

Table of Contents

TABLE OF CONTENTS	I
1 INTRODUCTION TO DATACAD PLUS VIS	1
Starting DataCAD Plus vis.....	2
The ArCon+ and ArCon-Explorer Windows	3
The DataCAD Plus vis ArCon+ Window.....	4
<i>Message Display</i>	<i>4</i>
<i>Icons.....</i>	<i>4</i>
<i>Upper Horizontal Icon Bar.....</i>	<i>4</i>
<i>Lower Horizontal Icon Bar.....</i>	<i>5</i>
<i>Vertical Icon Bar.....</i>	<i>6</i>
<i>Pull-down Menu Bar.....</i>	<i>6</i>
<i>Keyboard Shortcuts.....</i>	<i>7</i>
<i>Toggle Switches</i>	<i>7</i>
<i>Sounds.....</i>	<i>7</i>
Working with Files.....	9
<i>Undo/Redo Options.....</i>	<i>14</i>
<i>Zoom</i>	<i>14</i>
The DataCAD Plus vis ArCon-Explorer Window.....	17
<i>Preview Window</i>	<i>19</i>
<i>Animated Objects.....</i>	<i>20</i>
2 SETTINGS FOR DATACAD PLUS VIS.....	21
Controlling the DataCAD Plus vis Program.....	22
Program Settings.....	23
<i>3D Pixel size</i>	<i>24</i>
<i>Color Depth of a 3D Pixel</i>	<i>24</i>
<i>Textures.....</i>	<i>25</i>
<i>Path for Objects</i>	<i>26</i>
<i>Path for Textures.....</i>	<i>26</i>
<i>Path for Materials.....</i>	<i>26</i>
<i>Confirming Program Settings</i>	<i>26</i>
General Settings	27
<i>Limit the Number of Polygons During Walk Through</i>	<i>28</i>
<i>View Moved Picture Contents.....</i>	<i>28</i>
<i>View Button, 3D-Input.....</i>	<i>29</i>
Setting Project Options.....	31
<i>Page Format</i>	<i>31</i>
<i>Scale.....</i>	<i>32</i>
<i>Units.....</i>	<i>32</i>
<i>Background for 3D Views.....</i>	<i>32</i>

3	WORKING WITH VIEWS.....	33
	Working with Views	34
	<i>3D Plan Views</i>	<i>34</i>
	<i>Perspective View.....</i>	<i>34</i>
	Setting the Background and Color	35
	<i>Constant Color.....</i>	<i>36</i>
	<i>Variable Color</i>	<i>37</i>
	<i>Background Picture</i>	<i>38</i>
	<i>Foreground Pictures.....</i>	<i>40</i>
	Selecting a Viewing Mode.....	43
	Raytracing	44
	<i>Overexposure and Underexposure.....</i>	<i>44</i>
	<i>Using the Raytracer</i>	<i>45</i>
	<i>Adjusting the Raytracer</i>	<i>45</i>
	<i>Raytracing With Lights Switched On and Off.....</i>	<i>47</i>
	<i>Saving and Printing Raytraced Pictures.....</i>	<i>48</i>
	Walking Through a Project	50
	<i>Going Up or Down a Floor.....</i>	<i>51</i>
	<i>Increasing Speed of Walk-Through.....</i>	<i>51</i>
	Adjusting the Perspective View	53
	<i>Changing the View Point</i>	<i>55</i>
	Controlling Day, Night, and Time-dependent Views	56
	<i>Controlling Brightness.....</i>	<i>56</i>
4	WORKING WITH OBJECTS AND GROUPS	61
	Placing Objects and Groups.....	62
	<i>3D Plan View.....</i>	<i>62</i>
	<i>Perspective View.....</i>	<i>64</i>
	Selecting and Deselecting Objects.....	68
	Moving Objects and Groups of Objects.....	69
	<i>Moving Objects in Plan View.....</i>	<i>69</i>
	<i>Moving Objects in Perspective View.....</i>	<i>70</i>
	<i>Positioning Hint.....</i>	<i>70</i>
	Saving an Individual Object.....	71
	<i>Object Settings</i>	<i>71</i>
	<i>Animated Objects.....</i>	<i>76</i>
	Defining Groups	77
	<i>Group Settings</i>	<i>79</i>
	Collision Detection	81
	The Selection Frame	82
	Using the Vertical Icon Bar to Control Objects and Groups	83
	<i>Group Functions</i>	<i>83</i>
	<i>Copy.....</i>	<i>83</i>
	<i>Delete.....</i>	<i>84</i>
	<i>Rotation Functions.....</i>	<i>85</i>

<i>Mirror Function</i>	87
<i>Aligning Objects</i>	88
Displaying Multiple Views	89
5 WORKING WITH OBJECTS, TEXTURES, AND MATERIALS	91
Catalog Options	92
Textures in the Catalog	93
<i>Loading Textures</i>	93
<i>Resolution Tab</i>	96
<i>Self-defined Textures</i>	96
Materials in the Catalog	98
<i>Editing Materials and Defining New Materials</i>	99
<i>Tips for Using Materials</i>	104
<i>Replacing a Glass Material</i>	104
6 RECORDING MOVEMENT AND TIME	107
Recording Movement and Time	108
Recording Spatial Movements	109
Recording Temporal Effects	111
Saving a Video for Later Playback	114
<i>Notes on Creating Videos</i>	117
APPENDIX	119
Keyboard Shortcuts	120
Exporting DataCAD Plus vis Projects	121
<i>VRML Export Hints</i>	122
<i>VRML Export as Day View</i>	123
INDEX	125