



Klaus
Kohlmann

mental ray mit 3ds Max 2011



Inklusive DVD-ROM

Index

Numerisch

- 2-Layer Specularity and Reflections 250, 263
 - Specular #1 263
 - Specular #2 263
- 3D Displacement 131

A

- A&D siehe Arch & Design
- Abenddämmerung 182
- Advanced Controls 228
- Advanced Ray Traced Shadows 60
- Advanced Rendering Options 81, 129, 152, 224, 235
- Advanced Transparency Options 76, 77, 96, 154, 217
- Aerial Perspective 186, 187, 189, 194
- Ambient / Extra Light 162
- Ambient Occlusion 38, 204
 - Max Distance 204
 - Shadow Color 204
- Animation 37, 52
- Anisotropy 68, 152, 156, 213
- Arch & Design 64
 - BRDF 69
 - Bump Map 70
 - Reflectivity 123
 - Transparency 123
 - Use default System Gamma 123
- Augen 269
- Außenszene 170
- AutoCAD 91
- Autodesk Ceramic 87
- Autodesk Concrete-Material 210
- Autodesk Hardwood 86, 124
 - Based on Wood Grain 125
 - Finish 124
 - Furniture 124
 - Relief Pattern 125
 - Satin Varnished 124
 - Stain 124
- Autodesk Material Library 92
- Autodesk Materials 84
- Autodesk Metal 88
- Autodesk Solid Glass 89, 95

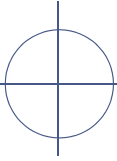
- Average Caustic Photons per Light 99, 109
- Average GI Photons per Light 28, 43
- Average Photons Num. Per Light 51

B

- Back Face Culling 77
- Back surface (through) 250
- Back surface (through) scatter weight 252
- Backface Surface (Through) Scatter 255
 - depth 255
 - radius 255
- Base Color 158, 160
- Belichtungskontrolle siehe Exposure Control
- Bias 159
- Bidirectional Reflectance Distribution Function
 - siehe BRDF
- Blend Mode 141
- Box Mapping 138
- BRDF 69, 129, 145, 150, 151, 154, 156
- Brightness 148, 215
- Bump 148, 152, 153, 156, 213
- Bump (3ds Max)-Map 107, 109, 265
- Bump Map 70
- Bump Mapping 205
- Bump Shader 265

C

- Camera Effects 111, 119, 173
- Camera Shader 119, 134, 173
 - Lens 119, 134
 - Volume 119
- Candela 58
- Caustics 95
- Caustics and Global Illumination (GI) 28, 95, 105
- Cellular-Map 228, 229, 230
- Change Time Period 190
- CIE siehe Internationale Beleuchtungskommission
- CIE-Modell 180
- Clear Sky 180
- Color at Max Distance 78, 79, 130
- Color Bleeding 34, 207



- Color Correction 148, 214
 - Brightness 215
 - Contrast 215
- Color-Correction-Map 126, 148, 203
 - Brightness 126
 - Color correct This Texture 126
 - Saturation 126
- Commission Internationale de l'Éclairage 182
- Common-Parameters 158
- Compass Rose 172, 193
- Composite-Map 125, 126
- Contrast 148
- Curve Editor 53
- Curve Shape 70, 145, 151, 156
- Cutout 88

- D**
- D65 Illuminant (Reference White) 23
- Daylight System 117, 170, 193, 240
 - Compass Rose 117
 - Compass01 118
- decay 30
- Dent-Map 228, 229, 230, 231
- Depth of Field 109
- Depth of Field / Bokeh 110, 112
- Diagnostics 31, 41, 47
- Diffuse 68
- Diffuse Bias 163
- Diffuse Bounces 51
- Diffuse Coloring 163
- Diffuse Horiz. 179, 180
- Diffuse Level 121, 123
- Diffuse Weight 162
- Direct Normal Illuminance 179, 180
- Displacement 131, 158
- Divide Camera Path by Num. Segments 54

- E**
- ean (lume) Parameters 216
- Ebenenmanager 195
- Edge Color 159, 160
- Edge Length 142
- Enable Exposure Control in Viewport 182
- Enable Hardware Shading 182
- Environment 66, 78, 102, 118, 188
- Environment and Effects 238
- Environment Map 85, 119
- Environment Mapping 102
- Epidermal (top) layer 250, 252
- Epidermal (top) layer scatter weight 252
- EV siehe Exposure Value (EV)
- Exposure Control 24, 118
- Exposure Value (EV) 65

- F**
- Facing Reflections Weight 167
- Fade to end color 78
- Farbtemperatur 55, 56, 170
- Fast (interpolate) 145, 201
- Fast Glossy Interpolation 201, 217, 220
 - Interpolation grid density 201
- FG-Points siehe Finalgather
- FG-Punkte siehe Finalgather
- Fillet Radius 155
- Filter 99, 109
- Final Gather Map 54
- Finalgather 41, 119
 - Initial FG Point Density 119
- Flake Color 164
- Flake Reflections 165
- Flake Scale 164
- Flake Specular Exponent #1 165
- Flake Weight 164, 167
- Flakes 163
- Flats 130
- Flecken siehe Speckle-Map
- Flip Light Flux Direction 198
- Frame Buffer Type 244
- Frisur 271
- From 0 to 100, Every 10 Frame(s) 55
- f-Stop 111

- G**
- Gamma & LUT 18
- Gamma-Korrektur 18
- Gardinen 223
- Garment-Maker-Modifikator 224
- Generate Caustics 95, 105
- Generate Final Gather Map File Now 55
- Generate Photon Map File Now 37
- GI siehe Global Illumination
- Glas, Dicke Geometrie siehe Solid Glass
- Glass 84
 - Glass (Solid) 202
 - Glass (Thin) 202
- Glazed Ceramic Tiles 227
- Glazed Specularity #1 166
- Global Illumination (GI) 22, 95

Glossiness 68, 75, 156, 212
 Glossy Samples 68, 74, 213
 Glossy Varnished Wood 218
 Ground 177
 Ground Color 177, 186

H

Hair and Fur 236, 271
 Hair and Fur Rendereffect 238
 Haut 246
 Hautfarbe 258
 Haze-Driven 177
 Haze-Modell 177, 187
 HDRI 20, 66, 91, 188
 High-Dynamic-Range siehe HDRI
 Highlights+FG only 92, 155, 204, 214, 236
 Holz, hochglänzend siehe Glossy Varnished Wood
 Horizon Height 186

I

ies 58
 Illuminate with Scene Lights 182
 Incrementally Add FG Points to Map Files 54
 Index of Refraction 75, 106
 indirekte Beleuchtung siehe Global Illumination (GI)
 Industrial Light & Magic 38
 Inherit from mr Sky 185
 Initial FG Point Density 46, 47, 51, 174
 Innenraumszene 192
 Insensity/Color/Attenuation 57, 242
 Internationale Beleuchtungskommission 182
 Interpolate Over Num. FG Points 47, 50, 174
 Interpolation grid density 220
 Inventor 91
 IOR 104, 129, 151, 154

K

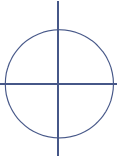
Kaustiken siehe Kaustische Lichteffekte
 Kaustische Lichteffekte 93
 Kelvin 55
 Keramische Kacheln, glasiert siehe Glazed Ceramic Tiles
 Kerbe siehe Dent-Map
 Kunstlicht 170
 Kupfermaterial 212

L

Layer Manager 195
 Leather-Material 236
 Lens 186, 189, 194
 Lichtquelle 55
 light bounces 26
 Light Distribution (Type) 33, 58, 242
 Light Facing Color 158, 159, 161
 Light Facing Color Bias 161
 Light Properties 28, 99, 109
 Lighting Analysis 238
 Lighting and Shadows 183
 Lightmap gamma curve 267
 Lightmap Size 267
 Lightness 140
 Logarithmic Exposure Control 65
 Loop Animation 130
 Low-Dynamic-Range 185, 188

M

Make Unique 234
 Manage Layers 195
 Map Channel 138
 Marble 72
 Marble-Map 72
 Marmor siehe Marble-Map
 Mask only 137
 Material Override 39, 205
 Material to Shader 107, 208
 Materialvoreinstellungen 83
 Matte Finish 32
 Matte Finish-Map 95
 Matte Oberfläche siehe Matte Finish
 Max Distance 77, 130
 Max. Displace 143
 Max. Subdiv. (Maximum Subdivisions) 143
 Maximum Num. Photons per Sample 28, 67, 98
 Maximum Sampling Radius 28, 80, 98
 mental ray Connection 35, 45, 105
 mental ray Shadow Map 61, 82
 mental-ray-Material 208
 Metal material 74, 150
 Mix-Map 121, 218, 229
 Monochrome 140, 148, 215
 mr Exposure Control 100
 mr fast subsurface scattering tutorial 247
 mr Material 238
 mr Photographic Exposure 52



- mr Photographic Exposure Control 22, 65,
100, 171, 193, 247
mr Photometric Exposure Control 240
mr Physical Sky 172
mr Physical Sky-Map 118, 173, 182, 185, 193
mr physischer Himmel siehe mr Physical Sky
mr prim 238
mr Sky 173, 175
mr Sky Portal 197
 Shadow Samples 199
 Transparency 199
mr Sun 173, 175
mr Sun Photons 194
Multi/Sub-Map 148
Multi/Sub-Material 217
Multi-/Sub-Object 210
Multi-/Sub-Object-Material 32, 201, 210, 215
Multi-Pass Effect 111
- N**
- Neighbouring points to look up 220
Night Color 186, 187
no exposure control 24
Noise Filtering 49
Noise-Map 122, 123, 126, 218, 230, 236,
266
 Fractal 123, 126
 Levels 123
 Noise Parameters 122, 126
 Noise Threshold 123
NTSC 38
Number of Colors/Maps to Use 146
Number of Samples 267
Number of Sub-Materials 32
- O**
- Object Properties 95, 105
Objekteigenschaften 95
Ocean (lume) Parameters 216
Ocean (lume)-Map 104, 216
One File Per Frame (Best for Animated Objects)
37, 54, 55
Only reflect environment 265
Overall Diffuse Coloration 260, 270
Overcast Sky 180
- P**
- PAL 38
- Patterned Copper 212
Perez All Weather 182, 188
Perez All Weather-Modell 179
Photometric Web 58
photometrisches Licht 22, 55
Photon 105
Photon Base Shader 34, 208
Photon Basic 210
Photon Basic (Base) 35, 208
 Map 106, 107
 Specular 208
 Transparency 208
Photon-Mapping siehe Global Illumination
Photons (Density) 41
Physical Scale 189
Physically Based Lighting 194
point_recessed_wallwash_250W 58
point_street 58
primary rays siehe Ray-Trace
Process Background and Environment Maps
185
Project Points From Positions Along Camera
Path 54
ProjectedWindow 201
ProMaterials 84
Prozedurale Textur 227
- R**
- Radius 28
RAM Player 33, 206
Rauschen siehe Noise-Map
Ray per FG Point 47
Ray Trace Shadows 56, 60, 244
Ray Traced Shadows 242
Rays per FG Point 49, 174
Ray-Trace 20
Read FG Points Only from Existing Map File 55
Read Photons Only from Existing Map Files 38,
54
Read/Write Photons to Map File 37, 54
Real-World Map Size 138, 148
Recessed 250 Wallwash (web) 58, 60
Reflectance 89, 95
Reflection 68
Reflection Glossy Samples 87
Reflectivity 32, 68, 104, 121, 132, 145, 150,
151, 156, 167, 212
Refract light and generate Caustic effects 96
Refraction 68, 95, 130, 132

Refraction Glossy Samples 87
 Refraktion 75
 Refraktionsindex 75
 Region 146
 Relief 205
 Render
 Area to Render 132
 Edit Region 133
 Render Subset of Scene/Masking 144
 Rendered Frame Window 132, 146
 Reuse FG und GI Disk Caching 28, 36
 Revit 91
 RGB multiplizieren siehe RGB Multiply Map
 RGB Multiply Map 102, 232, 234
 RGP Multiply Map 262
 Roughness 121, 145
 Round Corners 155, 218

S

Satin Varnished Wood 32
 Scale Conversation Factor 268
 Scanline 21
 Scatter indirect illumination 268
 Schatten 60
 'Screen'(soft) compositing of layers 268
 secondary rays siehe Ray-Trace
 Selection Set 155, 209, 235, 236
 Shadow Maps 60, 82
 Shadows & Displacement 142
 Shape/Area Shadows 60
 Shutter Speed 53
 Single File only (Best for Walkthrough and Stills) 37, 53, 54
 Sky Models 177
 Skylight 173, 175
 Solid 76, 84
 Solid Glass 89, 95
 Sonnenlicht siehe Sunlight
 Sonnenuntergang 187
 Special Effect-Gruppe 155
 Special Effects 40, 204, 218
 Special Purpose Map 70, 138, 152, 156
 Speckle-Map 124, 228, 234
 Specular Exponent #1 167
 Spherical Environment 154
 SSS Fast Skin 107
 SSS Fast Skin Material (mi) 269
 SSS Fast Skin Material (mi) Parameters 265
 SSS siehe Subsurface Scattering

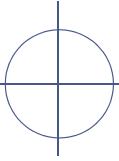
Strahlenrückverfolgung siehe Ray-Trace
 Streufarbenreflexionen siehe light bounces
 Subdermal layer 250
 Subdermal layer scatter weight 252
 Subsurface Scattering 245
 Overall diffuse coloration 250
 Scatter Color 250
 scatter radius 250
 scatter weight 250
 Shininess 265
 Unscattered diffuse color 250
 Subsurface Scattering Fast Material 247
 Subsurface Scattering Fast Skin 247
 Subsurface Scattering Fast Skin+Displacement 247
 Subsurface Scattering Physical 247
 Sun Disk Appearance 184
 Sunlight 170, 171, 173, 175
 Switch Color/Map based on 146

T

Tageslichtsystem siehe Daylight System
 Templates 83, 95, 104
 Thin Glass 84
 Thin-walled 77
 Tiefenunschärfe 109, 112
 Trace Depth 27
 Translator Options 116
 Transparency 68, 75, 79, 106, 121, 129, 156

U

Umgebungsfarbe 78
 Umgebungsokklusion siehe Ambient Occlusion
 Umgebungsverdeckung siehe Ambient Occlusion
 Unscattered Diffuse 261
 color 262
 weight 262
 Unscattered diffuse weight 252
 Use Custom Background Map 184, 185, 187
 Use Environment Background 182
 Use Falloff 50
 Use Radius Interpolation Methode 50
 Use Real-World Scale 122, 123, 141, 152, 154, 155, 156, 186, 203
 Use system default gamma 68
 Use Transparent Shadows 81
 UVW-Map 89



INDEX

V

Verschlusszeit siehe Shutter Speed
Viewport Background 182
 Display Background 182
 Use Environment Background 182
Volume 173, 186, 189, 194

W

walkthrough 37
Walkthrough-Animation siehe walkthrough
Waves-Map 107, 109
Weather Data File 190
 Configure Weather Data 190
 Load Weather Data 190
Wetterdaten 190
White Point 188