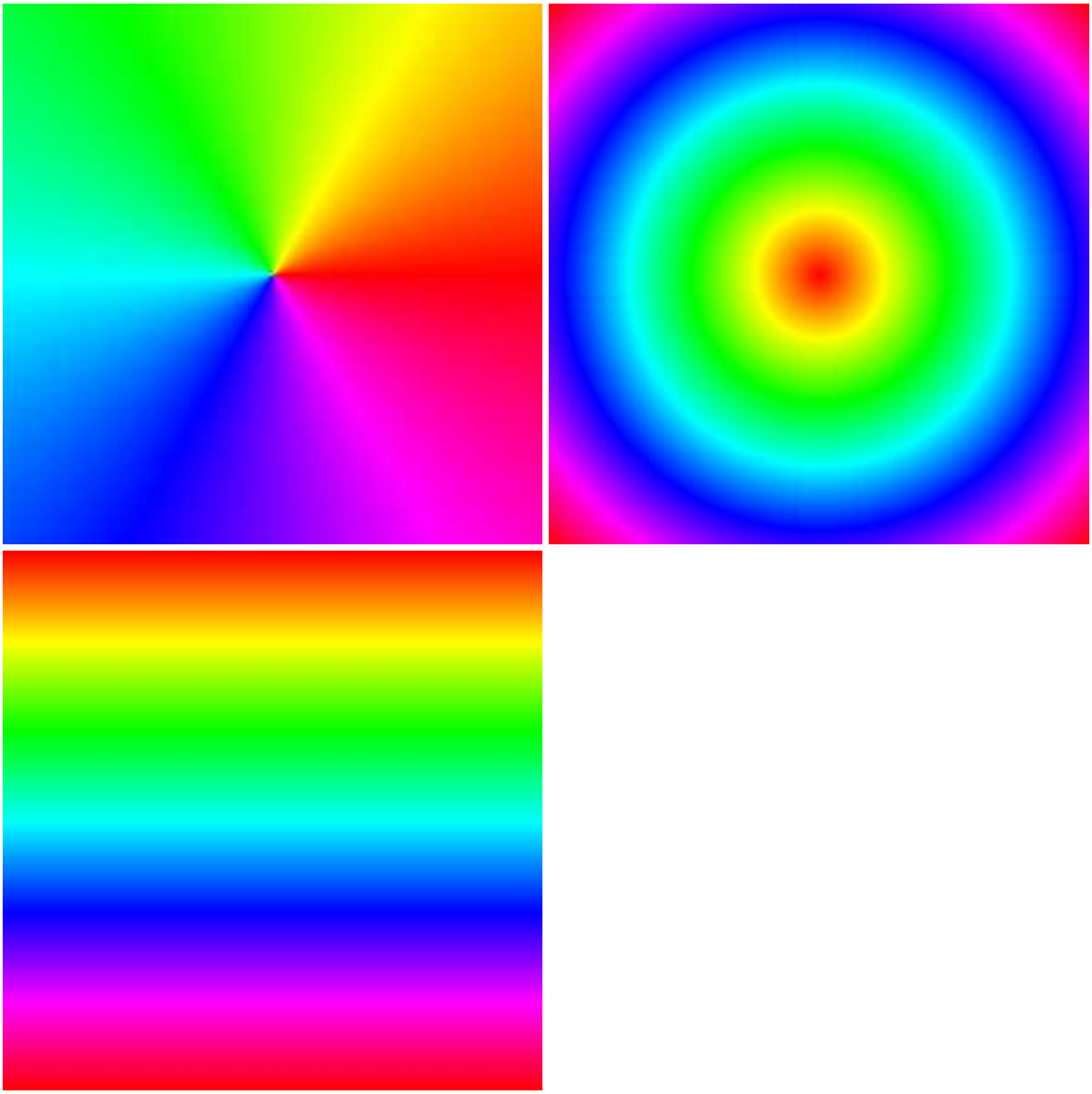
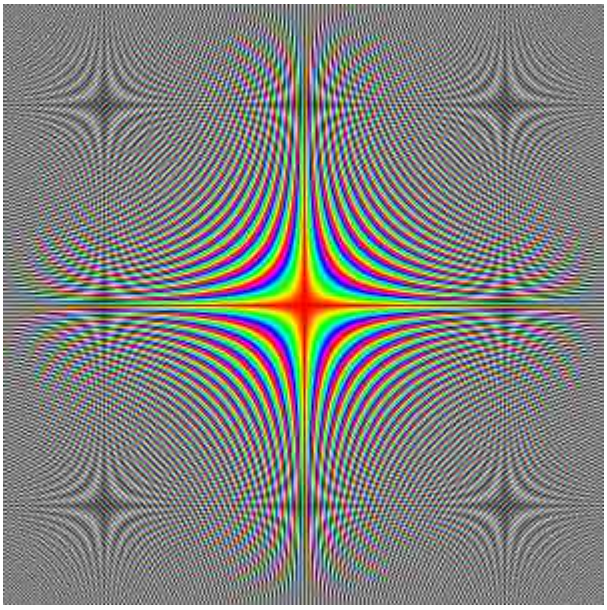
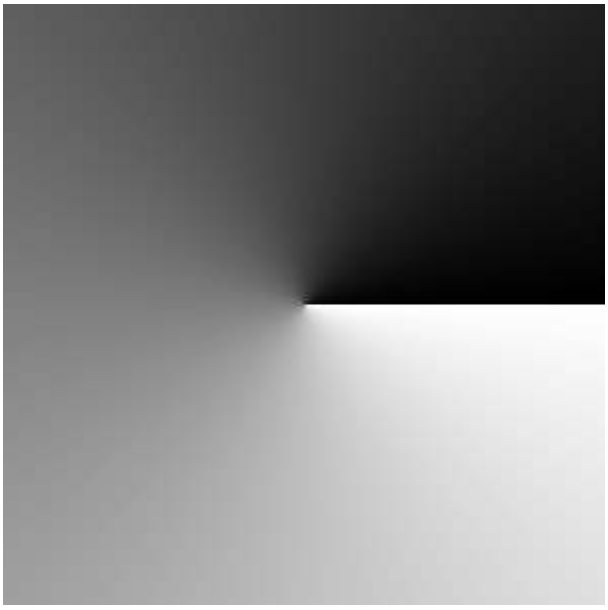
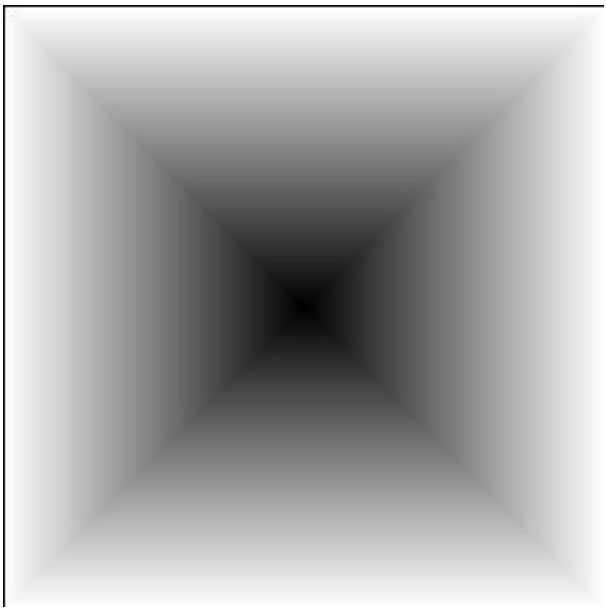
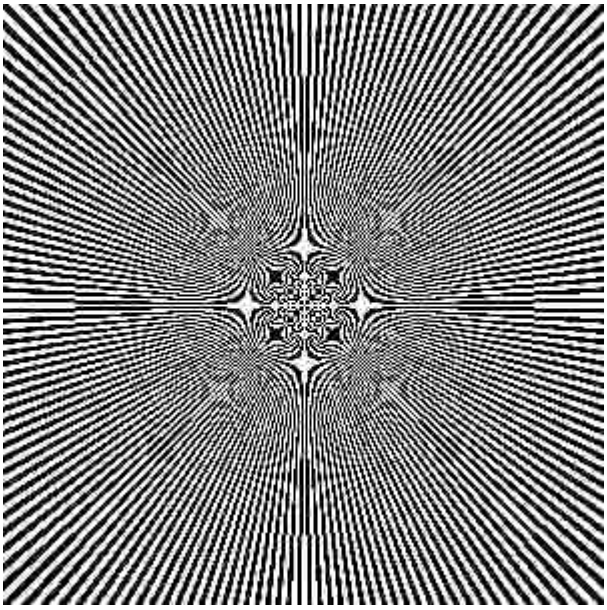
Rainbow

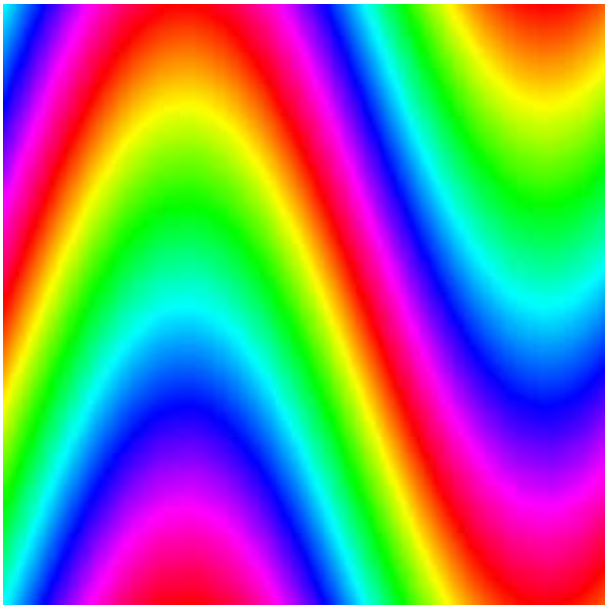


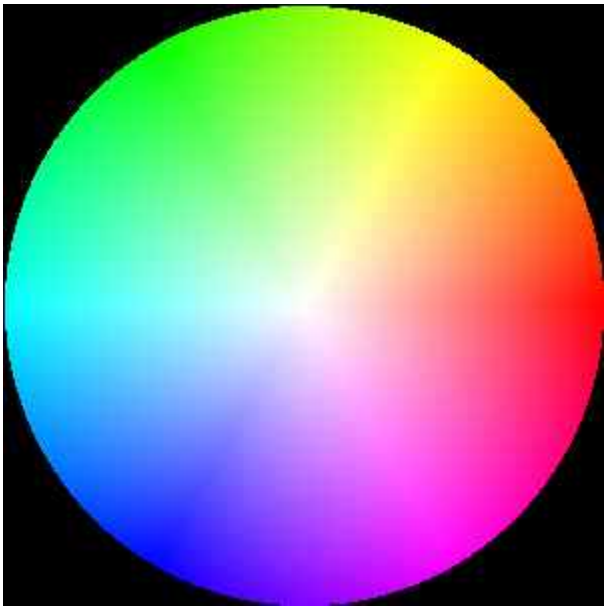


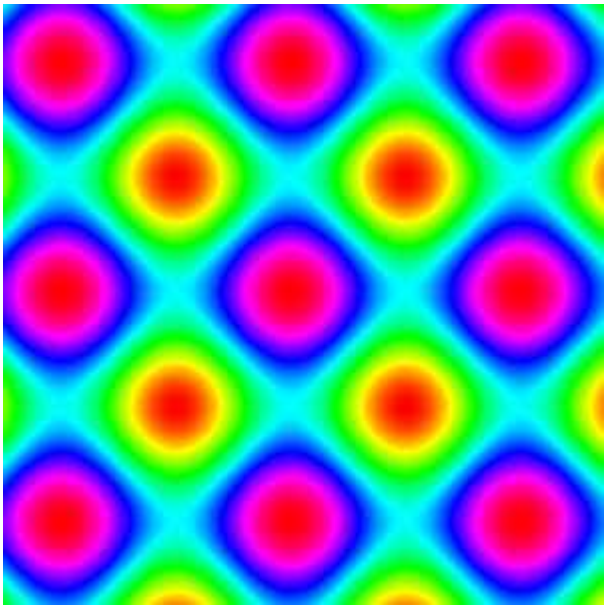


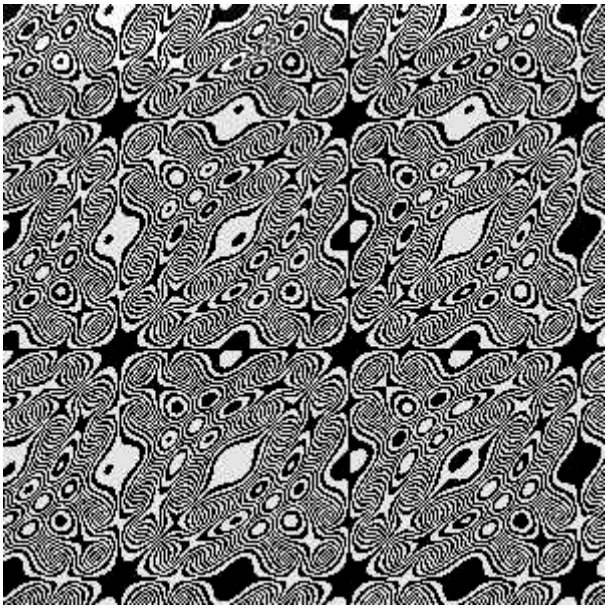


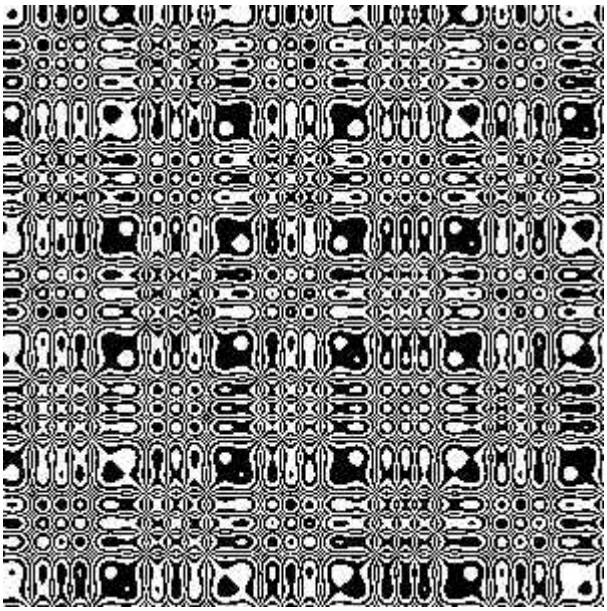


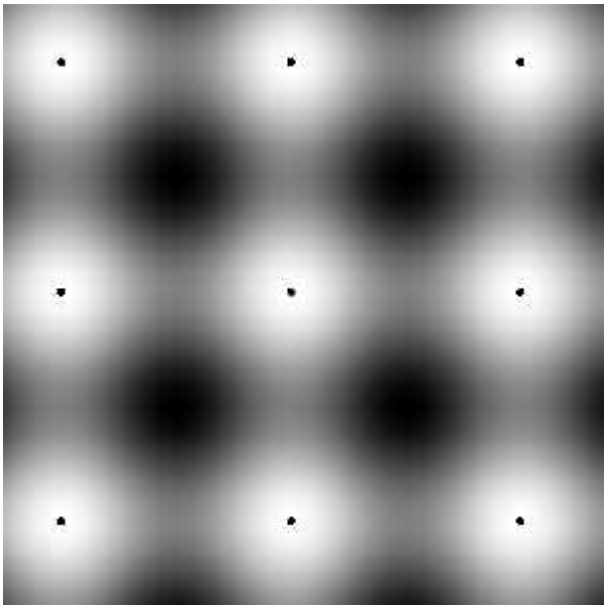


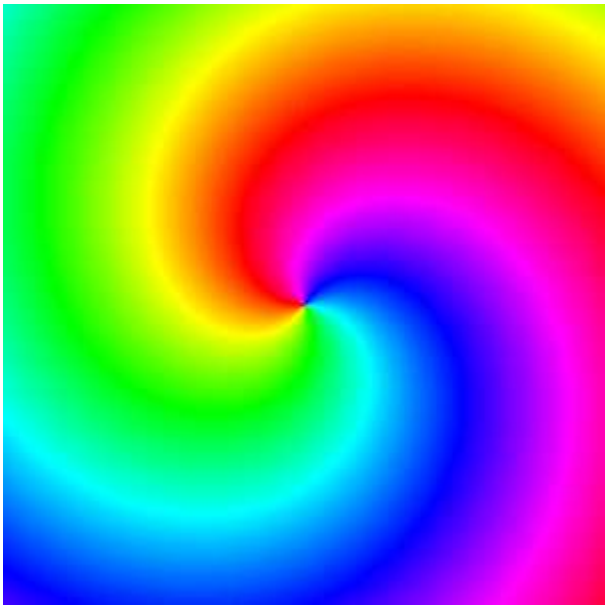


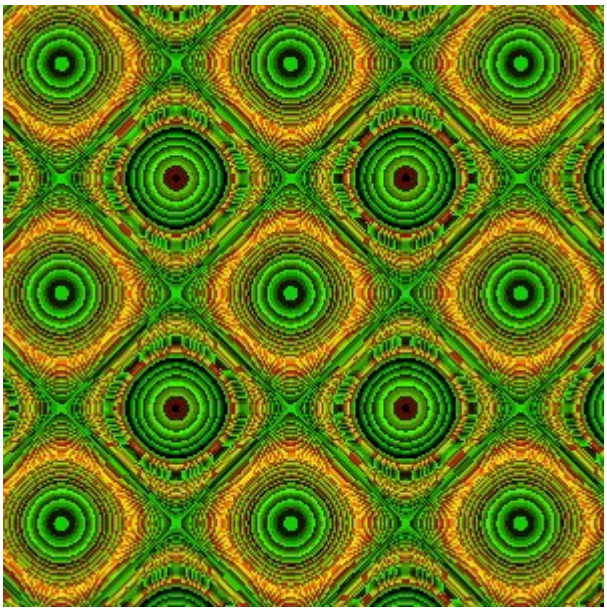












Versions:

- **version 20051021** opens fractint palette map files
- **version 2005.05.29** new types and name of enumerated type
- **version 2005.05.12** one may use arrows up and down (keyboard) to change function type and shift+arrow to change color type; added documentation
- **version 20040317** 236 KB, szybsza wersja, uzywa ScanLine, zapisuje pliki jako bmp
- **version 20040306** 219 KB, korzysta z form.canvas,pixels, wolna, łatwiejsza do odczytania kodu
- **diffrent site - 4programmers.net**

---

scalar 2D field f : (R x R)--> R

Transformations (each arrows is a one function):

- (iX,iY:integer)-1-> (iIndex:integer) -3-> (color:TColor)
- (iX,iY:integer)-1->(eX,eY:extended) -2-> (iIndex:integer) -3-> (color:TColor)
- (iX,iY:integer)-1->(eX,eY:extended) -2-> (eIndex:extended) -3-> (color:TColor)

where:
iX,iY are screen coordinates
eX,eY are world (real) coordinates

Index is a ....
Color represents color of pixel(iX,iY)
Functions are:

- -1-> : is a linear mapping function
- -2-> and -3-> : are color gradient funtion
-

Właściwie nie są to fraktale, ale program pokazuje różne metody kolorowania fraktali. Nadawanie koloru wg indeksu jest używane w różnych metodach, jak np. LSM (Level Set Method). Procedury w nim pokazane są użyte w programie mandelbrot.

Program Tecza wyswietla tecze w trybie:

- 24 bitowego koloru, (rgb), korzysta z funkcji tecza
- skali szarosci, (r=g=b)
- direct kolor(kolor 24 bitowy , ale adresowanie bezposrednie wg numerów koloru),
- Black and White

Mozliwe jest wyswietlenie różnych modyfikacji teczy:

- poziome pasy (kolor ~ y = im(z))
- angle (kolor= Arg(z)
- koła (kolor ~ r = promien koła = abs(z)
- kwadraty (kolor ~ max(abs(x),abs(y))
- biomorph (coś podobnego do gwiazdy) (kolor ~ abs(2* x*y)
- plus (kolor=y+x)
- divided (kolor=y/x)

Są to wykresy funkcji F: (C --> R), albo (R x R --> R)

Program jest napisany w 

Delphi 7.0 personal edition - darmowa wersja. Możesz pobrać ją ze strony Borland

---

Funkcję tęcza opracował Witold J.Janik; WJJ@CAD.PL..

To do :

- reading and saving fractint map files
- Grafeq
- Density Plots of Trig Expressions by Xah Lee
- Interference. Visualize and experiment with the interference pattern of two circular waves. by ottisoft
- field lines by Nima Bigdely Shamlo Computational Science Research Center, San Diego State University
- Seamless Tiles
-
    - Domain coloring of complex mapping
    - Jan Homann/Mathematics
    - Zandor by Alessandro Rosa; it maybe inactive now. Try The Internet Archive
    - visualizing complex analytic function using domain coloring by Hans Lundmark
    - Visualizing Conformal Maps by Michael J. Gruber
    - 3D plots over the complex planes in Mathemathica
    - visualizing complex analytic function using domain coloring by Hans Lundmark
    - GRAPHICS FOR COMPLEX ANALYSIS Douglas N. Arnold

    - Visualizations on the Complex Plane by Zoltán Kovács
      Convergence of complex functions and analytic continuation via color by Matt Kawski
    - Real-Time Zooming Math Engine by Zoltán Kovács
- Plasma fractals by Patrick Hahn
- BOÎTE A` OEUFSfrom MathCurve
- Gradient of a scalar field by Andy Buffler from University of Cape Town Department of Physics
- HarmWare Backgrounds
- Speeding Up Computation and Color Ramps by D.W. Hyatt
- Contour plots with trigonometric functions by Eric Weeks
- Fraktal mapping by komorra
- Demos of palette-mapped 3d terminal: Pm3d (2)
- Color-coded Curves by Patrick J. Gleason

- elektroniczny_kalejdoskop by Lukas
- mollie art by Steve Sigur
- Aliasing patterns by Tom Beddard
- Aliasing patterns by Craig S. Kaplan.

Main Page

Autor: Adam Majewski

adammaj1-at -o2- dot -pl

Strona utworzona przy pomocy programu: EditPlus www.editplus.com

Last modification: 2005-05-29

About