

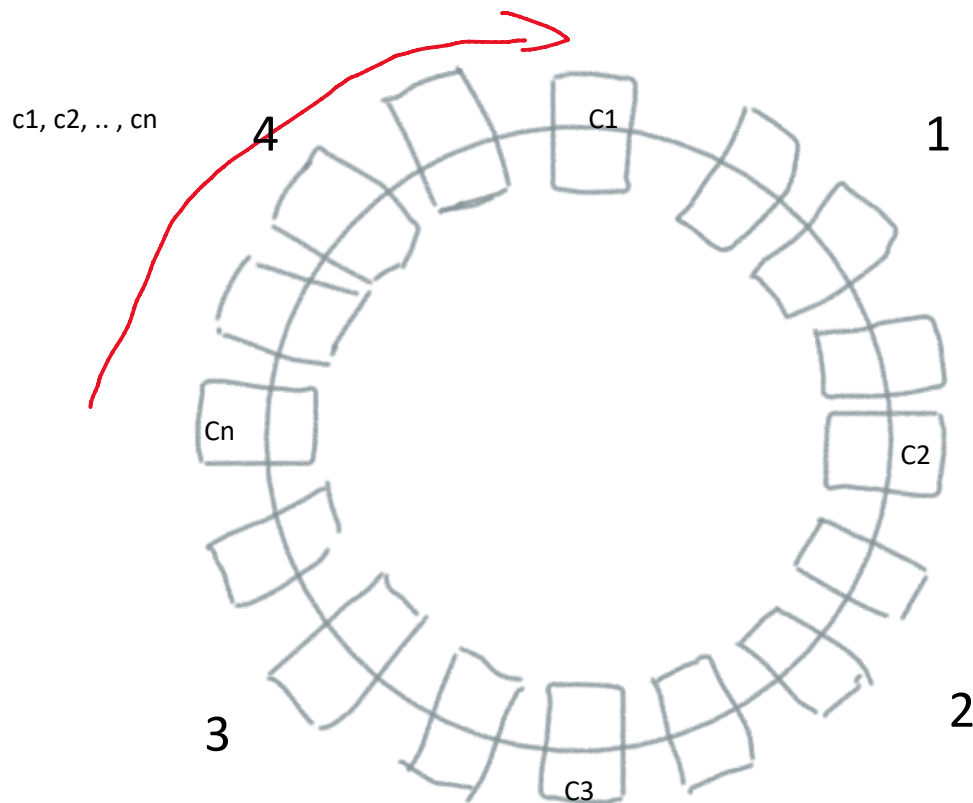
Color grading (circle)

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In Mandelbrot images colors are used to illustrate the number of iterations, needed to find out, that the complex number is not a member of the Mandelbrot set.

Grading by circle means, that the colors will move around from color one to color by adding transitions between all colors. Please find a sample below with 4 colors stretched to 16 entries in total.

In opposite to the line grading, the circle goes back to the first given color by grading between the last and the first given color. Thus there is no sudden jump in color from the last to the first color.



Number of intervals:

$$nI = nC$$

Minimum grading:

$$grMin = nC * 2$$

Steps per Interval:

$$\begin{array}{l|l} gr = nC + nI * stN & | \quad nI = nC \\ gr = nC + nC * stN & | \quad - nC \\ gr - nC = nC * stN & | \quad / nC \\ (gr - nC) / nC = stN & | \quad (16 - 4) / 4 = 3 \end{array}$$

Grading per Interval:

$$grN = stN + 1$$