

Session Topic List for
Mandelbulb3D Tutorial Series #2
Mastering Mandelbulb3D Formulas
with Patrick C. Cook

Use this Session Topic List to help you track the tutorial sessions that you have completed.

- 01. Welcome and introduction
- 02. Introduction to Mandelbulb3D formulas, Exploring the m3f formula file: Options (properties), Formula Script and Description
- 03. Overview of the Formulas Window; Hybrid Modes, Formula Slots, Formula Categories, Properties, Formula Operators
- 04. The concept of formula iterations, The 'IterationCount' entry
- 05. Formula set iterations; Defining the formula set ("sequence"), The Min Iterations entry, The Max Iterations entry
- 06. The concept of "R Bailout", Demonstrating "R Bailout", Demonstrating 'IterationCount'
- 07. Demonstrating "R Bailout"
- 08. Demonstrating sequence iterations: Min Iterations and Max Iterations
- 09. Applying the concepts of: Iterations and "R Bailout"
- 10. Mandelbulb3D is a process of discovery. Formulas Window controls continued; Saving your formula configuration, The Reset function
- 11. Formulas Window controls continued; The formula Information button, The formula "Hidden" button, The formula "JIT" button, The "Repeat From Here" option
- 12. Formulas Window controls continued; The formula swap function, Demonstrating formula swapping, The "Disable Analytical DE" option
- 13. Formulas Window controls continued; The "Inside/Outside Render" function
- 14. Formulas Window controls continued; A close look at formula properties
- 15. A brief review of formula properties; Introducing formula categories, Escapetime formulas (3D,3Da,4D,4Da)
- 16. Introducing formula categories; Escapetime transform formulas
- 17. A brief review of transform formulas; The Ads transform formulas, Demonstrating Ads transforms
- 18. Introduction to dIFS shape formulas; Demonstrating dIFS formulas
- 19. dIFS shape formulas continued; Demonstrating dIFS formulas, Mixing escapetime with dIFS formulas, Your creative opportunities with formulas
- 20. The Formula selection dropdown lists; Issues with the dropdown lists, Voting formulas, Hiding and unhiding formulas
- 21. The Mandelbulb is a 3D Mandelbrot
- 22. A refresher overview; The Formula Slots, The Formula Categories, Escapetime, Transforms, Shapes, Iterations, R Bailout, Formula Sets
- 23. The Hybrid Modes; The Alternate Hybrid Mode, Object "Layering"
- 24. The Hybrid Modes; The Alternate Hybrid Mode with Transform formulas, Formula Conditioners
- 25. The Hybrid Modes; The Interpolate Hybrid Mode, Formula "Averaging"
- 26. The Hybrid Modes; The Interpolate Hybrid Mode, Mixing Formula Categories
- 27. The Hybrid Modes; The DEcombine Hybrid Mode, Volumetric Boolean
- 28. The Hybrid Modes; The DEcombine Hybrid Mode, Volumetric Boolean
- 29. The Hybrid Modes; The DEcombine Hybrid Mode, DEcombine Formula sequences
- 30. The Hybrid Modes; DEcombine Hybrid Mode, Demonstrating DEcombine, DEcombine sequences, The 'Maxits Hybrid' controls

Thank you for participating in my Mandelbulb3D tutorials!
See www.PatrickCookPhotography.com for information about my tutorials and my work with fractal art.

Session Topic List for
Mandelbulb3D Tutorial Series #2
Mastering Mandelbulb3D Formulas
with Patrick C. Cook

Use this Session Topic List to help you track the tutorial sessions that you have completed.

- 31. The Hybrid Modes; DEcombine Hybrid Mode, Demonstrating DEcombine, DEcombine sequences, The 'Maxits Hybrid' controls, cont.
- 32. The Hybrid Modes; DEcombine Hybrid Mode, Demonstrating DEcombine with escapetime formulas
- 33. The Hybrid Modes; DEcombine Hybrid Mode, Demonstrating DE Comb 'Mix' mode
- 34. The Hybrid Modes; DEcombine Hybrid Mode, An example of DEcombine assigning all formula slots
- 35. The Hybrid Modes; DEcombine Hybrid Mode, An example of turning off DEcombine formulas
- 36. Reviewing the Hybrid Modes; The Alternate Hybrid Mode, The Interpolate Hybrid Mode and The DEcombine Hybrid Mode
- 37. Building a Mandelbulb3D Scene; What is your creative objective?
- 38. Building a Mandelbulb3D Scene; Experiment to find your best options
- 39. Building a Mandelbulb3D Scene; Checking the detail of your scene
- 40. Building a Mandelbulb3D Scene; Checking the detail of your scene, Solving "Camera Burial"
- 41. Building a Mandelbulb3D Scene; Building the optimum Mandelbulb for your fractal graphic project
- 42. Building a Mandelbulb3D Scene; Learning from other's work, Loading a 'Parameter Set'
- 43. Building a Mandelbulb3D Scene; Learning from other's work, Examining a Parameter Set
- 44. Building a Mandelbulb3D Scene; Learning from other's work, When a Parameter Set is broken
- 45. Building a Mandelbulb3D Scene; Learning from other's work, Determining default properties
- 46. Building a Mandelbulb3D Scene; Learning from other's work, Assessing potential usage of another's Parameter Set
- 47. Building a Mandelbulb3D Scene; Learning from other's work, Examining another's DEcombine parameter set and isolating the formulas of the set
- 48. Introduction to the 'Mandelbulb3D Formula Example Reference' tool
- 49. Manually loading formulas
- 50. Introducing JIT formula editing
- 51. Introducing JIT formula editing, cont.
- 52. Tutorial Series closing summary

Notes:

Thank you for participating in my Mandelbulb3D tutorials!

See www.PatrickCookPhotography.com for information about my tutorials and my work with fractal art.