\n\t#include <skinbase\_vertex>\n\t#include <skinnormal\_vertex>\n\t#include <defaultnormal\_vertex>\n\t#ifndef FLAT\_SHADED\n\t\tvNormal = normalize( transformedNormal );\n\t#endif\n\t#include <begin\_vertex>\n\t#include <morphtarget\_vertex>\n\t#include <skinning\_vertex>\n\t#include <displacementmap\_vertex>\n\t#include <project\_vertex>\n\t#include <logdepthbuf\_vertex>\n\t#include <clipping\_planes\_vertex>\n\t#include <fog\_vertex>\n\tvViewPosition = - mvPosition.xyz;\n}",  
meshtoon\_frag:"#define TOON\nuniform vec3 diffuse;\nuniform vec3 emissive;\nuniform vec3 specular;\nuniform float shininess;\nuniform float opacity;\n#include <common>\n#include <packing>\n#include <dithering\_pars\_fragment>\n#include <color\_pars\_fragment>\n#include <uv\_pars\_fragment>\n#include <uv2\_pars\_fragment>\n#include <map\_pars\_fragment>\n#include <alphamap\_pars\_fragment>\n#include <aomap\_pars\_fragment>\n#include <lightmap\_pars\_fragment>\n#include <emissivemap\_pars\_fragment>\n#include <gradientmap\_pars\_fragment>\n#include <fog\_pars\_fragment>\n#include <bsdfs>\n#include <lights\_pars\_begin>\n#include <lights\_toon\_pars\_fragment>\n#include <shadowmap\_pars\_fragment>\n#include <bumpmap\_pars\_fragment>\n#include <normalmap\_pars\_fragment>\n#include <specularmap\_pars\_fragment>\n#include <logdepthbuf\_pars\_fragment>\n#include <clipping\_planes\_pars\_fragment>\nvoid main() {\n\t#include <clipping\_planes\_fragment>\n\tvec4 diffuseColor = vec4( diffuse, opacity );\n\tReflectedLight reflectedLight = ReflectedLight( vec3( 0.0 ), vec3( 0.0 ), vec3( 0.0 ), vec3( 0.0 ) );\n\tvec3 totalEmissiveRadiance = emissive;\n\t#include <logdepthbuf\_fragment>\n\t#include <map\_fragment>\n\t#include <color\_fragment>\n\t#include <alphamap\_fragment>\n\t#include <alphatest\_fragment>\n\t#include <specularmap\_fragment>\n\t#include <normal\_fragment\_begin>\n\t#include <normal\_fragment\_maps>\n\t#include <emissivemap\_fragment>\n\t#include <lights\_toon\_fragment>\n\t#include <lights\_fragment\_begin>\n\t#include <lights\_fragment\_maps>\n\t#include <lights\_fragment\_end>\n\t#include <aomap\_fragment>\n\tvec3 outgoingLight = reflectedLight.directDiffuse + reflectedLight.indirectDiffuse + reflectedLight.directSpecular + reflectedLight.indirectSpecular + totalEmissiveRadiance;\n\tgl\_FragColor = vec4( outgoingLight, diffuseColor.a );\n\t#include <tonemapping\_fragment>\n\t#include <encodings\_fragment>\n\t#include <fog\_fragment>\n\t#include <premultiplied\_alpha\_fragment>\n\t#include <dithering\_fragment>\n}",  
meshtoon\_vert:"#define TOON\nvarying vec3 vViewPosition;\n#ifndef FLAT\_SHADED\n\tvarying vec3 vNormal;\n#endif\n#include <common>\n#include <uv\_pars\_vertex>\n#include <uv2\_pars\_vertex>\n#include <displacementmap\_pars\_vertex>\n#include <color\_pars\_vertex>\n#include <fog\_pars\_vertex>\n#include <morphtarget\_pars\_vertex>\n#include <skinning\_pars\_vertex>\n#include <shadowmap\_pars\_vertex>\n#include <logdepthbuf\_pars\_vertex>\n#include <clipping\_planes\_pars\_vertex>\nvoid main() {\n\t#include <uv\_vertex>\n\t#include <uv2\_vertex>\n\t#include <color\_vertex>\n\t#include <beginnormal\_vertex>\n\t#include <morphnormal\_vertex>\n\t#include <skinbase\_vertex>\n\t#include <skinnormal\_vertex>\n\t#include <defaultnormal\_vertex>\n#ifndef FLAT\_SHADED\n\tvNormal = normalize( transformedNormal );\n#endif\n\t#include <begin\_vertex>\n\t#include <morphtarget\_vertex>\n\t#include <skinning\_vertex>\n\t#include <displacementmap\_vertex>\n\t#include <project\_vertex>\n\t#include <logdepthbuf\_vertex>\n\t#include <clipping\_planes\_vertex>\n\tvViewPosition = - mvPosition.xyz;\n\t#include <worldpos\_vertex>\n\t#include <shadowmap\_vertex>\n\t#include <fog\_vertex>\n}",  
meshphong\_frag:"#define PHONG\nuniform vec3 diffuse;\nuniform vec3 emissive;\nuniform vec3 specular;\nuniform float shininess;\nuniform float opacity;\n#include <common>\n#include <packing>\n#include <dithering\_pars\_fragment>\n#include <color\_pars\_fragment>\n#include <uv\_pars\_fragment>\n#include <uv2\_pars\_fragment>\n#include <map\_pars\_fragment>\n#include <alphamap\_pars\_fragment>\n#include <aomap\_pars\_fragment>\n#include <lightmap\_pars\_fragment>\n#include <emissivemap\_pars\_fragment>\n#include <envmap\_common\_pars\_fragment>\n#include <envmap\_pars\_fragment>\n#include <cube\_uv\_reflection\_fragment>\n#include <fog\_pars\_fragment>\n#include <bsdfs>\n#include <lights\_pars\_begin>\n#include <lights\_phong\_pars\_fragment>\n#include <shadowmap\_pars\_fragment>\n#include <bumpmap\_pars\_fragment>\n#include <normalmap\_pars\_fragment>\n#include <specularmap\_pars\_fragment>\n#include <logdepthbuf\_pars\_fragment>\n#include <clipping\_planes\_pars\_fragment>\nvoid main() {\n\t#include <clipping\_planes\_fragment>\n\tvec4 diffuseColor = vec4( diffuse, opacity );\n\tReflectedLight reflectedLight = ReflectedLight( vec3( 0.0 ), vec3( 0.0 ), vec3( 0.0 ), vec3( 0.0 ) );\n\tvec3 totalEmissiveRadiance = emissive;\n\t#include <logdepthbuf\_fragment>\n\t#include <map\_fragment>\n\t#include <color\_fragment>\n\t#include <alphamap\_fragment>\n\t#include <alphatest\_fragment>\n\t#include <specularmap\_fragment>\n\t#include <normal\_fragment\_begin>\n\t#include <normal\_fragment\_maps>\n\t#include <emissivemap\_fragment>\n\t#include <lights\_phong\_fragment>\n\t#include <lights\_fragment\_begin>\n\t#include <lights\_fragment\_maps>\n\t#include <lights\_fragment\_end>\n\t#include <aomap\_fragment>\n\tvec3 outgoingLight = reflectedLight.directDiffuse + reflectedLight.indirectDiffuse + reflectedLight.directSpecular + reflectedLight.indirectSpecular + totalEmissiveRadiance;\n\t#include <envmap\_fragment>\n\tgl\_FragColor = vec4( outgoingLight, diffuseColor.a );\n\t#include <tonemapping\_fragment>\n\t#include <encodings\_fragment>\n\t#include <fog\_fragment>\n\t#include <premultiplied\_alpha\_fragment>\n\t#include <dithering\_fragment>\n}",  
meshphong\_vert:"#define PHONG\nvarying vec3 vViewPosition;\n#ifndef FLAT\_SHADED\n\tvarying vec3 vNormal;\n#endif\n#include <common>\n#include <uv\_pars\_vertex>\n#include <uv2\_pars\_vertex>\n#include <displacementmap\_pars\_vertex>\n#include <envmap\_pars\_vertex>\n#include <color\_pars\_vertex>\n#include <fog\_pars\_vertex>\n#include <morphtarget\_pars\_vertex>\n#include <skinning\_pars\_vertex>\n#include <shadowmap\_pars\_vertex>\n#include <logdepthbuf\_pars\_vertex>\n#include <clipping\_planes\_pars\_vertex>\nvoid main() {\n\t#include <uv\_vertex>\n\t#include <uv2\_vertex>\n\t#include <color\_vertex>\n\t#include <beginnormal\_vertex>\n\t#include <morphnormal\_vertex>\n\t#include <skinbase\_vertex>\n\t#include <skinnormal\_vertex>\n\t#include <defaultnormal\_vertex>\n#ifndef FLAT\_SHADED\n\tvNormal = normalize( transformedNormal );\n#endif\n\t#include <begin\_vertex>\n\t#include <morphtarget\_vertex>\n\t#include <skinning\_vertex>\n\t#include <displacementmap\_vertex>\n\t#include <project\_vertex>\n\t#include <logdepthbuf\_vertex>\n\t#include <clipping\_planes\_vertex>\n\tvViewPosition = - mvPosition.xyz;\n\t#include <worldpos\_vertex>\n\t#include <envmap\_vertex>\n\t#include <shadowmap\_vertex>\n\t#include <fog\_vertex>\n}",  
meshphysical\_frag:"#define STANDARD\n#ifdef PHYSICAL\n\t#define REFLECTIVITY\n\t#define CLEARCOAT\n\t#define TRANSPARENCY\n#endif\nuniform vec3 diffuse;\nuniform vec3 emissive;\nuniform float roughness;\nuniform float metalness;\nuniform float opacity;\n#ifdef TRANSPARENCY\n\tuniform float transparency;\n#endif\n#ifdef REFLECTIVITY\n\tuniform float reflectivity;\n#endif\n#ifdef CLEARCOAT\n\tuniform float clearcoat;\n\tuniform float clearcoatRoughness;\n#endif\n#ifdef USE\_SHEEN\n\tuniform vec3 sheen;\n#endif\nvarying vec3 vViewPosition;\n#ifndef FLAT\_SHADED\n\tvarying vec3 vNormal;\n\t#ifdef USE\_TANGENT\n\t\tvarying vec3 vTangent;\n\t\tvarying vec3 vBitangent;\n\t#endif\n#endif\n#include <common>\n#include <packing>\n#include <dithering\_pars\_fragment>\n#include <color\_pars\_fragment>\n#include <uv\_pars\_fragment>\n#include <uv2\_pars\_fragment>\n#include <map\_pars\_fragment>\n#include <alphamap\_pars\_fragment>\n#include <aomap\_pars\_fragment>\n#include <lightmap\_pars\_fragment>\n#include <emissivemap\_pars\_fragment>\n#include <bsdfs>\n#include <cube\_uv\_reflection\_fragment>\n#include <envmap\_common\_pars\_fragment>\n#include <envmap\_physical\_pars\_fragment>\n#include <fog\_pars\_fragment>\n#include <lights\_pars\_begin>\n#include <lights\_physical\_pars\_fragment>\n#include <shadowmap\_pars\_fragment>\n#include <bumpmap\_pars\_fragment>\n#include <normalmap\_pars\_fragment>\n#include <clearcoat\_pars\_fragment>\n#include <roughnessmap\_pars\_fragment>\n#include <metalnessmap\_pars\_fragment>\n#include <logdepthbuf\_pars\_fragment>\n#include <clipping\_planes\_pars\_fragment>\nvoid main() {\n\t#include <clipping\_planes\_fragment>\n\tvec4 diffuseColor = vec4( diffuse, opacity );\n\tReflectedLight reflectedLight = ReflectedLight( vec3( 0.0 ), vec3( 0.0 ), vec3( 0.0 ), vec3( 0.0 ) );\n\tvec3 totalEmissiveRadiance = emissive;\n\t#include <logdepthbuf\_fragment>\n\t#include <map\_fragment>\n\t#include <color\_fragment>\n\t#include <alphamap\_fragment>\n\t#include <alphatest\_fragment>\n\t#include <roughnessmap\_fragment>\n\t#include <metalnessmap\_fragment>\n\t#include <normal\_fragment\_begin>\n\t#include <normal\_fragment\_maps>\n\t#include <clearcoat\_normal\_fragment\_begin>\n\t#include <clearcoat\_normal\_fragment\_maps>\n\t#include <emissivemap\_fragment>\n\t#include <lights\_physical\_fragment>\n\t#include <lights\_fragment\_begin>\n\t#include <lights\_fragment\_maps>\n\t#include <lights\_fragment\_end>\n\t#include <aomap\_fragment>\n\tvec3 outgoingLight = reflectedLight.directDiffuse + reflectedLight.indirectDiffuse + reflectedLight.directSpecular + reflectedLight.indirectSpecular + totalEmissiveRadiance;\n\t#ifdef TRANSPARENCY\n\t\tdiffuseColor.a \*= saturate( 1. - transparency + linearToRelativeLuminance( reflectedLight.directSpecular + reflectedLight.indirectSpecular ) );\n\t#endif\n\tgl\_FragColor = vec4( outgoingLight, diffuseColor.a );\n\t#include <tonemapping\_fragment>\n\t#include <encodings\_fragment>\n\t#include <fog\_fragment>\n\t#include <premultiplied\_alpha\_fragment>\n\t#include <dithering\_fragment>\n}",  
meshphysical\_vert:"#define STANDARD\nvarying vec3 vViewPosition;\n#ifndef FLAT\_SHADED\n\tvarying vec3 vNormal;\n\t#ifdef USE\_TANGENT\n\t\tvarying vec3 vTangent;\n\t\tvarying vec3 vBitangent;\n\t#endif\n#endif\n#include <common>\n#include <uv\_pars\_vertex>\n#include <uv2\_pars\_vertex>\n#include <displacementmap\_pars\_vertex>\n#include <color\_pars\_vertex>\n#include <fog\_pars\_vertex>\n#include <morphtarget\_pars\_vertex>\n#include <skinning\_pars\_vertex>\n#include <shadowmap\_pars\_vertex>\n#include <logdepthbuf\_pars\_vertex>\n#include <clipping\_planes\_pars\_vertex>\nvoid main() {\n\t#include <uv\_vertex>\n\t#include <uv2\_vertex>\n\t#include <color\_vertex>\n\t#include <beginnormal\_vertex>\n\t#include <morphnormal\_vertex>\n\t#include <skinbase\_vertex>\n\t#include <skinnormal\_vertex>\n\t#include <defaultnormal\_vertex>\n#ifndef FLAT\_SHADED\n\tvNormal = normalize( transformedNormal );\n\t#ifdef USE\_TANGENT\n\t\tvTangent = normalize( transformedTangent );\n\t\tvBitangent = normalize( cross( vNormal, vTangent ) \* tangent.w );\n\t#endif\n#endif\n\t#include <begin\_vertex>\n\t#include <morphtarget\_vertex>\n\t#include <skinning\_vertex>\n\t#include <displacementmap\_vertex>\n\t#include <project\_vertex>\n\t#include <logdepthbuf\_vertex>\n\t#include <clipping\_planes\_vertex>\n\tvViewPosition = - mvPosition.xyz;\n\t#include <worldpos\_vertex>\n\t#include <shadowmap\_vertex>\n\t#include <fog\_vertex>\n}",  
normal\_frag:"#define NORMAL\nuniform float opacity;\n#if defined( FLAT\_SHADED ) || defined( USE\_BUMPMAP ) || defined( TANGENTSPACE\_NORMALMAP )\n\tvarying vec3 vViewPosition;\n#endif\n#ifndef FLAT\_SHADED\n\tvarying vec3 vNormal;\n\t#ifdef USE\_TANGENT\n\t\tvarying vec3 vTangent;\n\t\tvarying vec3 vBitangent;\n\t#endif\n#endif\n#include <packing>\n#include <uv\_pars\_fragment>\n#include <bumpmap\_pars\_fragment>\n#include <normalmap\_pars\_fragment>\n#include <logdepthbuf\_pars\_fragment>\n#include <clipping\_planes\_pars\_fragment>\nvoid main() {\n\t#include <clipping\_planes\_fragment>\n\t#include <logdepthbuf\_fragment>\n\t#include <normal\_fragment\_begin>\n\t#include <normal\_fragment\_maps>\n\tgl\_FragColor = vec4( packNormalToRGB( normal ), opacity );\n}",  
normal\_vert:"#define NORMAL\n#if defined( FLAT\_SHADED ) || defined( USE\_BUMPMAP ) || defined( TANGENTSPACE\_NORMALMAP )\n\tvarying vec3 vViewPosition;\n#endif\n#ifndef FLAT\_SHADED\n\tvarying vec3 vNormal;\n\t#ifdef USE\_TANGENT\n\t\tvarying vec3 vTangent;\n\t\tvarying vec3 vBitangent;\n\t#endif\n#endif\n#include <common>\n#include <uv\_pars\_vertex>\n#include <displacementmap\_pars\_vertex>\n#include <morphtarget\_pars\_vertex>\n#include <skinning\_pars\_vertex>\n#include <logdepthbuf\_pars\_vertex>\n#include <clipping\_planes\_pars\_vertex>\nvoid main() {\n\t#include <uv\_vertex>\n\t#include <beginnormal\_vertex>\n\t#include <morphnormal\_vertex>\n\t#include <skinbase\_vertex>\n\t#include <skinnormal\_vertex>\n\t#include <defaultnormal\_vertex>\n#ifndef FLAT\_SHADED\n\tvNormal = normalize( transformedNormal );\n\t#ifdef USE\_TANGENT\n\t\tvTangent = normalize( transformedTangent );\n\t\tvBitangent = normalize( cross( vNormal, vTangent ) \* tangent.w );\n\t#endif\n#endif\n\t#include <begin\_vertex>\n\t#include <morphtarget\_vertex>\n\t#include <skinning\_vertex>\n\t#include <displacementmap\_vertex>\n\t#include <project\_vertex>\n\t#include <logdepthbuf\_vertex>\n\t#include <clipping\_planes\_vertex>\n#if defined( FLAT\_SHADED ) || defined( USE\_BUMPMAP ) || defined( TANGENTSPACE\_NORMALMAP )\n\tvViewPosition = - mvPosition.xyz;\n#endif\n}",  
points\_frag:"uniform vec3 diffuse;\nuniform float opacity;\n#include <common>\n#include <color\_pars\_fragment>\n#include <map\_particle\_pars\_fragment>\n#include <fog\_pars\_fragment>\n#include <logdepthbuf\_pars\_fragment>\n#include <clipping\_planes\_pars\_fragment>\nvoid main() {\n\t#include <clipping\_planes\_fragment>\n\tvec3 outgoingLight = vec3( 0.0 );\n\tvec4 diffuseColor = vec4( diffuse, opacity );\n\t#include <logdepthbuf\_fragment>\n\t#include <map\_particle\_fragment>\n\t#include <color\_fragment>\n\t#include <alphatest\_fragment>\n\toutgoingLight = diffuseColor.rgb;\n\tgl\_FragColor = vec4( outgoingLight, diffuseColor.a );\n\t#include <tonemapping\_fragment>\n\t#include <encodings\_fragment>\n\t#include <fog\_fragment>\n\t#include <premultiplied\_alpha\_fragment>\n}",  
points\_vert:"uniform float size;\nuniform float scale;\n#include <common>\n#include <color\_pars\_vertex>\n#include <fog\_pars\_vertex>\n#include <morphtarget\_pars\_vertex>\n#include <logdepthbuf\_pars\_vertex>\n#include <clipping\_planes\_pars\_vertex>\nvoid main() {\n\t#include <color\_vertex>\n\t#include <begin\_vertex>\n\t#include <morphtarget\_vertex>\n\t#include <project\_vertex>\n\tgl\_PointSize = size;\n\t#ifdef USE\_SIZEATTENUATION\n\t\tbool isPerspective = isPerspectiveMatrix( projectionMatrix );\n\t\tif ( isPerspective ) gl\_PointSize \*= ( scale / - mvPosition.z );\n\t#endif\n\t#include <logdepthbuf\_vertex>\n\t#include <clipping\_planes\_vertex>\n\t#include <worldpos\_vertex>\n\t#include <fog\_vertex>\n}",  
shadow\_frag:"uniform vec3 color;\nuniform float opacity;\n#include <common>\n#include <packing>\n#include <fog\_pars\_fragment>\n#include <bsdfs>\n#include <lights\_pars\_begin>\n#include <shadowmap\_pars\_fragment>\n#include <shadowmask\_pars\_fragment>\nvoid main() {\n\tgl\_FragColor = vec4( color, opacity \* ( 1.0 - getShadowMask() ) );\n\t#include <tonemapping\_fragment>\n\t#include <encodings\_fragment>\n\t#include <fog\_fragment>\n}",shadow\_vert:"#include <fog\_pars\_vertex>\n#include <shadowmap\_pars\_vertex>\nvoid main() {\n\t#include <begin\_vertex>\n\t#include <project\_vertex>\n\t#include <worldpos\_vertex>\n\t#include <shadowmap\_vertex>\n\t#include <fog\_vertex>\n}",  
sprite\_frag:"uniform vec3 diffuse;\nuniform float opacity;\n#include <common>\n#include <uv\_pars\_fragment>\n#include <map\_pars\_fragment>\n#include <alphamap\_pars\_fragment>\n#include <fog\_pars\_fragment>\n#include <logdepthbuf\_pars\_fragment>\n#include <clipping\_planes\_pars\_fragment>\nvoid main() {\n\t#include <clipping\_planes\_fragment>\n\tvec3 outgoingLight = vec3( 0.0 );\n\tvec4 diffuseColor = vec4( diffuse, opacity );\n\t#include <logdepthbuf\_fragment>\n\t#include <map\_fragment>\n\t#include <alphamap\_fragment>\n\t#include <alphatest\_fragment>\n\toutgoingLight = diffuseColor.rgb;\n\tgl\_FragColor = vec4( outgoingLight, diffuseColor.a );\n\t#include <tonemapping\_fragment>\n\t#include <encodings\_fragment>\n\t#include <fog\_fragment>\n}",  
sprite\_vert:"uniform float rotation;\nuniform vec2 center;\n#include <common>\n#include <uv\_pars\_vertex>\n#include <fog\_pars\_vertex>\n#include <logdepthbuf\_pars\_vertex>\n#include <clipping\_planes\_pars\_vertex>\nvoid main() {\n\t#include <uv\_vertex>\n\tvec4 mvPosition = modelViewMatrix \* vec4( 0.0, 0.0, 0.0, 1.0 );\n\tvec2 scale;\n\tscale.x = length( vec3( modelMatrix[ 0 ].x, modelMatrix[ 0 ].y, modelMatrix[ 0 ].z ) );\n\tscale.y = length( vec3( modelMatrix[ 1 ].x, modelMatrix[ 1 ].y, modelMatrix[ 1 ].z ) );\n\t#ifndef USE\_SIZEATTENUATION\n\t\tbool isPerspective = isPerspectiveMatrix( projectionMatrix );\n\t\tif ( isPerspective ) scale \*= - mvPosition.z;\n\t#endif\n\tvec2 alignedPosition = ( position.xy - ( center - vec2( 0.5 ) ) ) \* scale;\n\tvec2 rotatedPosition;\n\trotatedPosition.x = cos( rotation ) \* alignedPosition.x - sin( rotation ) \* alignedPosition.y;\n\trotatedPosition.y = sin( rotation ) \* alignedPosition.x + cos( rotation ) \* alignedPosition.y;\n\tmvPosition.xy += rotatedPosition;\n\tgl\_Position = projectionMatrix \* mvPosition;\n\t#include <logdepthbuf\_vertex>\n\t#include <clipping\_planes\_vertex>\n\t#include <fog\_vertex>\n}"},  
eb={basic:{uniforms:va([D.common,D.specularmap,D.envmap,D.aomap,D.lightmap,D.fog]),vertexShader:O.meshbasic\_vert,fragmentShader:O.meshbasic\_frag},lambert:{uniforms:va([D.common,D.specularmap,D.envmap,D.aomap,D.lightmap,D.emissivemap,D.fog,D.lights,{emissive:{value:new A(0)}}]),vertexShader:O.meshlambert\_vert,fragmentShader:O.meshlambert\_frag},phong:{uniforms:va([D.common,D.specularmap,D.envmap,D.aomap,D.lightmap,D.emissivemap,D.bumpmap,D.normalmap,D.displacementmap,D.fog,D.lights,{emissive:{value:new A(0)},  
specular:{value:new A(1118481)},shininess:{value:30}}]),vertexShader:O.meshphong\_vert,fragmentShader:O.meshphong\_frag},standard:{uniforms:va([D.common,D.envmap,D.aomap,D.lightmap,D.emissivemap,D.bumpmap,D.normalmap,D.displacementmap,D.roughnessmap,D.metalnessmap,D.fog,D.lights,{emissive:{value:new A(0)},roughness:{value:.5},metalness:{value:.5},envMapIntensity:{value:1}}]),vertexShader:O.meshphysical\_vert,fragmentShader:O.meshphysical\_frag},toon:{uniforms:va([D.common,D.specularmap,D.aomap,D.lightmap,  
D.emissivemap,D.bumpmap,D.normalmap,D.displacementmap,D.gradientmap,D.fog,D.lights,{emissive:{value:new A(0)},specular:{value:new A(1118481)},shininess:{value:30}}]),vertexShader:O.meshtoon\_vert,fragmentShader:O.meshtoon\_frag},matcap:{uniforms:va([D.common,D.bumpmap,D.normalmap,D.displacementmap,D.fog,{matcap:{value:null}}]),vertexShader:O.meshmatcap\_vert,fragmentShader:O.meshmatcap\_frag},points:{uniforms:va([D.points,D.fog]),vertexShader:O.points\_vert,fragmentShader:O.points\_frag},dashed:{uniforms:va([D.common,  
D.fog,{scale:{value:1},dashSize:{value:1},totalSize:{value:2}}]),vertexShader:O.linedashed\_vert,fragmentShader:O.linedashed\_frag},depth:{uniforms:va([D.common,D.displacementmap]),vertexShader:O.depth\_vert,fragmentShader:O.depth\_frag},normal:{uniforms:va([D.common,D.bumpmap,D.normalmap,D.displacementmap,{opacity:{value:1}}]),vertexShader:O.normal\_vert,fragmentShader:O.normal\_frag},sprite:{uniforms:va([D.sprite,D.fog]),vertexShader:O.sprite\_vert,fragmentShader:O.sprite\_frag},background:{uniforms:{uvTransform:{value:new wa},  
t2D:{value:null}},vertexShader:O.background\_vert,fragmentShader:O.background\_frag},cube:{uniforms:va([D.envmap,{opacity:{value:1}}]),vertexShader:O.cube\_vert,fragmentShader:O.cube\_frag},equirect:{uniforms:{tEquirect:{value:null}},vertexShader:O.equirect\_vert,fragmentShader:O.equirect\_frag},distanceRGBA:{uniforms:va([D.common,D.displacementmap,{referencePosition:{value:new n},nearDistance:{value:1},farDistance:{value:1E3}}]),vertexShader:O.distanceRGBA\_vert,fragmentShader:O.distanceRGBA\_frag},shadow:{uniforms:va([D.lights,  
D.fog,{color:{value:new A(0)},opacity:{value:1}}]),vertexShader:O.shadow\_vert,fragmentShader:O.shadow\_frag}};eb.physical={uniforms:va([eb.standard.uniforms,{clearcoat:{value:0},clearcoatMap:{value:null},clearcoatRoughness:{value:0},clearcoatRoughnessMap:{value:null},clearcoatNormalScale:{value:new t(1,1)},clearcoatNormalMap:{value:null},sheen:{value:new A(0)},transparency:{value:0}}]),vertexShader:O.meshphysical\_vert,fragmentShader:O.meshphysical\_frag};qb.prototype=Object.create(V.prototype);qb.prototype.constructor=  
qb;qb.prototype.isCubeTexture=!0;Object.defineProperty(qb.prototype,"images",{get:function(){return this.image},set:function(a){this.image=a}});Ic.prototype=Object.create(V.prototype);Ic.prototype.constructor=Ic;Ic.prototype.isDataTexture2DArray=!0;Jc.prototype=Object.create(V.prototype);Jc.prototype.constructor=Jc;Jc.prototype.isDataTexture3D=!0;var Hh=new V,Pj=new Ic,Rj=new Jc,Ih=new qb,Bh=[],Dh=[],Gh=new Float32Array(16),Fh=new Float32Array(9),Eh=new Float32Array(4);Jh.prototype.updateCache=function(a){var b=  
this.cache;a instanceof Float32Array&&b.length!==a.length&&(this.cache=new Float32Array(a.length));Ia(b,a)};Kh.prototype.setValue=function(a,b,c){for(var d=this.seq,e=0,f=d.length;e!==f;++e){var g=d[e];g.setValue(a,b[g.id],c)}};var gg=/([\w\d\_]+)(\])?(\[|\.)?/g;Eb.prototype.setValue=function(a,b,c,d){b=this.map[b];void 0!==b&&b.setValue(a,c,d)};Eb.prototype.setOptional=function(a,b,c){b=b[c];void 0!==b&&this.setValue(a,c,b)};Eb.upload=function(a,b,c,d){for(var e=0,f=b.length;e!==f;++e){var g=b[e],  
h=c[g.id];!1!==h.needsUpdate&&g.setValue(a,h.value,d)}};Eb.seqWithValue=function(a,b){for(var c=[],d=0,e=a.length;d!==e;++d){var f=a[d];f.id in b&&c.push(f)}return c};var wk=0,ig=/^[ \t]\*#include +<([\w\d./]+)>/gm,Th=/#pragma unroll\_loop[\s]+?for \( int i = (\d+); i < (\d+); i \+\+ \) \{([\s\S]+?)(?=\})\}/g,Sh=/#pragma unroll\_loop\_start[\s]+?for \( int i = (\d+); i < (\d+); i \+\+ \) \{([\s\S]+?)(?=\})\}[\s]+?#pragma unroll\_loop\_end/g,Gk=0;Fb.prototype=Object.create(K.prototype);Fb.prototype.constructor=  
Fb;Fb.prototype.isMeshDepthMaterial=!0;Fb.prototype.copy=function(a){K.prototype.copy.call(this,a);this.depthPacking=a.depthPacking;this.skinning=a.skinning;this.morphTargets=a.morphTargets;this.map=a.map;this.alphaMap=a.alphaMap;this.displacementMap=a.displacementMap;this.displacementScale=a.displacementScale;this.displacementBias=a.displacementBias;this.wireframe=a.wireframe;this.wireframeLinewidth=a.wireframeLinewidth;return this};Gb.prototype=Object.create(K.prototype);Gb.prototype.constructor=  
Gb;Gb.prototype.isMeshDistanceMaterial=!0;Gb.prototype.copy=function(a){K.prototype.copy.call(this,a);this.referencePosition.copy(a.referencePosition);this.nearDistance=a.nearDistance;this.farDistance=a.farDistance;this.skinning=a.skinning;this.morphTargets=a.morphTargets;this.map=a.map;this.alphaMap=a.alphaMap;this.displacementMap=a.displacementMap;this.displacementScale=a.displacementScale;this.displacementBias=a.displacementBias;return this};Pe.prototype=Object.assign(Object.create(aa.prototype),  
{constructor:Pe,isArrayCamera:!0});Mc.prototype=Object.assign(Object.create(F.prototype),{constructor:Mc,isGroup:!0});Object.assign($h.prototype,Ea.prototype);Object.assign(Qe.prototype,{isFogExp2:!0,clone:function(){return new Qe(this.color,this.density)},toJSON:function(){return{type:"FogExp2",color:this.color.getHex(),density:this.density}}});Object.assign(Re.prototype,{isFog:!0,clone:function(){return new Re(this.color,this.near,this.far)},toJSON:function(){return{type:"Fog",color:this.color.getHex(),  
near:this.near,far:this.far}}});Object.defineProperty(rb.prototype,"needsUpdate",{set:function(a){!0===a&&this.version++}});Object.assign(rb.prototype,{isInterleavedBuffer:!0,onUploadCallback:function(){},setUsage:function(a){this.usage=a;return this},copy:function(a){this.array=new a.array.constructor(a.array);this.count=a.count;this.stride=a.stride;this.usage=a.usage;return this},copyAt:function(a,b,c){a\*=this.stride;c\*=b.stride;for(var d=0,e=this.stride;d<e;d++)this.array[a+d]=b.array[c+d];return this},  
set:function(a,b){void 0===b&&(b=0);this.array.set(a,b);return this},clone:function(){return(new this.constructor).copy(this)},onUpload:function(a){this.onUploadCallback=a;return this}});var uc=new n;Object.defineProperties(Od.prototype,{count:{get:function(){return this.data.count}},array:{get:function(){return this.data.array}}});Object.assign(Od.prototype,{isInterleavedBufferAttribute:!0,applyMatrix4:function(a){for(var b=0,c=this.data.count;b<c;b++)uc.x=this.getX(b),uc.y=this.getY(b),uc.z=this.getZ(b),  
uc.applyMatrix4(a),this.setXYZ(b,uc.x,uc.y,uc.z);return this},setX:function(a,b){this.data.array[a\*this.data.stride+this.offset]=b;return this},setY:function(a,b){this.data.array[a\*this.data.stride+this.offset+1]=b;return this},setZ:function(a,b){this.data.array[a\*this.data.stride+this.offset+2]=b;return this},setW:function(a,b){this.data.array[a\*this.data.stride+this.offset+3]=b;return this},getX:function(a){return this.data.array[a\*this.data.stride+this.offset]},getY:function(a){return this.data.array[a\*  
this.data.stride+this.offset+1]},getZ:function(a){return this.data.array[a\*this.data.stride+this.offset+2]},getW:function(a){return this.data.array[a\*this.data.stride+this.offset+3]},setXY:function(a,b,c){a=a\*this.data.stride+this.offset;this.data.array[a+0]=b;this.data.array[a+1]=c;return this},setXYZ:function(a,b,c,d){a=a\*this.data.stride+this.offset;this.data.array[a+0]=b;this.data.array[a+1]=c;this.data.array[a+2]=d;return this},setXYZW:function(a,b,c,d,e){a=a\*this.data.stride+this.offset;this.data.array[a+  
0]=b;this.data.array[a+1]=c;this.data.array[a+2]=d;this.data.array[a+3]=e;return this}});Ib.prototype=Object.create(K.prototype);Ib.prototype.constructor=Ib;Ib.prototype.isSpriteMaterial=!0;Ib.prototype.copy=function(a){K.prototype.copy.call(this,a);this.color.copy(a.color);this.map=a.map;this.alphaMap=a.alphaMap;this.rotation=a.rotation;this.sizeAttenuation=a.sizeAttenuation;return this};var Nc,Ce=new n,xd=new n,yd=new n,Oc=new t,Qd=new t,bi=new P,Mf=new n,De=new n,Nf=new n,Ri=new t,oh=new t,Si=  
new t;Pd.prototype=Object.assign(Object.create(F.prototype),{constructor:Pd,isSprite:!0,raycast:function(a,b){null===a.camera&&console.error('THREE.Sprite: "Raycaster.camera" needs to be set in order to raycast against sprites.');xd.setFromMatrixScale(this.matrixWorld);bi.copy(a.camera.matrixWorld);this.modelViewMatrix.multiplyMatrices(a.camera.matrixWorldInverse,this.matrixWorld);yd.setFromMatrixPosition(this.modelViewMatrix);a.camera.isPerspectiveCamera&&!1===this.material.sizeAttenuation&&xd.multiplyScalar(-yd.z);  
var c=this.material.rotation;if(0!==c){var d=Math.cos(c);var e=Math.sin(c)}c=this.center;Se(Mf.set(-.5,-.5,0),yd,c,xd,e,d);Se(De.set(.5,-.5,0),yd,c,xd,e,d);Se(Nf.set(.5,.5,0),yd,c,xd,e,d);Ri.set(0,0);oh.set(1,0);Si.set(1,1);var f=a.ray.intersectTriangle(Mf,De,Nf,!1,Ce);if(null===f&&(Se(De.set(-.5,.5,0),yd,c,xd,e,d),oh.set(0,1),f=a.ray.intersectTriangle(Mf,Nf,De,!1,Ce),null===f))return;e=a.ray.origin.distanceTo(Ce);e<a.near||e>a.far||b.push({distance:e,point:Ce.clone(),uv:oa.getUV(Ce,Mf,De,Nf,Ri,oh,  
Si,new t),face:null,object:this})},clone:function(){return(new this.constructor(this.material)).copy(this)},copy:function(a){F.prototype.copy.call(this,a);void 0!==a.center&&this.center.copy(a.center);return this}});var Of=new n,Ti=new n;Rd.prototype=Object.assign(Object.create(F.prototype),{constructor:Rd,isLOD:!0,copy:function(a){F.prototype.copy.call(this,a,!1);for(var b=a.levels,c=0,d=b.length;c<d;c++){var e=b[c];this.addLevel(e.object.clone(),e.distance)}this.autoUpdate=a.autoUpdate;return this},  
addLevel:function(a,b){void 0===b&&(b=0);b=Math.abs(b);for(var c=this.levels,d=0;d<c.length&&!(b<c[d].distance);d++);c.splice(d,0,{distance:b,object:a});this.add(a);return this},getCurrentLevel:function(){return this.\_currentLevel},getObjectForDistance:function(a){var b=this.levels;if(0<b.length){for(var c=1,d=b.length;c<d&&!(a<b[c].distance);c++);return b[c-1].object}return null},raycast:function(a,b){if(0<this.levels.length){Of.setFromMatrixPosition(this.matrixWorld);var c=a.ray.origin.distanceTo(Of);  
this.getObjectForDistance(c).raycast(a,b)}},update:function(a){var b=this.levels;if(1<b.length){Of.setFromMatrixPosition(a.matrixWorld);Ti.setFromMatrixPosition(this.matrixWorld);a=Of.distanceTo(Ti)/a.zoom;b[0].object.visible=!0;for(var c=1,d=b.length;c<d;c++)if(a>=b[c].distance)b[c-1].object.visible=!1,b[c].object.visible=!0;else break;for(this.\_currentLevel=c-1;c<d;c++)b[c].object.visible=!1}},toJSON:function(a){a=F.prototype.toJSON.call(this,a);!1===this.autoUpdate&&(a.object.autoUpdate=!1);a.object.levels=  
[];for(var b=this.levels,c=0,d=b.length;c<d;c++){var e=b[c];a.object.levels.push({object:e.object.uuid,distance:e.distance})}return a}});Te.prototype=Object.assign(Object.create(S.prototype),{constructor:Te,isSkinnedMesh:!0,bind:function(a,b){this.skeleton=a;void 0===b&&(this.updateMatrixWorld(!0),this.skeleton.calculateInverses(),b=this.matrixWorld);this.bindMatrix.copy(b);this.bindMatrixInverse.getInverse(b)},pose:function(){this.skeleton.pose()},normalizeSkinWeights:function(){for(var a=new ka,  
b=this.geometry.attributes.skinWeight,c=0,d=b.count;c<d;c++){a.x=b.getX(c);a.y=b.getY(c);a.z=b.getZ(c);a.w=b.getW(c);var e=1/a.manhattanLength();Infinity!==e?a.multiplyScalar(e):a.set(1,0,0,0);b.setXYZW(c,a.x,a.y,a.z,a.w)}},updateMatrixWorld:function(a){S.prototype.updateMatrixWorld.call(this,a);"attached"===this.bindMode?this.bindMatrixInverse.getInverse(this.matrixWorld):"detached"===this.bindMode?this.bindMatrixInverse.getInverse(this.bindMatrix):console.warn("THREE.SkinnedMesh: Unrecognized bindMode: "+  
this.bindMode)},clone:function(){return(new this.constructor(this.geometry,this.material)).copy(this)}});var Ui=new P,$k=new P;Object.assign(Ue.prototype,{calculateInverses:function(){this.boneInverses=[];for(var a=0,b=this.bones.length;a<b;a++){var c=new P;this.bones[a]&&c.getInverse(this.bones[a].matrixWorld);this.boneInverses.push(c)}},pose:function(){var a,b;var c=0;for(b=this.bones.length;c<b;c++)(a=this.bones[c])&&a.matrixWorld.getInverse(this.boneInverses[c]);c=0;for(b=this.bones.length;c<  
b;c++)if(a=this.bones[c])a.parent&&a.parent.isBone?(a.matrix.getInverse(a.parent.matrixWorld),a.matrix.multiply(a.matrixWorld)):a.matrix.copy(a.matrixWorld),a.matrix.decompose(a.position,a.quaternion,a.scale)},update:function(){for(var a=this.bones,b=this.boneInverses,c=this.boneMatrices,d=this.boneTexture,e=0,f=a.length;e<f;e++)Ui.multiplyMatrices(a[e]?a[e].matrixWorld:$k,b[e]),Ui.toArray(c,16\*e);void 0!==d&&(d.needsUpdate=!0)},clone:function(){return new Ue(this.bones,this.boneInverses)},getBoneByName:function(a){for(var b=  
0,c=this.bones.length;b<c;b++){var d=this.bones[b];if(d.name===a)return d}},dispose:function(){this.boneTexture&&(this.boneTexture.dispose(),this.boneTexture=void 0)}});pg.prototype=Object.assign(Object.create(F.prototype),{constructor:pg,isBone:!0});var Vi=new P,Wi=new P,zd=[],Ee=new S;Ve.prototype=Object.assign(Object.create(S.prototype),{constructor:Ve,isInstancedMesh:!0,getMatrixAt:function(a,b){b.fromArray(this.instanceMatrix.array,16\*a)},raycast:function(a,b){var c=this.matrixWorld,d=this.count;  
Ee.geometry=this.geometry;Ee.material=this.material;if(void 0!==Ee.material)for(var e=0;e<d;e++)this.getMatrixAt(e,Vi),Wi.multiplyMatrices(c,Vi),Ee.matrixWorld=Wi,Ee.raycast(a,zd),0<zd.length&&(zd[0].instanceId=e,zd[0].object=this,b.push(zd[0]),zd.length=0)},setMatrixAt:function(a,b){b.toArray(this.instanceMatrix.array,16\*a)},updateMorphTargets:function(){}});la.prototype=Object.create(K.prototype);la.prototype.constructor=la;la.prototype.isLineBasicMaterial=!0;la.prototype.copy=function(a){K.prototype.copy.call(this,  
a);this.color.copy(a.color);this.linewidth=a.linewidth;this.linecap=a.linecap;this.linejoin=a.linejoin;return this};var Xi=new n,Yi=new n,Zi=new P,Pf=new Vb,Fe=new pb;Ka.prototype=Object.assign(Object.create(F.prototype),{constructor:Ka,isLine:!0,computeLineDistances:function(){var a=this.geometry;if(a.isBufferGeometry)if(null===a.index){for(var b=a.attributes.position,c=[0],d=1,e=b.count;d<e;d++)Xi.fromBufferAttribute(b,d-1),Yi.fromBufferAttribute(b,d),c[d]=c[d-1],c[d]+=Xi.distanceTo(Yi);a.setAttribute("lineDistance",  
new y(c,1))}else console.warn("THREE.Line.computeLineDistances(): Computation only possible with non-indexed BufferGeometry.");else if(a.isGeometry)for(b=a.vertices,c=a.lineDistances,c[0]=0,d=1,e=b.length;d<e;d++)c[d]=c[d-1],c[d]+=b[d-1].distanceTo(b[d]);return this},raycast:function(a,b){var c=this.geometry,d=this.matrixWorld,e=a.params.Line.threshold;null===c.boundingSphere&&c.computeBoundingSphere();Fe.copy(c.boundingSphere);Fe.applyMatrix4(d);Fe.radius+=e;if(!1!==a.ray.intersectsSphere(Fe)){Zi.getInverse(d);  
Pf.copy(a.ray).applyMatrix4(Zi);d=e/((this.scale.x+this.scale.y+this.scale.z)/3);d\*=d;var f=new n,g=new n;e=new n;var h=new n,l=this&&this.isLineSegments?2:1;if(c.isBufferGeometry){var k=c.index,u=c.attributes.position.array;if(null!==k){k=k.array;c=0;for(var p=k.length-1;c<p;c+=l){var x=k[c+1];f.fromArray(u,3\*k[c]);g.fromArray(u,3\*x);x=Pf.distanceSqToSegment(f,g,h,e);x>d||(h.applyMatrix4(this.matrixWorld),x=a.ray.origin.distanceTo(h),x<a.near||x>a.far||b.push({distance:x,point:e.clone().applyMatrix4(this.matrixWorld),  
index:c,face:null,faceIndex:null,object:this}))}}else for(c=0,p=u.length/3-1;c<p;c+=l)f.fromArray(u,3\*c),g.fromArray(u,3\*c+3),x=Pf.distanceSqToSegment(f,g,h,e),x>d||(h.applyMatrix4(this.matrixWorld),x=a.ray.origin.distanceTo(h),x<a.near||x>a.far||b.push({distance:x,point:e.clone().applyMatrix4(this.matrixWorld),index:c,face:null,faceIndex:null,object:this}))}else if(c.isGeometry)for(f=c.vertices,g=f.length,c=0;c<g-1;c+=l)x=Pf.distanceSqToSegment(f[c],f[c+1],h,e),x>d||(h.applyMatrix4(this.matrixWorld),  
x=a.ray.origin.distanceTo(h),x<a.near||x>a.far||b.push({distance:x,point:e.clone().applyMatrix4(this.matrixWorld),index:c,face:null,faceIndex:null,object:this}))}},clone:function(){return(new this.constructor(this.geometry,this.material)).copy(this)}});var Qf=new n,Rf=new n;ma.prototype=Object.assign(Object.create(Ka.prototype),{constructor:ma,isLineSegments:!0,computeLineDistances:function(){var a=this.geometry;if(a.isBufferGeometry)if(null===a.index){for(var b=a.attributes.position,c=[],d=0,e=b.count;d<  
e;d+=2)Qf.fromBufferAttribute(b,d),Rf.fromBufferAttribute(b,d+1),c[d]=0===d?0:c[d-1],c[d+1]=c[d]+Qf.distanceTo(Rf);a.setAttribute("lineDistance",new y(c,1))}else console.warn("THREE.LineSegments.computeLineDistances(): Computation only possible with non-indexed BufferGeometry.");else if(a.isGeometry)for(b=a.vertices,c=a.lineDistances,d=0,e=b.length;d<e;d+=2)Qf.copy(b[d]),Rf.copy(b[d+1]),c[d]=0===d?0:c[d-1],c[d+1]=c[d]+Qf.distanceTo(Rf);return this}});We.prototype=Object.assign(Object.create(Ka.prototype),  
{constructor:We,isLineLoop:!0});Va.prototype=Object.create(K.prototype);Va.prototype.constructor=Va;Va.prototype.isPointsMaterial=!0;Va.prototype.copy=function(a){K.prototype.copy.call(this,a);this.color.copy(a.color);this.map=a.map;this.alphaMap=a.alphaMap;this.size=a.size;this.sizeAttenuation=a.sizeAttenuation;this.morphTargets=a.morphTargets;return this};var $i=new P,rg=new Vb,Ge=new pb,Sf=new n;Pc.prototype=Object.assign(Object.create(F.prototype),{constructor:Pc,isPoints:!0,raycast:function(a,  
b){var c=this.geometry,d=this.matrixWorld,e=a.params.Points.threshold;null===c.boundingSphere&&c.computeBoundingSphere();Ge.copy(c.boundingSphere);Ge.applyMatrix4(d);Ge.radius+=e;if(!1!==a.ray.intersectsSphere(Ge))if($i.getInverse(d),rg.copy(a.ray).applyMatrix4($i),e/=(this.scale.x+this.scale.y+this.scale.z)/3,e\*=e,c.isBufferGeometry){var f=c.index;c=c.attributes.position.array;if(null!==f){var g=f.array;f=0;for(var h=g.length;f<h;f++){var l=g[f];Sf.fromArray(c,3\*l);qg(Sf,l,e,d,a,b,this)}}else for(f=  
0,g=c.length/3;f<g;f++)Sf.fromArray(c,3\*f),qg(Sf,f,e,d,a,b,this)}else for(c=c.vertices,f=0,g=c.length;f<g;f++)qg(c[f],f,e,d,a,b,this)},updateMorphTargets:function(){var a=this.geometry;if(a.isBufferGeometry){a=a.morphAttributes;var b=Object.keys(a);if(0<b.length){var c=a[b[0]];if(void 0!==c)for(this.morphTargetInfluences=[],this.morphTargetDictionary={},a=0,b=c.length;a<b;a++){var d=c[a].name||String(a);this.morphTargetInfluences.push(0);this.morphTargetDictionary[d]=a}}}else a=a.morphTargets,void 0!==  
a&&0<a.length&&console.error("THREE.Points.updateMorphTargets() does not support THREE.Geometry. Use THREE.BufferGeometry instead.")},clone:function(){return(new this.constructor(this.geometry,this.material)).copy(this)}});sg.prototype=Object.assign(Object.create(V.prototype),{constructor:sg,isVideoTexture:!0,update:function(){var a=this.image;a.readyState>=a.HAVE\_CURRENT\_DATA&&(this.needsUpdate=!0)}});Qc.prototype=Object.create(V.prototype);Qc.prototype.constructor=Qc;Qc.prototype.isCompressedTexture=  
!0;Sd.prototype=Object.create(V.prototype);Sd.prototype.constructor=Sd;Sd.prototype.isCanvasTexture=!0;Td.prototype=Object.create(V.prototype);Td.prototype.constructor=Td;Td.prototype.isDepthTexture=!0;Rc.prototype=Object.create(C.prototype);Rc.prototype.constructor=Rc;Ud.prototype=Object.create(N.prototype);Ud.prototype.constructor=Ud;Sc.prototype=Object.create(C.prototype);Sc.prototype.constructor=Sc;Vd.prototype=Object.create(N.prototype);Vd.prototype.constructor=Vd;Ga.prototype=Object.create(C.prototype);  
Ga.prototype.constructor=Ga;Wd.prototype=Object.create(N.prototype);Wd.prototype.constructor=Wd;Tc.prototype=Object.create(Ga.prototype);Tc.prototype.constructor=Tc;Xd.prototype=Object.create(N.prototype);Xd.prototype.constructor=Xd;cc.prototype=Object.create(Ga.prototype);cc.prototype.constructor=cc;Yd.prototype=Object.create(N.prototype);Yd.prototype.constructor=Yd;Uc.prototype=Object.create(Ga.prototype);Uc.prototype.constructor=Uc;Zd.prototype=Object.create(N.prototype);Zd.prototype.constructor=  
Zd;Vc.prototype=Object.create(Ga.prototype);Vc.prototype.constructor=Vc;$d.prototype=Object.create(N.prototype);$d.prototype.constructor=$d;dc.prototype=Object.create(C.prototype);dc.prototype.constructor=dc;dc.prototype.toJSON=function(){var a=C.prototype.toJSON.call(this);a.path=this.parameters.path.toJSON();return a};ae.prototype=Object.create(N.prototype);ae.prototype.constructor=ae;Wc.prototype=Object.create(C.prototype);Wc.prototype.constructor=Wc;be.prototype=Object.create(N.prototype);be.prototype.constructor=  
be;Xc.prototype=Object.create(C.prototype);Xc.prototype.constructor=Xc;var al={triangulate:function(a,b,c){c=c||2;var d=b&&b.length,e=d?b[0]\*c:a.length,f=ci(a,0,e,c,!0),g=[];if(!f||f.next===f.prev)return g;var h;if(d){var l=c;d=[];var k;var n=0;for(k=b.length;n<k;n++){var p=b[n]\*l;var x=n<k-1?b[n+1]\*l:a.length;p=ci(a,p,x,l,!1);p===p.next&&(p.steiner=!0);d.push(Nk(p))}d.sort(Lk);for(n=0;n<d.length;n++){b=d[n];l=f;if(l=Mk(b,l))b=fi(l,b),de(b,b.next);f=de(f,f.next)}}if(a.length>80\*c){var r=h=a[0];var q=  
d=a[1];for(l=c;l<e;l+=c)n=a[l],b=a[l+1],n<r&&(r=n),b<q&&(q=b),n>h&&(h=n),b>d&&(d=b);h=Math.max(h-r,d-q);h=0!==h?1/h:0}ee(f,g,c,r,q,h);return g}},sb={area:function(a){for(var b=a.length,c=0,d=b-1,e=0;e<b;d=e++)c+=a[d].x\*a[e].y-a[e].x\*a[d].y;return.5\*c},isClockWise:function(a){return 0>sb.area(a)},triangulateShape:function(a,b){var c=[],d=[],e=[];gi(a);hi(c,a);var f=a.length;b.forEach(gi);for(a=0;a<b.length;a++)d.push(f),f+=b[a].length,hi(c,b[a]);b=al.triangulate(c,d);for(a=0;a<b.length;a+=3)e.push(b.slice(a,  
a+3));return e}};fc.prototype=Object.create(N.prototype);fc.prototype.constructor=fc;fc.prototype.toJSON=function(){var a=N.prototype.toJSON.call(this);return ii(this.parameters.shapes,this.parameters.options,a)};fb.prototype=Object.create(C.prototype);fb.prototype.constructor=fb;fb.prototype.toJSON=function(){var a=C.prototype.toJSON.call(this);return ii(this.parameters.shapes,this.parameters.options,a)};var Ok={generateTopUV:function(a,b,c,d,e){a=b[3\*d];d=b[3\*d+1];var f=b[3\*e];e=b[3\*e+1];return[new t(b[3\*  
c],b[3\*c+1]),new t(a,d),new t(f,e)]},generateSideWallUV:function(a,b,c,d,e,f){a=b[3\*c];var g=b[3\*c+1];c=b[3\*c+2];var h=b[3\*d],l=b[3\*d+1];d=b[3\*d+2];var k=b[3\*e],n=b[3\*e+1];e=b[3\*e+2];var p=b[3\*f],x=b[3\*f+1];b=b[3\*f+2];return.01>Math.abs(g-l)?[new t(a,1-c),new t(h,1-d),new t(k,1-e),new t(p,1-b)]:[new t(g,1-c),new t(l,1-d),new t(n,1-e),new t(x,1-b)]}};ge.prototype=Object.create(N.prototype);ge.prototype.constructor=ge;Zc.prototype=Object.create(fb.prototype);Zc.prototype.constructor=Zc;he.prototype=  
Object.create(N.prototype);he.prototype.constructor=he;gc.prototype=Object.create(C.prototype);gc.prototype.constructor=gc;ie.prototype=Object.create(N.prototype);ie.prototype.constructor=ie;$c.prototype=Object.create(C.prototype);$c.prototype.constructor=$c;je.prototype=Object.create(N.prototype);je.prototype.constructor=je;ad.prototype=Object.create(C.prototype);ad.prototype.constructor=ad;hc.prototype=Object.create(N.prototype);hc.prototype.constructor=hc;hc.prototype.toJSON=function(){var a=N.prototype.toJSON.call(this);  
return ji(this.parameters.shapes,a)};ic.prototype=Object.create(C.prototype);ic.prototype.constructor=ic;ic.prototype.toJSON=function(){var a=C.prototype.toJSON.call(this);return ji(this.parameters.shapes,a)};bd.prototype=Object.create(C.prototype);bd.prototype.constructor=bd;jc.prototype=Object.create(N.prototype);jc.prototype.constructor=jc;tb.prototype=Object.create(C.prototype);tb.prototype.constructor=tb;ke.prototype=Object.create(jc.prototype);ke.prototype.constructor=ke;le.prototype=Object.create(tb.prototype);  
le.prototype.constructor=le;me.prototype=Object.create(N.prototype);me.prototype.constructor=me;cd.prototype=Object.create(C.prototype);cd.prototype.constructor=cd;var ua=Object.freeze({\_\_proto\_\_:null,WireframeGeometry:Rc,ParametricGeometry:Ud,ParametricBufferGeometry:Sc,TetrahedronGeometry:Wd,TetrahedronBufferGeometry:Tc,OctahedronGeometry:Xd,OctahedronBufferGeometry:cc,IcosahedronGeometry:Yd,IcosahedronBufferGeometry:Uc,DodecahedronGeometry:Zd,DodecahedronBufferGeometry:Vc,PolyhedronGeometry:Vd,  
PolyhedronBufferGeometry:Ga,TubeGeometry:$d,TubeBufferGeometry:dc,TorusKnotGeometry:ae,TorusKnotBufferGeometry:Wc,TorusGeometry:be,TorusBufferGeometry:Xc,TextGeometry:ge,TextBufferGeometry:Zc,SphereGeometry:he,SphereBufferGeometry:gc,RingGeometry:ie,RingBufferGeometry:$c,PlaneGeometry:Id,PlaneBufferGeometry:bc,LatheGeometry:je,LatheBufferGeometry:ad,ShapeGeometry:hc,ShapeBufferGeometry:ic,ExtrudeGeometry:fc,ExtrudeBufferGeometry:fb,EdgesGeometry:bd,ConeGeometry:ke,ConeBufferGeometry:le,CylinderGeometry:jc,  
CylinderBufferGeometry:tb,CircleGeometry:me,CircleBufferGeometry:cd,BoxGeometry:nh,BoxBufferGeometry:Jd});kc.prototype=Object.create(K.prototype);kc.prototype.constructor=kc;kc.prototype.isShadowMaterial=!0;kc.prototype.copy=function(a){K.prototype.copy.call(this,a);this.color.copy(a.color);return this};ub.prototype=Object.create(Ba.prototype);ub.prototype.constructor=ub;ub.prototype.isRawShaderMaterial=!0;gb.prototype=Object.create(K.prototype);gb.prototype.constructor=gb;gb.prototype.isMeshStandardMaterial=  
!0;gb.prototype.copy=function(a){K.prototype.copy.call(this,a);this.defines={STANDARD:""};this.color.copy(a.color);this.roughness=a.roughness;this.metalness=a.metalness;this.map=a.map;this.lightMap=a.lightMap;this.lightMapIntensity=a.lightMapIntensity;this.aoMap=a.aoMap;this.aoMapIntensity=a.aoMapIntensity;this.emissive.copy(a.emissive);this.emissiveMap=a.emissiveMap;this.emissiveIntensity=a.emissiveIntensity;this.bumpMap=a.bumpMap;this.bumpScale=a.bumpScale;this.normalMap=a.normalMap;this.normalMapType=  
a.normalMapType;this.normalScale.copy(a.normalScale);this.displacementMap=a.displacementMap;this.displacementScale=a.displacementScale;this.displacementBias=a.displacementBias;this.roughnessMap=a.roughnessMap;this.metalnessMap=a.metalnessMap;this.alphaMap=a.alphaMap;this.envMap=a.envMap;this.envMapIntensity=a.envMapIntensity;this.refractionRatio=a.refractionRatio;this.wireframe=a.wireframe;this.wireframeLinewidth=a.wireframeLinewidth;this.wireframeLinecap=a.wireframeLinecap;this.wireframeLinejoin=  
a.wireframeLinejoin;this.skinning=a.skinning;this.morphTargets=a.morphTargets;this.morphNormals=a.morphNormals;this.vertexTangents=a.vertexTangents;return this};lc.prototype=Object.create(gb.prototype);lc.prototype.constructor=lc;lc.prototype.isMeshPhysicalMaterial=!0;lc.prototype.copy=function(a){gb.prototype.copy.call(this,a);this.defines={STANDARD:"",PHYSICAL:""};this.clearcoat=a.clearcoat;this.clearcoatMap=a.clearcoatMap;this.clearcoatRoughness=a.clearcoatRoughness;this.clearcoatRoughnessMap=  
a.clearcoatRoughnessMap;this.clearcoatNormalMap=a.clearcoatNormalMap;this.clearcoatNormalScale.copy(a.clearcoatNormalScale);this.reflectivity=a.reflectivity;this.sheen=a.sheen?(this.sheen||new A).copy(a.sheen):null;this.transparency=a.transparency;return this};Jb.prototype=Object.create(K.prototype);Jb.prototype.constructor=Jb;Jb.prototype.isMeshPhongMaterial=!0;Jb.prototype.copy=function(a){K.prototype.copy.call(this,a);this.color.copy(a.color);this.specular.copy(a.specular);this.shininess=a.shininess;  
this.map=a.map;this.lightMap=a.lightMap;this.lightMapIntensity=a.lightMapIntensity;this.aoMap=a.aoMap;this.aoMapIntensity=a.aoMapIntensity;this.emissive.copy(a.emissive);this.emissiveMap=a.emissiveMap;this.emissiveIntensity=a.emissiveIntensity;this.bumpMap=a.bumpMap;this.bumpScale=a.bumpScale;this.normalMap=a.normalMap;this.normalMapType=a.normalMapType;this.normalScale.copy(a.normalScale);this.displacementMap=a.displacementMap;this.displacementScale=a.displacementScale;this.displacementBias=a.displacementBias;  
this.specularMap=a.specularMap;this.alphaMap=a.alphaMap;this.envMap=a.envMap;this.combine=a.combine;this.reflectivity=a.reflectivity;this.refractionRatio=a.refractionRatio;this.wireframe=a.wireframe;this.wireframeLinewidth=a.wireframeLinewidth;this.wireframeLinecap=a.wireframeLinecap;this.wireframeLinejoin=a.wireframeLinejoin;this.skinning=a.skinning;this.morphTargets=a.morphTargets;this.morphNormals=a.morphNormals;return this};mc.prototype=Object.create(K.prototype);mc.prototype.constructor=mc;mc.prototype.isMeshToonMaterial=  
!0;mc.prototype.copy=function(a){K.prototype.copy.call(this,a);this.color.copy(a.color);this.specular.copy(a.specular);this.shininess=a.shininess;this.map=a.map;this.gradientMap=a.gradientMap;this.lightMap=a.lightMap;this.lightMapIntensity=a.lightMapIntensity;this.aoMap=a.aoMap;this.aoMapIntensity=a.aoMapIntensity;this.emissive.copy(a.emissive);this.emissiveMap=a.emissiveMap;this.emissiveIntensity=a.emissiveIntensity;this.bumpMap=a.bumpMap;this.bumpScale=a.bumpScale;this.normalMap=a.normalMap;this.normalMapType=  
a.normalMapType;this.normalScale.copy(a.normalScale);this.displacementMap=a.displacementMap;this.displacementScale=a.displacementScale;this.displacementBias=a.displacementBias;this.specularMap=a.specularMap;this.alphaMap=a.alphaMap;this.wireframe=a.wireframe;this.wireframeLinewidth=a.wireframeLinewidth;this.wireframeLinecap=a.wireframeLinecap;this.wireframeLinejoin=a.wireframeLinejoin;this.skinning=a.skinning;this.morphTargets=a.morphTargets;this.morphNormals=a.morphNormals;return this};nc.prototype=  
Object.create(K.prototype);nc.prototype.constructor=nc;nc.prototype.isMeshNormalMaterial=!0;nc.prototype.copy=function(a){K.prototype.copy.call(this,a);this.bumpMap=a.bumpMap;this.bumpScale=a.bumpScale;this.normalMap=a.normalMap;this.normalMapType=a.normalMapType;this.normalScale.copy(a.normalScale);this.displacementMap=a.displacementMap;this.displacementScale=a.displacementScale;this.displacementBias=a.displacementBias;this.wireframe=a.wireframe;this.wireframeLinewidth=a.wireframeLinewidth;this.skinning=  
a.skinning;this.morphTargets=a.morphTargets;this.morphNormals=a.morphNormals;return this};oc.prototype=Object.create(K.prototype);oc.prototype.constructor=oc;oc.prototype.isMeshLambertMaterial=!0;oc.prototype.copy=function(a){K.prototype.copy.call(this,a);this.color.copy(a.color);this.map=a.map;this.lightMap=a.lightMap;this.lightMapIntensity=a.lightMapIntensity;this.aoMap=a.aoMap;this.aoMapIntensity=a.aoMapIntensity;this.emissive.copy(a.emissive);this.emissiveMap=a.emissiveMap;this.emissiveIntensity=  
a.emissiveIntensity;this.specularMap=a.specularMap;this.alphaMap=a.alphaMap;this.envMap=a.envMap;this.combine=a.combine;this.reflectivity=a.reflectivity;this.refractionRatio=a.refractionRatio;this.wireframe=a.wireframe;this.wireframeLinewidth=a.wireframeLinewidth;this.wireframeLinecap=a.wireframeLinecap;this.wireframeLinejoin=a.wireframeLinejoin;this.skinning=a.skinning;this.morphTargets=a.morphTargets;this.morphNormals=a.morphNormals;return this};pc.prototype=Object.create(K.prototype);pc.prototype.constructor=  
pc;pc.prototype.isMeshMatcapMaterial=!0;pc.prototype.copy=function(a){K.prototype.copy.call(this,a);this.defines={MATCAP:""};this.color.copy(a.color);this.matcap=a.matcap;this.map=a.map;this.bumpMap=a.bumpMap;this.bumpScale=a.bumpScale;this.normalMap=a.normalMap;this.normalMapType=a.normalMapType;this.normalScale.copy(a.normalScale);this.displacementMap=a.displacementMap;this.displacementScale=a.displacementScale;this.displacementBias=a.displacementBias;this.alphaMap=a.alphaMap;this.skinning=a.skinning;  
this.morphTargets=a.morphTargets;this.morphNormals=a.morphNormals;return this};qc.prototype=Object.create(la.prototype);qc.prototype.constructor=qc;qc.prototype.isLineDashedMaterial=!0;qc.prototype.copy=function(a){la.prototype.copy.call(this,a);this.scale=a.scale;this.dashSize=a.dashSize;this.gapSize=a.gapSize;return this};var bl=Object.freeze({\_\_proto\_\_:null,ShadowMaterial:kc,SpriteMaterial:Ib,RawShaderMaterial:ub,ShaderMaterial:Ba,PointsMaterial:Va,MeshPhysicalMaterial:lc,MeshStandardMaterial:gb,  
MeshPhongMaterial:Jb,MeshToonMaterial:mc,MeshNormalMaterial:nc,MeshLambertMaterial:oc,MeshDepthMaterial:Fb,MeshDistanceMaterial:Gb,MeshBasicMaterial:Oa,MeshMatcapMaterial:pc,LineDashedMaterial:qc,LineBasicMaterial:la,Material:K}),R={arraySlice:function(a,b,c){return R.isTypedArray(a)?new a.constructor(a.subarray(b,void 0!==c?c:a.length)):a.slice(b,c)},convertArray:function(a,b,c){return!a||!c&&a.constructor===b?a:"number"===typeof b.BYTES\_PER\_ELEMENT?new b(a):Array.prototype.slice.call(a)},isTypedArray:function(a){return ArrayBuffer.isView(a)&&  
!(a instanceof DataView)},getKeyframeOrder:function(a){for(var b=a.length,c=Array(b),d=0;d!==b;++d)c[d]=d;c.sort(function(b,c){return a[b]-a[c]});return c},sortedArray:function(a,b,c){for(var d=a.length,e=new a.constructor(d),f=0,g=0;g!==d;++f)for(var h=c[f]\*b,l=0;l!==b;++l)e[g++]=a[h+l];return e},flattenJSON:function(a,b,c,d){for(var e=1,f=a[0];void 0!==f&&void 0===f[d];)f=a[e++];if(void 0!==f){var g=f[d];if(void 0!==g)if(Array.isArray(g)){do g=f[d],void 0!==g&&(b.push(f.time),c.push.apply(c,g)),  
f=a[e++];while(void 0!==f)}else if(void 0!==g.toArray){do g=f[d],void 0!==g&&(b.push(f.time),g.toArray(c,c.length)),f=a[e++];while(void 0!==f)}else{do g=f[d],void 0!==g&&(b.push(f.time),c.push(g)),f=a[e++];while(void 0!==f)}}},subclip:function(a,b,c,d,e){e=e||30;a=a.clone();a.name=b;var f=[];for(b=0;b<a.tracks.length;++b){for(var g=a.tracks[b],h=g.getValueSize(),l=[],k=[],n=0;n<g.times.length;++n){var p=g.times[n]\*e;if(!(p<c||p>=d))for(l.push(g.times[n]),p=0;p<h;++p)k.push(g.values[n\*h+p])}0!==l.length&&  
(g.times=R.convertArray(l,g.times.constructor),g.values=R.convertArray(k,g.values.constructor),f.push(g))}a.tracks=f;c=Infinity;for(b=0;b<a.tracks.length;++b)c>a.tracks[b].times[0]&&(c=a.tracks[b].times[0]);for(b=0;b<a.tracks.length;++b)a.tracks[b].shift(-1\*c);a.resetDuration();return a}};Object.assign(La.prototype,{evaluate:function(a){var b=this.parameterPositions,c=this.\_cachedIndex,d=b[c],e=b[c-1];a:{b:{c:{d:if(!(a<d)){for(var f=c+2;;){if(void 0===d){if(a<e)break d;this.\_cachedIndex=c=b.length;  
return this.afterEnd\_(c-1,a,e)}if(c===f)break;e=d;d=b[++c];if(a<d)break b}d=b.length;break c}if(a>=e)break a;else{f=b[1];a<f&&(c=2,e=f);for(f=c-2;;){if(void 0===e)return this.\_cachedIndex=0,this.beforeStart\_(0,a,d);if(c===f)break;d=e;e=b[--c-1];if(a>=e)break b}d=c;c=0}}for(;c<d;)e=c+d>>>1,a<b[e]?d=e:c=e+1;d=b[c];e=b[c-1];if(void 0===e)return this.\_cachedIndex=0,this.beforeStart\_(0,a,d);if(void 0===d)return this.\_cachedIndex=c=b.length,this.afterEnd\_(c-1,e,a)}this.\_cachedIndex=c;this.intervalChanged\_(c,  
e,d)}return this.interpolate\_(c,e,a,d)},settings:null,DefaultSettings\_:{},getSettings\_:function(){return this.settings||this.DefaultSettings\_},copySampleValue\_:function(a){var b=this.resultBuffer,c=this.sampleValues,d=this.valueSize;a\*=d;for(var e=0;e!==d;++e)b[e]=c[a+e];return b},interpolate\_:function(){throw Error("call to abstract method");},intervalChanged\_:function(){}});Object.assign(La.prototype,{beforeStart\_:La.prototype.copySampleValue\_,afterEnd\_:La.prototype.copySampleValue\_});Xe.prototype=  
Object.assign(Object.create(La.prototype),{constructor:Xe,DefaultSettings\_:{endingStart:2400,endingEnd:2400},intervalChanged\_:function(a,b,c){var d=this.parameterPositions,e=a-2,f=a+1,g=d[e],h=d[f];if(void 0===g)switch(this.getSettings\_().endingStart){case 2401:e=a;g=2\*b-c;break;case 2402:e=d.length-2;g=b+d[e]-d[e+1];break;default:e=a,g=c}if(void 0===h)switch(this.getSettings\_().endingEnd){case 2401:f=a;h=2\*c-b;break;case 2402:f=1;h=c+d[1]-d[0];break;default:f=a-1,h=b}a=.5\*(c-b);d=this.valueSize;  
this.\_weightPrev=a/(b-g);this.\_weightNext=a/(h-c);this.\_offsetPrev=e\*d;this.\_offsetNext=f\*d},interpolate\_:function(a,b,c,d){var e=this.resultBuffer,f=this.sampleValues,g=this.valueSize;a\*=g;var h=a-g,l=this.\_offsetPrev,k=this.\_offsetNext,n=this.\_weightPrev,p=this.\_weightNext,x=(c-b)/(d-b);c=x\*x;d=c\*x;b=-n\*d+2\*n\*c-n\*x;n=(1+n)\*d+(-1.5-2\*n)\*c+(-.5+n)\*x+1;x=(-1-p)\*d+(1.5+p)\*c+.5\*x;p=p\*d-p\*c;for(c=0;c!==g;++c)e[c]=b\*f[l+c]+n\*f[h+c]+x\*f[a+c]+p\*f[k+c];return e}});ne.prototype=Object.assign(Object.create(La.prototype),  
{constructor:ne,interpolate\_:function(a,b,c,d){var e=this.resultBuffer,f=this.sampleValues,g=this.valueSize;a\*=g;var h=a-g;b=(c-b)/(d-b);c=1-b;for(d=0;d!==g;++d)e[d]=f[h+d]\*c+f[a+d]\*b;return e}});Ye.prototype=Object.assign(Object.create(La.prototype),{constructor:Ye,interpolate\_:function(a){return this.copySampleValue\_(a-1)}});Object.assign(sa,{toJSON:function(a){var b=a.constructor;if(void 0!==b.toJSON)b=b.toJSON(a);else{b={name:a.name,times:R.convertArray(a.times,Array),values:R.convertArray(a.values,  
Array)};var c=a.getInterpolation();c!==a.DefaultInterpolation&&(b.interpolation=c)}b.type=a.ValueTypeName;return b}});Object.assign(sa.prototype,{constructor:sa,TimeBufferType:Float32Array,ValueBufferType:Float32Array,DefaultInterpolation:2301,InterpolantFactoryMethodDiscrete:function(a){return new Ye(this.times,this.values,this.getValueSize(),a)},InterpolantFactoryMethodLinear:function(a){return new ne(this.times,this.values,this.getValueSize(),a)},InterpolantFactoryMethodSmooth:function(a){return new Xe(this.times,  
this.values,this.getValueSize(),a)},setInterpolation:function(a){switch(a){case 2300:var b=this.InterpolantFactoryMethodDiscrete;break;case 2301:b=this.InterpolantFactoryMethodLinear;break;case 2302:b=this.InterpolantFactoryMethodSmooth}if(void 0===b){b="unsupported interpolation for "+this.ValueTypeName+" keyframe track named "+this.name;if(void 0===this.createInterpolant)if(a!==this.DefaultInterpolation)this.setInterpolation(this.DefaultInterpolation);else throw Error(b);console.warn("THREE.KeyframeTrack:",  
b);return this}this.createInterpolant=b;return this},getInterpolation:function(){switch(this.createInterpolant){case this.InterpolantFactoryMethodDiscrete:return 2300;case this.InterpolantFactoryMethodLinear:return 2301;case this.InterpolantFactoryMethodSmooth:return 2302}},getValueSize:function(){return this.values.length/this.times.length},shift:function(a){if(0!==a)for(var b=this.times,c=0,d=b.length;c!==d;++c)b[c]+=a;return this},scale:function(a){if(1!==a)for(var b=this.times,c=0,d=b.length;c!==  
d;++c)b[c]\*=a;return this},trim:function(a,b){for(var c=this.times,d=c.length,e=0,f=d-1;e!==d&&c[e]<a;)++e;for(;-1!==f&&c[f]>b;)--f;++f;if(0!==e||f!==d)e>=f&&(f=Math.max(f,1),e=f-1),a=this.getValueSize(),this.times=R.arraySlice(c,e,f),this.values=R.arraySlice(this.values,e\*a,f\*a);return this},validate:function(){var a=!0,b=this.getValueSize();0!==b-Math.floor(b)&&(console.error("THREE.KeyframeTrack: Invalid value size in track.",this),a=!1);var c=this.times;b=this.values;var d=c.length;0===d&&(console.error("THREE.KeyframeTrack: Track is empty.",  
this),a=!1);for(var e=null,f=0;f!==d;f++){var g=c[f];if("number"===typeof g&&isNaN(g)){console.error("THREE.KeyframeTrack: Time is not a valid number.",this,f,g);a=!1;break}if(null!==e&&e>g){console.error("THREE.KeyframeTrack: Out of order keys.",this,f,g,e);a=!1;break}e=g}if(void 0!==b&&R.isTypedArray(b))for(f=0,c=b.length;f!==c;++f)if(d=b[f],isNaN(d)){console.error("THREE.KeyframeTrack: Value is not a valid number.",this,f,d);a=!1;break}return a},optimize:function(){for(var a=R.arraySlice(this.times),  
b=R.arraySlice(this.values),c=this.getValueSize(),d=2302===this.getInterpolation(),e=1,f=a.length-1,g=1;g<f;++g){var h=!1,l=a[g];if(l!==a[g+1]&&(1!==g||l!==l[0]))if(d)h=!0;else{var k=g\*c,n=k-c,p=k+c;for(l=0;l!==c;++l){var x=b[k+l];if(x!==b[n+l]||x!==b[p+l]){h=!0;break}}}if(h){if(g!==e)for(a[e]=a[g],h=g\*c,k=e\*c,l=0;l!==c;++l)b[k+l]=b[h+l];++e}}if(0<f){a[e]=a[f];h=f\*c;k=e\*c;for(l=0;l!==c;++l)b[k+l]=b[h+l];++e}e!==a.length?(this.times=R.arraySlice(a,0,e),this.values=R.arraySlice(b,0,e\*c)):(this.times=  
a,this.values=b);return this},clone:function(){var a=R.arraySlice(this.times,0),b=R.arraySlice(this.values,0);a=new this.constructor(this.name,a,b);a.createInterpolant=this.createInterpolant;return a}});Ze.prototype=Object.assign(Object.create(sa.prototype),{constructor:Ze,ValueTypeName:"bool",ValueBufferType:Array,DefaultInterpolation:2300,InterpolantFactoryMethodLinear:void 0,InterpolantFactoryMethodSmooth:void 0});$e.prototype=Object.assign(Object.create(sa.prototype),{constructor:$e,ValueTypeName:"color"});  
dd.prototype=Object.assign(Object.create(sa.prototype),{constructor:dd,ValueTypeName:"number"});af.prototype=Object.assign(Object.create(La.prototype),{constructor:af,interpolate\_:function(a,b,c,d){var e=this.resultBuffer,f=this.sampleValues,g=this.valueSize;a\*=g;b=(c-b)/(d-b);for(c=a+g;a!==c;a+=4)Aa.slerpFlat(e,0,f,a-g,f,a,b);return e}});oe.prototype=Object.assign(Object.create(sa.prototype),{constructor:oe,ValueTypeName:"quaternion",DefaultInterpolation:2301,InterpolantFactoryMethodLinear:function(a){return new af(this.times,  
this.values,this.getValueSize(),a)},InterpolantFactoryMethodSmooth:void 0});bf.prototype=Object.assign(Object.create(sa.prototype),{constructor:bf,ValueTypeName:"string",ValueBufferType:Array,DefaultInterpolation:2300,InterpolantFactoryMethodLinear:void 0,InterpolantFactoryMethodSmooth:void 0});ed.prototype=Object.assign(Object.create(sa.prototype),{constructor:ed,ValueTypeName:"vector"});Object.assign(Qa,{parse:function(a){for(var b=[],c=a.tracks,d=1/(a.fps||1),e=0,f=c.length;e!==f;++e)b.push(Qk(c[e]).scale(d));  
return new Qa(a.name,a.duration,b)},toJSON:function(a){var b=[],c=a.tracks;a={name:a.name,duration:a.duration,tracks:b,uuid:a.uuid};for(var d=0,e=c.length;d!==e;++d)b.push(sa.toJSON(c[d]));return a},CreateFromMorphTargetSequence:function(a,b,c,d){for(var e=b.length,f=[],g=0;g<e;g++){var h=[],l=[];h.push((g+e-1)%e,g,(g+1)%e);l.push(0,1,0);var k=R.getKeyframeOrder(h);h=R.sortedArray(h,1,k);l=R.sortedArray(l,1,k);d||0!==h[0]||(h.push(e),l.push(l[0]));f.push((new dd(".morphTargetInfluences["+b[g].name+  
"]",h,l)).scale(1/c))}return new Qa(a,-1,f)},findByName:function(a,b){var c=a;Array.isArray(a)||(c=a.geometry&&a.geometry.animations||a.animations);for(a=0;a<c.length;a++)if(c[a].name===b)return c[a];return null},CreateClipsFromMorphTargetSequences:function(a,b,c){for(var d={},e=/^([\w-]\*?)([\d]+)$/,f=0,g=a.length;f<g;f++){var h=a[f],l=h.name.match(e);if(l&&1<l.length){var k=l[1];(l=d[k])||(d[k]=l=[]);l.push(h)}}a=[];for(k in d)a.push(Qa.CreateFromMorphTargetSequence(k,d[k],b,c));return a},parseAnimation:function(a,  
b){if(!a)return console.error("THREE.AnimationClip: No animation in JSONLoader data."),null;var c=function(a,b,c,d,e){if(0!==c.length){var f=[],g=[];R.flattenJSON(c,f,g,d);0!==f.length&&e.push(new a(b,f,g))}},d=[],e=a.name||"default",f=a.length||-1,g=a.fps||30;a=a.hierarchy||[];for(var h=0;h<a.length;h++){var l=a[h].keys;if(l&&0!==l.length)if(l[0].morphTargets){f={};for(var k=0;k<l.length;k++)if(l[k].morphTargets)for(var n=0;n<l[k].morphTargets.length;n++)f[l[k].morphTargets[n]]=-1;for(var p in f){var x=  
[],r=[];for(n=0;n!==l[k].morphTargets.length;++n){var q=l[k];x.push(q.time);r.push(q.morphTarget===p?1:0)}d.push(new dd(".morphTargetInfluence["+p+"]",x,r))}f=f.length\*(g||1)}else k=".bones["+b[h].name+"]",c(ed,k+".position",l,"pos",d),c(oe,k+".quaternion",l,"rot",d),c(ed,k+".scale",l,"scl",d)}return 0===d.length?null:new Qa(e,f,d)}});Object.assign(Qa.prototype,{resetDuration:function(){for(var a=0,b=0,c=this.tracks.length;b!==c;++b){var d=this.tracks[b];a=Math.max(a,d.times[d.times.length-1])}this.duration=  
a;return this},trim:function(){for(var a=0;a<this.tracks.length;a++)this.tracks[a].trim(0,this.duration);return this},validate:function(){for(var a=!0,b=0;b<this.tracks.length;b++)a=a&&this.tracks[b].validate();return a},optimize:function(){for(var a=0;a<this.tracks.length;a++)this.tracks[a].optimize();return this},clone:function(){for(var a=[],b=0;b<this.tracks.length;b++)a.push(this.tracks[b].clone());return new Qa(this.name,this.duration,a)}});var vc={enabled:!1,files:{},add:function(a,b){!1!==  
this.enabled&&(this.files[a]=b)},get:function(a){if(!1!==this.enabled)return this.files[a]},remove:function(a){delete this.files[a]},clear:function(){this.files={}}},ki=new vg;Object.assign(W.prototype,{load:function(){},parse:function(){},setCrossOrigin:function(a){this.crossOrigin=a;return this},setPath:function(a){this.path=a;return this},setResourcePath:function(a){this.resourcePath=a;return this}});var cb={};Ra.prototype=Object.assign(Object.create(W.prototype),{constructor:Ra,load:function(a,  
b,c,d){void 0===a&&(a="");void 0!==this.path&&(a=this.path+a);a=this.manager.resolveURL(a);var e=this,f=vc.get(a);if(void 0!==f)return e.manager.itemStart(a),setTimeout(function(){b&&b(f);e.manager.itemEnd(a)},0),f;if(void 0!==cb[a])cb[a].push({onLoad:b,onProgress:c,onError:d});else{var g=a.match(/^data:(.\*?)(;base64)?,(.\*)$/);if(g){c=g[1];var h=!!g[2];g=g[3];g=decodeURIComponent(g);h&&(g=atob(g));try{var l=(this.responseType||"").toLowerCase();switch(l){case "arraybuffer":case "blob":var k=new Uint8Array(g.length);  
for(h=0;h<g.length;h++)k[h]=g.charCodeAt(h);var n="blob"===l?new Blob([k.buffer],{type:c}):k.buffer;break;case "document":n=(new DOMParser).parseFromString(g,c);break;case "json":n=JSON.parse(g);break;default:n=g}setTimeout(function(){b&&b(n);e.manager.itemEnd(a)},0)}catch(x){setTimeout(function(){d&&d(x);e.manager.itemError(a);e.manager.itemEnd(a)},0)}}else{cb[a]=[];cb[a].push({onLoad:b,onProgress:c,onError:d});var p=new XMLHttpRequest;p.open("GET",a,!0);p.addEventListener("load",function(b){var c=  
this.response,d=cb[a];delete cb[a];if(200===this.status||0===this.status){0===this.status&&console.warn("THREE.FileLoader: HTTP Status 0 received.");vc.add(a,c);for(var f=0,g=d.length;f<g;f++){var h=d[f];if(h.onLoad)h.onLoad(c)}}else{f=0;for(g=d.length;f<g;f++)if(h=d[f],h.onError)h.onError(b);e.manager.itemError(a)}e.manager.itemEnd(a)},!1);p.addEventListener("progress",function(b){for(var c=cb[a],d=0,e=c.length;d<e;d++){var f=c[d];if(f.onProgress)f.onProgress(b)}},!1);p.addEventListener("error",  
function(b){var c=cb[a];delete cb[a];for(var d=0,f=c.length;d<f;d++){var g=c[d];if(g.onError)g.onError(b)}e.manager.itemError(a);e.manager.itemEnd(a)},!1);p.addEventListener("abort",function(b){var c=cb[a];delete cb[a];for(var d=0,f=c.length;d<f;d++){var g=c[d];if(g.onError)g.onError(b)}e.manager.itemError(a);e.manager.itemEnd(a)},!1);void 0!==this.responseType&&(p.responseType=this.responseType);void 0!==this.withCredentials&&(p.withCredentials=this.withCredentials);p.overrideMimeType&&p.overrideMimeType(void 0!==  
this.mimeType?this.mimeType:"text/plain");for(h in this.requestHeader)p.setRequestHeader(h,this.requestHeader[h]);p.send(null)}e.manager.itemStart(a);return p}},setResponseType:function(a){this.responseType=a;return this},setWithCredentials:function(a){this.withCredentials=a;return this},setMimeType:function(a){this.mimeType=a;return this},setRequestHeader:function(a){this.requestHeader=a;return this}});wg.prototype=Object.assign(Object.create(W.prototype),{constructor:wg,load:function(a,b,c,d){var e=  
this,f=new Ra(e.manager);f.setPath(e.path);f.load(a,function(a){b(e.parse(JSON.parse(a)))},c,d)},parse:function(a){for(var b=[],c=0;c<a.length;c++){var d=Qa.parse(a[c]);b.push(d)}return b}});xg.prototype=Object.assign(Object.create(W.prototype),{constructor:xg,load:function(a,b,c,d){function e(e){l.load(a[e],function(a){a=f.parse(a,!0);g[e]={width:a.width,height:a.height,format:a.format,mipmaps:a.mipmaps};k+=1;6===k&&(1===a.mipmapCount&&(h.minFilter=1006),h.format=a.format,h.needsUpdate=!0,b&&b(h))},  
c,d)}var f=this,g=[],h=new Qc;h.image=g;var l=new Ra(this.manager);l.setPath(this.path);l.setResponseType("arraybuffer");if(Array.isArray(a))for(var k=0,n=0,p=a.length;n<p;++n)e(n);else l.load(a,function(a){a=f.parse(a,!0);if(a.isCubemap)for(var c=a.mipmaps.length/a.mipmapCount,d=0;d<c;d++){g[d]={mipmaps:[]};for(var e=0;e<a.mipmapCount;e++)g[d].mipmaps.push(a.mipmaps[d\*a.mipmapCount+e]),g[d].format=a.format,g[d].width=a.width,g[d].height=a.height}else h.image.width=a.width,h.image.height=a.height,  
h.mipmaps=a.mipmaps;1===a.mipmapCount&&(h.minFilter=1006);h.format=a.format;h.needsUpdate=!0;b&&b(h)},c,d);return h}});cf.prototype=Object.assign(Object.create(W.prototype),{constructor:cf,load:function(a,b,c,d){var e=this,f=new ac,g=new Ra(this.manager);g.setResponseType("arraybuffer");g.setPath(this.path);g.load(a,function(a){if(a=e.parse(a))void 0!==a.image?f.image=a.image:void 0!==a.data&&(f.image.width=a.width,f.image.height=a.height,f.image.data=a.data),f.wrapS=void 0!==a.wrapS?a.wrapS:1001,  
f.wrapT=void 0!==a.wrapT?a.wrapT:1001,f.magFilter=void 0!==a.magFilter?a.magFilter:1006,f.minFilter=void 0!==a.minFilter?a.minFilter:1006,f.anisotropy=void 0!==a.anisotropy?a.anisotropy:1,void 0!==a.format&&(f.format=a.format),void 0!==a.type&&(f.type=a.type),void 0!==a.mipmaps&&(f.mipmaps=a.mipmaps,f.minFilter=1008),1===a.mipmapCount&&(f.minFilter=1006),f.needsUpdate=!0,b&&b(f,a)},c,d);return f}});fd.prototype=Object.assign(Object.create(W.prototype),{constructor:fd,load:function(a,b,c,d){function e(){l.removeEventListener("load",  
e,!1);l.removeEventListener("error",f,!1);vc.add(a,this);b&&b(this);g.manager.itemEnd(a)}function f(b){l.removeEventListener("load",e,!1);l.removeEventListener("error",f,!1);d&&d(b);g.manager.itemError(a);g.manager.itemEnd(a)}void 0!==this.path&&(a=this.path+a);a=this.manager.resolveURL(a);var g=this,h=vc.get(a);if(void 0!==h)return g.manager.itemStart(a),setTimeout(function(){b&&b(h);g.manager.itemEnd(a)},0),h;var l=document.createElementNS("http://www.w3.org/1999/xhtml","img");l.addEventListener("load",  
e,!1);l.addEventListener("error",f,!1);"data:"!==a.substr(0,5)&&void 0!==this.crossOrigin&&(l.crossOrigin=this.crossOrigin);g.manager.itemStart(a);l.src=a;return l}});df.prototype=Object.assign(Object.create(W.prototype),{constructor:df,load:function(a,b,c,d){function e(c){g.load(a[c],function(a){f.images[c]=a;h++;6===h&&(f.needsUpdate=!0,b&&b(f))},void 0,d)}var f=new qb,g=new fd(this.manager);g.setCrossOrigin(this.crossOrigin);g.setPath(this.path);var h=0;for(c=0;c<a.length;++c)e(c);return f}});  
ef.prototype=Object.assign(Object.create(W.prototype),{constructor:ef,load:function(a,b,c,d){var e=new V,f=new fd(this.manager);f.setCrossOrigin(this.crossOrigin);f.setPath(this.path);f.load(a,function(c){e.image=c;c=0<a.search(/\.jpe?g($|\?)/i)||0===a.search(/^data:image\/jpeg/);e.format=c?1022:1023;e.needsUpdate=!0;void 0!==b&&b(e)},c,d);return e}});Object.assign(G.prototype,{getPoint:function(){console.warn("THREE.Curve: .getPoint() not implemented.");return null},getPointAt:function(a,b){a=this.getUtoTmapping(a);  
return this.getPoint(a,b)},getPoints:function(a){void 0===a&&(a=5);for(var b=[],c=0;c<=a;c++)b.push(this.getPoint(c/a));return b},getSpacedPoints:function(a){void 0===a&&(a=5);for(var b=[],c=0;c<=a;c++)b.push(this.getPointAt(c/a));return b},getLength:function(){var a=this.getLengths();return a[a.length-1]},getLengths:function(a){void 0===a&&(a=this.arcLengthDivisions);if(this.cacheArcLengths&&this.cacheArcLengths.length===a+1&&!this.needsUpdate)return this.cacheArcLengths;this.needsUpdate=!1;var b=  
[],c=this.getPoint(0),d,e=0;b.push(0);for(d=1;d<=a;d++){var f=this.getPoint(d/a);e+=f.distanceTo(c);b.push(e);c=f}return this.cacheArcLengths=b},updateArcLengths:function(){this.needsUpdate=!0;this.getLengths()},getUtoTmapping:function(a,b){var c=this.getLengths(),d=c.length;b=b?b:a\*c[d-1];for(var e=0,f=d-1,g;e<=f;)if(a=Math.floor(e+(f-e)/2),g=c[a]-b,0>g)e=a+1;else if(0<g)f=a-1;else{f=a;break}a=f;if(c[a]===b)return a/(d-1);e=c[a];return(a+(b-e)/(c[a+1]-e))/(d-1)},getTangent:function(a){var b=a-1E-4;  
a+=1E-4;0>b&&(b=0);1<a&&(a=1);b=this.getPoint(b);return this.getPoint(a).clone().sub(b).normalize()},getTangentAt:function(a){a=this.getUtoTmapping(a);return this.getTangent(a)},computeFrenetFrames:function(a,b){var c=new n,d=[],e=[],f=[],g=new n,h=new P,l;for(l=0;l<=a;l++){var k=l/a;d[l]=this.getTangentAt(k);d[l].normalize()}e[0]=new n;f[0]=new n;l=Number.MAX\_VALUE;k=Math.abs(d[0].x);var u=Math.abs(d[0].y),p=Math.abs(d[0].z);k<=l&&(l=k,c.set(1,0,0));u<=l&&(l=u,c.set(0,1,0));p<=l&&c.set(0,0,1);g.crossVectors(d[0],  
c).normalize();e[0].crossVectors(d[0],g);f[0].crossVectors(d[0],e[0]);for(l=1;l<=a;l++)e[l]=e[l-1].clone(),f[l]=f[l-1].clone(),g.crossVectors(d[l-1],d[l]),g.length()>Number.EPSILON&&(g.normalize(),c=Math.acos(L.clamp(d[l-1].dot(d[l]),-1,1)),e[l].applyMatrix4(h.makeRotationAxis(g,c))),f[l].crossVectors(d[l],e[l]);if(!0===b)for(c=Math.acos(L.clamp(e[0].dot(e[a]),-1,1)),c/=a,0<d[0].dot(g.crossVectors(e[0],e[a]))&&(c=-c),l=1;l<=a;l++)e[l].applyMatrix4(h.makeRotationAxis(d[l],c\*l)),f[l].crossVectors(d[l],  
e[l]);return{tangents:d,normals:e,binormals:f}},clone:function(){return(new this.constructor).copy(this)},copy:function(a){this.arcLengthDivisions=a.arcLengthDivisions;return this},toJSON:function(){var a={metadata:{version:4.5,type:"Curve",generator:"Curve.toJSON"}};a.arcLengthDivisions=this.arcLengthDivisions;a.type=this.type;return a},fromJSON:function(a){this.arcLengthDivisions=a.arcLengthDivisions;return this}});Ma.prototype=Object.create(G.prototype);Ma.prototype.constructor=Ma;Ma.prototype.isEllipseCurve=  
!0;Ma.prototype.getPoint=function(a,b){b=b||new t;for(var c=2\*Math.PI,d=this.aEndAngle-this.aStartAngle,e=Math.abs(d)<Number.EPSILON;0>d;)d+=c;for(;d>c;)d-=c;d<Number.EPSILON&&(d=e?0:c);!0!==this.aClockwise||e||(d=d===c?-c:d-c);c=this.aStartAngle+a\*d;a=this.aX+this.xRadius\*Math.cos(c);var f=this.aY+this.yRadius\*Math.sin(c);0!==this.aRotation&&(c=Math.cos(this.aRotation),d=Math.sin(this.aRotation),e=a-this.aX,f-=this.aY,a=e\*c-f\*d+this.aX,f=e\*d+f\*c+this.aY);return b.set(a,f)};Ma.prototype.copy=function(a){G.prototype.copy.call(this,  
a);this.aX=a.aX;this.aY=a.aY;this.xRadius=a.xRadius;this.yRadius=a.yRadius;this.aStartAngle=a.aStartAngle;this.aEndAngle=a.aEndAngle;this.aClockwise=a.aClockwise;this.aRotation=a.aRotation;return this};Ma.prototype.toJSON=function(){var a=G.prototype.toJSON.call(this);a.aX=this.aX;a.aY=this.aY;a.xRadius=this.xRadius;a.yRadius=this.yRadius;a.aStartAngle=this.aStartAngle;a.aEndAngle=this.aEndAngle;a.aClockwise=this.aClockwise;a.aRotation=this.aRotation;return a};Ma.prototype.fromJSON=function(a){G.prototype.fromJSON.call(this,  
a);this.aX=a.aX;this.aY=a.aY;this.xRadius=a.xRadius;this.yRadius=a.yRadius;this.aStartAngle=a.aStartAngle;this.aEndAngle=a.aEndAngle;this.aClockwise=a.aClockwise;this.aRotation=a.aRotation;return this};gd.prototype=Object.create(Ma.prototype);gd.prototype.constructor=gd;gd.prototype.isArcCurve=!0;var Tf=new n,ph=new yg,qh=new yg,rh=new yg;pa.prototype=Object.create(G.prototype);pa.prototype.constructor=pa;pa.prototype.isCatmullRomCurve3=!0;pa.prototype.getPoint=function(a,b){b=b||new n;var c=this.points,  
d=c.length;a\*=d-(this.closed?0:1);var e=Math.floor(a);a-=e;this.closed?e+=0<e?0:(Math.floor(Math.abs(e)/d)+1)\*d:0===a&&e===d-1&&(e=d-2,a=1);if(this.closed||0<e)var f=c[(e-1)%d];else Tf.subVectors(c[0],c[1]).add(c[0]),f=Tf;var g=c[e%d];var h=c[(e+1)%d];this.closed||e+2<d?c=c[(e+2)%d]:(Tf.subVectors(c[d-1],c[d-2]).add(c[d-1]),c=Tf);if("centripetal"===this.curveType||"chordal"===this.curveType){var l="chordal"===this.curveType?.5:.25;d=Math.pow(f.distanceToSquared(g),l);e=Math.pow(g.distanceToSquared(h),  
l);l=Math.pow(h.distanceToSquared(c),l);1E-4>e&&(e=1);1E-4>d&&(d=e);1E-4>l&&(l=e);ph.initNonuniformCatmullRom(f.x,g.x,h.x,c.x,d,e,l);qh.initNonuniformCatmullRom(f.y,g.y,h.y,c.y,d,e,l);rh.initNonuniformCatmullRom(f.z,g.z,h.z,c.z,d,e,l)}else"catmullrom"===this.curveType&&(ph.initCatmullRom(f.x,g.x,h.x,c.x,this.tension),qh.initCatmullRom(f.y,g.y,h.y,c.y,this.tension),rh.initCatmullRom(f.z,g.z,h.z,c.z,this.tension));b.set(ph.calc(a),qh.calc(a),rh.calc(a));return b};pa.prototype.copy=function(a){G.prototype.copy.call(this,  
a);this.points=[];for(var b=0,c=a.points.length;b<c;b++)this.points.push(a.points[b].clone());this.closed=a.closed;this.curveType=a.curveType;this.tension=a.tension;return this};pa.prototype.toJSON=function(){var a=G.prototype.toJSON.call(this);a.points=[];for(var b=0,c=this.points.length;b<c;b++)a.points.push(this.points[b].toArray());a.closed=this.closed;a.curveType=this.curveType;a.tension=this.tension;return a};pa.prototype.fromJSON=function(a){G.prototype.fromJSON.call(this,a);this.points=[];  
for(var b=0,c=a.points.length;b<c;b++){var d=a.points[b];this.points.push((new n).fromArray(d))}this.closed=a.closed;this.curveType=a.curveType;this.tension=a.tension;return this};Wa.prototype=Object.create(G.prototype);Wa.prototype.constructor=Wa;Wa.prototype.isCubicBezierCurve=!0;Wa.prototype.getPoint=function(a,b){b=b||new t;var c=this.v0,d=this.v1,e=this.v2,f=this.v3;b.set(qe(a,c.x,d.x,e.x,f.x),qe(a,c.y,d.y,e.y,f.y));return b};Wa.prototype.copy=function(a){G.prototype.copy.call(this,a);this.v0.copy(a.v0);  
this.v1.copy(a.v1);this.v2.copy(a.v2);this.v3.copy(a.v3);return this};Wa.prototype.toJSON=function(){var a=G.prototype.toJSON.call(this);a.v0=this.v0.toArray();a.v1=this.v1.toArray();a.v2=this.v2.toArray();a.v3=this.v3.toArray();return a};Wa.prototype.fromJSON=function(a){G.prototype.fromJSON.call(this,a);this.v0.fromArray(a.v0);this.v1.fromArray(a.v1);this.v2.fromArray(a.v2);this.v3.fromArray(a.v3);return this};hb.prototype=Object.create(G.prototype);hb.prototype.constructor=hb;hb.prototype.isCubicBezierCurve3=  
!0;hb.prototype.getPoint=function(a,b){b=b||new n;var c=this.v0,d=this.v1,e=this.v2,f=this.v3;b.set(qe(a,c.x,d.x,e.x,f.x),qe(a,c.y,d.y,e.y,f.y),qe(a,c.z,d.z,e.z,f.z));return b};hb.prototype.copy=function(a){G.prototype.copy.call(this,a);this.v0.copy(a.v0);this.v1.copy(a.v1);this.v2.copy(a.v2);this.v3.copy(a.v3);return this};hb.prototype.toJSON=function(){var a=G.prototype.toJSON.call(this);a.v0=this.v0.toArray();a.v1=this.v1.toArray();a.v2=this.v2.toArray();a.v3=this.v3.toArray();return a};hb.prototype.fromJSON=  
function(a){G.prototype.fromJSON.call(this,a);this.v0.fromArray(a.v0);this.v1.fromArray(a.v1);this.v2.fromArray(a.v2);this.v3.fromArray(a.v3);return this};Da.prototype=Object.create(G.prototype);Da.prototype.constructor=Da;Da.prototype.isLineCurve=!0;Da.prototype.getPoint=function(a,b){b=b||new t;1===a?b.copy(this.v2):(b.copy(this.v2).sub(this.v1),b.multiplyScalar(a).add(this.v1));return b};Da.prototype.getPointAt=function(a,b){return this.getPoint(a,b)};Da.prototype.getTangent=function(){return this.v2.clone().sub(this.v1).normalize()};  
Da.prototype.copy=function(a){G.prototype.copy.call(this,a);this.v1.copy(a.v1);this.v2.copy(a.v2);return this};Da.prototype.toJSON=function(){var a=G.prototype.toJSON.call(this);a.v1=this.v1.toArray();a.v2=this.v2.toArray();return a};Da.prototype.fromJSON=function(a){G.prototype.fromJSON.call(this,a);this.v1.fromArray(a.v1);this.v2.fromArray(a.v2);return this};Xa.prototype=Object.create(G.prototype);Xa.prototype.constructor=Xa;Xa.prototype.isLineCurve3=!0;Xa.prototype.getPoint=function(a,b){b=b||  
new n;1===a?b.copy(this.v2):(b.copy(this.v2).sub(this.v1),b.multiplyScalar(a).add(this.v1));return b};Xa.prototype.getPointAt=function(a,b){return this.getPoint(a,b)};Xa.prototype.copy=function(a){G.prototype.copy.call(this,a);this.v1.copy(a.v1);this.v2.copy(a.v2);return this};Xa.prototype.toJSON=function(){var a=G.prototype.toJSON.call(this);a.v1=this.v1.toArray();a.v2=this.v2.toArray();return a};Xa.prototype.fromJSON=function(a){G.prototype.fromJSON.call(this,a);this.v1.fromArray(a.v1);this.v2.fromArray(a.v2);  
return this};Ya.prototype=Object.create(G.prototype);Ya.prototype.constructor=Ya;Ya.prototype.isQuadraticBezierCurve=!0;Ya.prototype.getPoint=function(a,b){b=b||new t;var c=this.v0,d=this.v1,e=this.v2;b.set(pe(a,c.x,d.x,e.x),pe(a,c.y,d.y,e.y));return b};Ya.prototype.copy=function(a){G.prototype.copy.call(this,a);this.v0.copy(a.v0);this.v1.copy(a.v1);this.v2.copy(a.v2);return this};Ya.prototype.toJSON=function(){var a=G.prototype.toJSON.call(this);a.v0=this.v0.toArray();a.v1=this.v1.toArray();a.v2=  
this.v2.toArray();return a};Ya.prototype.fromJSON=function(a){G.prototype.fromJSON.call(this,a);this.v0.fromArray(a.v0);this.v1.fromArray(a.v1);this.v2.fromArray(a.v2);return this};ib.prototype=Object.create(G.prototype);ib.prototype.constructor=ib;ib.prototype.isQuadraticBezierCurve3=!0;ib.prototype.getPoint=function(a,b){b=b||new n;var c=this.v0,d=this.v1,e=this.v2;b.set(pe(a,c.x,d.x,e.x),pe(a,c.y,d.y,e.y),pe(a,c.z,d.z,e.z));return b};ib.prototype.copy=function(a){G.prototype.copy.call(this,a);  
this.v0.copy(a.v0);this.v1.copy(a.v1);this.v2.copy(a.v2);return this};ib.prototype.toJSON=function(){var a=G.prototype.toJSON.call(this);a.v0=this.v0.toArray();a.v1=this.v1.toArray();a.v2=this.v2.toArray();return a};ib.prototype.fromJSON=function(a){G.prototype.fromJSON.call(this,a);this.v0.fromArray(a.v0);this.v1.fromArray(a.v1);this.v2.fromArray(a.v2);return this};Za.prototype=Object.create(G.prototype);Za.prototype.constructor=Za;Za.prototype.isSplineCurve=!0;Za.prototype.getPoint=function(a,b){b=  
b||new t;var c=this.points,d=(c.length-1)\*a;a=Math.floor(d);d-=a;var e=c[0===a?a:a-1],f=c[a],g=c[a>c.length-2?c.length-1:a+1];c=c[a>c.length-3?c.length-1:a+2];b.set(li(d,e.x,f.x,g.x,c.x),li(d,e.y,f.y,g.y,c.y));return b};Za.prototype.copy=function(a){G.prototype.copy.call(this,a);this.points=[];for(var b=0,c=a.points.length;b<c;b++)this.points.push(a.points[b].clone());return this};Za.prototype.toJSON=function(){var a=G.prototype.toJSON.call(this);a.points=[];for(var b=0,c=this.points.length;b<c;b++)a.points.push(this.points[b].toArray());  
return a};Za.prototype.fromJSON=function(a){G.prototype.fromJSON.call(this,a);this.points=[];for(var b=0,c=a.points.length;b<c;b++){var d=a.points[b];this.points.push((new t).fromArray(d))}return this};var sh=Object.freeze({\_\_proto\_\_:null,ArcCurve:gd,CatmullRomCurve3:pa,CubicBezierCurve:Wa,CubicBezierCurve3:hb,EllipseCurve:Ma,LineCurve:Da,LineCurve3:Xa,QuadraticBezierCurve:Ya,QuadraticBezierCurve3:ib,SplineCurve:Za});vb.prototype=Object.assign(Object.create(G.prototype),{constructor:vb,add:function(a){this.curves.push(a)},  
closePath:function(){var a=this.curves[0].getPoint(0),b=this.curves[this.curves.length-1].getPoint(1);a.equals(b)||this.curves.push(new Da(b,a))},getPoint:function(a){var b=a\*this.getLength(),c=this.getCurveLengths();for(a=0;a<c.length;){if(c[a]>=b)return b=c[a]-b,a=this.curves[a],c=a.getLength(),a.getPointAt(0===c?0:1-b/c);a++}return null},getLength:function(){var a=this.getCurveLengths();return a[a.length-1]},updateArcLengths:function(){this.needsUpdate=!0;this.cacheLengths=null;this.getCurveLengths()},  
getCurveLengths:function(){if(this.cacheLengths&&this.cacheLengths.length===this.curves.length)return this.cacheLengths;for(var a=[],b=0,c=0,d=this.curves.length;c<d;c++)b+=this.curves[c].getLength(),a.push(b);return this.cacheLengths=a},getSpacedPoints:function(a){void 0===a&&(a=40);for(var b=[],c=0;c<=a;c++)b.push(this.getPoint(c/a));this.autoClose&&b.push(b[0]);return b},getPoints:function(a){a=a||12;for(var b=[],c,d=0,e=this.curves;d<e.length;d++){var f=e[d];f=f.getPoints(f&&f.isEllipseCurve?  
2\*a:f&&(f.isLineCurve||f.isLineCurve3)?1:f&&f.isSplineCurve?a\*f.points.length:a);for(var g=0;g<f.length;g++){var h=f[g];c&&c.equals(h)||(b.push(h),c=h)}}this.autoClose&&1<b.length&&!b[b.length-1].equals(b[0])&&b.push(b[0]);return b},copy:function(a){G.prototype.copy.call(this,a);this.curves=[];for(var b=0,c=a.curves.length;b<c;b++)this.curves.push(a.curves[b].clone());this.autoClose=a.autoClose;return this},toJSON:function(){var a=G.prototype.toJSON.call(this);a.autoClose=this.autoClose;a.curves=  
[];for(var b=0,c=this.curves.length;b<c;b++)a.curves.push(this.curves[b].toJSON());return a},fromJSON:function(a){G.prototype.fromJSON.call(this,a);this.autoClose=a.autoClose;this.curves=[];for(var b=0,c=a.curves.length;b<c;b++){var d=a.curves[b];this.curves.push((new sh[d.type]).fromJSON(d))}return this}});$a.prototype=Object.assign(Object.create(vb.prototype),{constructor:$a,setFromPoints:function(a){this.moveTo(a[0].x,a[0].y);for(var b=1,c=a.length;b<c;b++)this.lineTo(a[b].x,a[b].y);return this},  
moveTo:function(a,b){this.currentPoint.set(a,b);return this},lineTo:function(a,b){var c=new Da(this.currentPoint.clone(),new t(a,b));this.curves.push(c);this.currentPoint.set(a,b);return this},quadraticCurveTo:function(a,b,c,d){a=new Ya(this.currentPoint.clone(),new t(a,b),new t(c,d));this.curves.push(a);this.currentPoint.set(c,d);return this},bezierCurveTo:function(a,b,c,d,e,f){a=new Wa(this.currentPoint.clone(),new t(a,b),new t(c,d),new t(e,f));this.curves.push(a);this.currentPoint.set(e,f);return this},  
splineThru:function(a){var b=[this.currentPoint.clone()].concat(a);b=new Za(b);this.curves.push(b);this.currentPoint.copy(a[a.length-1]);return this},arc:function(a,b,c,d,e,f){this.absarc(a+this.currentPoint.x,b+this.currentPoint.y,c,d,e,f);return this},absarc:function(a,b,c,d,e,f){this.absellipse(a,b,c,c,d,e,f);return this},ellipse:function(a,b,c,d,e,f,g,h){this.absellipse(a+this.currentPoint.x,b+this.currentPoint.y,c,d,e,f,g,h);return this},absellipse:function(a,b,c,d,e,f,g,h){a=new Ma(a,b,c,d,  
e,f,g,h);0<this.curves.length&&(b=a.getPoint(0),b.equals(this.currentPoint)||this.lineTo(b.x,b.y));this.curves.push(a);a=a.getPoint(1);this.currentPoint.copy(a);return this},copy:function(a){vb.prototype.copy.call(this,a);this.currentPoint.copy(a.currentPoint);return this},toJSON:function(){var a=vb.prototype.toJSON.call(this);a.currentPoint=this.currentPoint.toArray();return a},fromJSON:function(a){vb.prototype.fromJSON.call(this,a);this.currentPoint.fromArray(a.currentPoint);return this}});Kb.prototype=  
Object.assign(Object.create($a.prototype),{constructor:Kb,getPointsHoles:function(a){for(var b=[],c=0,d=this.holes.length;c<d;c++)b[c]=this.holes[c].getPoints(a);return b},extractPoints:function(a){return{shape:this.getPoints(a),holes:this.getPointsHoles(a)}},copy:function(a){$a.prototype.copy.call(this,a);this.holes=[];for(var b=0,c=a.holes.length;b<c;b++)this.holes.push(a.holes[b].clone());return this},toJSON:function(){var a=$a.prototype.toJSON.call(this);a.uuid=this.uuid;a.holes=[];for(var b=  
0,c=this.holes.length;b<c;b++)a.holes.push(this.holes[b].toJSON());return a},fromJSON:function(a){$a.prototype.fromJSON.call(this,a);this.uuid=a.uuid;this.holes=[];for(var b=0,c=a.holes.length;b<c;b++){var d=a.holes[b];this.holes.push((new $a).fromJSON(d))}return this}});da.prototype=Object.assign(Object.create(F.prototype),{constructor:da,isLight:!0,copy:function(a){F.prototype.copy.call(this,a);this.color.copy(a.color);this.intensity=a.intensity;return this},toJSON:function(a){a=F.prototype.toJSON.call(this,  
a);a.object.color=this.color.getHex();a.object.intensity=this.intensity;void 0!==this.groundColor&&(a.object.groundColor=this.groundColor.getHex());void 0!==this.distance&&(a.object.distance=this.distance);void 0!==this.angle&&(a.object.angle=this.angle);void 0!==this.decay&&(a.object.decay=this.decay);void 0!==this.penumbra&&(a.object.penumbra=this.penumbra);void 0!==this.shadow&&(a.object.shadow=this.shadow.toJSON());return a}});ff.prototype=Object.assign(Object.create(da.prototype),{constructor:ff,  
isHemisphereLight:!0,copy:function(a){da.prototype.copy.call(this,a);this.groundColor.copy(a.groundColor);return this}});Object.assign(jb.prototype,{\_projScreenMatrix:new P,\_lightPositionWorld:new n,\_lookTarget:new n,getViewportCount:function(){return this.\_viewportCount},getFrustum:function(){return this.\_frustum},updateMatrices:function(a){var b=this.camera,c=this.matrix,d=this.\_projScreenMatrix,e=this.\_lookTarget,f=this.\_lightPositionWorld;f.setFromMatrixPosition(a.matrixWorld);b.position.copy(f);  
e.setFromMatrixPosition(a.target.matrixWorld);b.lookAt(e);b.updateMatrixWorld();d.multiplyMatrices(b.projectionMatrix,b.matrixWorldInverse);this.\_frustum.setFromProjectionMatrix(d);c.set(.5,0,0,.5,0,.5,0,.5,0,0,.5,.5,0,0,0,1);c.multiply(b.projectionMatrix);c.multiply(b.matrixWorldInverse)},getViewport:function(a){return this.\_viewports[a]},getFrameExtents:function(){return this.\_frameExtents},copy:function(a){this.camera=a.camera.clone();this.bias=a.bias;this.radius=a.radius;this.mapSize.copy(a.mapSize);  
return this},clone:function(){return(new this.constructor).copy(this)},toJSON:function(){var a={};0!==this.bias&&(a.bias=this.bias);1!==this.radius&&(a.radius=this.radius);if(512!==this.mapSize.x||512!==this.mapSize.y)a.mapSize=this.mapSize.toArray();a.camera=this.camera.toJSON(!1).object;delete a.camera.matrix;return a}});gf.prototype=Object.assign(Object.create(jb.prototype),{constructor:gf,isSpotLightShadow:!0,updateMatrices:function(a){var b=this.camera,c=2\*L.RAD2DEG\*a.angle,d=this.mapSize.width/  
this.mapSize.height,e=a.distance||b.far;if(c!==b.fov||d!==b.aspect||e!==b.far)b.fov=c,b.aspect=d,b.far=e,b.updateProjectionMatrix();jb.prototype.updateMatrices.call(this,a)}});hf.prototype=Object.assign(Object.create(da.prototype),{constructor:hf,isSpotLight:!0,copy:function(a){da.prototype.copy.call(this,a);this.distance=a.distance;this.angle=a.angle;this.penumbra=a.penumbra;this.decay=a.decay;this.target=a.target.clone();this.shadow=a.shadow.clone();return this}});zg.prototype=Object.assign(Object.create(jb.prototype),  
{constructor:zg,isPointLightShadow:!0,updateMatrices:function(a,b){void 0===b&&(b=0);var c=this.camera,d=this.matrix,e=this.\_lightPositionWorld,f=this.\_lookTarget,g=this.\_projScreenMatrix;e.setFromMatrixPosition(a.matrixWorld);c.position.copy(e);f.copy(c.position);f.add(this.\_cubeDirections[b]);c.up.copy(this.\_cubeUps[b]);c.lookAt(f);c.updateMatrixWorld();d.makeTranslation(-e.x,-e.y,-e.z);g.multiplyMatrices(c.projectionMatrix,c.matrixWorldInverse);this.\_frustum.setFromProjectionMatrix(g)}});jf.prototype=  
Object.assign(Object.create(da.prototype),{constructor:jf,isPointLight:!0,copy:function(a){da.prototype.copy.call(this,a);this.distance=a.distance;this.decay=a.decay;this.shadow=a.shadow.clone();return this}});hd.prototype=Object.assign(Object.create(db.prototype),{constructor:hd,isOrthographicCamera:!0,copy:function(a,b){db.prototype.copy.call(this,a,b);this.left=a.left;this.right=a.right;this.top=a.top;this.bottom=a.bottom;this.near=a.near;this.far=a.far;this.zoom=a.zoom;this.view=null===a.view?  
null:Object.assign({},a.view);return this},setViewOffset:function(a,b,c,d,e,f){null===this.view&&(this.view={enabled:!0,fullWidth:1,fullHeight:1,offsetX:0,offsetY:0,width:1,height:1});this.view.enabled=!0;this.view.fullWidth=a;this.view.fullHeight=b;this.view.offsetX=c;this.view.offsetY=d;this.view.width=e;this.view.height=f;this.updateProjectionMatrix()},clearViewOffset:function(){null!==this.view&&(this.view.enabled=!1);this.updateProjectionMatrix()},updateProjectionMatrix:function(){var a=(this.right-  
this.left)/(2\*this.zoom),b=(this.top-this.bottom)/(2\*this.zoom),c=(this.right+this.left)/2,d=(this.top+this.bottom)/2,e=c-a;c+=a;a=d+b;b=d-b;null!==this.view&&this.view.enabled&&(d=(this.right-this.left)/this.view.fullWidth/this.zoom,b=(this.top-this.bottom)/this.view.fullHeight/this.zoom,e+=d\*this.view.offsetX,c=e+d\*this.view.width,a-=b\*this.view.offsetY,b=a-b\*this.view.height);this.projectionMatrix.makeOrthographic(e,c,a,b,this.near,this.far);this.projectionMatrixInverse.getInverse(this.projectionMatrix)},  
toJSON:function(a){a=F.prototype.toJSON.call(this,a);a.object.zoom=this.zoom;a.object.left=this.left;a.object.right=this.right;a.object.top=this.top;a.object.bottom=this.bottom;a.object.near=this.near;a.object.far=this.far;null!==this.view&&(a.object.view=Object.assign({},this.view));return a}});kf.prototype=Object.assign(Object.create(jb.prototype),{constructor:kf,isDirectionalLightShadow:!0,updateMatrices:function(a){jb.prototype.updateMatrices.call(this,a)}});lf.prototype=Object.assign(Object.create(da.prototype),  
{constructor:lf,isDirectionalLight:!0,copy:function(a){da.prototype.copy.call(this,a);this.target=a.target.clone();this.shadow=a.shadow.clone();return this}});mf.prototype=Object.assign(Object.create(da.prototype),{constructor:mf,isAmbientLight:!0});nf.prototype=Object.assign(Object.create(da.prototype),{constructor:nf,isRectAreaLight:!0,copy:function(a){da.prototype.copy.call(this,a);this.width=a.width;this.height=a.height;return this},toJSON:function(a){a=da.prototype.toJSON.call(this,a);a.object.width=  
this.width;a.object.height=this.height;return a}});of.prototype=Object.assign(Object.create(W.prototype),{constructor:of,load:function(a,b,c,d){var e=this,f=new Ra(e.manager);f.setPath(e.path);f.load(a,function(a){b(e.parse(JSON.parse(a)))},c,d)},parse:function(a){function b(a){void 0===c[a]&&console.warn("THREE.MaterialLoader: Undefined texture",a);return c[a]}var c=this.textures,d=new bl[a.type];void 0!==a.uuid&&(d.uuid=a.uuid);void 0!==a.name&&(d.name=a.name);void 0!==a.color&&d.color.setHex(a.color);  
void 0!==a.roughness&&(d.roughness=a.roughness);void 0!==a.metalness&&(d.metalness=a.metalness);void 0!==a.sheen&&(d.sheen=(new A).setHex(a.sheen));void 0!==a.emissive&&d.emissive.setHex(a.emissive);void 0!==a.specular&&d.specular.setHex(a.specular);void 0!==a.shininess&&(d.shininess=a.shininess);void 0!==a.clearcoat&&(d.clearcoat=a.clearcoat);void 0!==a.clearcoatRoughness&&(d.clearcoatRoughness=a.clearcoatRoughness);void 0!==a.fog&&(d.fog=a.fog);void 0!==a.flatShading&&(d.flatShading=a.flatShading);  
void 0!==a.blending&&(d.blending=a.blending);void 0!==a.combine&&(d.combine=a.combine);void 0!==a.side&&(d.side=a.side);void 0!==a.opacity&&(d.opacity=a.opacity);void 0!==a.transparent&&(d.transparent=a.transparent);void 0!==a.alphaTest&&(d.alphaTest=a.alphaTest);void 0!==a.depthTest&&(d.depthTest=a.depthTest);void 0!==a.depthWrite&&(d.depthWrite=a.depthWrite);void 0!==a.colorWrite&&(d.colorWrite=a.colorWrite);void 0!==a.stencilWrite&&(d.stencilWrite=a.stencilWrite);void 0!==a.stencilWriteMask&&(d.stencilWriteMask=  
a.stencilWriteMask);void 0!==a.stencilFunc&&(d.stencilFunc=a.stencilFunc);void 0!==a.stencilRef&&(d.stencilRef=a.stencilRef);void 0!==a.stencilFuncMask&&(d.stencilFuncMask=a.stencilFuncMask);void 0!==a.stencilFail&&(d.stencilFail=a.stencilFail);void 0!==a.stencilZFail&&(d.stencilZFail=a.stencilZFail);void 0!==a.stencilZPass&&(d.stencilZPass=a.stencilZPass);void 0!==a.wireframe&&(d.wireframe=a.wireframe);void 0!==a.wireframeLinewidth&&(d.wireframeLinewidth=a.wireframeLinewidth);void 0!==a.wireframeLinecap&&  
(d.wireframeLinecap=a.wireframeLinecap);void 0!==a.wireframeLinejoin&&(d.wireframeLinejoin=a.wireframeLinejoin);void 0!==a.rotation&&(d.rotation=a.rotation);1!==a.linewidth&&(d.linewidth=a.linewidth);void 0!==a.dashSize&&(d.dashSize=a.dashSize);void 0!==a.gapSize&&(d.gapSize=a.gapSize);void 0!==a.scale&&(d.scale=a.scale);void 0!==a.polygonOffset&&(d.polygonOffset=a.polygonOffset);void 0!==a.polygonOffsetFactor&&(d.polygonOffsetFactor=a.polygonOffsetFactor);void 0!==a.polygonOffsetUnits&&(d.polygonOffsetUnits=  
a.polygonOffsetUnits);void 0!==a.skinning&&(d.skinning=a.skinning);void 0!==a.morphTargets&&(d.morphTargets=a.morphTargets);void 0!==a.morphNormals&&(d.morphNormals=a.morphNormals);void 0!==a.dithering&&(d.dithering=a.dithering);void 0!==a.vertexTangents&&(d.vertexTangents=a.vertexTangents);void 0!==a.visible&&(d.visible=a.visible);void 0!==a.toneMapped&&(d.toneMapped=a.toneMapped);void 0!==a.userData&&(d.userData=a.userData);void 0!==a.vertexColors&&(d.vertexColors="number"===typeof a.vertexColors?  
0<a.vertexColors?!0:!1:a.vertexColors);if(void 0!==a.uniforms)for(var e in a.uniforms){var f=a.uniforms[e];d.uniforms[e]={};switch(f.type){case "t":d.uniforms[e].value=b(f.value);break;case "c":d.uniforms[e].value=(new A).setHex(f.value);break;case "v2":d.uniforms[e].value=(new t).fromArray(f.value);break;case "v3":d.uniforms[e].value=(new n).fromArray(f.value);break;case "v4":d.uniforms[e].value=(new ka).fromArray(f.value);break;case "m3":d.uniforms[e].value=(new wa).fromArray(f.value);case "m4":d.uniforms[e].value=  
(new P).fromArray(f.value);break;default:d.uniforms[e].value=f.value}}void 0!==a.defines&&(d.defines=a.defines);void 0!==a.vertexShader&&(d.vertexShader=a.vertexShader);void 0!==a.fragmentShader&&(d.fragmentShader=a.fragmentShader);if(void 0!==a.extensions)for(var g in a.extensions)d.extensions[g]=a.extensions[g];void 0!==a.shading&&(d.flatShading=1===a.shading);void 0!==a.size&&(d.size=a.size);void 0!==a.sizeAttenuation&&(d.sizeAttenuation=a.sizeAttenuation);void 0!==a.map&&(d.map=b(a.map));void 0!==  
a.matcap&&(d.matcap=b(a.matcap));void 0!==a.alphaMap&&(d.alphaMap=b(a.alphaMap));void 0!==a.bumpMap&&(d.bumpMap=b(a.bumpMap));void 0!==a.bumpScale&&(d.bumpScale=a.bumpScale);void 0!==a.normalMap&&(d.normalMap=b(a.normalMap));void 0!==a.normalMapType&&(d.normalMapType=a.normalMapType);void 0!==a.normalScale&&(e=a.normalScale,!1===Array.isArray(e)&&(e=[e,e]),d.normalScale=(new t).fromArray(e));void 0!==a.displacementMap&&(d.displacementMap=b(a.displacementMap));void 0!==a.displacementScale&&(d.displacementScale=  
a.displacementScale);void 0!==a.displacementBias&&(d.displacementBias=a.displacementBias);void 0!==a.roughnessMap&&(d.roughnessMap=b(a.roughnessMap));void 0!==a.metalnessMap&&(d.metalnessMap=b(a.metalnessMap));void 0!==a.emissiveMap&&(d.emissiveMap=b(a.emissiveMap));void 0!==a.emissiveIntensity&&(d.emissiveIntensity=a.emissiveIntensity);void 0!==a.specularMap&&(d.specularMap=b(a.specularMap));void 0!==a.envMap&&(d.envMap=b(a.envMap));void 0!==a.envMapIntensity&&(d.envMapIntensity=a.envMapIntensity);  
void 0!==a.reflectivity&&(d.reflectivity=a.reflectivity);void 0!==a.refractionRatio&&(d.refractionRatio=a.refractionRatio);void 0!==a.lightMap&&(d.lightMap=b(a.lightMap));void 0!==a.lightMapIntensity&&(d.lightMapIntensity=a.lightMapIntensity);void 0!==a.aoMap&&(d.aoMap=b(a.aoMap));void 0!==a.aoMapIntensity&&(d.aoMapIntensity=a.aoMapIntensity);void 0!==a.gradientMap&&(d.gradientMap=b(a.gradientMap));void 0!==a.clearcoatMap&&(d.clearcoatMap=b(a.clearcoatMap));void 0!==a.clearcoatRoughnessMap&&(d.clearcoatRoughnessMap=  
b(a.clearcoatRoughnessMap));void 0!==a.clearcoatNormalMap&&(d.clearcoatNormalMap=b(a.clearcoatNormalMap));void 0!==a.clearcoatNormalScale&&(d.clearcoatNormalScale=(new t).fromArray(a.clearcoatNormalScale));return d},setTextures:function(a){this.textures=a;return this}});var th={decodeText:function(a){if("undefined"!==typeof TextDecoder)return(new TextDecoder).decode(a);for(var b="",c=0,d=a.length;c<d;c++)b+=String.fromCharCode(a[c]);try{return decodeURIComponent(escape(b))}catch(e){return b}},extractUrlBase:function(a){var b=  
a.lastIndexOf("/");return-1===b?"./":a.substr(0,b+1)}};pf.prototype=Object.assign(Object.create(C.prototype),{constructor:pf,isInstancedBufferGeometry:!0,copy:function(a){C.prototype.copy.call(this,a);this.maxInstancedCount=a.maxInstancedCount;return this},clone:function(){return(new this.constructor).copy(this)},toJSON:function(){var a=C.prototype.toJSON.call(this);a.maxInstancedCount=this.maxInstancedCount;a.isInstancedBufferGeometry=!0;return a}});qf.prototype=Object.assign(Object.create(M.prototype),  
{constructor:qf,isInstancedBufferAttribute:!0,copy:function(a){M.prototype.copy.call(this,a);this.meshPerAttribute=a.meshPerAttribute;return this},toJSON:function(){var a=M.prototype.toJSON.call(this);a.meshPerAttribute=this.meshPerAttribute;a.isInstancedBufferAttribute=!0;return a}});rf.prototype=Object.assign(Object.create(W.prototype),{constructor:rf,load:function(a,b,c,d){var e=this,f=new Ra(e.manager);f.setPath(e.path);f.load(a,function(a){b(e.parse(JSON.parse(a)))},c,d)},parse:function(a){var b=  
a.isInstancedBufferGeometry?new pf:new C,c=a.data.index;if(void 0!==c){var d=new uh[c.type](c.array);b.setIndex(new M(d,1))}c=a.data.attributes;for(var e in c){var f=c[e];d=new uh[f.type](f.array);d=new (f.isInstancedBufferAttribute?qf:M)(d,f.itemSize,f.normalized);void 0!==f.name&&(d.name=f.name);b.setAttribute(e,d)}var g=a.data.morphAttributes;if(g)for(e in g){var h=g[e],l=[];c=0;for(var k=h.length;c<k;c++)f=h[c],d=new uh[f.type](f.array),d=new M(d,f.itemSize,f.normalized),void 0!==f.name&&(d.name=  
f.name),l.push(d);b.morphAttributes[e]=l}a.data.morphTargetsRelative&&(b.morphTargetsRelative=!0);e=a.data.groups||a.data.drawcalls||a.data.offsets;if(void 0!==e)for(c=0,f=e.length;c!==f;++c)d=e[c],b.addGroup(d.start,d.count,d.materialIndex);c=a.data.boundingSphere;void 0!==c&&(e=new n,void 0!==c.center&&e.fromArray(c.center),b.boundingSphere=new pb(e,c.radius));a.name&&(b.name=a.name);a.userData&&(b.userData=a.userData);return b}});var uh={Int8Array:Int8Array,Uint8Array:Uint8Array,Uint8ClampedArray:"undefined"!==  
typeof Uint8ClampedArray?Uint8ClampedArray:Uint8Array,Int16Array:Int16Array,Uint16Array:Uint16Array,Int32Array:Int32Array,Uint32Array:Uint32Array,Float32Array:Float32Array,Float64Array:Float64Array};sf.prototype=Object.assign(Object.create(W.prototype),{constructor:sf,load:function(a,b,c,d){var e=this,f=""===this.path?th.extractUrlBase(a):this.path;this.resourcePath=this.resourcePath||f;f=new Ra(e.manager);f.setPath(this.path);f.load(a,function(c){var f=null;try{f=JSON.parse(c)}catch(l){void 0!==  
d&&d(l);console.error("THREE:ObjectLoader: Can't parse "+a+".",l.message);return}c=f.metadata;void 0===c||void 0===c.type||"geometry"===c.type.toLowerCase()?console.error("THREE.ObjectLoader: Can't load "+a):e.parse(f,b)},c,d)},parse:function(a,b){var c=this.parseShape(a.shapes);c=this.parseGeometries(a.geometries,c);var d=this.parseImages(a.images,function(){void 0!==b&&b(e)});d=this.parseTextures(a.textures,d);d=this.parseMaterials(a.materials,d);var e=this.parseObject(a.object,c,d);a.animations&&  
(e.animations=this.parseAnimations(a.animations));void 0!==a.images&&0!==a.images.length||void 0===b||b(e);return e},parseShape:function(a){var b={};if(void 0!==a)for(var c=0,d=a.length;c<d;c++){var e=(new Kb).fromJSON(a[c]);b[e.uuid]=e}return b},parseGeometries:function(a,b){var c={};if(void 0!==a)for(var d=new rf,e=0,f=a.length;e<f;e++){var g=a[e];switch(g.type){case "PlaneGeometry":case "PlaneBufferGeometry":var h=new ua[g.type](g.width,g.height,g.widthSegments,g.heightSegments);break;case "BoxGeometry":case "BoxBufferGeometry":case "CubeGeometry":h=  
new ua[g.type](g.width,g.height,g.depth,g.widthSegments,g.heightSegments,g.depthSegments);break;case "CircleGeometry":case "CircleBufferGeometry":h=new ua[g.type](g.radius,g.segments,g.thetaStart,g.thetaLength);break;case "CylinderGeometry":case "CylinderBufferGeometry":h=new ua[g.type](g.radiusTop,g.radiusBottom,g.height,g.radialSegments,g.heightSegments,g.openEnded,g.thetaStart,g.thetaLength);break;case "ConeGeometry":case "ConeBufferGeometry":h=new ua[g.type](g.radius,g.height,g.radialSegments,  
g.heightSegments,g.openEnded,g.thetaStart,g.thetaLength);break;case "SphereGeometry":case "SphereBufferGeometry":h=new ua[g.type](g.radius,g.widthSegments,g.heightSegments,g.phiStart,g.phiLength,g.thetaStart,g.thetaLength);break;case "DodecahedronGeometry":case "DodecahedronBufferGeometry":case "IcosahedronGeometry":case "IcosahedronBufferGeometry":case "OctahedronGeometry":case "OctahedronBufferGeometry":case "TetrahedronGeometry":case "TetrahedronBufferGeometry":h=new ua[g.type](g.radius,g.detail);  
break;case "RingGeometry":case "RingBufferGeometry":h=new ua[g.type](g.innerRadius,g.outerRadius,g.thetaSegments,g.phiSegments,g.thetaStart,g.thetaLength);break;case "TorusGeometry":case "TorusBufferGeometry":h=new ua[g.type](g.radius,g.tube,g.radialSegments,g.tubularSegments,g.arc);break;case "TorusKnotGeometry":case "TorusKnotBufferGeometry":h=new ua[g.type](g.radius,g.tube,g.tubularSegments,g.radialSegments,g.p,g.q);break;case "TubeGeometry":case "TubeBufferGeometry":h=new ua[g.type]((new sh[g.path.type]).fromJSON(g.path),  
g.tubularSegments,g.radius,g.radialSegments,g.closed);break;case "LatheGeometry":case "LatheBufferGeometry":h=new ua[g.type](g.points,g.segments,g.phiStart,g.phiLength);break;case "PolyhedronGeometry":case "PolyhedronBufferGeometry":h=new ua[g.type](g.vertices,g.indices,g.radius,g.details);break;case "ShapeGeometry":case "ShapeBufferGeometry":h=[];for(var l=0,k=g.shapes.length;l<k;l++){var n=b[g.shapes[l]];h.push(n)}h=new ua[g.type](h,g.curveSegments);break;case "ExtrudeGeometry":case "ExtrudeBufferGeometry":h=  
[];l=0;for(k=g.shapes.length;l<k;l++)n=b[g.shapes[l]],h.push(n);l=g.options.extrudePath;void 0!==l&&(g.options.extrudePath=(new sh[l.type]).fromJSON(l));h=new ua[g.type](h,g.options);break;case "BufferGeometry":case "InstancedBufferGeometry":h=d.parse(g);break;case "Geometry":console.error('THREE.ObjectLoader: Loading "Geometry" is not supported anymore.');break;default:console.warn('THREE.ObjectLoader: Unsupported geometry type "'+g.type+'"');continue}h.uuid=g.uuid;void 0!==g.name&&(h.name=g.name);  
!0===h.isBufferGeometry&&void 0!==g.userData&&(h.userData=g.userData);c[g.uuid]=h}return c},parseMaterials:function(a,b){var c={},d={};if(void 0!==a){var e=new of;e.setTextures(b);b=0;for(var f=a.length;b<f;b++){var g=a[b];if("MultiMaterial"===g.type){for(var h=[],l=0;l<g.materials.length;l++){var k=g.materials[l];void 0===c[k.uuid]&&(c[k.uuid]=e.parse(k));h.push(c[k.uuid])}d[g.uuid]=h}else void 0===c[g.uuid]&&(c[g.uuid]=e.parse(g)),d[g.uuid]=c[g.uuid]}}return d},parseAnimations:function(a){for(var b=  
[],c=0;c<a.length;c++){var d=a[c],e=Qa.parse(d);void 0!==d.uuid&&(e.uuid=d.uuid);b.push(e)}return b},parseImages:function(a,b){function c(a){d.manager.itemStart(a);return f.load(a,function(){d.manager.itemEnd(a)},void 0,function(){d.manager.itemError(a);d.manager.itemEnd(a)})}var d=this,e={};if(void 0!==a&&0<a.length){b=new vg(b);var f=new fd(b);f.setCrossOrigin(this.crossOrigin);b=0;for(var g=a.length;b<g;b++){var h=a[b],l=h.url;if(Array.isArray(l)){e[h.uuid]=[];for(var k=0,n=l.length;k<n;k++){var p=  
l[k];p=/^(\/\/)|([a-z]+:(\/\/)?)/i.test(p)?p:d.resourcePath+p;e[h.uuid].push(c(p))}}else p=/^(\/\/)|([a-z]+:(\/\/)?)/i.test(h.url)?h.url:d.resourcePath+h.url,e[h.uuid]=c(p)}}return e},parseTextures:function(a,b){function c(a,b){if("number"===typeof a)return a;console.warn("THREE.ObjectLoader.parseTexture: Constant should be in numeric form.",a);return b[a]}var d={};if(void 0!==a)for(var e=0,f=a.length;e<f;e++){var g=a[e];void 0===g.image&&console.warn('THREE.ObjectLoader: No "image" specified for',  
g.uuid);void 0===b[g.image]&&console.warn("THREE.ObjectLoader: Undefined image",g.image);var h=Array.isArray(b[g.image])?new qb(b[g.image]):new V(b[g.image]);h.needsUpdate=!0;h.uuid=g.uuid;void 0!==g.name&&(h.name=g.name);void 0!==g.mapping&&(h.mapping=c(g.mapping,cl));void 0!==g.offset&&h.offset.fromArray(g.offset);void 0!==g.repeat&&h.repeat.fromArray(g.repeat);void 0!==g.center&&h.center.fromArray(g.center);void 0!==g.rotation&&(h.rotation=g.rotation);void 0!==g.wrap&&(h.wrapS=c(g.wrap[0],aj),  
h.wrapT=c(g.wrap[1],aj));void 0!==g.format&&(h.format=g.format);void 0!==g.type&&(h.type=g.type);void 0!==g.encoding&&(h.encoding=g.encoding);void 0!==g.minFilter&&(h.minFilter=c(g.minFilter,bj));void 0!==g.magFilter&&(h.magFilter=c(g.magFilter,bj));void 0!==g.anisotropy&&(h.anisotropy=g.anisotropy);void 0!==g.flipY&&(h.flipY=g.flipY);void 0!==g.premultiplyAlpha&&(h.premultiplyAlpha=g.premultiplyAlpha);void 0!==g.unpackAlignment&&(h.unpackAlignment=g.unpackAlignment);d[g.uuid]=h}return d},parseObject:function(a,  
b,c){function d(a){void 0===b[a]&&console.warn("THREE.ObjectLoader: Undefined geometry",a);return b[a]}function e(a){if(void 0!==a){if(Array.isArray(a)){for(var b=[],d=0,e=a.length;d<e;d++){var f=a[d];void 0===c[f]&&console.warn("THREE.ObjectLoader: Undefined material",f);b.push(c[f])}return b}void 0===c[a]&&console.warn("THREE.ObjectLoader: Undefined material",a);return c[a]}}switch(a.type){case "Scene":var f=new ob;void 0!==a.background&&Number.isInteger(a.background)&&(f.background=new A(a.background));  
void 0!==a.fog&&("Fog"===a.fog.type?f.fog=new Re(a.fog.color,a.fog.near,a.fog.far):"FogExp2"===a.fog.type&&(f.fog=new Qe(a.fog.color,a.fog.density)));break;case "PerspectiveCamera":f=new aa(a.fov,a.aspect,a.near,a.far);void 0!==a.focus&&(f.focus=a.focus);void 0!==a.zoom&&(f.zoom=a.zoom);void 0!==a.filmGauge&&(f.filmGauge=a.filmGauge);void 0!==a.filmOffset&&(f.filmOffset=a.filmOffset);void 0!==a.view&&(f.view=Object.assign({},a.view));break;case "OrthographicCamera":f=new hd(a.left,a.right,a.top,a.bottom,  
a.near,a.far);void 0!==a.zoom&&(f.zoom=a.zoom);void 0!==a.view&&(f.view=Object.assign({},a.view));break;case "AmbientLight":f=new mf(a.color,a.intensity);break;case "DirectionalLight":f=new lf(a.color,a.intensity);break;case "PointLight":f=new jf(a.color,a.intensity,a.distance,a.decay);break;case "RectAreaLight":f=new nf(a.color,a.intensity,a.width,a.height);break;case "SpotLight":f=new hf(a.color,a.intensity,a.distance,a.angle,a.penumbra,a.decay);break;case "HemisphereLight":f=new ff(a.color,a.groundColor,  
a.intensity);break;case "SkinnedMesh":console.warn("THREE.ObjectLoader.parseObject() does not support SkinnedMesh yet.");case "Mesh":f=d(a.geometry);var g=e(a.material);f=new S(f,g);break;case "InstancedMesh":f=d(a.geometry);g=e(a.material);var h=a.instanceMatrix;f=new Ve(f,g,a.count);f.instanceMatrix=new M(new Float32Array(h.array),16);break;case "LOD":f=new Rd;break;case "Line":f=new Ka(d(a.geometry),e(a.material),a.mode);break;case "LineLoop":f=new We(d(a.geometry),e(a.material));break;case "LineSegments":f=  
new ma(d(a.geometry),e(a.material));break;case "PointCloud":case "Points":f=new Pc(d(a.geometry),e(a.material));break;case "Sprite":f=new Pd(e(a.material));break;case "Group":f=new Mc;break;default:f=new F}f.uuid=a.uuid;void 0!==a.name&&(f.name=a.name);void 0!==a.matrix?(f.matrix.fromArray(a.matrix),void 0!==a.matrixAutoUpdate&&(f.matrixAutoUpdate=a.matrixAutoUpdate),f.matrixAutoUpdate&&f.matrix.decompose(f.position,f.quaternion,f.scale)):(void 0!==a.position&&f.position.fromArray(a.position),void 0!==  
a.rotation&&f.rotation.fromArray(a.rotation),void 0!==a.quaternion&&f.quaternion.fromArray(a.quaternion),void 0!==a.scale&&f.scale.fromArray(a.scale));void 0!==a.castShadow&&(f.castShadow=a.castShadow);void 0!==a.receiveShadow&&(f.receiveShadow=a.receiveShadow);a.shadow&&(void 0!==a.shadow.bias&&(f.shadow.bias=a.shadow.bias),void 0!==a.shadow.radius&&(f.shadow.radius=a.shadow.radius),void 0!==a.shadow.mapSize&&f.shadow.mapSize.fromArray(a.shadow.mapSize),void 0!==a.shadow.camera&&(f.shadow.camera=  
this.parseObject(a.shadow.camera)));void 0!==a.visible&&(f.visible=a.visible);void 0!==a.frustumCulled&&(f.frustumCulled=a.frustumCulled);void 0!==a.renderOrder&&(f.renderOrder=a.renderOrder);void 0!==a.userData&&(f.userData=a.userData);void 0!==a.layers&&(f.layers.mask=a.layers);if(void 0!==a.children)for(h=a.children,g=0;g<h.length;g++)f.add(this.parseObject(h[g],b,c));if("LOD"===a.type)for(void 0!==a.autoUpdate&&(f.autoUpdate=a.autoUpdate),a=a.levels,h=0;h<a.length;h++){g=a[h];var l=f.getObjectByProperty("uuid",  
g.object);void 0!==l&&f.addLevel(l,g.distance)}return f}});var cl={UVMapping:300,CubeReflectionMapping:301,CubeRefractionMapping:302,EquirectangularReflectionMapping:303,EquirectangularRefractionMapping:304,SphericalReflectionMapping:305,CubeUVReflectionMapping:306,CubeUVRefractionMapping:307},aj={RepeatWrapping:1E3,ClampToEdgeWrapping:1001,MirroredRepeatWrapping:1002},bj={NearestFilter:1003,NearestMipmapNearestFilter:1004,NearestMipmapLinearFilter:1005,LinearFilter:1006,LinearMipmapNearestFilter:1007,  
LinearMipmapLinearFilter:1008};Ag.prototype=Object.assign(Object.create(W.prototype),{constructor:Ag,setOptions:function(a){this.options=a;return this},load:function(a,b,c,d){void 0===a&&(a="");void 0!==this.path&&(a=this.path+a);a=this.manager.resolveURL(a);var e=this,f=vc.get(a);if(void 0!==f)return e.manager.itemStart(a),setTimeout(function(){b&&b(f);e.manager.itemEnd(a)},0),f;fetch(a).then(function(a){return a.blob()}).then(function(a){return void 0===e.options?createImageBitmap(a):createImageBitmap(a,  
e.options)}).then(function(c){vc.add(a,c);b&&b(c);e.manager.itemEnd(a)}).catch(function(b){d&&d(b);e.manager.itemError(a);e.manager.itemEnd(a)});e.manager.itemStart(a)}});Object.assign(Bg.prototype,{moveTo:function(a,b){this.currentPath=new $a;this.subPaths.push(this.currentPath);this.currentPath.moveTo(a,b);return this},lineTo:function(a,b){this.currentPath.lineTo(a,b);return this},quadraticCurveTo:function(a,b,c,d){this.currentPath.quadraticCurveTo(a,b,c,d);return this},bezierCurveTo:function(a,  
b,c,d,e,f){this.currentPath.bezierCurveTo(a,b,c,d,e,f);return this},splineThru:function(a){this.currentPath.splineThru(a);return this},toShapes:function(a,b){function c(a){for(var b=[],c=0,d=a.length;c<d;c++){var e=a[c],f=new Kb;f.curves=e.curves;b.push(f)}return b}function d(a,b){for(var c=b.length,d=!1,e=c-1,f=0;f<c;e=f++){var g=b[e],h=b[f],k=h.x-g.x,l=h.y-g.y;if(Math.abs(l)>Number.EPSILON){if(0>l&&(g=b[f],k=-k,h=b[e],l=-l),!(a.y<g.y||a.y>h.y))if(a.y===g.y){if(a.x===g.x)return!0}else{e=l\*(a.x-g.x)-  
k\*(a.y-g.y);if(0===e)return!0;0>e||(d=!d)}}else if(a.y===g.y&&(h.x<=a.x&&a.x<=g.x||g.x<=a.x&&a.x<=h.x))return!0}return d}var e=sb.isClockWise,f=this.subPaths;if(0===f.length)return[];if(!0===b)return c(f);b=[];if(1===f.length){var g=f[0];var h=new Kb;h.curves=g.curves;b.push(h);return b}var l=!e(f[0].getPoints());l=a?!l:l;h=[];var k=[],n=[],p=0;k[p]=void 0;n[p]=[];for(var t=0,r=f.length;t<r;t++){g=f[t];var q=g.getPoints();var v=e(q);(v=a?!v:v)?(!l&&k[p]&&p++,k[p]={s:new Kb,p:q},k[p].s.curves=g.curves,  
l&&p++,n[p]=[]):n[p].push({h:g,p:q[0]})}if(!k[0])return c(f);if(1<k.length){t=!1;a=[];e=0;for(f=k.length;e<f;e++)h[e]=[];e=0;for(f=k.length;e<f;e++)for(g=n[e],v=0;v<g.length;v++){l=g[v];p=!0;for(q=0;q<k.length;q++)d(l.p,k[q].p)&&(e!==q&&a.push({froms:e,tos:q,hole:v}),p?(p=!1,h[q].push(l)):t=!0);p&&h[e].push(l)}0<a.length&&(t||(n=h))}t=0;for(e=k.length;t<e;t++)for(h=k[t].s,b.push(h),a=n[t],f=0,g=a.length;f<g;f++)h.holes.push(a[f].h);return b}});Object.assign(Cg.prototype,{isFont:!0,generateShapes:function(a,  
b){void 0===b&&(b=100);var c=[],d=b;b=this.data;var e=Array.from?Array.from(a):String(a).split("");d/=b.resolution;var f=(b.boundingBox.yMax-b.boundingBox.yMin+b.underlineThickness)\*d;a=[];for(var g=0,h=0,l=0;l<e.length;l++){var k=e[l];if("\n"===k)g=0,h-=f;else{var n=k;k=d;var p=g,t=h,r=b,q=r.glyphs[n]||r.glyphs["?"];if(q){n=new Bg;if(q.o){r=q.\_cachedOutline||(q.\_cachedOutline=q.o.split(" "));for(var v=0,y=r.length;v<y;)switch(r[v++]){case "m":var w=r[v++]\*k+p;var z=r[v++]\*k+t;n.moveTo(w,z);break;  
case "l":w=r[v++]\*k+p;z=r[v++]\*k+t;n.lineTo(w,z);break;case "q":var A=r[v++]\*k+p;var C=r[v++]\*k+t;var D=r[v++]\*k+p;var B=r[v++]\*k+t;n.quadraticCurveTo(D,B,A,C);break;case "b":A=r[v++]\*k+p,C=r[v++]\*k+t,D=r[v++]\*k+p,B=r[v++]\*k+t,w=r[v++]\*k+p,z=r[v++]\*k+t,n.bezierCurveTo(D,B,w,z,A,C)}}k={offsetX:q.ha\*k,path:n}}else console.error('THREE.Font: character "'+n+'" does not exists in font family '+r.familyName+"."),k=void 0;g+=k.offsetX;a.push(k.path)}}b=0;for(e=a.length;b<e;b++)Array.prototype.push.apply(c,  
a[b].toShapes());return c}});Dg.prototype=Object.assign(Object.create(W.prototype),{constructor:Dg,load:function(a,b,c,d){var e=this,f=new Ra(this.manager);f.setPath(this.path);f.load(a,function(a){try{var c=JSON.parse(a)}catch(l){console.warn("THREE.FontLoader: typeface.js support is being deprecated. Use typeface.json instead."),c=JSON.parse(a.substring(65,a.length-2))}a=e.parse(c);b&&b(a)},c,d)},parse:function(a){return new Cg(a)}});var Uf,Ig={getContext:function(){void 0===Uf&&(Uf=new (window.AudioContext||  
window.webkitAudioContext));return Uf},setContext:function(a){Uf=a}};tf.prototype=Object.assign(Object.create(W.prototype),{constructor:tf,load:function(a,b,c,d){var e=new Ra(this.manager);e.setResponseType("arraybuffer");e.setPath(this.path);e.load(a,function(a){a=a.slice(0);Ig.getContext().decodeAudioData(a,function(a){b(a)})},c,d)}});Object.assign(uf.prototype,{isSphericalHarmonics3:!0,set:function(a){for(var b=0;9>b;b++)this.coefficients[b].copy(a[b]);return this},zero:function(){for(var a=0;9>  
a;a++)this.coefficients[a].set(0,0,0);return this},getAt:function(a,b){var c=a.x,d=a.y;a=a.z;var e=this.coefficients;b.copy(e[0]).multiplyScalar(.282095);b.addScaledVector(e[1],.488603\*d);b.addScaledVector(e[2],.488603\*a);b.addScaledVector(e[3],.488603\*c);b.addScaledVector(e[4],1.092548\*c\*d);b.addScaledVector(e[5],1.092548\*d\*a);b.addScaledVector(e[6],.315392\*(3\*a\*a-1));b.addScaledVector(e[7],1.092548\*c\*a);b.addScaledVector(e[8],.546274\*(c\*c-d\*d));return b},getIrradianceAt:function(a,b){var c=a.x,  
d=a.y;a=a.z;var e=this.coefficients;b.copy(e[0]).multiplyScalar(.886227);b.addScaledVector(e[1],1.023328\*d);b.addScaledVector(e[2],1.023328\*a);b.addScaledVector(e[3],1.023328\*c);b.addScaledVector(e[4],.858086\*c\*d);b.addScaledVector(e[5],.858086\*d\*a);b.addScaledVector(e[6],.743125\*a\*a-.247708);b.addScaledVector(e[7],.858086\*c\*a);b.addScaledVector(e[8],.429043\*(c\*c-d\*d));return b},add:function(a){for(var b=0;9>b;b++)this.coefficients[b].add(a.coefficients[b]);return this},addScaledSH:function(a,b){for(var c=  
0;9>c;c++)this.coefficients[c].addScaledVector(a.coefficients[c],b);return this},scale:function(a){for(var b=0;9>b;b++)this.coefficients[b].multiplyScalar(a);return this},lerp:function(a,b){for(var c=0;9>c;c++)this.coefficients[c].lerp(a.coefficients[c],b);return this},equals:function(a){for(var b=0;9>b;b++)if(!this.coefficients[b].equals(a.coefficients[b]))return!1;return!0},copy:function(a){return this.set(a.coefficients)},clone:function(){return(new this.constructor).copy(this)},fromArray:function(a,  
b){void 0===b&&(b=0);for(var c=this.coefficients,d=0;9>d;d++)c[d].fromArray(a,b+3\*d);return this},toArray:function(a,b){void 0===a&&(a=[]);void 0===b&&(b=0);for(var c=this.coefficients,d=0;9>d;d++)c[d].toArray(a,b+3\*d);return a}});Object.assign(uf,{getBasisAt:function(a,b){var c=a.x,d=a.y;a=a.z;b[0]=.282095;b[1]=.488603\*d;b[2]=.488603\*a;b[3]=.488603\*c;b[4]=1.092548\*c\*d;b[5]=1.092548\*d\*a;b[6]=.315392\*(3\*a\*a-1);b[7]=1.092548\*c\*a;b[8]=.546274\*(c\*c-d\*d)}});ab.prototype=Object.assign(Object.create(da.prototype),  
{constructor:ab,isLightProbe:!0,copy:function(a){da.prototype.copy.call(this,a);this.sh.copy(a.sh);this.intensity=a.intensity;return this},toJSON:function(a){return da.prototype.toJSON.call(this,a)}});Eg.prototype=Object.assign(Object.create(ab.prototype),{constructor:Eg,isHemisphereLightProbe:!0,copy:function(a){ab.prototype.copy.call(this,a);return this},toJSON:function(a){return ab.prototype.toJSON.call(this,a)}});Fg.prototype=Object.assign(Object.create(ab.prototype),{constructor:Fg,isAmbientLightProbe:!0,  
copy:function(a){ab.prototype.copy.call(this,a);return this},toJSON:function(a){return ab.prototype.toJSON.call(this,a)}});var cj=new P,dj=new P;Object.assign(mi.prototype,{update:function(a){var b=this.\_cache;if(b.focus!==a.focus||b.fov!==a.fov||b.aspect!==a.aspect\*this.aspect||b.near!==a.near||b.far!==a.far||b.zoom!==a.zoom||b.eyeSep!==this.eyeSep){b.focus=a.focus;b.fov=a.fov;b.aspect=a.aspect\*this.aspect;b.near=a.near;b.far=a.far;b.zoom=a.zoom;b.eyeSep=this.eyeSep;var c=a.projectionMatrix.clone(),  
d=b.eyeSep/2,e=d\*b.near/b.focus,f=b.near\*Math.tan(L.DEG2RAD\*b.fov\*.5)/b.zoom;dj.elements[12]=-d;cj.elements[12]=d;d=-f\*b.aspect+e;var g=f\*b.aspect+e;c.elements[0]=2\*b.near/(g-d);c.elements[8]=(g+d)/(g-d);this.cameraL.projectionMatrix.copy(c);d=-f\*b.aspect-e;g=f\*b.aspect-e;c.elements[0]=2\*b.near/(g-d);c.elements[8]=(g+d)/(g-d);this.cameraR.projectionMatrix.copy(c)}this.cameraL.matrixWorld.copy(a.matrixWorld).multiply(dj);this.cameraR.matrixWorld.copy(a.matrixWorld).multiply(cj)}});Object.assign(Gg.prototype,  
{start:function(){this.oldTime=this.startTime=("undefined"===typeof performance?Date:performance).now();this.elapsedTime=0;this.running=!0},stop:function(){this.getElapsedTime();this.autoStart=this.running=!1},getElapsedTime:function(){this.getDelta();return this.elapsedTime},getDelta:function(){var a=0;if(this.autoStart&&!this.running)return this.start(),0;if(this.running){var b=("undefined"===typeof performance?Date:performance).now();a=(b-this.oldTime)/1E3;this.oldTime=b;this.elapsedTime+=a}return a}});  
var wc=new n,ej=new Aa,dl=new n,xc=new n;Hg.prototype=Object.assign(Object.create(F.prototype),{constructor:Hg,getInput:function(){return this.gain},removeFilter:function(){null!==this.filter&&(this.gain.disconnect(this.filter),this.filter.disconnect(this.context.destination),this.gain.connect(this.context.destination),this.filter=null);return this},getFilter:function(){return this.filter},setFilter:function(a){null!==this.filter?(this.gain.disconnect(this.filter),this.filter.disconnect(this.context.destination)):  
this.gain.disconnect(this.context.destination);this.filter=a;this.gain.connect(this.filter);this.filter.connect(this.context.destination);return this},getMasterVolume:function(){return this.gain.gain.value},setMasterVolume:function(a){this.gain.gain.setTargetAtTime(a,this.context.currentTime,.01);return this},updateMatrixWorld:function(a){F.prototype.updateMatrixWorld.call(this,a);a=this.context.listener;var b=this.up;this.timeDelta=this.\_clock.getDelta();this.matrixWorld.decompose(wc,ej,dl);xc.set(0,  
0,-1).applyQuaternion(ej);if(a.positionX){var c=this.context.currentTime+this.timeDelta;a.positionX.linearRampToValueAtTime(wc.x,c);a.positionY.linearRampToValueAtTime(wc.y,c);a.positionZ.linearRampToValueAtTime(wc.z,c);a.forwardX.linearRampToValueAtTime(xc.x,c);a.forwardY.linearRampToValueAtTime(xc.y,c);a.forwardZ.linearRampToValueAtTime(xc.z,c);a.upX.linearRampToValueAtTime(b.x,c);a.upY.linearRampToValueAtTime(b.y,c);a.upZ.linearRampToValueAtTime(b.z,c)}else a.setPosition(wc.x,wc.y,wc.z),a.setOrientation(xc.x,  
xc.y,xc.z,b.x,b.y,b.z)}});id.prototype=Object.assign(Object.create(F.prototype),{constructor:id,getOutput:function(){return this.gain},setNodeSource:function(a){this.hasPlaybackControl=!1;this.sourceType="audioNode";this.source=a;this.connect();return this},setMediaElementSource:function(a){this.hasPlaybackControl=!1;this.sourceType="mediaNode";this.source=this.context.createMediaElementSource(a);this.connect();return this},setMediaStreamSource:function(a){this.hasPlaybackControl=!1;this.sourceType=  
"mediaStreamNode";this.source=this.context.createMediaStreamSource(a);this.connect();return this},setBuffer:function(a){this.buffer=a;this.sourceType="buffer";this.autoplay&&this.play();return this},play:function(a){void 0===a&&(a=0);if(!0===this.isPlaying)console.warn("THREE.Audio: Audio is already playing.");else if(!1===this.hasPlaybackControl)console.warn("THREE.Audio: this Audio has no playback control.");else return this.\_startedAt=this.context.currentTime+a,a=this.context.createBufferSource(),  
a.buffer=this.buffer,a.loop=this.loop,a.loopStart=this.loopStart,a.loopEnd=this.loopEnd,a.onended=this.onEnded.bind(this),a.start(this.\_startedAt,this.\_pausedAt+this.offset,this.duration),this.isPlaying=!0,this.source=a,this.setDetune(this.detune),this.setPlaybackRate(this.playbackRate),this.connect()},pause:function(){if(!1===this.hasPlaybackControl)console.warn("THREE.Audio: this Audio has no playback control.");else return!0===this.isPlaying&&(this.\_pausedAt+=Math.max(this.context.currentTime-  
this.\_startedAt,0)\*this.playbackRate,this.source.stop(),this.source.onended=null,this.isPlaying=!1),this},stop:function(){if(!1===this.hasPlaybackControl)console.warn("THREE.Audio: this Audio has no playback control.");else return this.\_pausedAt=0,this.source.stop(),this.source.onended=null,this.isPlaying=!1,this},connect:function(){if(0<this.filters.length){this.source.connect(this.filters[0]);for(var a=1,b=this.filters.length;a<b;a++)this.filters[a-1].connect(this.filters[a]);this.filters[this.filters.length-  
1].connect(this.getOutput())}else this.source.connect(this.getOutput());return this},disconnect:function(){if(0<this.filters.length){this.source.disconnect(this.filters[0]);for(var a=1,b=this.filters.length;a<b;a++)this.filters[a-1].disconnect(this.filters[a]);this.filters[this.filters.length-1].disconnect(this.getOutput())}else this.source.disconnect(this.getOutput());return this},getFilters:function(){return this.filters},setFilters:function(a){a||(a=[]);!0===this.isPlaying?(this.disconnect(),this.filters=  
a,this.connect()):this.filters=a;return this},setDetune:function(a){this.detune=a;if(void 0!==this.source.detune)return!0===this.isPlaying&&this.source.detune.setTargetAtTime(this.detune,this.context.currentTime,.01),this},getDetune:function(){return this.detune},getFilter:function(){return this.getFilters()[0]},setFilter:function(a){return this.setFilters(a?[a]:[])},setPlaybackRate:function(a){if(!1===this.hasPlaybackControl)console.warn("THREE.Audio: this Audio has no playback control.");else return this.playbackRate=  
a,!0===this.isPlaying&&this.source.playbackRate.setTargetAtTime(this.playbackRate,this.context.currentTime,.01),this},getPlaybackRate:function(){return this.playbackRate},onEnded:function(){this.isPlaying=!1},getLoop:function(){return!1===this.hasPlaybackControl?(console.warn("THREE.Audio: this Audio has no playback control."),!1):this.loop},setLoop:function(a){if(!1===this.hasPlaybackControl)console.warn("THREE.Audio: this Audio has no playback control.");else return this.loop=a,!0===this.isPlaying&&  
(this.source.loop=this.loop),this},setLoopStart:function(a){this.loopStart=a;return this},setLoopEnd:function(a){this.loopEnd=a;return this},getVolume:function(){return this.gain.gain.value},setVolume:function(a){this.gain.gain.setTargetAtTime(a,this.context.currentTime,.01);return this}});var yc=new n,fj=new Aa,el=new n,zc=new n;Jg.prototype=Object.assign(Object.create(id.prototype),{constructor:Jg,getOutput:function(){return this.panner},getRefDistance:function(){return this.panner.refDistance},  
setRefDistance:function(a){this.panner.refDistance=a;return this},getRolloffFactor:function(){return this.panner.rolloffFactor},setRolloffFactor:function(a){this.panner.rolloffFactor=a;return this},getDistanceModel:function(){return this.panner.distanceModel},setDistanceModel:function(a){this.panner.distanceModel=a;return this},getMaxDistance:function(){return this.panner.maxDistance},setMaxDistance:function(a){this.panner.maxDistance=a;return this},setDirectionalCone:function(a,b,c){this.panner.coneInnerAngle=  
a;this.panner.coneOuterAngle=b;this.panner.coneOuterGain=c;return this},updateMatrixWorld:function(a){F.prototype.updateMatrixWorld.call(this,a);if(!0!==this.hasPlaybackControl||!1!==this.isPlaying)if(this.matrixWorld.decompose(yc,fj,el),zc.set(0,0,1).applyQuaternion(fj),a=this.panner,a.positionX){var b=this.context.currentTime+this.listener.timeDelta;a.positionX.linearRampToValueAtTime(yc.x,b);a.positionY.linearRampToValueAtTime(yc.y,b);a.positionZ.linearRampToValueAtTime(yc.z,b);a.orientationX.linearRampToValueAtTime(zc.x,  
b);a.orientationY.linearRampToValueAtTime(zc.y,b);a.orientationZ.linearRampToValueAtTime(zc.z,b)}else a.setPosition(yc.x,yc.y,yc.z),a.setOrientation(zc.x,zc.y,zc.z)}});Object.assign(Kg.prototype,{getFrequencyData:function(){this.analyser.getByteFrequencyData(this.data);return this.data},getAverageFrequency:function(){for(var a=0,b=this.getFrequencyData(),c=0;c<b.length;c++)a+=b[c];return a/b.length}});Object.assign(Lg.prototype,{accumulate:function(a,b){var c=this.buffer,d=this.valueSize;a=a\*d+d;  
var e=this.cumulativeWeight;if(0===e){for(e=0;e!==d;++e)c[a+e]=c[e];e=b}else e+=b,this.\_mixBufferRegion(c,a,0,b/e,d);this.cumulativeWeight=e},apply:function(a){var b=this.valueSize,c=this.buffer;a=a\*b+b;var d=this.cumulativeWeight,e=this.binding;this.cumulativeWeight=0;1>d&&this.\_mixBufferRegion(c,a,3\*b,1-d,b);d=b;for(var f=b+b;d!==f;++d)if(c[d]!==c[d+b]){e.setValue(c,a);break}},saveOriginalState:function(){var a=this.buffer,b=this.valueSize,c=3\*b;this.binding.getValue(a,c);for(var d=b;d!==c;++d)a[d]=  
a[c+d%b];this.cumulativeWeight=0},restoreOriginalState:function(){this.binding.setValue(this.buffer,3\*this.valueSize)},\_select:function(a,b,c,d,e){if(.5<=d)for(d=0;d!==e;++d)a[b+d]=a[c+d]},\_slerp:function(a,b,c,d){Aa.slerpFlat(a,b,a,b,a,c,d)},\_lerp:function(a,b,c,d,e){for(var f=1-d,g=0;g!==e;++g){var h=b+g;a[h]=a[h]\*f+a[c+g]\*d}}});var fl=/[\[\]\.:\/]/g,gl="[^"+"\\[\\]\\.:\\/".replace("\\.","")+"]",hl=/((?:WC+[\/:])\*)/.source.replace("WC","[^\\[\\]\\.:\\/]"),il=/(WCOD+)?/.source.replace("WCOD",gl),  
jl=/(?:\.(WC+)(?:\[(.+)\])?)?/.source.replace("WC","[^\\[\\]\\.:\\/]"),kl=/\.(WC+)(?:\[(.+)\])?/.source.replace("WC","[^\\[\\]\\.:\\/]"),ll=new RegExp("^"+hl+il+jl+kl+"$"),ml=["material","materials","bones"];Object.assign(ni.prototype,{getValue:function(a,b){this.bind();var c=this.\_bindings[this.\_targetGroup.nCachedObjects\_];void 0!==c&&c.getValue(a,b)},setValue:function(a,b){for(var c=this.\_bindings,d=this.\_targetGroup.nCachedObjects\_,e=c.length;d!==e;++d)c[d].setValue(a,b)},bind:function(){for(var a=  
this.\_bindings,b=this.\_targetGroup.nCachedObjects\_,c=a.length;b!==c;++b)a[b].bind()},unbind:function(){for(var a=this.\_bindings,b=this.\_targetGroup.nCachedObjects\_,c=a.length;b!==c;++b)a[b].unbind()}});Object.assign(ya,{Composite:ni,create:function(a,b,c){return a&&a.isAnimationObjectGroup?new ya.Composite(a,b,c):new ya(a,b,c)},sanitizeNodeName:function(a){return a.replace(/\s/g,"\_").replace(fl,"")},parseTrackName:function(a){var b=ll.exec(a);if(!b)throw Error("PropertyBinding: Cannot parse trackName: "+  
a);b={nodeName:b[2],objectName:b[3],objectIndex:b[4],propertyName:b[5],propertyIndex:b[6]};var c=b.nodeName&&b.nodeName.lastIndexOf(".");if(void 0!==c&&-1!==c){var d=b.nodeName.substring(c+1);-1!==ml.indexOf(d)&&(b.nodeName=b.nodeName.substring(0,c),b.objectName=d)}if(null===b.propertyName||0===b.propertyName.length)throw Error("PropertyBinding: can not parse propertyName from trackName: "+a);return b},findNode:function(a,b){if(!b||""===b||"."===b||-1===b||b===a.name||b===a.uuid)return a;if(a.skeleton){var c=  
a.skeleton.getBoneByName(b);if(void 0!==c)return c}if(a.children){var d=function(a){for(var c=0;c<a.length;c++){var e=a[c];if(e.name===b||e.uuid===b||(e=d(e.children)))return e}return null};if(a=d(a.children))return a}return null}});Object.assign(ya.prototype,{\_getValue\_unavailable:function(){},\_setValue\_unavailable:function(){},BindingType:{Direct:0,EntireArray:1,ArrayElement:2,HasFromToArray:3},Versioning:{None:0,NeedsUpdate:1,MatrixWorldNeedsUpdate:2},GetterByBindingType:[function(a,b){a[b]=this.node[this.propertyName]},  
function(a,b){for(var c=this.resolvedProperty,d=0,e=c.length;d!==e;++d)a[b++]=c[d]},function(a,b){a[b]=this.resolvedProperty[this.propertyIndex]},function(a,b){this.resolvedProperty.toArray(a,b)}],SetterByBindingTypeAndVersioning:[[function(a,b){this.targetObject[this.propertyName]=a[b]},function(a,b){this.targetObject[this.propertyName]=a[b];this.targetObject.needsUpdate=!0},function(a,b){this.targetObject[this.propertyName]=a[b];this.targetObject.matrixWorldNeedsUpdate=!0}],[function(a,b){for(var c=  
this.resolvedProperty,d=0,e=c.length;d!==e;++d)c[d]=a[b++]},function(a,b){for(var c=this.resolvedProperty,d=0,e=c.length;d!==e;++d)c[d]=a[b++];this.targetObject.needsUpdate=!0},function(a,b){for(var c=this.resolvedProperty,d=0,e=c.length;d!==e;++d)c[d]=a[b++];this.targetObject.matrixWorldNeedsUpdate=!0}],[function(a,b){this.resolvedProperty[this.propertyIndex]=a[b]},function(a,b){this.resolvedProperty[this.propertyIndex]=a[b];this.targetObject.needsUpdate=!0},function(a,b){this.resolvedProperty[this.propertyIndex]=  
a[b];this.targetObject.matrixWorldNeedsUpdate=!0}],[function(a,b){this.resolvedProperty.fromArray(a,b)},function(a,b){this.resolvedProperty.fromArray(a,b);this.targetObject.needsUpdate=!0},function(a,b){this.resolvedProperty.fromArray(a,b);this.targetObject.matrixWorldNeedsUpdate=!0}]],getValue:function(a,b){this.bind();this.getValue(a,b)},setValue:function(a,b){this.bind();this.setValue(a,b)},bind:function(){var a=this.node,b=this.parsedPath,c=b.objectName,d=b.propertyName,e=b.propertyIndex;a||(this.node=  
a=ya.findNode(this.rootNode,b.nodeName)||this.rootNode);this.getValue=this.\_getValue\_unavailable;this.setValue=this.\_setValue\_unavailable;if(a){if(c){var f=b.objectIndex;switch(c){case "materials":if(!a.material){console.error("THREE.PropertyBinding: Can not bind to material as node does not have a material.",this);return}if(!a.material.materials){console.error("THREE.PropertyBinding: Can not bind to material.materials as node.material does not have a materials array.",this);return}a=a.material.materials;  
break;case "bones":if(!a.skeleton){console.error("THREE.PropertyBinding: Can not bind to bones as node does not have a skeleton.",this);return}a=a.skeleton.bones;for(c=0;c<a.length;c++)if(a[c].name===f){f=c;break}break;default:if(void 0===a[c]){console.error("THREE.PropertyBinding: Can not bind to objectName of node undefined.",this);return}a=a[c]}if(void 0!==f){if(void 0===a[f]){console.error("THREE.PropertyBinding: Trying to bind to objectIndex of objectName, but is undefined.",this,a);return}a=  
a[f]}}f=a[d];if(void 0===f)console.error("THREE.PropertyBinding: Trying to update property for track: "+b.nodeName+"."+d+" but it wasn't found.",a);else{b=this.Versioning.None;this.targetObject=a;void 0!==a.needsUpdate?b=this.Versioning.NeedsUpdate:void 0!==a.matrixWorldNeedsUpdate&&(b=this.Versioning.MatrixWorldNeedsUpdate);c=this.BindingType.Direct;if(void 0!==e){if("morphTargetInfluences"===d){if(!a.geometry){console.error("THREE.PropertyBinding: Can not bind to morphTargetInfluences because node does not have a geometry.",  
this);return}if(a.geometry.isBufferGeometry){if(!a.geometry.morphAttributes){console.error("THREE.PropertyBinding: Can not bind to morphTargetInfluences because node does not have a geometry.morphAttributes.",this);return}for(c=0;c<this.node.geometry.morphAttributes.position.length;c++)if(a.geometry.morphAttributes.position[c].name===e){e=c;break}}else{if(!a.geometry.morphTargets){console.error("THREE.PropertyBinding: Can not bind to morphTargetInfluences because node does not have a geometry.morphTargets.",  
this);return}for(c=0;c<this.node.geometry.morphTargets.length;c++)if(a.geometry.morphTargets[c].name===e){e=c;break}}}c=this.BindingType.ArrayElement;this.resolvedProperty=f;this.propertyIndex=e}else void 0!==f.fromArray&&void 0!==f.toArray?(c=this.BindingType.HasFromToArray,this.resolvedProperty=f):Array.isArray(f)?(c=this.BindingType.EntireArray,this.resolvedProperty=f):this.propertyName=d;this.getValue=this.GetterByBindingType[c];this.setValue=this.SetterByBindingTypeAndVersioning[c][b]}}else console.error("THREE.PropertyBinding: Trying to update node for track: "+  
this.path+" but it wasn't found.")},unbind:function(){this.node=null;this.getValue=this.\_getValue\_unbound;this.setValue=this.\_setValue\_unbound}});Object.assign(ya.prototype,{\_getValue\_unbound:ya.prototype.getValue,\_setValue\_unbound:ya.prototype.setValue});Object.assign(oi.prototype,{isAnimationObjectGroup:!0,add:function(){for(var a=this.\_objects,b=a.length,c=this.nCachedObjects\_,d=this.\_indicesByUUID,e=this.\_paths,f=this.\_parsedPaths,g=this.\_bindings,h=g.length,k=void 0,m=0,n=arguments.length;m!==  
n;++m){var p=arguments[m],t=p.uuid,r=d[t];if(void 0===r){r=b++;d[t]=r;a.push(p);t=0;for(var q=h;t!==q;++t)g[t].push(new ya(p,e[t],f[t]))}else if(r<c){k=a[r];var v=--c;q=a[v];d[q.uuid]=r;a[r]=q;d[t]=v;a[v]=p;t=0;for(q=h;t!==q;++t){var y=g[t],w=y[r];y[r]=y[v];void 0===w&&(w=new ya(p,e[t],f[t]));y[v]=w}}else a[r]!==k&&console.error("THREE.AnimationObjectGroup: Different objects with the same UUID detected. Clean the caches or recreate your infrastructure when reloading scenes.")}this.nCachedObjects\_=  
c},remove:function(){for(var a=this.\_objects,b=this.nCachedObjects\_,c=this.\_indicesByUUID,d=this.\_bindings,e=d.length,f=0,g=arguments.length;f!==g;++f){var h=arguments[f],k=h.uuid,m=c[k];if(void 0!==m&&m>=b){var n=b++,p=a[n];c[p.uuid]=m;a[m]=p;c[k]=n;a[n]=h;h=0;for(k=e;h!==k;++h){p=d[h];var t=p[m];p[m]=p[n];p[n]=t}}}this.nCachedObjects\_=b},uncache:function(){for(var a=this.\_objects,b=a.length,c=this.nCachedObjects\_,d=this.\_indicesByUUID,e=this.\_bindings,f=e.length,g=0,h=arguments.length;g!==h;++g){var k=  
arguments[g].uuid,m=d[k];if(void 0!==m)if(delete d[k],m<c){k=--c;var n=a[k],p=--b,t=a[p];d[n.uuid]=m;a[m]=n;d[t.uuid]=k;a[k]=t;a.pop();n=0;for(t=f;n!==t;++n){var r=e[n],q=r[p];r[m]=r[k];r[k]=q;r.pop()}}else for(p=--b,t=a[p],d[t.uuid]=m,a[m]=t,a.pop(),n=0,t=f;n!==t;++n)r=e[n],r[m]=r[p],r.pop()}this.nCachedObjects\_=c},subscribe\_:function(a,b){var c=this.\_bindingsIndicesByPath,d=c[a],e=this.\_bindings;if(void 0!==d)return e[d];var f=this.\_paths,g=this.\_parsedPaths,h=this.\_objects,k=this.nCachedObjects\_,  
m=Array(h.length);d=e.length;c[a]=d;f.push(a);g.push(b);e.push(m);c=k;for(d=h.length;c!==d;++c)m[c]=new ya(h[c],a,b);return m},unsubscribe\_:function(a){var b=this.\_bindingsIndicesByPath,c=b[a];if(void 0!==c){var d=this.\_paths,e=this.\_parsedPaths,f=this.\_bindings,g=f.length-1,h=f[g];b[a[g]]=c;f[c]=h;f.pop();e[c]=e[g];e.pop();d[c]=d[g];d.pop()}}});Object.assign(pi.prototype,{play:function(){this.\_mixer.\_activateAction(this);return this},stop:function(){this.\_mixer.\_deactivateAction(this);return this.reset()},  
reset:function(){this.paused=!1;this.enabled=!0;this.time=0;this.\_loopCount=-1;this.\_startTime=null;return this.stopFading().stopWarping()},isRunning:function(){return this.enabled&&!this.paused&&0!==this.timeScale&&null===this.\_startTime&&this.\_mixer.\_isActiveAction(this)},isScheduled:function(){return this.\_mixer.\_isActiveAction(this)},startAt:function(a){this.\_startTime=a;return this},setLoop:function(a,b){this.loop=a;this.repetitions=b;return this},setEffectiveWeight:function(a){this.weight=a;  
this.\_effectiveWeight=this.enabled?a:0;return this.stopFading()},getEffectiveWeight:function(){return this.\_effectiveWeight},fadeIn:function(a){return this.\_scheduleFading(a,0,1)},fadeOut:function(a){return this.\_scheduleFading(a,1,0)},crossFadeFrom:function(a,b,c){a.fadeOut(b);this.fadeIn(b);if(c){c=this.\_clip.duration;var d=a.\_clip.duration,e=c/d;a.warp(1,d/c,b);this.warp(e,1,b)}return this},crossFadeTo:function(a,b,c){return a.crossFadeFrom(this,b,c)},stopFading:function(){var a=this.\_weightInterpolant;  
null!==a&&(this.\_weightInterpolant=null,this.\_mixer.\_takeBackControlInterpolant(a));return this},setEffectiveTimeScale:function(a){this.timeScale=a;this.\_effectiveTimeScale=this.paused?0:a;return this.stopWarping()},getEffectiveTimeScale:function(){return this.\_effectiveTimeScale},setDuration:function(a){this.timeScale=this.\_clip.duration/a;return this.stopWarping()},syncWith:function(a){this.time=a.time;this.timeScale=a.timeScale;return this.stopWarping()},halt:function(a){return this.warp(this.\_effectiveTimeScale,  
0,a)},warp:function(a,b,c){var d=this.\_mixer,e=d.time,f=this.\_timeScaleInterpolant,g=this.timeScale;null===f&&(this.\_timeScaleInterpolant=f=d.\_lendControlInterpolant());d=f.parameterPositions;f=f.sampleValues;d[0]=e;d[1]=e+c;f[0]=a/g;f[1]=b/g;return this},stopWarping:function(){var a=this.\_timeScaleInterpolant;null!==a&&(this.\_timeScaleInterpolant=null,this.\_mixer.\_takeBackControlInterpolant(a));return this},getMixer:function(){return this.\_mixer},getClip:function(){return this.\_clip},getRoot:function(){return this.\_localRoot||  
this.\_mixer.\_root},\_update:function(a,b,c,d){if(this.enabled){var e=this.\_startTime;if(null!==e){b=(a-e)\*c;if(0>b||0===c)return;this.\_startTime=null;b\*=c}b\*=this.\_updateTimeScale(a);c=this.\_updateTime(b);a=this.\_updateWeight(a);if(0<a){b=this.\_interpolants;e=this.\_propertyBindings;for(var f=0,g=b.length;f!==g;++f)b[f].evaluate(c),e[f].accumulate(d,a)}}else this.\_updateWeight(a)},\_updateWeight:function(a){var b=0;if(this.enabled){b=this.weight;var c=this.\_weightInterpolant;if(null!==c){var d=c.evaluate(a)[0];  
b\*=d;a>c.parameterPositions[1]&&(this.stopFading(),0===d&&(this.enabled=!1))}}return this.\_effectiveWeight=b},\_updateTimeScale:function(a){var b=0;if(!this.paused){b=this.timeScale;var c=this.\_timeScaleInterpolant;if(null!==c){var d=c.evaluate(a)[0];b\*=d;a>c.parameterPositions[1]&&(this.stopWarping(),0===b?this.paused=!0:this.timeScale=b)}}return this.\_effectiveTimeScale=b},\_updateTime:function(a){var b=this.time+a,c=this.\_clip.duration,d=this.loop,e=this.\_loopCount,f=2202===d;if(0===a)return-1===  
e?b:f&&1===(e&1)?c-b:b;if(2200===d)a:{if(-1===e&&(this.\_loopCount=0,this.\_setEndings(!0,!0,!1)),b>=c)b=c;else if(0>b)b=0;else{this.time=b;break a}this.clampWhenFinished?this.paused=!0:this.enabled=!1;this.time=b;this.\_mixer.dispatchEvent({type:"finished",action:this,direction:0>a?-1:1})}else{-1===e&&(0<=a?(e=0,this.\_setEndings(!0,0===this.repetitions,f)):this.\_setEndings(0===this.repetitions,!0,f));if(b>=c||0>b){d=Math.floor(b/c);b-=c\*d;e+=Math.abs(d);var g=this.repetitions-e;0>=g?(this.clampWhenFinished?  
this.paused=!0:this.enabled=!1,this.time=b=0<a?c:0,this.\_mixer.dispatchEvent({type:"finished",action:this,direction:0<a?1:-1})):(1===g?(a=0>a,this.\_setEndings(a,!a,f)):this.\_setEndings(!1,!1,f),this.\_loopCount=e,this.time=b,this.\_mixer.dispatchEvent({type:"loop",action:this,loopDelta:d}))}else this.time=b;if(f&&1===(e&1))return c-b}return b},\_setEndings:function(a,b,c){var d=this.\_interpolantSettings;c?(d.endingStart=2401,d.endingEnd=2401):(d.endingStart=a?this.zeroSlopeAtStart?2401:2400:2402,d.endingEnd=  
b?this.zeroSlopeAtEnd?2401:2400:2402)},\_scheduleFading:function(a,b,c){var d=this.\_mixer,e=d.time,f=this.\_weightInterpolant;null===f&&(this.\_weightInterpolant=f=d.\_lendControlInterpolant());d=f.parameterPositions;f=f.sampleValues;d[0]=e;f[0]=b;d[1]=e+a;f[1]=c;return this}});Mg.prototype=Object.assign(Object.create(Ea.prototype),{constructor:Mg,\_bindAction:function(a,b){var c=a.\_localRoot||this.\_root,d=a.\_clip.tracks,e=d.length,f=a.\_propertyBindings;a=a.\_interpolants;var g=c.uuid,h=this.\_bindingsByRootAndName,  
k=h[g];void 0===k&&(k={},h[g]=k);for(h=0;h!==e;++h){var m=d[h],n=m.name,p=k[n];if(void 0===p){p=f[h];if(void 0!==p){null===p.\_cacheIndex&&(++p.referenceCount,this.\_addInactiveBinding(p,g,n));continue}p=new Lg(ya.create(c,n,b&&b.\_propertyBindings[h].binding.parsedPath),m.ValueTypeName,m.getValueSize());++p.referenceCount;this.\_addInactiveBinding(p,g,n)}f[h]=p;a[h].resultBuffer=p.buffer}},\_activateAction:function(a){if(!this.\_isActiveAction(a)){if(null===a.\_cacheIndex){var b=(a.\_localRoot||this.\_root).uuid,  
c=a.\_clip.uuid,d=this.\_actionsByClip[c];this.\_bindAction(a,d&&d.knownActions[0]);this.\_addInactiveAction(a,c,b)}b=a.\_propertyBindings;c=0;for(d=b.length;c!==d;++c){var e=b[c];0===e.useCount++&&(this.\_lendBinding(e),e.saveOriginalState())}this.\_lendAction(a)}},\_deactivateAction:function(a){if(this.\_isActiveAction(a)){for(var b=a.\_propertyBindings,c=0,d=b.length;c!==d;++c){var e=b[c];0===--e.useCount&&(e.restoreOriginalState(),this.\_takeBackBinding(e))}this.\_takeBackAction(a)}},\_initMemoryManager:function(){this.\_actions=  
[];this.\_nActiveActions=0;this.\_actionsByClip={};this.\_bindings=[];this.\_nActiveBindings=0;this.\_bindingsByRootAndName={};this.\_controlInterpolants=[];this.\_nActiveControlInterpolants=0;var a=this;this.stats={actions:{get total(){return a.\_actions.length},get inUse(){return a.\_nActiveActions}},bindings:{get total(){return a.\_bindings.length},get inUse(){return a.\_nActiveBindings}},controlInterpolants:{get total(){return a.\_controlInterpolants.length},get inUse(){return a.\_nActiveControlInterpolants}}}},  
\_isActiveAction:function(a){a=a.\_cacheIndex;return null!==a&&a<this.\_nActiveActions},\_addInactiveAction:function(a,b,c){var d=this.\_actions,e=this.\_actionsByClip,f=e[b];void 0===f?(f={knownActions:[a],actionByRoot:{}},a.\_byClipCacheIndex=0,e[b]=f):(b=f.knownActions,a.\_byClipCacheIndex=b.length,b.push(a));a.\_cacheIndex=d.length;d.push(a);f.actionByRoot[c]=a},\_removeInactiveAction:function(a){var b=this.\_actions,c=b[b.length-1],d=a.\_cacheIndex;c.\_cacheIndex=d;b[d]=c;b.pop();a.\_cacheIndex=null;b=a.\_clip.uuid;  
c=this.\_actionsByClip;d=c[b];var e=d.knownActions,f=e[e.length-1],g=a.\_byClipCacheIndex;f.\_byClipCacheIndex=g;e[g]=f;e.pop();a.\_byClipCacheIndex=null;delete d.actionByRoot[(a.\_localRoot||this.\_root).uuid];0===e.length&&delete c[b];this.\_removeInactiveBindingsForAction(a)},\_removeInactiveBindingsForAction:function(a){a=a.\_propertyBindings;for(var b=0,c=a.length;b!==c;++b){var d=a[b];0===--d.referenceCount&&this.\_removeInactiveBinding(d)}},\_lendAction:function(a){var b=this.\_actions,c=a.\_cacheIndex,  
d=this.\_nActiveActions++,e=b[d];a.\_cacheIndex=d;b[d]=a;e.\_cacheIndex=c;b[c]=e},\_takeBackAction:function(a){var b=this.\_actions,c=a.\_cacheIndex,d=--this.\_nActiveActions,e=b[d];a.\_cacheIndex=d;b[d]=a;e.\_cacheIndex=c;b[c]=e},\_addInactiveBinding:function(a,b,c){var d=this.\_bindingsByRootAndName,e=d[b],f=this.\_bindings;void 0===e&&(e={},d[b]=e);e[c]=a;a.\_cacheIndex=f.length;f.push(a)},\_removeInactiveBinding:function(a){var b=this.\_bindings,c=a.binding,d=c.rootNode.uuid;c=c.path;var e=this.\_bindingsByRootAndName,  
f=e[d],g=b[b.length-1];a=a.\_cacheIndex;g.\_cacheIndex=a;b[a]=g;b.pop();delete f[c];0===Object.keys(f).length&&delete e[d]},\_lendBinding:function(a){var b=this.\_bindings,c=a.\_cacheIndex,d=this.\_nActiveBindings++,e=b[d];a.\_cacheIndex=d;b[d]=a;e.\_cacheIndex=c;b[c]=e},\_takeBackBinding:function(a){var b=this.\_bindings,c=a.\_cacheIndex,d=--this.\_nActiveBindings,e=b[d];a.\_cacheIndex=d;b[d]=a;e.\_cacheIndex=c;b[c]=e},\_lendControlInterpolant:function(){var a=this.\_controlInterpolants,b=this.\_nActiveControlInterpolants++,  
c=a[b];void 0===c&&(c=new ne(new Float32Array(2),new Float32Array(2),1,this.\_controlInterpolantsResultBuffer),c.\_\_cacheIndex=b,a[b]=c);return c},\_takeBackControlInterpolant:function(a){var b=this.\_controlInterpolants,c=a.\_\_cacheIndex,d=--this.\_nActiveControlInterpolants,e=b[d];a.\_\_cacheIndex=d;b[d]=a;e.\_\_cacheIndex=c;b[c]=e},\_controlInterpolantsResultBuffer:new Float32Array(1),clipAction:function(a,b){var c=b||this.\_root,d=c.uuid;c="string"===typeof a?Qa.findByName(c,a):a;a=null!==c?c.uuid:a;var e=  
this.\_actionsByClip[a],f=null;if(void 0!==e){f=e.actionByRoot[d];if(void 0!==f)return f;f=e.knownActions[0];null===c&&(c=f.\_clip)}if(null===c)return null;b=new pi(this,c,b);this.\_bindAction(b,f);this.\_addInactiveAction(b,a,d);return b},existingAction:function(a,b){var c=b||this.\_root;b=c.uuid;c="string"===typeof a?Qa.findByName(c,a):a;a=this.\_actionsByClip[c?c.uuid:a];return void 0!==a?a.actionByRoot[b]||null:null},stopAllAction:function(){for(var a=this.\_actions,b=this.\_nActiveActions,c=this.\_bindings,  
d=this.\_nActiveBindings,e=this.\_nActiveBindings=this.\_nActiveActions=0;e!==b;++e)a[e].reset();for(e=0;e!==d;++e)c[e].useCount=0;return this},update:function(a){a\*=this.timeScale;for(var b=this.\_actions,c=this.\_nActiveActions,d=this.time+=a,e=Math.sign(a),f=this.\_accuIndex^=1,g=0;g!==c;++g)b[g].\_update(d,a,e,f);a=this.\_bindings;b=this.\_nActiveBindings;for(g=0;g!==b;++g)a[g].apply(f);return this},setTime:function(a){for(var b=this.time=0;b<this.\_actions.length;b++)this.\_actions[b].time=0;return this.update(a)},  
getRoot:function(){return this.\_root},uncacheClip:function(a){var b=this.\_actions;a=a.uuid;var c=this.\_actionsByClip,d=c[a];if(void 0!==d){d=d.knownActions;for(var e=0,f=d.length;e!==f;++e){var g=d[e];this.\_deactivateAction(g);var h=g.\_cacheIndex,k=b[b.length-1];g.\_cacheIndex=null;g.\_byClipCacheIndex=null;k.\_cacheIndex=h;b[h]=k;b.pop();this.\_removeInactiveBindingsForAction(g)}delete c[a]}},uncacheRoot:function(a){a=a.uuid;var b=this.\_actionsByClip;for(d in b){var c=b[d].actionByRoot[a];void 0!==c&&  
(this.\_deactivateAction(c),this.\_removeInactiveAction(c))}var d=this.\_bindingsByRootAndName[a];if(void 0!==d)for(var e in d)a=d[e],a.restoreOriginalState(),this.\_removeInactiveBinding(a)},uncacheAction:function(a,b){a=this.existingAction(a,b);null!==a&&(this.\_deactivateAction(a),this.\_removeInactiveAction(a))}});vf.prototype.clone=function(){return new vf(void 0===this.value.clone?this.value:this.value.clone())};Ng.prototype=Object.assign(Object.create(rb.prototype),{constructor:Ng,isInstancedInterleavedBuffer:!0,  
copy:function(a){rb.prototype.copy.call(this,a);this.meshPerAttribute=a.meshPerAttribute;return this}});Object.assign(Og.prototype,{set:function(a,b){this.ray.set(a,b)},setFromCamera:function(a,b){b&&b.isPerspectiveCamera?(this.ray.origin.setFromMatrixPosition(b.matrixWorld),this.ray.direction.set(a.x,a.y,.5).unproject(b).sub(this.ray.origin).normalize(),this.camera=b):b&&b.isOrthographicCamera?(this.ray.origin.set(a.x,a.y,(b.near+b.far)/(b.near-b.far)).unproject(b),this.ray.direction.set(0,0,-1).transformDirection(b.matrixWorld),  
this.camera=b):console.error("THREE.Raycaster: Unsupported camera type.")},intersectObject:function(a,b,c){c=c||[];Pg(a,this,c,b);c.sort(qi);return c},intersectObjects:function(a,b,c){c=c||[];if(!1===Array.isArray(a))return console.warn("THREE.Raycaster.intersectObjects: objects is not an Array."),c;for(var d=0,e=a.length;d<e;d++)Pg(a[d],this,c,b);c.sort(qi);return c}});Object.assign(ri.prototype,{set:function(a,b,c){this.radius=a;this.phi=b;this.theta=c;return this},clone:function(){return(new this.constructor).copy(this)},  
copy:function(a){this.radius=a.radius;this.phi=a.phi;this.theta=a.theta;return this},makeSafe:function(){this.phi=Math.max(1E-6,Math.min(Math.PI-1E-6,this.phi));return this},setFromVector3:function(a){return this.setFromCartesianCoords(a.x,a.y,a.z)},setFromCartesianCoords:function(a,b,c){this.radius=Math.sqrt(a\*a+b\*b+c\*c);0===this.radius?this.phi=this.theta=0:(this.theta=Math.atan2(a,c),this.phi=Math.acos(L.clamp(b/this.radius,-1,1)));return this}});Object.assign(si.prototype,{set:function(a,b,c){this.radius=  
a;this.theta=b;this.y=c;return this},clone:function(){return(new this.constructor).copy(this)},copy:function(a){this.radius=a.radius;this.theta=a.theta;this.y=a.y;return this},setFromVector3:function(a){return this.setFromCartesianCoords(a.x,a.y,a.z)},setFromCartesianCoords:function(a,b,c){this.radius=Math.sqrt(a\*a+c\*c);this.theta=Math.atan2(a,c);this.y=b;return this}});var gj=new t;Object.assign(Qg.prototype,{set:function(a,b){this.min.copy(a);this.max.copy(b);return this},setFromPoints:function(a){this.makeEmpty();  
for(var b=0,c=a.length;b<c;b++)this.expandByPoint(a[b]);return this},setFromCenterAndSize:function(a,b){b=gj.copy(b).multiplyScalar(.5);this.min.copy(a).sub(b);this.max.copy(a).add(b);return this},clone:function(){return(new this.constructor).copy(this)},copy:function(a){this.min.copy(a.min);this.max.copy(a.max);return this},makeEmpty:function(){this.min.x=this.min.y=Infinity;this.max.x=this.max.y=-Infinity;return this},isEmpty:function(){return this.max.x<this.min.x||this.max.y<this.min.y},getCenter:function(a){void 0===  
a&&(console.warn("THREE.Box2: .getCenter() target is now required"),a=new t);return this.isEmpty()?a.set(0,0):a.addVectors(this.min,this.max).multiplyScalar(.5)},getSize:function(a){void 0===a&&(console.warn("THREE.Box2: .getSize() target is now required"),a=new t);return this.isEmpty()?a.set(0,0):a.subVectors(this.max,this.min)},expandByPoint:function(a){this.min.min(a);this.max.max(a);return this},expandByVector:function(a){this.min.sub(a);this.max.add(a);return this},expandByScalar:function(a){this.min.addScalar(-a);  
this.max.addScalar(a);return this},containsPoint:function(a){return a.x<this.min.x||a.x>this.max.x||a.y<this.min.y||a.y>this.max.y?!1:!0},containsBox:function(a){return this.min.x<=a.min.x&&a.max.x<=this.max.x&&this.min.y<=a.min.y&&a.max.y<=this.max.y},getParameter:function(a,b){void 0===b&&(console.warn("THREE.Box2: .getParameter() target is now required"),b=new t);return b.set((a.x-this.min.x)/(this.max.x-this.min.x),(a.y-this.min.y)/(this.max.y-this.min.y))},intersectsBox:function(a){return a.max.x<  
this.min.x||a.min.x>this.max.x||a.max.y<this.min.y||a.min.y>this.max.y?!1:!0},clampPoint:function(a,b){void 0===b&&(console.warn("THREE.Box2: .clampPoint() target is now required"),b=new t);return b.copy(a).clamp(this.min,this.max)},distanceToPoint:function(a){return gj.copy(a).clamp(this.min,this.max).sub(a).length()},intersect:function(a){this.min.max(a.min);this.max.min(a.max);return this},union:function(a){this.min.min(a.min);this.max.max(a.max);return this},translate:function(a){this.min.add(a);  
this.max.add(a);return this},equals:function(a){return a.min.equals(this.min)&&a.max.equals(this.max)}});var hj=new n,Vf=new n;Object.assign(Rg.prototype,{set:function(a,b){this.start.copy(a);this.end.copy(b);return this},clone:function(){return(new this.constructor).copy(this)},copy:function(a){this.start.copy(a.start);this.end.copy(a.end);return this},getCenter:function(a){void 0===a&&(console.warn("THREE.Line3: .getCenter() target is now required"),a=new n);return a.addVectors(this.start,this.end).multiplyScalar(.5)},  
delta:function(a){void 0===a&&(console.warn("THREE.Line3: .delta() target is now required"),a=new n);return a.subVectors(this.end,this.start)},distanceSq:function(){return this.start.distanceToSquared(this.end)},distance:function(){return this.start.distanceTo(this.end)},at:function(a,b){void 0===b&&(console.warn("THREE.Line3: .at() target is now required"),b=new n);return this.delta(b).multiplyScalar(a).add(this.start)},closestPointToPointParameter:function(a,b){hj.subVectors(a,this.start);Vf.subVectors(this.end,  
this.start);a=Vf.dot(Vf);a=Vf.dot(hj)/a;b&&(a=L.clamp(a,0,1));return a},closestPointToPoint:function(a,b,c){a=this.closestPointToPointParameter(a,b);void 0===c&&(console.warn("THREE.Line3: .closestPointToPoint() target is now required"),c=new n);return this.delta(c).multiplyScalar(a).add(this.start)},applyMatrix4:function(a){this.start.applyMatrix4(a);this.end.applyMatrix4(a);return this},equals:function(a){return a.start.equals(this.start)&&a.end.equals(this.end)}});re.prototype=Object.create(F.prototype);  
re.prototype.constructor=re;re.prototype.isImmediateRenderObject=!0;var ij=new n;jd.prototype=Object.create(F.prototype);jd.prototype.constructor=jd;jd.prototype.dispose=function(){this.cone.geometry.dispose();this.cone.material.dispose()};jd.prototype.update=function(){this.light.updateMatrixWorld();var a=this.light.distance?this.light.distance:1E3,b=a\*Math.tan(this.light.angle);this.cone.scale.set(b,b,a);ij.setFromMatrixPosition(this.light.target.matrixWorld);this.cone.lookAt(ij);void 0!==this.color?  
this.cone.material.color.set(this.color):this.cone.material.color.copy(this.light.color)};var Qb=new n,Wf=new P,vh=new P;rc.prototype=Object.create(ma.prototype);rc.prototype.constructor=rc;rc.prototype.isSkeletonHelper=!0;rc.prototype.updateMatrixWorld=function(a){var b=this.bones,c=this.geometry,d=c.getAttribute("position");vh.getInverse(this.root.matrixWorld);for(var e=0,f=0;e<b.length;e++){var g=b[e];g.parent&&g.parent.isBone&&(Wf.multiplyMatrices(vh,g.matrixWorld),Qb.setFromMatrixPosition(Wf),  
d.setXYZ(f,Qb.x,Qb.y,Qb.z),Wf.multiplyMatrices(vh,g.parent.matrixWorld),Qb.setFromMatrixPosition(Wf),d.setXYZ(f+1,Qb.x,Qb.y,Qb.z),f+=2)}c.getAttribute("position").needsUpdate=!0;F.prototype.updateMatrixWorld.call(this,a)};kd.prototype=Object.create(S.prototype);kd.prototype.constructor=kd;kd.prototype.dispose=function(){this.geometry.dispose();this.material.dispose()};kd.prototype.update=function(){void 0!==this.color?this.material.color.set(this.color):this.material.color.copy(this.light.color)};  
var nl=new n,jj=new A,kj=new A;ld.prototype=Object.create(F.prototype);ld.prototype.constructor=ld;ld.prototype.dispose=function(){this.children[0].geometry.dispose();this.children[0].material.dispose()};ld.prototype.update=function(){var a=this.children[0];if(void 0!==this.color)this.material.color.set(this.color);else{var b=a.geometry.getAttribute("color");jj.copy(this.light.color);kj.copy(this.light.groundColor);for(var c=0,d=b.count;c<d;c++){var e=c<d/2?jj:kj;b.setXYZ(c,e.r,e.g,e.b)}b.needsUpdate=  
!0}a.lookAt(nl.setFromMatrixPosition(this.light.matrixWorld).negate())};wf.prototype=Object.assign(Object.create(ma.prototype),{constructor:wf,copy:function(a){ma.prototype.copy.call(this,a);this.geometry.copy(a.geometry);this.material.copy(a.material);return this},clone:function(){return(new this.constructor).copy(this)}});xf.prototype=Object.create(ma.prototype);xf.prototype.constructor=xf;var lj=new n,Xf=new n,mj=new n;md.prototype=Object.create(F.prototype);md.prototype.constructor=md;md.prototype.dispose=  
function(){this.lightPlane.geometry.dispose();this.lightPlane.material.dispose();this.targetLine.geometry.dispose();this.targetLine.material.dispose()};md.prototype.update=function(){lj.setFromMatrixPosition(this.light.matrixWorld);Xf.setFromMatrixPosition(this.light.target.matrixWorld);mj.subVectors(Xf,lj);this.lightPlane.lookAt(Xf);void 0!==this.color?(this.lightPlane.material.color.set(this.color),this.targetLine.material.color.set(this.color)):(this.lightPlane.material.color.copy(this.light.color),  
this.targetLine.material.color.copy(this.light.color));this.targetLine.lookAt(Xf);this.targetLine.scale.z=mj.length()};var yf=new n,ja=new db;se.prototype=Object.create(ma.prototype);se.prototype.constructor=se;se.prototype.update=function(){var a=this.geometry,b=this.pointMap;ja.projectionMatrixInverse.copy(this.camera.projectionMatrixInverse);na("c",b,a,ja,0,0,-1);na("t",b,a,ja,0,0,1);na("n1",b,a,ja,-1,-1,-1);na("n2",b,a,ja,1,-1,-1);na("n3",b,a,ja,-1,1,-1);na("n4",b,a,ja,1,1,-1);na("f1",b,a,ja,  
-1,-1,1);na("f2",b,a,ja,1,-1,1);na("f3",b,a,ja,-1,1,1);na("f4",b,a,ja,1,1,1);na("u1",b,a,ja,.7,1.1,-1);na("u2",b,a,ja,-.7,1.1,-1);na("u3",b,a,ja,0,2,-1);na("cf1",b,a,ja,-1,0,1);na("cf2",b,a,ja,1,0,1);na("cf3",b,a,ja,0,-1,1);na("cf4",b,a,ja,0,1,1);na("cn1",b,a,ja,-1,0,-1);na("cn2",b,a,ja,1,0,-1);na("cn3",b,a,ja,0,-1,-1);na("cn4",b,a,ja,0,1,-1);a.getAttribute("position").needsUpdate=!0};var Yf=new Sa;wb.prototype=Object.create(ma.prototype);wb.prototype.constructor=wb;wb.prototype.update=function(a){void 0!==  
a&&console.warn("THREE.BoxHelper: .update() has no longer arguments.");void 0!==this.object&&Yf.setFromObject(this.object);if(!Yf.isEmpty()){a=Yf.min;var b=Yf.max,c=this.geometry.attributes.position,d=c.array;d[0]=b.x;d[1]=b.y;d[2]=b.z;d[3]=a.x;d[4]=b.y;d[5]=b.z;d[6]=a.x;d[7]=a.y;d[8]=b.z;d[9]=b.x;d[10]=a.y;d[11]=b.z;d[12]=b.x;d[13]=b.y;d[14]=a.z;d[15]=a.x;d[16]=b.y;d[17]=a.z;d[18]=a.x;d[19]=a.y;d[20]=a.z;d[21]=b.x;d[22]=a.y;d[23]=a.z;c.needsUpdate=!0;this.geometry.computeBoundingSphere()}};wb.prototype.setFromObject=  
function(a){this.object=a;this.update();return this};wb.prototype.copy=function(a){ma.prototype.copy.call(this,a);this.object=a.object;return this};wb.prototype.clone=function(){return(new this.constructor).copy(this)};te.prototype=Object.create(ma.prototype);te.prototype.constructor=te;te.prototype.updateMatrixWorld=function(a){var b=this.box;b.isEmpty()||(b.getCenter(this.position),b.getSize(this.scale),this.scale.multiplyScalar(.5),F.prototype.updateMatrixWorld.call(this,a))};ue.prototype=Object.create(Ka.prototype);  
ue.prototype.constructor=ue;ue.prototype.updateMatrixWorld=function(a){var b=-this.plane.constant;1E-8>Math.abs(b)&&(b=1E-8);this.scale.set(.5\*this.size,.5\*this.size,b);this.children[0].material.side=0>b?1:0;this.lookAt(this.plane.normal);F.prototype.updateMatrixWorld.call(this,a)};var nj=new n,zf,Sg;xb.prototype=Object.create(F.prototype);xb.prototype.constructor=xb;xb.prototype.setDirection=function(a){.99999<a.y?this.quaternion.set(0,0,0,1):-.99999>a.y?this.quaternion.set(1,0,0,0):(nj.set(a.z,  
0,-a.x).normalize(),this.quaternion.setFromAxisAngle(nj,Math.acos(a.y)))};xb.prototype.setLength=function(a,b,c){void 0===b&&(b=.2\*a);void 0===c&&(c=.2\*b);this.line.scale.set(1,Math.max(1E-4,a-b),1);this.line.updateMatrix();this.cone.scale.set(c,b,c);this.cone.position.y=a;this.cone.updateMatrix()};xb.prototype.setColor=function(a){this.line.material.color.set(a);this.cone.material.color.set(a)};xb.prototype.copy=function(a){F.prototype.copy.call(this,a,!1);this.line.copy(a.line);this.cone.copy(a.cone);  
return this};xb.prototype.clone=function(){return(new this.constructor).copy(this)};ve.prototype=Object.create(ma.prototype);ve.prototype.constructor=ve;var kb=Math.pow(2,8),oj=[.125,.215,.35,.446,.526,.582],yi=5+oj.length,lb={3E3:0,3001:1,3002:2,3004:3,3005:4,3006:5,3007:6},Wg=new hd,Af=function(a){var b=new Float32Array(a),c=new n(0,1,0);a=new ub({defines:{n:a},uniforms:{envMap:{value:null},samples:{value:1},weights:{value:b},latitudinal:{value:!1},dTheta:{value:0},mipInt:{value:0},poleAxis:{value:c},  
inputEncoding:{value:lb[3E3]},outputEncoding:{value:lb[3E3]}},vertexShader:Yg(),fragmentShader:"\nprecision mediump float;\nprecision mediump int;\nvarying vec3 vOutputDirection;\nuniform sampler2D envMap;\nuniform int samples;\nuniform float weights[n];\nuniform bool latitudinal;\nuniform float dTheta;\nuniform float mipInt;\nuniform vec3 poleAxis;\n\n"+Zg()+"\n\n#define ENVMAP\_TYPE\_CUBE\_UV\n#include <cube\_uv\_reflection\_fragment>\n\nvec3 getSample(float theta, vec3 axis) {\n\tfloat cosTheta = cos(theta);\n\t// Rodrigues' axis-angle rotation\n\tvec3 sampleDirection = vOutputDirection \* cosTheta\n\t\t+ cross(axis, vOutputDirection) \* sin(theta)\n\t\t+ axis \* dot(axis, vOutputDirection) \* (1.0 - cosTheta);\n\treturn bilinearCubeUV(envMap, sampleDirection, mipInt);\n}\n\nvoid main() {\n\tvec3 axis = latitudinal ? poleAxis : cross(poleAxis, vOutputDirection);\n\tif (all(equal(axis, vec3(0.0))))\n\t\taxis = vec3(vOutputDirection.z, 0.0, - vOutputDirection.x);\n\taxis = normalize(axis);\n\tgl\_FragColor = vec4(0.0);\n\tgl\_FragColor.rgb += weights[0] \* getSample(0.0, axis);\n\tfor (int i = 1; i < n; i++) {\n\t\tif (i >= samples)\n\t\t\tbreak;\n\t\tfloat theta = dTheta \* float(i);\n\t\tgl\_FragColor.rgb += weights[i] \* getSample(-1.0 \* theta, axis);\n\t\tgl\_FragColor.rgb += weights[i] \* getSample(theta, axis);\n\t}\n\tgl\_FragColor = linearToOutputTexel(gl\_FragColor);\n}\n\t\t",  
blending:0,depthTest:!1,depthWrite:!1});a.type="SphericalGaussianBlur";return a}(20),Rb=null,Sb=null,wh=function(){for(var a=[],b=[],c=[],d=8,e=0;e<yi;e++){var f=Math.pow(2,d);b.push(f);var g=1/f;4<e?g=oj[e-8+4-1]:0==e&&(g=0);c.push(g);g=1/(f-1);f=-g/2;g=1+g/2;var h=[f,f,g,f,g,g,f,f,g,g,f,g];f=new Float32Array(108);g=new Float32Array(72);for(var k=new Float32Array(36),m=0;6>m;m++){var n=m%3\*2/3-1,p=2<m?0:-1;f.set([n,p,0,n+2/3,p,0,n+2/3,p+1,0,n,p,0,n+2/3,p+1,0,n,p+1,0],18\*m);g.set(h,12\*m);k.set([m,  
m,m,m,m,m],6\*m)}h=new C;h.setAttribute("position",new M(f,3));h.setAttribute("uv",new M(g,2));h.setAttribute("faceIndex",new M(k,1));a.push(h);4<d&&d--}return{\_lodPlanes:a,\_sizeLods:b,\_sigmas:c}}(),we=wh.\_lodPlanes,Ci=wh.\_sizeLods,Cf=wh.\_sigmas,Bf=null,T=null,Vg=null,Ac=(1+Math.sqrt(5))/2,Ad=1/Ac,Ai=[new n(1,1,1),new n(-1,1,1),new n(1,1,-1),new n(-1,1,-1),new n(0,Ac,Ad),new n(0,Ac,-Ad),new n(Ad,0,Ac),new n(-Ad,0,Ac),new n(Ac,Ad,0),new n(-Ac,Ad,0)];Tg.prototype={constructor:Tg,fromScene:function(a,  
b,c,d){void 0===b&&(b=0);void 0===c&&(c=.1);void 0===d&&(d=100);Vg=T.getRenderTarget();var e=ui();c=new aa(90,1,c,d);d=[1,1,1,1,-1,1];var f=[1,1,-1,-1,-1,1],g=T.outputEncoding,h=T.toneMapping,k=T.toneMappingExposure,m=T.getClearColor(),n=T.getClearAlpha();T.toneMapping=1;T.toneMappingExposure=1;T.outputEncoding=3E3;a.scale.z\*=-1;var p=a.background;if(p&&p.isColor){p.convertSRGBToLinear();var t=Math.min(Math.max(Math.ceil(Math.log2(Math.max(p.r,p.g,p.b))),-128),127);p=p.multiplyScalar(Math.pow(2,-t));  
T.setClearColor(p,(t+128)/255);a.background=null}for(p=0;6>p;p++)t=p%3,0==t?(c.up.set(0,d[p],0),c.lookAt(f[p],0,0)):1==t?(c.up.set(0,0,d[p]),c.lookAt(0,f[p],0)):(c.up.set(0,d[p],0),c.lookAt(0,0,f[p])),Xg(e,t\*kb,2<p?kb:0,kb,kb),T.setRenderTarget(e),T.render(a,c);T.toneMapping=h;T.toneMappingExposure=k;T.outputEncoding=g;T.setClearColor(m,n);a.scale.z\*=-1;0<b&&zi(e,0,0,b);xi(e);wi(e);return e},fromEquirectangular:function(a){a.magFilter=1003;a.minFilter=1003;a.generateMipmaps=!1;return this.fromCubemap(a)},  
fromCubemap:function(a){Vg=T.getRenderTarget();var b=ui(a),c=new ob;a.isCubeTexture?null==Sb&&(Sb=Ei()):null==Rb&&(Rb=Di());var d=a.isCubeTexture?Sb:Rb;c.add(new S(we[0],d));d=d.uniforms;d.envMap.value=a;a.isCubeTexture||d.texelSize.value.set(1/a.image.width,1/a.image.height);d.inputEncoding.value=lb[a.encoding];d.outputEncoding.value=lb[a.encoding];Xg(b,0,0,3\*kb,2\*kb);T.setRenderTarget(b);T.render(c,Wg);xi(b);wi(b);return b},compileCubemapShader:function(){null==Sb&&(Sb=Ei(),Ug(Sb))},compileEquirectangularShader:function(){null==  
Rb&&(Rb=Di(),Ug(Rb))},dispose:function(){Af.dispose();null!=Sb&&Sb.dispose();null!=Rb&&Rb.dispose();for(var a=0;a<we.length;a++)we[a].dispose()}};G.create=function(a,b){console.log("THREE.Curve.create() has been deprecated");a.prototype=Object.create(G.prototype);a.prototype.constructor=a;a.prototype.getPoint=b;return a};Object.assign(vb.prototype,{createPointsGeometry:function(a){console.warn("THREE.CurvePath: .createPointsGeometry() has been removed. Use new THREE.Geometry().setFromPoints( points ) instead.");  
a=this.getPoints(a);return this.createGeometry(a)},createSpacedPointsGeometry:function(a){console.warn("THREE.CurvePath: .createSpacedPointsGeometry() has been removed. Use new THREE.Geometry().setFromPoints( points ) instead.");a=this.getSpacedPoints(a);return this.createGeometry(a)},createGeometry:function(a){console.warn("THREE.CurvePath: .createGeometry() has been removed. Use new THREE.Geometry().setFromPoints( points ) instead.");for(var b=new N,c=0,d=a.length;c<d;c++){var e=a[c];b.vertices.push(new n(e.x,  
e.y,e.z||0))}return b}});Object.assign($a.prototype,{fromPoints:function(a){console.warn("THREE.Path: .fromPoints() has been renamed to .setFromPoints().");return this.setFromPoints(a)}});Fi.prototype=Object.create(pa.prototype);Gi.prototype=Object.create(pa.prototype);$g.prototype=Object.create(pa.prototype);Object.assign($g.prototype,{initFromArray:function(){console.error("THREE.Spline: .initFromArray() has been removed.")},getControlPointsArray:function(){console.error("THREE.Spline: .getControlPointsArray() has been removed.")},  
reparametrizeByArcLength:function(){console.error("THREE.Spline: .reparametrizeByArcLength() has been removed.")}});wf.prototype.setColors=function(){console.error("THREE.GridHelper: setColors() has been deprecated, pass them in the constructor instead.")};rc.prototype.update=function(){console.error("THREE.SkeletonHelper: update() no longer needs to be called.")};Object.assign(W.prototype,{extractUrlBase:function(a){console.warn("THREE.Loader: .extractUrlBase() has been deprecated. Use THREE.LoaderUtils.extractUrlBase() instead.");  
return th.extractUrlBase(a)}});W.Handlers={add:function(){console.error("THREE.Loader: Handlers.add() has been removed. Use LoadingManager.addHandler() instead.")},get:function(){console.error("THREE.Loader: Handlers.get() has been removed. Use LoadingManager.getHandler() instead.")}};Object.assign(sf.prototype,{setTexturePath:function(a){console.warn("THREE.ObjectLoader: .setTexturePath() has been renamed to .setResourcePath().");return this.setResourcePath(a)}});Object.assign(Qg.prototype,{center:function(a){console.warn("THREE.Box2: .center() has been renamed to .getCenter().");  
return this.getCenter(a)},empty:function(){console.warn("THREE.Box2: .empty() has been renamed to .isEmpty().");return this.isEmpty()},isIntersectionBox:function(a){console.warn("THREE.Box2: .isIntersectionBox() has been renamed to .intersectsBox().");return this.intersectsBox(a)},size:function(a){console.warn("THREE.Box2: .size() has been renamed to .getSize().");return this.getSize(a)}});Object.assign(Sa.prototype,{center:function(a){console.warn("THREE.Box3: .center() has been renamed to .getCenter().");  
return this.getCenter(a)},empty:function(){console.warn("THREE.Box3: .empty() has been renamed to .isEmpty().");return this.isEmpty()},isIntersectionBox:function(a){console.warn("THREE.Box3: .isIntersectionBox() has been renamed to .intersectsBox().");return this.intersectsBox(a)},isIntersectionSphere:function(a){console.warn("THREE.Box3: .isIntersectionSphere() has been renamed to .intersectsSphere().");return this.intersectsSphere(a)},size:function(a){console.warn("THREE.Box3: .size() has been renamed to .getSize().");  
return this.getSize(a)}});Hc.prototype.setFromMatrix=function(a){console.warn("THREE.Frustum: .setFromMatrix() has been renamed to .setFromProjectionMatrix().");return this.setFromProjectionMatrix(a)};Rg.prototype.center=function(a){console.warn("THREE.Line3: .center() has been renamed to .getCenter().");return this.getCenter(a)};Object.assign(L,{random16:function(){console.warn("THREE.Math: .random16() has been deprecated. Use Math.random() instead.");return Math.random()},nearestPowerOfTwo:function(a){console.warn("THREE.Math: .nearestPowerOfTwo() has been renamed to .floorPowerOfTwo().");  
return L.floorPowerOfTwo(a)},nextPowerOfTwo:function(a){console.warn("THREE.Math: .nextPowerOfTwo() has been renamed to .ceilPowerOfTwo().");return L.ceilPowerOfTwo(a)}});Object.assign(wa.prototype,{flattenToArrayOffset:function(a,b){console.warn("THREE.Matrix3: .flattenToArrayOffset() has been deprecated. Use .toArray() instead.");return this.toArray(a,b)},multiplyVector3:function(a){console.warn("THREE.Matrix3: .multiplyVector3() has been removed. Use vector.applyMatrix3( matrix ) instead.");return a.applyMatrix3(this)},  
multiplyVector3Array:function(){console.error("THREE.Matrix3: .multiplyVector3Array() has been removed.")},applyToBufferAttribute:function(a){console.warn("THREE.Matrix3: .applyToBufferAttribute() has been removed. Use attribute.applyMatrix3( matrix ) instead.");return a.applyMatrix3(this)},applyToVector3Array:function(){console.error("THREE.Matrix3: .applyToVector3Array() has been removed.")}});Object.assign(P.prototype,{extractPosition:function(a){console.warn("THREE.Matrix4: .extractPosition() has been renamed to .copyPosition().");  
return this.copyPosition(a)},flattenToArrayOffset:function(a,b){console.warn("THREE.Matrix4: .flattenToArrayOffset() has been deprecated. Use .toArray() instead.");return this.toArray(a,b)},getPosition:function(){console.warn("THREE.Matrix4: .getPosition() has been removed. Use Vector3.setFromMatrixPosition( matrix ) instead.");return(new n).setFromMatrixColumn(this,3)},setRotationFromQuaternion:function(a){console.warn("THREE.Matrix4: .setRotationFromQuaternion() has been renamed to .makeRotationFromQuaternion().");  
return this.makeRotationFromQuaternion(a)},multiplyToArray:function(){console.warn("THREE.Matrix4: .multiplyToArray() has been removed.")},multiplyVector3:function(a){console.warn("THREE.Matrix4: .multiplyVector3() has been removed. Use vector.applyMatrix4( matrix ) instead.");return a.applyMatrix4(this)},multiplyVector4:function(a){console.warn("THREE.Matrix4: .multiplyVector4() has been removed. Use vector.applyMatrix4( matrix ) instead.");return a.applyMatrix4(this)},multiplyVector3Array:function(){console.error("THREE.Matrix4: .multiplyVector3Array() has been removed.")},  
rotateAxis:function(a){console.warn("THREE.Matrix4: .rotateAxis() has been removed. Use Vector3.transformDirection( matrix ) instead.");a.transformDirection(this)},crossVector:function(a){console.warn("THREE.Matrix4: .crossVector() has been removed. Use vector.applyMatrix4( matrix ) instead.");return a.applyMatrix4(this)},translate:function(){console.error("THREE.Matrix4: .translate() has been removed.")},rotateX:function(){console.error("THREE.Matrix4: .rotateX() has been removed.")},rotateY:function(){console.error("THREE.Matrix4: .rotateY() has been removed.")},  
rotateZ:function(){console.error("THREE.Matrix4: .rotateZ() has been removed.")},rotateByAxis:function(){console.error("THREE.Matrix4: .rotateByAxis() has been removed.")},applyToBufferAttribute:function(a){console.warn("THREE.Matrix4: .applyToBufferAttribute() has been removed. Use attribute.applyMatrix4( matrix ) instead.");return a.applyMatrix4(this)},applyToVector3Array:function(){console.error("THREE.Matrix4: .applyToVector3Array() has been removed.")},makeFrustum:function(a,b,c,d,e,f){console.warn("THREE.Matrix4: .makeFrustum() has been removed. Use .makePerspective( left, right, top, bottom, near, far ) instead.");  
return this.makePerspective(a,b,d,c,e,f)}});Ta.prototype.isIntersectionLine=function(a){console.warn("THREE.Plane: .isIntersectionLine() has been renamed to .intersectsLine().");return this.intersectsLine(a)};Aa.prototype.multiplyVector3=function(a){console.warn("THREE.Quaternion: .multiplyVector3() has been removed. Use is now vector.applyQuaternion( quaternion ) instead.");return a.applyQuaternion(this)};Object.assign(Vb.prototype,{isIntersectionBox:function(a){console.warn("THREE.Ray: .isIntersectionBox() has been renamed to .intersectsBox().");  
return this.intersectsBox(a)},isIntersectionPlane:function(a){console.warn("THREE.Ray: .isIntersectionPlane() has been renamed to .intersectsPlane().");return this.intersectsPlane(a)},isIntersectionSphere:function(a){console.warn("THREE.Ray: .isIntersectionSphere() has been renamed to .intersectsSphere().");return this.intersectsSphere(a)}});Object.assign(oa.prototype,{area:function(){console.warn("THREE.Triangle: .area() has been renamed to .getArea().");return this.getArea()},barycoordFromPoint:function(a,  
b){console.warn("THREE.Triangle: .barycoordFromPoint() has been renamed to .getBarycoord().");return this.getBarycoord(a,b)},midpoint:function(a){console.warn("THREE.Triangle: .midpoint() has been renamed to .getMidpoint().");return this.getMidpoint(a)},normal:function(a){console.warn("THREE.Triangle: .normal() has been renamed to .getNormal().");return this.getNormal(a)},plane:function(a){console.warn("THREE.Triangle: .plane() has been renamed to .getPlane().");return this.getPlane(a)}});Object.assign(oa,  
{barycoordFromPoint:function(a,b,c,d,e){console.warn("THREE.Triangle: .barycoordFromPoint() has been renamed to .getBarycoord().");return oa.getBarycoord(a,b,c,d,e)},normal:function(a,b,c,d){console.warn("THREE.Triangle: .normal() has been renamed to .getNormal().");return oa.getNormal(a,b,c,d)}});Object.assign(Kb.prototype,{extractAllPoints:function(a){console.warn("THREE.Shape: .extractAllPoints() has been removed. Use .extractPoints() instead.");return this.extractPoints(a)},extrude:function(a){console.warn("THREE.Shape: .extrude() has been removed. Use ExtrudeGeometry() instead.");  
return new fc(this,a)},makeGeometry:function(a){console.warn("THREE.Shape: .makeGeometry() has been removed. Use ShapeGeometry() instead.");return new hc(this,a)}});Object.assign(t.prototype,{fromAttribute:function(a,b,c){console.warn("THREE.Vector2: .fromAttribute() has been renamed to .fromBufferAttribute().");return this.fromBufferAttribute(a,b,c)},distanceToManhattan:function(a){console.warn("THREE.Vector2: .distanceToManhattan() has been renamed to .manhattanDistanceTo().");return this.manhattanDistanceTo(a)},  
lengthManhattan:function(){console.warn("THREE.Vector2: .lengthManhattan() has been renamed to .manhattanLength().");return this.manhattanLength()}});Object.assign(n.prototype,{setEulerFromRotationMatrix:function(){console.error("THREE.Vector3: .setEulerFromRotationMatrix() has been removed. Use Euler.setFromRotationMatrix() instead.")},setEulerFromQuaternion:function(){console.error("THREE.Vector3: .setEulerFromQuaternion() has been removed. Use Euler.setFromQuaternion() instead.")},getPositionFromMatrix:function(a){console.warn("THREE.Vector3: .getPositionFromMatrix() has been renamed to .setFromMatrixPosition().");  
return this.setFromMatrixPosition(a)},getScaleFromMatrix:function(a){console.warn("THREE.Vector3: .getScaleFromMatrix() has been renamed to .setFromMatrixScale().");return this.setFromMatrixScale(a)},getColumnFromMatrix:function(a,b){console.warn("THREE.Vector3: .getColumnFromMatrix() has been renamed to .setFromMatrixColumn().");return this.setFromMatrixColumn(b,a)},applyProjection:function(a){console.warn("THREE.Vector3: .applyProjection() has been removed. Use .applyMatrix4( m ) instead.");return this.applyMatrix4(a)},  
fromAttribute:function(a,b,c){console.warn("THREE.Vector3: .fromAttribute() has been renamed to .fromBufferAttribute().");return this.fromBufferAttribute(a,b,c)},distanceToManhattan:function(a){console.warn("THREE.Vector3: .distanceToManhattan() has been renamed to .manhattanDistanceTo().");return this.manhattanDistanceTo(a)},lengthManhattan:function(){console.warn("THREE.Vector3: .lengthManhattan() has been renamed to .manhattanLength().");return this.manhattanLength()}});Object.assign(ka.prototype,  
{fromAttribute:function(a,b,c){console.warn("THREE.Vector4: .fromAttribute() has been renamed to .fromBufferAttribute().");return this.fromBufferAttribute(a,b,c)},lengthManhattan:function(){console.warn("THREE.Vector4: .lengthManhattan() has been renamed to .manhattanLength().");return this.manhattanLength()}});Object.assign(N.prototype,{computeTangents:function(){console.error("THREE.Geometry: .computeTangents() has been removed.")},computeLineDistances:function(){console.error("THREE.Geometry: .computeLineDistances() has been removed. Use THREE.Line.computeLineDistances() instead.")},  
applyMatrix:function(a){console.warn("THREE.Geometry: .applyMatrix() has been renamed to .applyMatrix4().");return this.applyMatrix4(a)}});Object.assign(F.prototype,{getChildByName:function(a){console.warn("THREE.Object3D: .getChildByName() has been renamed to .getObjectByName().");return this.getObjectByName(a)},renderDepth:function(){console.warn("THREE.Object3D: .renderDepth has been removed. Use .renderOrder, instead.")},translate:function(a,b){console.warn("THREE.Object3D: .translate() has been removed. Use .translateOnAxis( axis, distance ) instead.");  
return this.translateOnAxis(b,a)},getWorldRotation:function(){console.error("THREE.Object3D: .getWorldRotation() has been removed. Use THREE.Object3D.getWorldQuaternion( target ) instead.")},applyMatrix:function(a){console.warn("THREE.Object3D: .applyMatrix() has been renamed to .applyMatrix4().");return this.applyMatrix4(a)}});Object.defineProperties(F.prototype,{eulerOrder:{get:function(){console.warn("THREE.Object3D: .eulerOrder is now .rotation.order.");return this.rotation.order},set:function(a){console.warn("THREE.Object3D: .eulerOrder is now .rotation.order.");  
this.rotation.order=a}},useQuaternion:{get:function(){console.warn("THREE.Object3D: .useQuaternion has been removed. The library now uses quaternions by default.")},set:function(){console.warn("THREE.Object3D: .useQuaternion has been removed. The library now uses quaternions by default.")}}});Object.assign(S.prototype,{setDrawMode:function(){console.error("THREE.Mesh: .setDrawMode() has been removed. The renderer now always assumes THREE.TrianglesDrawMode. Transform your geometry via BufferGeometryUtils.toTrianglesDrawMode() if necessary.")}});  
Object.defineProperties(S.prototype,{drawMode:{get:function(){console.error("THREE.Mesh: .drawMode has been removed. The renderer now always assumes THREE.TrianglesDrawMode.");return 0},set:function(){console.error("THREE.Mesh: .drawMode has been removed. The renderer now always assumes THREE.TrianglesDrawMode. Transform your geometry via BufferGeometryUtils.toTrianglesDrawMode() if necessary.")}}});Object.defineProperties(Rd.prototype,{objects:{get:function(){console.warn("THREE.LOD: .objects has been renamed to .levels.");  
return this.levels}}});Object.defineProperty(Ue.prototype,"useVertexTexture",{get:function(){console.warn("THREE.Skeleton: useVertexTexture has been removed.")},set:function(){console.warn("THREE.Skeleton: useVertexTexture has been removed.")}});Te.prototype.initBones=function(){console.error("THREE.SkinnedMesh: initBones() has been removed.")};Object.defineProperty(G.prototype,"\_\_arcLengthDivisions",{get:function(){console.warn("THREE.Curve: .\_\_arcLengthDivisions is now .arcLengthDivisions.");return this.arcLengthDivisions},  
set:function(a){console.warn("THREE.Curve: .\_\_arcLengthDivisions is now .arcLengthDivisions.");this.arcLengthDivisions=a}});aa.prototype.setLens=function(a,b){console.warn("THREE.PerspectiveCamera.setLens is deprecated. Use .setFocalLength and .filmGauge for a photographic setup.");void 0!==b&&(this.filmGauge=b);this.setFocalLength(a)};Object.defineProperties(da.prototype,{onlyShadow:{set:function(){console.warn("THREE.Light: .onlyShadow has been removed.")}},shadowCameraFov:{set:function(a){console.warn("THREE.Light: .shadowCameraFov is now .shadow.camera.fov.");  
this.shadow.camera.fov=a}},shadowCameraLeft:{set:function(a){console.warn("THREE.Light: .shadowCameraLeft is now .shadow.camera.left.");this.shadow.camera.left=a}},shadowCameraRight:{set:function(a){console.warn("THREE.Light: .shadowCameraRight is now .shadow.camera.right.");this.shadow.camera.right=a}},shadowCameraTop:{set:function(a){console.warn("THREE.Light: .shadowCameraTop is now .shadow.camera.top.");this.shadow.camera.top=a}},shadowCameraBottom:{set:function(a){console.warn("THREE.Light: .shadowCameraBottom is now .shadow.camera.bottom.");  
this.shadow.camera.bottom=a}},shadowCameraNear:{set:function(a){console.warn("THREE.Light: .shadowCameraNear is now .shadow.camera.near.");this.shadow.camera.near=a}},shadowCameraFar:{set:function(a){console.warn("THREE.Light: .shadowCameraFar is now .shadow.camera.far.");this.shadow.camera.far=a}},shadowCameraVisible:{set:function(){console.warn("THREE.Light: .shadowCameraVisible has been removed. Use new THREE.CameraHelper( light.shadow.camera ) instead.")}},shadowBias:{set:function(a){console.warn("THREE.Light: .shadowBias is now .shadow.bias.");  
this.shadow.bias=a}},shadowDarkness:{set:function(){console.warn("THREE.Light: .shadowDarkness has been removed.")}},shadowMapWidth:{set:function(a){console.warn("THREE.Light: .shadowMapWidth is now .shadow.mapSize.width.");this.shadow.mapSize.width=a}},shadowMapHeight:{set:function(a){console.warn("THREE.Light: .shadowMapHeight is now .shadow.mapSize.height.");this.shadow.mapSize.height=a}}});Object.defineProperties(M.prototype,{length:{get:function(){console.warn("THREE.BufferAttribute: .length has been deprecated. Use .count instead.");  
return this.array.length}},dynamic:{get:function(){console.warn("THREE.BufferAttribute: .dynamic has been deprecated. Use .usage instead.");return 35048===this.usage},set:function(){console.warn("THREE.BufferAttribute: .dynamic has been deprecated. Use .usage instead.");this.setUsage(35048)}}});Object.assign(M.prototype,{setDynamic:function(a){console.warn("THREE.BufferAttribute: .setDynamic() has been deprecated. Use .setUsage() instead.");this.setUsage(!0===a?35048:35044);return this},copyIndicesArray:function(){console.error("THREE.BufferAttribute: .copyIndicesArray() has been removed.")},  
setArray:function(){console.error("THREE.BufferAttribute: .setArray has been removed. Use BufferGeometry .setAttribute to replace/resize attribute buffers")}});Object.assign(C.prototype,{addIndex:function(a){console.warn("THREE.BufferGeometry: .addIndex() has been renamed to .setIndex().");this.setIndex(a)},addAttribute:function(a,b,c){console.warn("THREE.BufferGeometry: .addAttribute() has been renamed to .setAttribute().");return b&&b.isBufferAttribute||b&&b.isInterleavedBufferAttribute?"index"===  
a?(console.warn("THREE.BufferGeometry.addAttribute: Use .setIndex() for index attribute."),this.setIndex(b),this):this.setAttribute(a,b):(console.warn("THREE.BufferGeometry: .addAttribute() now expects ( name, attribute )."),this.setAttribute(a,new M(b,c)))},addDrawCall:function(a,b,c){void 0!==c&&console.warn("THREE.BufferGeometry: .addDrawCall() no longer supports indexOffset.");console.warn("THREE.BufferGeometry: .addDrawCall() is now .addGroup().");this.addGroup(a,b)},clearDrawCalls:function(){console.warn("THREE.BufferGeometry: .clearDrawCalls() is now .clearGroups().");  
this.clearGroups()},computeTangents:function(){console.warn("THREE.BufferGeometry: .computeTangents() has been removed.")},computeOffsets:function(){console.warn("THREE.BufferGeometry: .computeOffsets() has been removed.")},removeAttribute:function(a){console.warn("THREE.BufferGeometry: .removeAttribute() has been renamed to .deleteAttribute().");return this.deleteAttribute(a)},applyMatrix:function(a){console.warn("THREE.BufferGeometry: .applyMatrix() has been renamed to .applyMatrix4().");return this.applyMatrix4(a)}});  
Object.defineProperties(C.prototype,{drawcalls:{get:function(){console.error("THREE.BufferGeometry: .drawcalls has been renamed to .groups.");return this.groups}},offsets:{get:function(){console.warn("THREE.BufferGeometry: .offsets has been renamed to .groups.");return this.groups}}});Object.defineProperties(Og.prototype,{linePrecision:{get:function(){console.warn("THREE.Raycaster: .linePrecision has been deprecated. Use .params.Line.threshold instead.");return this.params.Line.threshold},set:function(a){console.warn("THREE.Raycaster: .linePrecision has been deprecated. Use .params.Line.threshold instead.");  
this.params.Line.threshold=a}}});Object.defineProperties(rb.prototype,{dynamic:{get:function(){console.warn("THREE.InterleavedBuffer: .length has been deprecated. Use .usage instead.");return 35048===this.usage},set:function(a){console.warn("THREE.InterleavedBuffer: .length has been deprecated. Use .usage instead.");this.setUsage(a)}}});Object.assign(rb.prototype,{setDynamic:function(a){console.warn("THREE.InterleavedBuffer: .setDynamic() has been deprecated. Use .setUsage() instead.");this.setUsage(!0===  
a?35048:35044);return this},setArray:function(){console.error("THREE.InterleavedBuffer: .setArray has been removed. Use BufferGeometry .setAttribute to replace/resize attribute buffers")}});Object.assign(fb.prototype,{getArrays:function(){console.error("THREE.ExtrudeBufferGeometry: .getArrays() has been removed.")},addShapeList:function(){console.error("THREE.ExtrudeBufferGeometry: .addShapeList() has been removed.")},addShape:function(){console.error("THREE.ExtrudeBufferGeometry: .addShape() has been removed.")}});  
Object.defineProperties(vf.prototype,{dynamic:{set:function(){console.warn("THREE.Uniform: .dynamic has been removed. Use object.onBeforeRender() instead.")}},onUpdate:{value:function(){console.warn("THREE.Uniform: .onUpdate() has been removed. Use object.onBeforeRender() instead.");return this}}});Object.defineProperties(K.prototype,{wrapAround:{get:function(){console.warn("THREE.Material: .wrapAround has been removed.")},set:function(){console.warn("THREE.Material: .wrapAround has been removed.")}},  
overdraw:{get:function(){console.warn("THREE.Material: .overdraw has been removed.")},set:function(){console.warn("THREE.Material: .overdraw has been removed.")}},wrapRGB:{get:function(){console.warn("THREE.Material: .wrapRGB has been removed.");return new A}},shading:{get:function(){console.error("THREE."+this.type+": .shading has been removed. Use the boolean .flatShading instead.")},set:function(a){console.warn("THREE."+this.type+": .shading has been removed. Use the boolean .flatShading instead.");  
this.flatShading=1===a}},stencilMask:{get:function(){console.warn("THREE."+this.type+": .stencilMask has been removed. Use .stencilFuncMask instead.");return this.stencilFuncMask},set:function(a){console.warn("THREE."+this.type+": .stencilMask has been removed. Use .stencilFuncMask instead.");this.stencilFuncMask=a}}});Object.defineProperties(Jb.prototype,{metal:{get:function(){console.warn("THREE.MeshPhongMaterial: .metal has been removed. Use THREE.MeshStandardMaterial instead.");return!1},set:function(){console.warn("THREE.MeshPhongMaterial: .metal has been removed. Use THREE.MeshStandardMaterial instead")}}});  
Object.defineProperties(Ba.prototype,{derivatives:{get:function(){console.warn("THREE.ShaderMaterial: .derivatives has been moved to .extensions.derivatives.");return this.extensions.derivatives},set:function(a){console.warn("THREE. ShaderMaterial: .derivatives has been moved to .extensions.derivatives.");this.extensions.derivatives=a}}});Object.assign(og.prototype,{clearTarget:function(a,b,c,d){console.warn("THREE.WebGLRenderer: .clearTarget() has been deprecated. Use .setRenderTarget() and .clear() instead.");  
this.setRenderTarget(a);this.clear(b,c,d)},animate:function(a){console.warn("THREE.WebGLRenderer: .animate() is now .setAnimationLoop().");this.setAnimationLoop(a)},getCurrentRenderTarget:function(){console.warn("THREE.WebGLRenderer: .getCurrentRenderTarget() is now .getRenderTarget().");return this.getRenderTarget()},getMaxAnisotropy:function(){console.warn("THREE.WebGLRenderer: .getMaxAnisotropy() is now .capabilities.getMaxAnisotropy().");return this.capabilities.getMaxAnisotropy()},getPrecision:function(){console.warn("THREE.WebGLRenderer: .getPrecision() is now .capabilities.precision.");  
return this.capabilities.precision},resetGLState:function(){console.warn("THREE.WebGLRenderer: .resetGLState() is now .state.reset().");return this.state.reset()},supportsFloatTextures:function(){console.warn("THREE.WebGLRenderer: .supportsFloatTextures() is now .extensions.get( 'OES\_texture\_float' ).");return this.extensions.get("OES\_texture\_float")},supportsHalfFloatTextures:function(){console.warn("THREE.WebGLRenderer: .supportsHalfFloatTextures() is now .extensions.get( 'OES\_texture\_half\_float' ).");  
return this.extensions.get("OES\_texture\_half\_float")},supportsStandardDerivatives:function(){console.warn("THREE.WebGLRenderer: .supportsStandardDerivatives() is now .extensions.get( 'OES\_standard\_derivatives' ).");return this.extensions.get("OES\_standard\_derivatives")},supportsCompressedTextureS3TC:function(){console.warn("THREE.WebGLRenderer: .supportsCompressedTextureS3TC() is now .extensions.get( 'WEBGL\_compressed\_texture\_s3tc' ).");return this.extensions.get("WEBGL\_compressed\_texture\_s3tc")},  
supportsCompressedTexturePVRTC:function(){console.warn("THREE.WebGLRenderer: .supportsCompressedTexturePVRTC() is now .extensions.get( 'WEBGL\_compressed\_texture\_pvrtc' ).");return this.extensions.get("WEBGL\_compressed\_texture\_pvrtc")},supportsBlendMinMax:function(){console.warn("THREE.WebGLRenderer: .supportsBlendMinMax() is now .extensions.get( 'EXT\_blend\_minmax' ).");return this.extensions.get("EXT\_blend\_minmax")},supportsVertexTextures:function(){console.warn("THREE.WebGLRenderer: .supportsVertexTextures() is now .capabilities.vertexTextures.");  
return this.capabilities.vertexTextures},supportsInstancedArrays:function(){console.warn("THREE.WebGLRenderer: .supportsInstancedArrays() is now .extensions.get( 'ANGLE\_instanced\_arrays' ).");return this.extensions.get("ANGLE\_instanced\_arrays")},enableScissorTest:function(a){console.warn("THREE.WebGLRenderer: .enableScissorTest() is now .setScissorTest().");this.setScissorTest(a)},initMaterial:function(){console.warn("THREE.WebGLRenderer: .initMaterial() has been removed.")},addPrePlugin:function(){console.warn("THREE.WebGLRenderer: .addPrePlugin() has been removed.")},  
addPostPlugin:function(){console.warn("THREE.WebGLRenderer: .addPostPlugin() has been removed.")},updateShadowMap:function(){console.warn("THREE.WebGLRenderer: .updateShadowMap() has been removed.")},setFaceCulling:function(){console.warn("THREE.WebGLRenderer: .setFaceCulling() has been removed.")},allocTextureUnit:function(){console.warn("THREE.WebGLRenderer: .allocTextureUnit() has been removed.")},setTexture:function(){console.warn("THREE.WebGLRenderer: .setTexture() has been removed.")},setTexture2D:function(){console.warn("THREE.WebGLRenderer: .setTexture2D() has been removed.")},  
setTextureCube:function(){console.warn("THREE.WebGLRenderer: .setTextureCube() has been removed.")},getActiveMipMapLevel:function(){console.warn("THREE.WebGLRenderer: .getActiveMipMapLevel() is now .getActiveMipmapLevel().");return this.getActiveMipmapLevel()}});Object.defineProperties(og.prototype,{shadowMapEnabled:{get:function(){return this.shadowMap.enabled},set:function(a){console.warn("THREE.WebGLRenderer: .shadowMapEnabled is now .shadowMap.enabled.");this.shadowMap.enabled=a}},shadowMapType:{get:function(){return this.shadowMap.type},  
set:function(a){console.warn("THREE.WebGLRenderer: .shadowMapType is now .shadowMap.type.");this.shadowMap.type=a}},shadowMapCullFace:{get:function(){console.warn("THREE.WebGLRenderer: .shadowMapCullFace has been removed. Set Material.shadowSide instead.")},set:function(){console.warn("THREE.WebGLRenderer: .shadowMapCullFace has been removed. Set Material.shadowSide instead.")}},context:{get:function(){console.warn("THREE.WebGLRenderer: .context has been removed. Use .getContext() instead.");return this.getContext()}},  
vr:{get:function(){console.warn("THREE.WebGLRenderer: .vr has been renamed to .xr");return this.xr}},gammaInput:{get:function(){console.warn("THREE.WebGLRenderer: .gammaInput has been removed. Set the encoding for textures via Texture.encoding instead.");return!1},set:function(){console.warn("THREE.WebGLRenderer: .gammaInput has been removed. Set the encoding for textures via Texture.encoding instead.")}},gammaOutput:{get:function(){console.warn("THREE.WebGLRenderer: .gammaOutput has been removed. Set WebGLRenderer.outputEncoding instead.");  
return!1},set:function(a){console.warn("THREE.WebGLRenderer: .gammaOutput has been removed. Set WebGLRenderer.outputEncoding instead.");this.outputEncoding=!0===a?3001:3E3}}});Object.defineProperties(Xh.prototype,{cullFace:{get:function(){console.warn("THREE.WebGLRenderer: .shadowMap.cullFace has been removed. Set Material.shadowSide instead.")},set:function(){console.warn("THREE.WebGLRenderer: .shadowMap.cullFace has been removed. Set Material.shadowSide instead.")}},renderReverseSided:{get:function(){console.warn("THREE.WebGLRenderer: .shadowMap.renderReverseSided has been removed. Set Material.shadowSide instead.")},  
set:function(){console.warn("THREE.WebGLRenderer: .shadowMap.renderReverseSided has been removed. Set Material.shadowSide instead.")}},renderSingleSided:{get:function(){console.warn("THREE.WebGLRenderer: .shadowMap.renderSingleSided has been removed. Set Material.shadowSide instead.")},set:function(){console.warn("THREE.WebGLRenderer: .shadowMap.renderSingleSided has been removed. Set Material.shadowSide instead.")}}});Object.defineProperties(Ha.prototype,{wrapS:{get:function(){console.warn("THREE.WebGLRenderTarget: .wrapS is now .texture.wrapS.");  
return this.texture.wrapS},set:function(a){console.warn("THREE.WebGLRenderTarget: .wrapS is now .texture.wrapS.");this.texture.wrapS=a}},wrapT:{get:function(){console.warn("THREE.WebGLRenderTarget: .wrapT is now .texture.wrapT.");return this.texture.wrapT},set:function(a){console.warn("THREE.WebGLRenderTarget: .wrapT is now .texture.wrapT.");this.texture.wrapT=a}},magFilter:{get:function(){console.warn("THREE.WebGLRenderTarget: .magFilter is now .texture.magFilter.");return this.texture.magFilter},  
set:function(a){console.warn("THREE.WebGLRenderTarget: .magFilter is now .texture.magFilter.");this.texture.magFilter=a}},minFilter:{get:function(){console.warn("THREE.WebGLRenderTarget: .minFilter is now .texture.minFilter.");return this.texture.minFilter},set:function(a){console.warn("THREE.WebGLRenderTarget: .minFilter is now .texture.minFilter.");this.texture.minFilter=a}},anisotropy:{get:function(){console.warn("THREE.WebGLRenderTarget: .anisotropy is now .texture.anisotropy.");return this.texture.anisotropy},  
set:function(a){console.warn("THREE.WebGLRenderTarget: .anisotropy is now .texture.anisotropy.");this.texture.anisotropy=a}},offset:{get:function(){console.warn("THREE.WebGLRenderTarget: .offset is now .texture.offset.");return this.texture.offset},set:function(a){console.warn("THREE.WebGLRenderTarget: .offset is now .texture.offset.");this.texture.offset=a}},repeat:{get:function(){console.warn("THREE.WebGLRenderTarget: .repeat is now .texture.repeat.");return this.texture.repeat},set:function(a){console.warn("THREE.WebGLRenderTarget: .repeat is now .texture.repeat.");  
this.texture.repeat=a}},format:{get:function(){console.warn("THREE.WebGLRenderTarget: .format is now .texture.format.");return this.texture.format},set:function(a){console.warn("THREE.WebGLRenderTarget: .format is now .texture.format.");this.texture.format=a}},type:{get:function(){console.warn("THREE.WebGLRenderTarget: .type is now .texture.type.");return this.texture.type},set:function(a){console.warn("THREE.WebGLRenderTarget: .type is now .texture.type.");this.texture.type=a}},generateMipmaps:{get:function(){console.warn("THREE.WebGLRenderTarget: .generateMipmaps is now .texture.generateMipmaps.");  
return this.texture.generateMipmaps},set:function(a){console.warn("THREE.WebGLRenderTarget: .generateMipmaps is now .texture.generateMipmaps.");this.texture.generateMipmaps=a}}});Object.defineProperties(id.prototype,{load:{value:function(a){console.warn("THREE.Audio: .load has been deprecated. Use THREE.AudioLoader instead.");var b=this;(new tf).load(a,function(a){b.setBuffer(a)});return this}},startTime:{set:function(){console.warn("THREE.Audio: .startTime is now .play( delay ).")}}});Kg.prototype.getData=  
function(){console.warn("THREE.AudioAnalyser: .getData() is now .getFrequencyData().");return this.getFrequencyData()};Gc.prototype.updateCubeMap=function(a,b){console.warn("THREE.CubeCamera: .updateCubeMap() is now .update().");return this.update(a,b)};Lb.crossOrigin=void 0;Lb.loadTexture=function(a,b,c,d){console.warn("THREE.ImageUtils.loadTexture has been deprecated. Use THREE.TextureLoader() instead.");var e=new ef;e.setCrossOrigin(this.crossOrigin);a=e.load(a,c,void 0,d);b&&(a.mapping=b);return a};  
Lb.loadTextureCube=function(a,b,c,d){console.warn("THREE.ImageUtils.loadTextureCube has been deprecated. Use THREE.CubeTextureLoader() instead.");var e=new df;e.setCrossOrigin(this.crossOrigin);a=e.load(a,c,void 0,d);b&&(a.mapping=b);return a};Lb.loadCompressedTexture=function(){console.error("THREE.ImageUtils.loadCompressedTexture has been removed. Use THREE.DDSLoader instead.")};Lb.loadCompressedTextureCube=function(){console.error("THREE.ImageUtils.loadCompressedTextureCube has been removed. Use THREE.DDSLoader instead.")};  
"undefined"!==typeof \_\_THREE\_DEVTOOLS\_\_&&\_\_THREE\_DEVTOOLS\_\_.dispatchEvent(new CustomEvent("register",{detail:{revision:"115"}}));k.ACESFilmicToneMapping=5;k.AddEquation=100;k.AddOperation=2;k.AdditiveBlending=2;k.AlphaFormat=1021;k.AlwaysDepth=1;k.AlwaysStencilFunc=519;k.AmbientLight=mf;k.AmbientLightProbe=Fg;k.AnimationClip=Qa;k.AnimationLoader=wg;k.AnimationMixer=Mg;k.AnimationObjectGroup=oi;k.AnimationUtils=R;k.ArcCurve=gd;k.ArrayCamera=Pe;k.ArrowHelper=xb;k.Audio=id;k.AudioAnalyser=Kg;k.AudioContext=  
Ig;k.AudioListener=Hg;k.AudioLoader=tf;k.AxesHelper=ve;k.AxisHelper=function(a){console.warn("THREE.AxisHelper has been renamed to THREE.AxesHelper.");return new ve(a)};k.BackSide=1;k.BasicDepthPacking=3200;k.BasicShadowMap=0;k.BinaryTextureLoader=function(a){console.warn("THREE.BinaryTextureLoader has been renamed to THREE.DataTextureLoader.");return new cf(a)};k.Bone=pg;k.BooleanKeyframeTrack=Ze;k.BoundingBoxHelper=function(a,b){console.warn("THREE.BoundingBoxHelper has been deprecated. Creating a THREE.BoxHelper instead.");  
return new wb(a,b)};k.Box2=Qg;k.Box3=Sa;k.Box3Helper=te;k.BoxBufferGeometry=Jd;k.BoxGeometry=nh;k.BoxHelper=wb;k.BufferAttribute=M;k.BufferGeometry=C;k.BufferGeometryLoader=rf;k.ByteType=1010;k.Cache=vc;k.Camera=db;k.CameraHelper=se;k.CanvasRenderer=function(){console.error("THREE.CanvasRenderer has been removed")};k.CanvasTexture=Sd;k.CatmullRomCurve3=pa;k.CineonToneMapping=4;k.CircleBufferGeometry=cd;k.CircleGeometry=me;k.ClampToEdgeWrapping=1001;k.Clock=Gg;k.ClosedSplineCurve3=Fi;k.Color=A;k.ColorKeyframeTrack=  
$e;k.CompressedTexture=Qc;k.CompressedTextureLoader=xg;k.ConeBufferGeometry=le;k.ConeGeometry=ke;k.CubeCamera=Gc;k.CubeGeometry=nh;k.CubeReflectionMapping=301;k.CubeRefractionMapping=302;k.CubeTexture=qb;k.CubeTextureLoader=df;k.CubeUVReflectionMapping=306;k.CubeUVRefractionMapping=307;k.CubicBezierCurve=Wa;k.CubicBezierCurve3=hb;k.CubicInterpolant=Xe;k.CullFaceBack=1;k.CullFaceFront=2;k.CullFaceFrontBack=3;k.CullFaceNone=0;k.Curve=G;k.CurvePath=vb;k.CustomBlending=5;k.CylinderBufferGeometry=tb;k.CylinderGeometry=  
jc;k.Cylindrical=si;k.DataTexture=ac;k.DataTexture2DArray=Ic;k.DataTexture3D=Jc;k.DataTextureLoader=cf;k.DecrementStencilOp=7683;k.DecrementWrapStencilOp=34056;k.DefaultLoadingManager=ki;k.DepthFormat=1026;k.DepthStencilFormat=1027;k.DepthTexture=Td;k.DirectionalLight=lf;k.DirectionalLightHelper=md;k.DirectionalLightShadow=kf;k.DiscreteInterpolant=Ye;k.DodecahedronBufferGeometry=Vc;k.DodecahedronGeometry=Zd;k.DoubleSide=2;k.DstAlphaFactor=206;k.DstColorFactor=208;k.DynamicBufferAttribute=function(a,  
b){console.warn("THREE.DynamicBufferAttribute has been removed. Use new THREE.BufferAttribute().setUsage( THREE.DynamicDrawUsage ) instead.");return(new M(a,b)).setUsage(35048)};k.DynamicCopyUsage=35050;k.DynamicDrawUsage=35048;k.DynamicReadUsage=35049;k.EdgesGeometry=bd;k.EdgesHelper=function(a,b){console.warn("THREE.EdgesHelper has been removed. Use THREE.EdgesGeometry instead.");return new ma(new bd(a.geometry),new la({color:void 0!==b?b:16777215}))};k.EllipseCurve=Ma;k.EqualDepth=4;k.EqualStencilFunc=  
514;k.EquirectangularReflectionMapping=303;k.EquirectangularRefractionMapping=304;k.Euler=Tb;k.EventDispatcher=Ea;k.ExtrudeBufferGeometry=fb;k.ExtrudeGeometry=fc;k.Face3=Bc;k.Face4=function(a,b,c,d,e,f,g){console.warn("THREE.Face4 has been removed. A THREE.Face3 will be created instead.");return new Bc(a,b,c,e,f,g)};k.FaceColors=1;k.FileLoader=Ra;k.FlatShading=1;k.Float32Attribute=function(a,b){console.warn("THREE.Float32Attribute has been removed. Use new THREE.Float32BufferAttribute() instead.");  
return new y(a,b)};k.Float32BufferAttribute=y;k.Float64Attribute=function(a,b){console.warn("THREE.Float64Attribute has been removed. Use new THREE.Float64BufferAttribute() instead.");return new Gd(a,b)};k.Float64BufferAttribute=Gd;k.FloatType=1015;k.Fog=Re;k.FogExp2=Qe;k.Font=Cg;k.FontLoader=Dg;k.FrontFaceDirectionCCW=1;k.FrontFaceDirectionCW=0;k.FrontSide=0;k.Frustum=Hc;k.GammaEncoding=3007;k.Geometry=N;k.GeometryUtils={merge:function(a,b,c){console.warn("THREE.GeometryUtils: .merge() has been moved to Geometry. Use geometry.merge( geometry2, matrix, materialIndexOffset ) instead.");  
if(b.isMesh){b.matrixAutoUpdate&&b.updateMatrix();var d=b.matrix;b=b.geometry}a.merge(b,d,c)},center:function(a){console.warn("THREE.GeometryUtils: .center() has been moved to Geometry. Use geometry.center() instead.");return a.center()}};k.GreaterDepth=6;k.GreaterEqualDepth=5;k.GreaterEqualStencilFunc=518;k.GreaterStencilFunc=516;k.GridHelper=wf;k.Group=Mc;k.HalfFloatType=1016;k.HemisphereLight=ff;k.HemisphereLightHelper=ld;k.HemisphereLightProbe=Eg;k.IcosahedronBufferGeometry=Uc;k.IcosahedronGeometry=  
Yd;k.ImageBitmapLoader=Ag;k.ImageLoader=fd;k.ImageUtils=Lb;k.ImmediateRenderObject=re;k.IncrementStencilOp=7682;k.IncrementWrapStencilOp=34055;k.InstancedBufferAttribute=qf;k.InstancedBufferGeometry=pf;k.InstancedInterleavedBuffer=Ng;k.InstancedMesh=Ve;k.Int16Attribute=function(a,b){console.warn("THREE.Int16Attribute has been removed. Use new THREE.Int16BufferAttribute() instead.");return new Ed(a,b)};k.Int16BufferAttribute=Ed;k.Int32Attribute=function(a,b){console.warn("THREE.Int32Attribute has been removed. Use new THREE.Int32BufferAttribute() instead.");  
return new Fd(a,b)};k.Int32BufferAttribute=Fd;k.Int8Attribute=function(a,b){console.warn("THREE.Int8Attribute has been removed. Use new THREE.Int8BufferAttribute() instead.");return new Bd(a,b)};k.Int8BufferAttribute=Bd;k.IntType=1013;k.InterleavedBuffer=rb;k.InterleavedBufferAttribute=Od;k.Interpolant=La;k.InterpolateDiscrete=2300;k.InterpolateLinear=2301;k.InterpolateSmooth=2302;k.InvertStencilOp=5386;k.JSONLoader=function(){console.error("THREE.JSONLoader has been removed.")};k.KeepStencilOp=7680;  
k.KeyframeTrack=sa;k.LOD=Rd;k.LatheBufferGeometry=ad;k.LatheGeometry=je;k.Layers=He;k.LensFlare=function(){console.error("THREE.LensFlare has been moved to /examples/jsm/objects/Lensflare.js")};k.LessDepth=2;k.LessEqualDepth=3;k.LessEqualStencilFunc=515;k.LessStencilFunc=513;k.Light=da;k.LightProbe=ab;k.LightShadow=jb;k.Line=Ka;k.Line3=Rg;k.LineBasicMaterial=la;k.LineCurve=Da;k.LineCurve3=Xa;k.LineDashedMaterial=qc;k.LineLoop=We;k.LinePieces=1;k.LineSegments=ma;k.LineStrip=0;k.LinearEncoding=3E3;  
k.LinearFilter=1006;k.LinearInterpolant=ne;k.LinearMipMapLinearFilter=1008;k.LinearMipMapNearestFilter=1007;k.LinearMipmapLinearFilter=1008;k.LinearMipmapNearestFilter=1007;k.LinearToneMapping=1;k.Loader=W;k.LoaderUtils=th;k.LoadingManager=vg;k.LogLuvEncoding=3003;k.LoopOnce=2200;k.LoopPingPong=2202;k.LoopRepeat=2201;k.LuminanceAlphaFormat=1025;k.LuminanceFormat=1024;k.MOUSE={LEFT:0,MIDDLE:1,RIGHT:2,ROTATE:0,DOLLY:1,PAN:2};k.Material=K;k.MaterialLoader=of;k.Math=L;k.MathUtils=L;k.Matrix3=wa;k.Matrix4=  
P;k.MaxEquation=104;k.Mesh=S;k.MeshBasicMaterial=Oa;k.MeshDepthMaterial=Fb;k.MeshDistanceMaterial=Gb;k.MeshFaceMaterial=function(a){console.warn("THREE.MeshFaceMaterial has been removed. Use an Array instead.");return a};k.MeshLambertMaterial=oc;k.MeshMatcapMaterial=pc;k.MeshNormalMaterial=nc;k.MeshPhongMaterial=Jb;k.MeshPhysicalMaterial=lc;k.MeshStandardMaterial=gb;k.MeshToonMaterial=mc;k.MinEquation=103;k.MirroredRepeatWrapping=1002;k.MixOperation=1;k.MultiMaterial=function(a){void 0===a&&(a=[]);  
console.warn("THREE.MultiMaterial has been removed. Use an Array instead.");a.isMultiMaterial=!0;a.materials=a;a.clone=function(){return a.slice()};return a};k.MultiplyBlending=4;k.MultiplyOperation=0;k.NearestFilter=1003;k.NearestMipMapLinearFilter=1005;k.NearestMipMapNearestFilter=1004;k.NearestMipmapLinearFilter=1005;k.NearestMipmapNearestFilter=1004;k.NeverDepth=0;k.NeverStencilFunc=512;k.NoBlending=0;k.NoColors=0;k.NoToneMapping=0;k.NormalBlending=1;k.NotEqualDepth=7;k.NotEqualStencilFunc=517;  
k.NumberKeyframeTrack=dd;k.Object3D=F;k.ObjectLoader=sf;k.ObjectSpaceNormalMap=1;k.OctahedronBufferGeometry=cc;k.OctahedronGeometry=Xd;k.OneFactor=201;k.OneMinusDstAlphaFactor=207;k.OneMinusDstColorFactor=209;k.OneMinusSrcAlphaFactor=205;k.OneMinusSrcColorFactor=203;k.OrthographicCamera=hd;k.PCFShadowMap=1;k.PCFSoftShadowMap=2;k.PMREMGenerator=Tg;k.ParametricBufferGeometry=Sc;k.ParametricGeometry=Ud;k.Particle=function(a){console.warn("THREE.Particle has been renamed to THREE.Sprite.");return new Pd(a)};  
k.ParticleBasicMaterial=function(a){console.warn("THREE.ParticleBasicMaterial has been renamed to THREE.PointsMaterial.");return new Va(a)};k.ParticleSystem=function(a,b){console.warn("THREE.ParticleSystem has been renamed to THREE.Points.");return new Pc(a,b)};k.ParticleSystemMaterial=function(a){console.warn("THREE.ParticleSystemMaterial has been renamed to THREE.PointsMaterial.");return new Va(a)};k.Path=$a;k.PerspectiveCamera=aa;k.Plane=Ta;k.PlaneBufferGeometry=bc;k.PlaneGeometry=Id;k.PlaneHelper=  
ue;k.PointCloud=function(a,b){console.warn("THREE.PointCloud has been renamed to THREE.Points.");return new Pc(a,b)};k.PointCloudMaterial=function(a){console.warn("THREE.PointCloudMaterial has been renamed to THREE.PointsMaterial.");return new Va(a)};k.PointLight=jf;k.PointLightHelper=kd;k.Points=Pc;k.PointsMaterial=Va;k.PolarGridHelper=xf;k.PolyhedronBufferGeometry=Ga;k.PolyhedronGeometry=Vd;k.PositionalAudio=Jg;k.PropertyBinding=ya;k.PropertyMixer=Lg;k.QuadraticBezierCurve=Ya;k.QuadraticBezierCurve3=  
ib;k.Quaternion=Aa;k.QuaternionKeyframeTrack=oe;k.QuaternionLinearInterpolant=af;k.REVISION="115";k.RGBADepthPacking=3201;k.RGBAFormat=1023;k.RGBAIntegerFormat=1033;k.RGBA\_ASTC\_10x10\_Format=37819;k.RGBA\_ASTC\_10x5\_Format=37816;k.RGBA\_ASTC\_10x6\_Format=37817;k.RGBA\_ASTC\_10x8\_Format=37818;k.RGBA\_ASTC\_12x10\_Format=37820;k.RGBA\_ASTC\_12x12\_Format=37821;k.RGBA\_ASTC\_4x4\_Format=37808;k.RGBA\_ASTC\_5x4\_Format=37809;k.RGBA\_ASTC\_5x5\_Format=37810;k.RGBA\_ASTC\_6x5\_Format=37811;k.RGBA\_ASTC\_6x6\_Format=37812;k.RGBA\_ASTC\_8x5\_Format=  
37813;k.RGBA\_ASTC\_8x6\_Format=37814;k.RGBA\_ASTC\_8x8\_Format=37815;k.RGBA\_BPTC\_Format=36492;k.RGBA\_ETC2\_EAC\_Format=37496;k.RGBA\_PVRTC\_2BPPV1\_Format=35843;k.RGBA\_PVRTC\_4BPPV1\_Format=35842;k.RGBA\_S3TC\_DXT1\_Format=33777;k.RGBA\_S3TC\_DXT3\_Format=33778;k.RGBA\_S3TC\_DXT5\_Format=33779;k.RGBDEncoding=3006;k.RGBEEncoding=3002;k.RGBEFormat=1023;k.RGBFormat=1022;k.RGBIntegerFormat=1032;k.RGBM16Encoding=3005;k.RGBM7Encoding=3004;k.RGB\_ETC1\_Format=36196;k.RGB\_ETC2\_Format=37492;k.RGB\_PVRTC\_2BPPV1\_Format=35841;k.RGB\_PVRTC\_4BPPV1\_Format=  
35840;k.RGB\_S3TC\_DXT1\_Format=33776;k.RGFormat=1030;k.RGIntegerFormat=1031;k.RawShaderMaterial=ub;k.Ray=Vb;k.Raycaster=Og;k.RectAreaLight=nf;k.RedFormat=1028;k.RedIntegerFormat=1029;k.ReinhardToneMapping=2;k.RepeatWrapping=1E3;k.ReplaceStencilOp=7681;k.ReverseSubtractEquation=102;k.RingBufferGeometry=$c;k.RingGeometry=ie;k.SRGB8\_ALPHA8\_ASTC\_10x10\_Format=37851;k.SRGB8\_ALPHA8\_ASTC\_10x5\_Format=37848;k.SRGB8\_ALPHA8\_ASTC\_10x6\_Format=37849;k.SRGB8\_ALPHA8\_ASTC\_10x8\_Format=37850;k.SRGB8\_ALPHA8\_ASTC\_12x10\_Format=  
37852;k.SRGB8\_ALPHA8\_ASTC\_12x12\_Format=37853;k.SRGB8\_ALPHA8\_ASTC\_4x4\_Format=37840;k.SRGB8\_ALPHA8\_ASTC\_5x4\_Format=37841;k.SRGB8\_ALPHA8\_ASTC\_5x5\_Format=37842;k.SRGB8\_ALPHA8\_ASTC\_6x5\_Format=37843;k.SRGB8\_ALPHA8\_ASTC\_6x6\_Format=37844;k.SRGB8\_ALPHA8\_ASTC\_8x5\_Format=37845;k.SRGB8\_ALPHA8\_ASTC\_8x6\_Format=37846;k.SRGB8\_ALPHA8\_ASTC\_8x8\_Format=37847;k.Scene=ob;k.SceneUtils={createMultiMaterialObject:function(){console.error("THREE.SceneUtils has been moved to /examples/jsm/utils/SceneUtils.js")},detach:function(){console.error("THREE.SceneUtils has been moved to /examples/jsm/utils/SceneUtils.js")},  
attach:function(){console.error("THREE.SceneUtils has been moved to /examples/jsm/utils/SceneUtils.js")}};k.ShaderChunk=O;k.ShaderLib=eb;k.ShaderMaterial=Ba;k.ShadowMaterial=kc;k.Shape=Kb;k.ShapeBufferGeometry=ic;k.ShapeGeometry=hc;k.ShapePath=Bg;k.ShapeUtils=sb;k.ShortType=1011;k.Skeleton=Ue;k.SkeletonHelper=rc;k.SkinnedMesh=Te;k.SmoothShading=2;k.Sphere=pb;k.SphereBufferGeometry=gc;k.SphereGeometry=he;k.Spherical=ri;k.SphericalHarmonics3=uf;k.SphericalReflectionMapping=305;k.Spline=$g;k.SplineCurve=  
Za;k.SplineCurve3=Gi;k.SpotLight=hf;k.SpotLightHelper=jd;k.SpotLightShadow=gf;k.Sprite=Pd;k.SpriteMaterial=Ib;k.SrcAlphaFactor=204;k.SrcAlphaSaturateFactor=210;k.SrcColorFactor=202;k.StaticCopyUsage=35046;k.StaticDrawUsage=35044;k.StaticReadUsage=35045;k.StereoCamera=mi;k.StreamCopyUsage=35042;k.StreamDrawUsage=35040;k.StreamReadUsage=35041;k.StringKeyframeTrack=bf;k.SubtractEquation=101;k.SubtractiveBlending=3;k.TOUCH={ROTATE:0,PAN:1,DOLLY\_PAN:2,DOLLY\_ROTATE:3};k.TangentSpaceNormalMap=0;k.TetrahedronBufferGeometry=  
Tc;k.TetrahedronGeometry=Wd;k.TextBufferGeometry=Zc;k.TextGeometry=ge;k.Texture=V;k.TextureLoader=ef;k.TorusBufferGeometry=Xc;k.TorusGeometry=be;k.TorusKnotBufferGeometry=Wc;k.TorusKnotGeometry=ae;k.Triangle=oa;k.TriangleFanDrawMode=2;k.TriangleStripDrawMode=1;k.TrianglesDrawMode=0;k.TubeBufferGeometry=dc;k.TubeGeometry=$d;k.UVMapping=300;k.Uint16Attribute=function(a,b){console.warn("THREE.Uint16Attribute has been removed. Use new THREE.Uint16BufferAttribute() instead.");return new Wb(a,b)};k.Uint16BufferAttribute=  
Wb;k.Uint32Attribute=function(a,b){console.warn("THREE.Uint32Attribute has been removed. Use new THREE.Uint32BufferAttribute() instead.");return new Xb(a,b)};k.Uint32BufferAttribute=Xb;k.Uint8Attribute=function(a,b){console.warn("THREE.Uint8Attribute has been removed. Use new THREE.Uint8BufferAttribute() instead.");return new Cd(a,b)};k.Uint8BufferAttribute=Cd;k.Uint8ClampedAttribute=function(a,b){console.warn("THREE.Uint8ClampedAttribute has been removed. Use new THREE.Uint8ClampedBufferAttribute() instead.");  
return new Dd(a,b)};k.Uint8ClampedBufferAttribute=Dd;k.Uncharted2ToneMapping=3;k.Uniform=vf;k.UniformsLib=D;k.UniformsUtils=Uh;k.UnsignedByteType=1009;k.UnsignedInt248Type=1020;k.UnsignedIntType=1014;k.UnsignedShort4444Type=1017;k.UnsignedShort5551Type=1018;k.UnsignedShort565Type=1019;k.UnsignedShortType=1012;k.VSMShadowMap=3;k.Vector2=t;k.Vector3=n;k.Vector4=ka;k.VectorKeyframeTrack=ed;k.Vertex=function(a,b,c){console.warn("THREE.Vertex has been removed. Use THREE.Vector3 instead.");return new n(a,  
b,c)};k.VertexColors=2;k.VideoTexture=sg;k.WebGLCubeRenderTarget=Db;k.WebGLMultisampleRenderTarget=Zf;k.WebGLRenderTarget=Ha;k.WebGLRenderTargetCube=function(a,b,c){console.warn("THREE.WebGLRenderTargetCube( width, height, options ) is now WebGLCubeRenderTarget( size, options ).");return new Db(a,c)};k.WebGLRenderer=og;k.WebGLUtils=Zh;k.WireframeGeometry=Rc;k.WireframeHelper=function(a,b){console.warn("THREE.WireframeHelper has been removed. Use THREE.WireframeGeometry instead.");return new ma(new Rc(a.geometry),  
new la({color:void 0!==b?b:16777215}))};k.WrapAroundEnding=2402;k.XHRLoader=function(a){console.warn("THREE.XHRLoader has been renamed to THREE.FileLoader.");return new Ra(a)};k.ZeroCurvatureEnding=2400;k.ZeroFactor=200;k.ZeroSlopeEnding=2401;k.ZeroStencilOp=0;k.sRGBEncoding=3001;Object.defineProperty(k,"\_\_esModule",{value:!0})});  
 </script>  
 <script>/\*\*  
 \* @author alteredq / http://alteredqualia.com/  
 \*/  
   
 THREE.EffectComposer = function ( renderer, renderTarget ) {  
   
 this.renderer = renderer;  
   
 if ( renderTarget === undefined ) {  
   
 var parameters = {  
 minFilter: THREE.LinearFilter,  
 magFilter: THREE.LinearFilter,  
 format: THREE.RGBAFormat,  
 stencilBuffer: false  
 };  
   
 var size = renderer.getSize( new THREE.Vector2() );  
 this.\_pixelRatio = renderer.getPixelRatio();  
 this.\_width = size.width;  
 this.\_height = size.height;  
   
 renderTarget = new THREE.WebGLRenderTarget( this.\_width \* this.\_pixelRatio, this.\_height \* this.\_pixelRatio, parameters );  
 renderTarget.texture.name = 'EffectComposer.rt1';  
   
 } else {  
   
 this.\_pixelRatio = 1;  
 this.\_width = renderTarget.width;  
 this.\_height = renderTarget.height;  
   
 }  
   
 this.renderTarget1 = renderTarget;  
 this.renderTarget2 = renderTarget.clone();  
 this.renderTarget2.texture.name = 'EffectComposer.rt2';  
   
 this.writeBuffer = this.renderTarget1;  
 this.readBuffer = this.renderTarget2;  
   
 this.renderToScreen = true;  
   
 this.passes = [];  
   
 // dependencies  
   
 if ( THREE.CopyShader === undefined ) {  
   
 console.error( 'THREE.EffectComposer relies on THREE.CopyShader' );  
   
 }  
   
 if ( THREE.ShaderPass === undefined ) {  
   
 console.error( 'THREE.EffectComposer relies on THREE.ShaderPass' );  
   
 }  
   
 this.copyPass = new THREE.ShaderPass( THREE.CopyShader );  
   
 this.clock = new THREE.Clock();  
   
 };  
   
 Object.assign( THREE.EffectComposer.prototype, {  
   
 swapBuffers: function () {  
   
 var tmp = this.readBuffer;  
 this.readBuffer = this.writeBuffer;  
 this.writeBuffer = tmp;  
   
 },  
   
 addPass: function ( pass ) {  
   
 this.passes.push( pass );  
 pass.setSize( this.\_width \* this.\_pixelRatio, this.\_height \* this.\_pixelRatio );  
   
 },  
   
 insertPass: function ( pass, index ) {  
   
 this.passes.splice( index, 0, pass );  
   
 },  
   
 isLastEnabledPass: function ( passIndex ) {  
   
 for ( var i = passIndex + 1; i < this.passes.length; i ++ ) {  
   
 if ( this.passes[ i ].enabled ) {  
   
 return false;  
   
 }  
   
 }  
   
 return true;  
   
 },  
   
 render: function ( deltaTime ) {  
   
 // deltaTime value is in seconds  
   
 if ( deltaTime === undefined ) {  
   
 deltaTime = this.clock.getDelta();  
   
 }  
   
 var currentRenderTarget = this.renderer.getRenderTarget();  
   
 var maskActive = false;  
   
 var pass, i, il = this.passes.length;  
   
 for ( i = 0; i < il; i ++ ) {  
   
 pass = this.passes[ i ];  
   
 if ( pass.enabled === false ) continue;  
   
 pass.renderToScreen = ( this.renderToScreen && this.isLastEnabledPass( i ) );  
 pass.render( this.renderer, this.writeBuffer, this.readBuffer, deltaTime, maskActive );  
   
 if ( pass.needsSwap ) {  
   
 if ( maskActive ) {  
   
 var context = this.renderer.getContext();  
 var stencil = this.renderer.state.buffers.stencil;  
   
 //context.stencilFunc( context.NOTEQUAL, 1, 0xffffffff );  
 stencil.setFunc( context.NOTEQUAL, 1, 0xffffffff );  
   
 this.copyPass.render( this.renderer, this.writeBuffer, this.readBuffer, deltaTime );  
   
 //context.stencilFunc( context.EQUAL, 1, 0xffffffff );  
 stencil.setFunc( context.EQUAL, 1, 0xffffffff );  
   
 }  
   
 this.swapBuffers();  
   
 }  
   
 if ( THREE.MaskPass !== undefined ) {  
   
 if ( pass instanceof THREE.MaskPass ) {  
   
 maskActive = true;  
   
 } else if ( pass instanceof THREE.ClearMaskPass ) {  
   
 maskActive = false;  
   
 }  
   
 }  
   
 }  
   
 this.renderer.setRenderTarget( currentRenderTarget );  
   
 },  
   
 reset: function ( renderTarget ) {  
   
 if ( renderTarget === undefined ) {  
   
 var size = this.renderer.getSize( new THREE.Vector2() );  
 this.\_pixelRatio = this.renderer.getPixelRatio();  
 this.\_width = size.width;  
 this.\_height = size.height;  
   
 renderTarget = this.renderTarget1.clone();  
 renderTarget.setSize( this.\_width \* this.\_pixelRatio, this.\_height \* this.\_pixelRatio );  
   
 }  
   
 this.renderTarget1.dispose();  
 this.renderTarget2.dispose();  
 this.renderTarget1 = renderTarget;  
 this.renderTarget2 = renderTarget.clone();  
   
 this.writeBuffer = this.renderTarget1;  
 this.readBuffer = this.renderTarget2;  
   
 },  
   
 setSize: function ( width, height ) {  
   
 this.\_width = width;  
 this.\_height = height;  
   
 var effectiveWidth = this.\_width \* this.\_pixelRatio;  
 var effectiveHeight = this.\_height \* this.\_pixelRatio;  
   
 this.renderTarget1.setSize( effectiveWidth, effectiveHeight );  
 this.renderTarget2.setSize( effectiveWidth, effectiveHeight );  
   
 for ( var i = 0; i < this.passes.length; i ++ ) {  
   
 this.passes[ i ].setSize( effectiveWidth, effectiveHeight );  
   
 }  
   
 },  
   
 setPixelRatio: function ( pixelRatio ) {  
   
 this.\_pixelRatio = pixelRatio;  
   
 this.setSize( this.\_width, this.\_height );  
   
 }  
   
 } );  
   
   
 THREE.Pass = function () {  
   
 // if set to true, the pass is processed by the composer  
 this.enabled = true;  
   
 // if set to true, the pass indicates to swap read and write buffer after rendering  
 this.needsSwap = true;  
   
 // if set to true, the pass clears its buffer before rendering  
 this.clear = false;  
   
 // if set to true, the result of the pass is rendered to screen. This is set automatically by EffectComposer.  
 this.renderToScreen = false;  
   
 };  
   
 Object.assign( THREE.Pass.prototype, {  
   
 setSize: function ( /\* width, height \*/ ) {},  
   
 render: function ( /\* renderer, writeBuffer, readBuffer, deltaTime, maskActive \*/ ) {  
   
 console.error( 'THREE.Pass: .render() must be implemented in derived pass.' );  
   
 }  
   
 } );  
   
 // Helper for passes that need to fill the viewport with a single quad.  
 THREE.Pass.FullScreenQuad = ( function () {  
   
 var camera = new THREE.OrthographicCamera( - 1, 1, 1, - 1, 0, 1 );  
 var geometry = new THREE.PlaneBufferGeometry( 2, 2 );  
   
 var FullScreenQuad = function ( material ) {  
   
 this.\_mesh = new THREE.Mesh( geometry, material );  
   
 };  
   
 Object.defineProperty( FullScreenQuad.prototype, 'material', {  
   
 get: function () {  
   
 return this.\_mesh.material;  
   
 },  
   
 set: function ( value ) {  
   
 this.\_mesh.material = value;  
   
 }  
   
 } );  
   
 Object.assign( FullScreenQuad.prototype, {  
   
 dispose: function () {  
   
 this.\_mesh.geometry.dispose();  
   
 },  
   
 render: function ( renderer ) {  
   
 renderer.render( this.\_mesh, camera );  
   
 }  
   
 } );  
   
 return FullScreenQuad;  
   
 } )();  
 </script>  
 <script>/\*\*  
 \* @author alteredq / http://alteredqualia.com/  
 \*/  
   
 THREE.RenderPass = function ( scene, camera, overrideMaterial, clearColor, clearAlpha ) {  
   
 THREE.Pass.call( this );  
   
 this.scene = scene;  
 this.camera = camera;  
   
 this.overrideMaterial = overrideMaterial;  
   
 this.clearColor = clearColor;  
 this.clearAlpha = ( clearAlpha !== undefined ) ? clearAlpha : 0;  
   
 this.clear = true;  
 this.clearDepth = false;  
 this.needsSwap = false;  
   
 };  
   
 THREE.RenderPass.prototype = Object.assign( Object.create( THREE.Pass.prototype ), {  
   
 constructor: THREE.RenderPass,  
   
 render: function ( renderer, writeBuffer, readBuffer /\*, deltaTime, maskActive \*/ ) {  
   
 var oldAutoClear = renderer.autoClear;  
 renderer.autoClear = false;  
   
 var oldClearColor, oldClearAlpha, oldOverrideMaterial;  
   
 if ( this.overrideMaterial !== undefined ) {  
   
 oldOverrideMaterial = this.scene.overrideMaterial;  
   
 this.scene.overrideMaterial = this.overrideMaterial;  
   
 }  
   
 if ( this.clearColor ) {  
   
 oldClearColor = renderer.getClearColor().getHex();  
 oldClearAlpha = renderer.getClearAlpha();  
   
 renderer.setClearColor( this.clearColor, this.clearAlpha );  
   
 }  
   
 if ( this.clearDepth ) {  
   
 renderer.clearDepth();  
   
 }  
   
 renderer.setRenderTarget( this.renderToScreen ? null : readBuffer );  
   
 // TODO: Avoid using autoClear properties, see https://github.com/mrdoob/three.js/pull/15571#issuecomment-465669600  
 if ( this.clear ) renderer.clear( renderer.autoClearColor, renderer.autoClearDepth, renderer.autoClearStencil );  
 renderer.render( this.scene, this.camera );  
   
 if ( this.clearColor ) {  
   
 renderer.setClearColor( oldClearColor, oldClearAlpha );  
   
 }  
   
 if ( this.overrideMaterial !== undefined ) {  
   
 this.scene.overrideMaterial = oldOverrideMaterial;  
   
 }  
   
 renderer.autoClear = oldAutoClear;  
   
 }  
   
 } );  
 </script>  
 <script>/\*\*  
 \* @author alteredq / http://alteredqualia.com/  
 \*/  
   
 THREE.ShaderPass = function ( shader, textureID ) {  
   
 THREE.Pass.call( this );  
   
 this.textureID = ( textureID !== undefined ) ? textureID : "tDiffuse";  
   
 if ( shader instanceof THREE.ShaderMaterial ) {  
   
 this.uniforms = shader.uniforms;  
   
 this.material = shader;  
   
 } else if ( shader ) {  
   
 this.uniforms = THREE.UniformsUtils.clone( shader.uniforms );  
   
 this.material = new THREE.ShaderMaterial( {  
   
 defines: Object.assign( {}, shader.defines ),  
 uniforms: this.uniforms,  
 vertexShader: shader.vertexShader,  
 fragmentShader: shader.fragmentShader  
   
 } );  
   
 }  
   
 this.fsQuad = new THREE.Pass.FullScreenQuad( this.material );  
   
 };  
   
 THREE.ShaderPass.prototype = Object.assign( Object.create( THREE.Pass.prototype ), {  
   
 constructor: THREE.ShaderPass,  
   
 render: function ( renderer, writeBuffer, readBuffer /\*, deltaTime, maskActive \*/ ) {  
   
 if ( this.uniforms[ this.textureID ] ) {  
   
 this.uniforms[ this.textureID ].value = readBuffer.texture;  
   
 }  
   
 this.fsQuad.material = this.material;  
   
 if ( this.renderToScreen ) {  
   
 renderer.setRenderTarget( null );  
 this.fsQuad.render( renderer );  
   
 } else {  
   
 renderer.setRenderTarget( writeBuffer );  
 // TODO: Avoid using autoClear properties, see https://github.com/mrdoob/three.js/pull/15571#issuecomment-465669600  
 if ( this.clear ) renderer.clear( renderer.autoClearColor, renderer.autoClearDepth, renderer.autoClearStencil );  
 this.fsQuad.render( renderer );  
   
 }  
   
 }  
   
 } );  
 </script>  
 <script>/\*\*  
 \* @author alteredq / http://alteredqualia.com/  
 \*  
 \* Full-screen textured quad shader  
 \*/  
   
 THREE.CopyShader = {  
   
 uniforms: {  
   
 "tDiffuse": { value: null },  
 "opacity": { value: 1.0 }  
   
 },  
   
 vertexShader: [  
   
 "varying vec2 vUv;",  
   
 "void main() {",  
   
 " vUv = uv;",  
 " gl\_Position = projectionMatrix \* modelViewMatrix \* vec4( position, 1.0 );",  
   
 "}"  
   
 ].join( "\n" ),  
   
 fragmentShader: [  
   
 "uniform float opacity;",  
   
 "uniform sampler2D tDiffuse;",  
   
 "varying vec2 vUv;",  
   
 "void main() {",  
   
 " vec4 texel = texture2D( tDiffuse, vUv );",  
 " gl\_FragColor = opacity \* texel;",  
   
 "}"  
   
 ].join( "\n" )  
   
 };  
 </script>  
 <script>/\*\*  
 \* @author bhouston / http://clara.io/  
 \*  
 \* Luminosity  
 \* http://en.wikipedia.org/wiki/Luminosity  
 \*/  
   
 THREE.LuminosityHighPassShader = {  
   
 shaderID: "luminosityHighPass",  
   
 uniforms: {  
   
 "tDiffuse": { value: null },  
 "luminosityThreshold": { value: 1.0 },  
 "smoothWidth": { value: 1.0 },  
 "defaultColor": { value: new THREE.Color( 0x000000 ) },  
 "defaultOpacity": { value: 0.0 }  
   
 },  
   
 vertexShader: [  
   
 "varying vec2 vUv;",  
   
 "void main() {",  
   
 " vUv = uv;",  
   
 " gl\_Position = projectionMatrix \* modelViewMatrix \* vec4( position, 1.0 );",  
   
 "}"  
   
 ].join( "\n" ),  
   
 fragmentShader: [  
   
 "uniform sampler2D tDiffuse;",  
 "uniform vec3 defaultColor;",  
 "uniform float defaultOpacity;",  
 "uniform float luminosityThreshold;",  
 "uniform float smoothWidth;",  
   
 "varying vec2 vUv;",  
   
 "void main() {",  
   
 " vec4 texel = texture2D( tDiffuse, vUv );",  
   
 " vec3 luma = vec3( 0.299, 0.587, 0.114 );",  
   
 " float v = dot( texel.xyz, luma );",  
   
 " vec4 outputColor = vec4( defaultColor.rgb, defaultOpacity );",  
   
 " float alpha = smoothstep( luminosityThreshold, luminosityThreshold + smoothWidth, v );",  
   
 " gl\_FragColor = mix( outputColor, texel, alpha );",  
   
 "}"  
   
 ].join( "\n" )  
   
 };  
 </script>  
 <script>/\*\*  
 \* @author spidersharma / http://eduperiment.com/  
 \*/  
   
 /\*\*  
 \* UnrealBloomPass is inspired by the bloom pass of Unreal Engine. It creates a  
 \* mip map chain of bloom textures and blurs them with different radii. Because  
 \* of the weighted combination of mips, and because larger blurs are done on  
 \* higher mips, this effect provides good quality and performance.  
 \*  
 \* Reference:  
 \* - https://docs.unrealengine.com/latest/INT/Engine/Rendering/PostProcessEffects/Bloom/  
 \*/  
 THREE.UnrealBloomPass = function ( resolution, strength, radius, threshold ) {  
   
 THREE.Pass.call( this );  
   
 this.strength = ( strength !== undefined ) ? strength : 1;  
 this.radius = radius;  
 this.threshold = threshold;  
 this.resolution = ( resolution !== undefined ) ? new THREE.Vector2( resolution.x, resolution.y ) : new THREE.Vector2( 256, 256 );  
   
 // create color only once here, reuse it later inside the render function  
 this.clearColor = new THREE.Color( 0, 0, 0 );  
   
 // render targets  
 var pars = { minFilter: THREE.LinearFilter, magFilter: THREE.LinearFilter, format: THREE.RGBAFormat };  
 this.renderTargetsHorizontal = [];  
 this.renderTargetsVertical = [];  
 this.nMips = 5;  
 var resx = Math.round( this.resolution.x / 2 );  
 var resy = Math.round( this.resolution.y / 2 );  
   
 this.renderTargetBright = new THREE.WebGLRenderTarget( resx, resy, pars );  
 this.renderTargetBright.texture.name = "UnrealBloomPass.bright";  
 this.renderTargetBright.texture.generateMipmaps = false;  
   
 for ( var i = 0; i < this.nMips; i ++ ) {  
   
 var renderTargetHorizonal = new THREE.WebGLRenderTarget( resx, resy, pars );  
   
 renderTargetHorizonal.texture.name = "UnrealBloomPass.h" + i;  
 renderTargetHorizonal.texture.generateMipmaps = false;  
   
 this.renderTargetsHorizontal.push( renderTargetHorizonal );  
   
 var renderTargetVertical = new THREE.WebGLRenderTarget( resx, resy, pars );  
   
 renderTargetVertical.texture.name = "UnrealBloomPass.v" + i;  
 renderTargetVertical.texture.generateMipmaps = false;  
   
 this.renderTargetsVertical.push( renderTargetVertical );  
   
 resx = Math.round( resx / 2 );  
   
 resy = Math.round( resy / 2 );  
   
 }  
   
 // luminosity high pass material  
   
 if ( THREE.LuminosityHighPassShader === undefined )  
 console.error( "THREE.UnrealBloomPass relies on THREE.LuminosityHighPassShader" );  
   
 var highPassShader = THREE.LuminosityHighPassShader;  
 this.highPassUniforms = THREE.UniformsUtils.clone( highPassShader.uniforms );  
   
 this.highPassUniforms[ "luminosityThreshold" ].value = threshold;  
 this.highPassUniforms[ "smoothWidth" ].value = 0.01;  
   
 this.materialHighPassFilter = new THREE.ShaderMaterial( {  
 uniforms: this.highPassUniforms,  
 vertexShader: highPassShader.vertexShader,  
 fragmentShader: highPassShader.fragmentShader,  
 defines: {}  
 } );  
   
 // Gaussian Blur Materials  
 this.separableBlurMaterials = [];  
 var kernelSizeArray = [ 3, 5, 7, 9, 11 ];  
 var resx = Math.round( this.resolution.x / 2 );  
 var resy = Math.round( this.resolution.y / 2 );  
   
 for ( var i = 0; i < this.nMips; i ++ ) {  
   
 this.separableBlurMaterials.push( this.getSeperableBlurMaterial( kernelSizeArray[ i ] ) );  
   
 this.separableBlurMaterials[ i ].uniforms[ "texSize" ].value = new THREE.Vector2( resx, resy );  
   
 resx = Math.round( resx / 2 );  
   
 resy = Math.round( resy / 2 );  
   
 }  
   
 // Composite material  
 this.compositeMaterial = this.getCompositeMaterial( this.nMips );  
 this.compositeMaterial.uniforms[ "blurTexture1" ].value = this.renderTargetsVertical[ 0 ].texture;  
 this.compositeMaterial.uniforms[ "blurTexture2" ].value = this.renderTargetsVertical[ 1 ].texture;  
 this.compositeMaterial.uniforms[ "blurTexture3" ].value = this.renderTargetsVertical[ 2 ].texture;  
 this.compositeMaterial.uniforms[ "blurTexture4" ].value = this.renderTargetsVertical[ 3 ].texture;  
 this.compositeMaterial.uniforms[ "blurTexture5" ].value = this.renderTargetsVertical[ 4 ].texture;  
 this.compositeMaterial.uniforms[ "bloomStrength" ].value = strength;  
 this.compositeMaterial.uniforms[ "bloomRadius" ].value = 0.1;  
 this.compositeMaterial.needsUpdate = true;  
   
 var bloomFactors = [ 1.0, 0.8, 0.6, 0.4, 0.2 ];  
 this.compositeMaterial.uniforms[ "bloomFactors" ].value = bloomFactors;  
 this.bloomTintColors = [ new THREE.Vector3( 1, 1, 1 ), new THREE.Vector3( 1, 1, 1 ), new THREE.Vector3( 1, 1, 1 ),  
 new THREE.Vector3( 1, 1, 1 ), new THREE.Vector3( 1, 1, 1 ) ];  
 this.compositeMaterial.uniforms[ "bloomTintColors" ].value = this.bloomTintColors;  
   
 // copy material  
 if ( THREE.CopyShader === undefined ) {  
   
 console.error( "THREE.UnrealBloomPass relies on THREE.CopyShader" );  
   
 }  
   
 var copyShader = THREE.CopyShader;  
   
 this.copyUniforms = THREE.UniformsUtils.clone( copyShader.uniforms );  
 this.copyUniforms[ "opacity" ].value = 1.0;  
   
 this.materialCopy = new THREE.ShaderMaterial( {  
 uniforms: this.copyUniforms,  
 vertexShader: copyShader.vertexShader,  
 fragmentShader: copyShader.fragmentShader,  
 blending: THREE.AdditiveBlending,  
 depthTest: false,  
 depthWrite: false,  
 transparent: true  
 } );  
   
 this.enabled = true;  
 this.needsSwap = false;  
   
 this.oldClearColor = new THREE.Color();  
 this.oldClearAlpha = 1;  
   
 this.basic = new THREE.MeshBasicMaterial();  
   
 this.fsQuad = new THREE.Pass.FullScreenQuad( null );  
   
 };  
   
 THREE.UnrealBloomPass.prototype = Object.assign( Object.create( THREE.Pass.prototype ), {  
   
 constructor: THREE.UnrealBloomPass,  
   
 dispose: function () {  
   
 for ( var i = 0; i < this.renderTargetsHorizontal.length; i ++ ) {  
   
 this.renderTargetsHorizontal[ i ].dispose();  
   
 }  
   
 for ( var i = 0; i < this.renderTargetsVertical.length; i ++ ) {  
   
 this.renderTargetsVertical[ i ].dispose();  
   
 }  
   
 this.renderTargetBright.dispose();  
   
 },  
   
 setSize: function ( width, height ) {  
   
 var resx = Math.round( width / 2 );  
 var resy = Math.round( height / 2 );  
   
 this.renderTargetBright.setSize( resx, resy );  
   
 for ( var i = 0; i < this.nMips; i ++ ) {  
   
 this.renderTargetsHorizontal[ i ].setSize( resx, resy );  
 this.renderTargetsVertical[ i ].setSize( resx, resy );  
   
 this.separableBlurMaterials[ i ].uniforms[ "texSize" ].value = new THREE.Vector2( resx, resy );  
   
 resx = Math.round( resx / 2 );  
 resy = Math.round( resy / 2 );  
   
 }  
   
 },  
   
 render: function ( renderer, writeBuffer, readBuffer, deltaTime, maskActive ) {  
   
 this.oldClearColor.copy( renderer.getClearColor() );  
 this.oldClearAlpha = renderer.getClearAlpha();  
 var oldAutoClear = renderer.autoClear;  
 renderer.autoClear = false;  
   
 renderer.setClearColor( this.clearColor, 0 );  
   
 if ( maskActive ) renderer.state.buffers.stencil.setTest( false );  
   
 // Render input to screen  
   
 if ( this.renderToScreen ) {  
   
 this.fsQuad.material = this.basic;  
 this.basic.map = readBuffer.texture;  
   
 renderer.setRenderTarget( null );  
 renderer.clear();  
 this.fsQuad.render( renderer );  
   
 }  
   
 // 1. Extract Bright Areas  
   
 this.highPassUniforms[ "tDiffuse" ].value = readBuffer.texture;  
 this.highPassUniforms[ "luminosityThreshold" ].value = this.threshold;  
 this.fsQuad.material = this.materialHighPassFilter;  
   
 renderer.setRenderTarget( this.renderTargetBright );  
 renderer.clear();  
 this.fsQuad.render( renderer );  
   
 // 2. Blur All the mips progressively  
   
 var inputRenderTarget = this.renderTargetBright;  
   
 for ( var i = 0; i < this.nMips; i ++ ) {  
   
 this.fsQuad.material = this.separableBlurMaterials[ i ];  
   
 this.separableBlurMaterials[ i ].uniforms[ "colorTexture" ].value = inputRenderTarget.texture;  
 this.separableBlurMaterials[ i ].uniforms[ "direction" ].value = THREE.UnrealBloomPass.BlurDirectionX;  
 renderer.setRenderTarget( this.renderTargetsHorizontal[ i ] );  
 renderer.clear();  
 this.fsQuad.render( renderer );  
   
 this.separableBlurMaterials[ i ].uniforms[ "colorTexture" ].value = this.renderTargetsHorizontal[ i ].texture;  
 this.separableBlurMaterials[ i ].uniforms[ "direction" ].value = THREE.UnrealBloomPass.BlurDirectionY;  
 renderer.setRenderTarget( this.renderTargetsVertical[ i ] );  
 renderer.clear();  
 this.fsQuad.render( renderer );  
   
 inputRenderTarget = this.renderTargetsVertical[ i ];  
   
 }  
   
 // Composite All the mips  
   
 this.fsQuad.material = this.compositeMaterial;  
 this.compositeMaterial.uniforms[ "bloomStrength" ].value = this.strength;  
 this.compositeMaterial.uniforms[ "bloomRadius" ].value = this.radius;  
 this.compositeMaterial.uniforms[ "bloomTintColors" ].value = this.bloomTintColors;  
   
 renderer.setRenderTarget( this.renderTargetsHorizontal[ 0 ] );  
 renderer.clear();  
 this.fsQuad.render( renderer );  
   
 // Blend it additively over the input texture  
   
 this.fsQuad.material = this.materialCopy;  
 this.copyUniforms[ "tDiffuse" ].value = this.renderTargetsHorizontal[ 0 ].texture;  
   
 if ( maskActive ) renderer.state.buffers.stencil.setTest( true );  
   
 if ( this.renderToScreen ) {  
   
 renderer.setRenderTarget( null );  
 this.fsQuad.render( renderer );  
   
 } else {  
   
 renderer.setRenderTarget( readBuffer );  
 this.fsQuad.render( renderer );  
   
 }  
   
 // Restore renderer settings  
   
 renderer.setClearColor( this.oldClearColor, this.oldClearAlpha );  
 renderer.autoClear = oldAutoClear;  
   
 },  
   
 getSeperableBlurMaterial: function ( kernelRadius ) {  
   
 return new THREE.ShaderMaterial( {  
   
 defines: {  
 "KERNEL\_RADIUS": kernelRadius,  
 "SIGMA": kernelRadius  
 },  
   
 uniforms: {  
 "colorTexture": { value: null },  
 "texSize": { value: new THREE.Vector2( 0.5, 0.5 ) },  
 "direction": { value: new THREE.Vector2( 0.5, 0.5 ) }  
 },  
   
 vertexShader:  
 "varying vec2 vUv;\n\  
 void main() {\n\  
 vUv = uv;\n\  
 gl\_Position = projectionMatrix \* modelViewMatrix \* vec4( position, 1.0 );\n\  
 }",  
   
 fragmentShader:  
 "#include <common>\  
 varying vec2 vUv;\n\  
 uniform sampler2D colorTexture;\n\  
 uniform vec2 texSize;\  
 uniform vec2 direction;\  
 \  
 float gaussianPdf(in float x, in float sigma) {\  
 return 0.39894 \* exp( -0.5 \* x \* x/( sigma \* sigma))/sigma;\  
 }\  
 void main() {\n\  
 vec2 invSize = 1.0 / texSize;\  
 float fSigma = float(SIGMA);\  
 float weightSum = gaussianPdf(0.0, fSigma);\  
 vec3 diffuseSum = texture2D( colorTexture, vUv).rgb \* weightSum;\  
 for( int i = 1; i < KERNEL\_RADIUS; i ++ ) {\  
 float x = float(i);\  
 float w = gaussianPdf(x, fSigma);\  
 vec2 uvOffset = direction \* invSize \* x;\  
 vec3 sample1 = texture2D( colorTexture, vUv + uvOffset).rgb;\  
 vec3 sample2 = texture2D( colorTexture, vUv - uvOffset).rgb;\  
 diffuseSum += (sample1 + sample2) \* w;\  
 weightSum += 2.0 \* w;\  
 }\  
 gl\_FragColor = vec4(diffuseSum/weightSum, 1.0);\n\  
 }"  
 } );  
   
 },  
   
 getCompositeMaterial: function ( nMips ) {  
   
 return new THREE.ShaderMaterial( {  
   
 defines: {  
 "NUM\_MIPS": nMips  
 },  
   
 uniforms: {  
 "blurTexture1": { value: null },  
 "blurTexture2": { value: null },  
 "blurTexture3": { value: null },  
 "blurTexture4": { value: null },  
 "blurTexture5": { value: null },  
 "dirtTexture": { value: null },  
 "bloomStrength": { value: 1.0 },  
 "bloomFactors": { value: null },  
 "bloomTintColors": { value: null },  
 "bloomRadius": { value: 0.0 }  
 },  
   
 vertexShader:  
 "varying vec2 vUv;\n\  
 void main() {\n\  
 vUv = uv;\n\  
 gl\_Position = projectionMatrix \* modelViewMatrix \* vec4( position, 1.0 );\n\  
 }",  
   
 fragmentShader:  
 "varying vec2 vUv;\  
 uniform sampler2D blurTexture1;\  
 uniform sampler2D blurTexture2;\  
 uniform sampler2D blurTexture3;\  
 uniform sampler2D blurTexture4;\  
 uniform sampler2D blurTexture5;\  
 uniform sampler2D dirtTexture;\  
 uniform float bloomStrength;\  
 uniform float bloomRadius;\  
 uniform float bloomFactors[NUM\_MIPS];\  
 uniform vec3 bloomTintColors[NUM\_MIPS];\  
 \  
 float lerpBloomFactor(const in float factor) { \  
 float mirrorFactor = 1.2 - factor;\  
 return mix(factor, mirrorFactor, bloomRadius);\  
 }\  
 \  
 void main() {\  
 gl\_FragColor = bloomStrength \* ( lerpBloomFactor(bloomFactors[0]) \* vec4(bloomTintColors[0], 1.0) \* texture2D(blurTexture1, vUv) + \  
 lerpBloomFactor(bloomFactors[1]) \* vec4(bloomTintColors[1], 1.0) \* texture2D(blurTexture2, vUv) + \  
 lerpBloomFactor(bloomFactors[2]) \* vec4(bloomTintColors[2], 1.0) \* texture2D(blurTexture3, vUv) + \  
 lerpBloomFactor(bloomFactors[3]) \* vec4(bloomTintColors[3], 1.0) \* texture2D(blurTexture4, vUv) + \  
 lerpBloomFactor(bloomFactors[4]) \* vec4(bloomTintColors[4], 1.0) \* texture2D(blurTexture5, vUv) );\  
 }"  
 } );  
   
 }  
   
 } );  
   
 THREE.UnrealBloomPass.BlurDirectionX = new THREE.Vector2( 1.0, 0.0 );  
 THREE.UnrealBloomPass.BlurDirectionY = new THREE.Vector2( 0.0, 1.0 );  
 </script>  
  
 <div id="overlay">  
 <ul>  
 <li class="title">To 丫丫：</li>  
 <li>  
 <button class="btn" id="btnA" type="button">  
 <!-- Merry Christmas -->  
   
 </button>  
 </li>  
 <!-- <li class="separator">或者</li>  
 <li>  
 <input type="file" id="upload" hidden />  
 <label for="upload">Upload File</label>  
 </li> -->  
 </ul>  
 </div>  
 <div id="labels"></div>  
  
 <script id="rendered-js">  
 // ‼️ ‼️ 想要说的话在这里修改   
 const my\_labels = [  
 "亲爱的丫丫圣诞快乐！",  
 "Merry Christmas！",  
 "一定要越过越开心呀！",  
 "健健康康，平安喜乐，暴富暴美",  
 ];  
 const { PI, sin, cos } = Math;  
 const TAU = 2 \* PI;  
  
 const map = (value, sMin, sMax, dMin, dMax) => {  
 return dMin + ((value - sMin) / (sMax - sMin)) \* (dMax - dMin);  
 };  
  
 const range = (n, m = 0) =>  
 Array(n)  
 .fill(m)  
 .map((i, j) => i + j);  
  
 const rand = (max, min = 0) => min + Math.random() \* (max - min);  
 const randInt = (max, min = 0) =>  
 Math.floor(min + Math.random() \* (max - min));  
 const randChoise = (arr) => arr[randInt(arr.length)];  
 const polar = (ang, r = 1) => [r \* cos(ang), r \* sin(ang)];  
  
 let scene, camera, renderer, analyser;  
 let step = 0;  
 const uniforms = {  
 time: { type: "f", value: 0.0 },  
 step: { type: "f", value: 0.0 },  
 };  
  
 const params = {  
 exposure: 1,  
 bloomStrength: 0.9,  
 bloomThreshold: 0,  
 bloomRadius: 0.5,  
 };  
  
 let composer;  
  
 const fftSize = 2048;  
 const totalPoints = 4000;  
  
 const listener = new THREE.AudioListener();  
  
 const audio = new THREE.Audio(listener);  
  
 // document  
 // .querySelector("input")  
 // .addEventListener("change", uploadAudio, false);  
  
 const buttons = document.querySelectorAll(".btn");  
 buttons.forEach((button, index) =>  
 button.addEventListener("click", () => loadAudio(index))  
 );  
  
 // loadAudio(0);  
  
 function init() {  
 const overlay = document.getElementById("overlay");  
 overlay.remove();  
 const labels = document.getElementById("labels");  
 for (let i = 0; i < my\_labels.length; i++) {  
 setTimeout(() => {  
 labels.className = "hide";  
 labels.innerHTML = my\_labels[i];  
 labels.className = "show";  
 }, 2000 \* i);  
 }  
  
 scene = new THREE.Scene();  
 renderer = new THREE.WebGLRenderer({ antialias: true });  
 renderer.setPixelRatio(window.devicePixelRatio);  
 renderer.setSize(window.innerWidth, window.innerHeight);  
 document.body.appendChild(renderer.domElement);  
  
 camera = new THREE.PerspectiveCamera(  
 60,  
 window.innerWidth / window.innerHeight,  
 1,  
 1000  
 );  
  
 camera.position.set(  
 -0.09397456774197047,  
 -2.5597086635726947,  
 24.420789670889008  
 );  
 camera.rotation.set(  
 0.10443543723052419,  
 -0.003827152981119352,  
 0.0004011488708739715  
 );  
  
 const format = renderer.capabilities.isWebGL2  
 ? THREE.RedFormat  
 : THREE.LuminanceFormat;  
  
 uniforms.tAudioData = {  
 value: new THREE.DataTexture(analyser.data, fftSize / 2, 1, format),  
 };  
  
 addPlane(scene, uniforms, 3000);  
 addSnow(scene, uniforms);  
  
 range(10).map((i) => {  
 addTree(scene, uniforms, totalPoints, [20, 0, -20 \* i]);  
 addTree(scene, uniforms, totalPoints, [-20, 0, -20 \* i]);  
 });  
  
 const renderScene = new THREE.RenderPass(scene, camera);  
  
 const bloomPass = new THREE.UnrealBloomPass(  
 new THREE.Vector2(window.innerWidth, window.innerHeight),  
 1.5,  
 0.4,  
 0.85  
 );  
  
 bloomPass.threshold = params.bloomThreshold;  
 bloomPass.strength = params.bloomStrength;  
 bloomPass.radius = params.bloomRadius;  
  
 composer = new THREE.EffectComposer(renderer);  
 composer.addPass(renderScene);  
 composer.addPass(bloomPass);  
  
 addListners(camera, renderer, composer);  
 animate();  
 }  
  
 function animate(time) {  
 analyser.getFrequencyData();  
 uniforms.tAudioData.value.needsUpdate = true;  
 step = (step + 1) % 1000;  
 uniforms.time.value = time;  
 uniforms.step.value = step;  
 composer.render();  
 requestAnimationFrame(animate);  
 }  
 function loadAudio(i) {  
 document.getElementById("overlay").innerHTML =  
 '<div class="text-loading">Merry Christmas ...</div>';  
   
 const files = [  
 //"http://music.163.com/song/media/outer/url?id=448704788.mp3", // ! 音乐资源获取  
 // 修改下面这个链接  
 "http://m10.music.126.net/20231210135814/b2ca7948cdbf1e3be2513d0a82c4bb92/ymusic/3bc8/7ba8/8643/56e188fb5a29b25ce695510164a28331.mp3",  
 "这里填你自己的音乐链接",  
 // 海外用户使用下面这个音乐平台  
 // "https://files.freemusicarchive.org/storage-freemusicarchive-org/music/no\_curator/Simon\_Panrucker/Happy\_Christmas\_You\_Guys/Simon\_Panrucker\_-\_01\_-\_Snowflakes\_Falling\_Down.mp3",  
 ];  
  
 const file = files[i];  
   
 const loader = new THREE.AudioLoader();  
 loader.load(file, function (buffer) {  
 console.log(buffer)  
 audio.setBuffer(buffer);  
 audio.play();  
 analyser = new THREE.AudioAnalyser(audio, fftSize);  
 init();  
 });  
  
  
function getJSON(url) {  
 return new Promise(function(resolve, reject) {  
 var xhr = new XMLHttpRequest();  
 xhr.open('get', url, true);  
 // xhr.responseType = 'json';  
 console.log(xhr)  
 xhr.onloadstart = function() {  
 console.log(xhr);  
 }  
 xhr.onload = function() {  
 console.log(xhr);  
 var status = xhr.status;  
 if (status == 200) {  
 resolve(xhr.responseURL);  
 } else {  
 reject(status);  
 }  
 };  
 xhr.send();  
 });  
 }  
  
  
function requestListData(url) {  
 getJSON(url).then(function(data) {  
 const loader = new THREE.AudioLoader();  
 loader.load(data, function (buffer) {  
 console.log(buffer)  
 audio.setBuffer(buffer);  
 audio.play();  
 analyser = new THREE.AudioAnalyser(audio, fftSize);  
 init();  
 });  
  
 }, function(status) { //error detection....  
 alert('Something went wrong.');  
 });  
}  
 }  
  
 function uploadAudio(event) {  
 document.getElementById("overlay").innerHTML =  
 '<div class="text-loading">请稍等...</div>';  
 const files = event.target.files;  
 const reader = new FileReader();  
  
 reader.onload = function (file) {  
 var arrayBuffer = file.target.result;  
  
 listener.context.decodeAudioData(arrayBuffer, function (audioBuffer) {  
 audio.setBuffer(audioBuffer);  
 audio.play();  
 analyser = new THREE.AudioAnalyser(audio, fftSize);  
 init();  
 });  
 };  
  
 reader.readAsArrayBuffer(files[0]);  
 }  
  
 function addTree(scene, uniforms, totalPoints, treePosition) {  
 const vertexShader = `  
 attribute float mIndex;  
 varying vec3 vColor;  
 varying float opacity;  
 uniform sampler2D tAudioData;  
  
 float norm(float value, float min, float max ){  
 return (value - min) / (max - min);  
 }  
 float lerp(float norm, float min, float max){  
 return (max - min) \* norm + min;  
 }  
  
 float map(float value, float sourceMin, float sourceMax, float destMin, float destMax){  
 return lerp(norm(value, sourceMin, sourceMax), destMin, destMax);  
 }  
  
  
 void main() {  
 vColor = color;  
 vec3 p = position;  
 vec4 mvPosition = modelViewMatrix \* vec4( p, 1.0 );  
 float amplitude = texture2D( tAudioData, vec2( mIndex, 0.1 ) ).r;  
 float amplitudeClamped = clamp(amplitude-0.4,0.0, 0.6 );  
 float sizeMapped = map(amplitudeClamped, 0.0, 0.6, 1.0, 20.0);  
 opacity = map(mvPosition.z , -200.0, 15.0, 0.0, 1.0);  
 gl\_PointSize = sizeMapped \* ( 100.0 / -mvPosition.z );  
 gl\_Position = projectionMatrix \* mvPosition;  
 }  
 `;  
 const fragmentShader = `  
 varying vec3 vColor;  
 varying float opacity;  
 uniform sampler2D pointTexture;  
 void main() {  
 gl\_FragColor = vec4( vColor, opacity );  
 gl\_FragColor = gl\_FragColor \* texture2D( pointTexture, gl\_PointCoord );   
 }  
 `;  
 const shaderMaterial = new THREE.ShaderMaterial({  
 uniforms: {  
 ...uniforms,  
 pointTexture: {  
 value: new THREE.TextureLoader().load(  
 `https://assets.codepen.io/3685267/spark1.png`  
 ),  
 },  
 },  
  
 vertexShader,  
 fragmentShader,  
 blending: THREE.AdditiveBlending,  
 depthTest: false,  
 transparent: true,  
 vertexColors: true,  
 });  
  
 const geometry = new THREE.BufferGeometry();  
 const positions = [];  
 const colors = [];  
 const sizes = [];  
 const phases = [];  
 const mIndexs = [];  
  
 const color = new THREE.Color();  
  
 for (let i = 0; i < totalPoints; i++) {  
 const t = Math.random();  
 const y = map(t, 0, 1, -8, 10);  
 const ang = map(t, 0, 1, 0, 6 \* TAU) + (TAU / 2) \* (i % 2);  
 const [z, x] = polar(ang, map(t, 0, 1, 5, 0));  
  
 const modifier = map(t, 0, 1, 1, 0);  
 positions.push(x + rand(-0.3 \* modifier, 0.3 \* modifier));  
 positions.push(y + rand(-0.3 \* modifier, 0.3 \* modifier));  
 positions.push(z + rand(-0.3 \* modifier, 0.3 \* modifier));  
  
 color.setHSL(map(i, 0, totalPoints, 1.0, 0.0), 1.0, 0.5);  
  
 colors.push(color.r, color.g, color.b);  
 phases.push(rand(1000));  
 sizes.push(1);  
 const mIndex = map(i, 0, totalPoints, 1.0, 0.0);  
 mIndexs.push(mIndex);  
 }  
  
 geometry.setAttribute(  
 "position",  
 new THREE.Float32BufferAttribute(positions, 3).setUsage(  
 THREE.DynamicDrawUsage  
 )  
 );  
  
 geometry.setAttribute(  
 "color",  
 new THREE.Float32BufferAttribute(colors, 3)  
 );  
 geometry.setAttribute(  
 "size",  
 new THREE.Float32BufferAttribute(sizes, 1)  
 );  
 geometry.setAttribute(  
 "phase",  
 new THREE.Float32BufferAttribute(phases, 1)  
 );  
 geometry.setAttribute(  
 "mIndex",  
 new THREE.Float32BufferAttribute(mIndexs, 1)  
 );  
  
 const tree = new THREE.Points(geometry, shaderMaterial);  
  
 const [px, py, pz] = treePosition;  
  
 tree.position.x = px;  
 tree.position.y = py;  
 tree.position.z = pz;  
  
 scene.add(tree);  
 }  
  
 function addSnow(scene, uniforms) {  
 const vertexShader = `  
 attribute float size;  
 attribute float phase;  
 attribute float phaseSecondary;  
  
 varying vec3 vColor;  
 varying float opacity;  
  
  
 uniform float time;  
 uniform float step;  
  
 float norm(float value, float min, float max ){  
 return (value - min) / (max - min);  
 }  
 float lerp(float norm, float min, float max){  
 return (max - min) \* norm + min;  
 }  
  
 float map(float value, float sourceMin, float sourceMax, float destMin, float destMax){  
 return lerp(norm(value, sourceMin, sourceMax), destMin, destMax);  
 }  
 void main() {  
 float t = time\* 0.0006;  
  
 vColor = color;  
  
 vec3 p = position;  
  
 p.y = map(mod(phase+step, 1000.0), 0.0, 1000.0, 25.0, -8.0);  
  
 p.x += sin(t+phase);  
 p.z += sin(t+phaseSecondary);  
  
 opacity = map(p.z, -150.0, 15.0, 0.0, 1.0);  
  
 vec4 mvPosition = modelViewMatrix \* vec4( p, 1.0 );  
  
 gl\_PointSize = size \* ( 100.0 / -mvPosition.z );  
  
 gl\_Position = projectionMatrix \* mvPosition;  
  
 }  
 `;  
  
 const fragmentShader = `  
 uniform sampler2D pointTexture;  
 varying vec3 vColor;  
 varying float opacity;  
  
 void main() {  
 gl\_FragColor = vec4( vColor, opacity );  
 gl\_FragColor = gl\_FragColor \* texture2D( pointTexture, gl\_PointCoord );   
 }  
 `;  
 function createSnowSet(sprite) {  
 const totalPoints = 300;  
 const shaderMaterial = new THREE.ShaderMaterial({  
 uniforms: {  
 ...uniforms,  
 pointTexture: {  
 value: new THREE.TextureLoader().load(sprite),  
 },  
 },  
  
 vertexShader,  
 fragmentShader,  
 blending: THREE.AdditiveBlending,  
 depthTest: false,  
 transparent: true,  
 vertexColors: true,  
 });  
  
 const geometry = new THREE.BufferGeometry();  
 const positions = [];  
 const colors = [];  
 const sizes = [];  
 const phases = [];  
 const phaseSecondaries = [];  
  
 const color = new THREE.Color();  
  
 for (let i = 0; i < totalPoints; i++) {  
 const [x, y, z] = [rand(25, -25), 0, rand(15, -150)];  
 positions.push(x);  
 positions.push(y);  
 positions.push(z);  
  
 color.set(randChoise(["#f1d4d4", "#f1f6f9", "#eeeeee", "#f1f1e8"]));  
  
 colors.push(color.r, color.g, color.b);  
 phases.push(rand(1000));  
 phaseSecondaries.push(rand(1000));  
 sizes.push(rand(4, 2));  
 }  
  
 geometry.setAttribute(  
 "position",  
 new THREE.Float32BufferAttribute(positions, 3)  
 );  
  
 geometry.setAttribute(  
 "color",  
 new THREE.Float32BufferAttribute(colors, 3)  
 );  
 geometry.setAttribute(  
 "size",  
 new THREE.Float32BufferAttribute(sizes, 1)  
 );  
 geometry.setAttribute(  
 "phase",  
 new THREE.Float32BufferAttribute(phases, 1)  
 );  
 geometry.setAttribute(  
 "phaseSecondary",  
 new THREE.Float32BufferAttribute(phaseSecondaries, 1)  
 );  
  
 const mesh = new THREE.Points(geometry, shaderMaterial);  
  
 scene.add(mesh);  
 }  
 const sprites = [  
 "https://assets.codepen.io/3685267/snowflake1.png",  
 "https://assets.codepen.io/3685267/snowflake2.png",  
 "https://assets.codepen.io/3685267/snowflake3.png",  
 "https://assets.codepen.io/3685267/snowflake4.png",  
 "https://assets.codepen.io/3685267/snowflake5.png",  
 ];  
  
 sprites.forEach((sprite) => {  
 createSnowSet(sprite);  
 });  
 }  
  
 function addPlane(scene, uniforms, totalPoints) {  
 const vertexShader = `  
 attribute float size;  
 attribute vec3 customColor;  
 varying vec3 vColor;  
  
 void main() {  
 vColor = customColor;  
 vec4 mvPosition = modelViewMatrix \* vec4( position, 1.0 );  
 gl\_PointSize = size \* ( 300.0 / -mvPosition.z );  
 gl\_Position = projectionMatrix \* mvPosition;  
  
 }  
 `;  
 const fragmentShader = `  
 uniform vec3 color;  
 uniform sampler2D pointTexture;  
 varying vec3 vColor;  
  
 void main() {  
 gl\_FragColor = vec4( vColor, 1.0 );  
 gl\_FragColor = gl\_FragColor \* texture2D( pointTexture, gl\_PointCoord );  
  
 }  
 `;  
 const shaderMaterial = new THREE.ShaderMaterial({  
 uniforms: {  
 ...uniforms,  
 pointTexture: {  
 value: new THREE.TextureLoader().load(  
 `https://assets.codepen.io/3685267/spark1.png`  
 ),  
 },  
 },  
  
 vertexShader,  
 fragmentShader,  
 blending: THREE.AdditiveBlending,  
 depthTest: false,  
 transparent: true,  
 vertexColors: true,  
 });  
  
 const geometry = new THREE.BufferGeometry();  
 const positions = [];  
 const colors = [];  
 const sizes = [];  
  
 const color = new THREE.Color();  
  
 for (let i = 0; i < totalPoints; i++) {  
 const [x, y, z] = [rand(-25, 25), 0, rand(-150, 15)];  
 positions.push(x);  
 positions.push(y);  
 positions.push(z);  
  
 color.set(randChoise(["#93abd3", "#f2f4c0", "#9ddfd3"]));  
  
 colors.push(color.r, color.g, color.b);  
 sizes.push(1);  
 }  
  
 geometry.setAttribute(  
 "position",  
 new THREE.Float32BufferAttribute(positions, 3).setUsage(  
 THREE.DynamicDrawUsage  
 )  
 );  
  
 geometry.setAttribute(  
 "customColor",  
 new THREE.Float32BufferAttribute(colors, 3)  
 );  
  
 geometry.setAttribute(  
 "size",  
 new THREE.Float32BufferAttribute(sizes, 1)  
 );  
  
 const plane = new THREE.Points(geometry, shaderMaterial);  
  
 plane.position.y = -8;  
 scene.add(plane);  
 }  
  
 function addListners(camera, renderer, composer) {  
 document.addEventListener("keydown", (e) => {  
 const { x, y, z } = camera.position;  
 console.log(`camera.position.set(${x},${y},${z})`);  
 const { x: a, y: b, z: c } = camera.rotation;  
 console.log(`camera.rotation.set(${a},${b},${c})`);  
 });  
  
 window.addEventListener(  
 "resize",  
 () => {  
 const width = window.innerWidth;  
 const height = window.innerHeight;  
  
 camera.aspect = width / height;  
 camera.updateProjectionMatrix();  
  
 renderer.setSize(width, height);  
 composer.setSize(width, height);  
 },  
 false  
 );  
 }  
 </script>  
 </body>  
</html>