

# Code recap

```
' ████ ' [ > [ 4 × 9 ÷ 2 + / 2 > | F \ 9 ρ c - 2 J - 1 . 5 + 3 × θ ϕ a ° . + 0 J 1 × a ← n ÷ 2 i 1 + n ← 10 ]
```

```
Grid ← {
  (centre (w h)) ← α ◊ re ← ω ÷ 2 i 1 + [ w × ω ◊ im ← φ 0 J 1 × ω ÷ 2 i 1 + [ h × ω
  centre + (im ° . + re) - (w ÷ 2) + 0 J 1 × h ÷ 2
}
```

# Code recap

```

▽ its ← maxiter Mandelbrot grid
  ;m ;_ ;cs ;_cs ;F

  _cs ← cs ← ,grid
  m ← 1p~pcs
  its ← 0p~pcs
  F ← {α+ω*2}
  :For _ :In ιmaxiter
    (m/cs) ← _cs Fö(m°/) cs
    (m/its) +← 1
    (m/m) ← 2>|m/cs
  :EndFor
  its p~← pgrid

```

▽

# Code recap

```

Palette ← {
  A Dumb-down of https://stackoverflow.com/a/25816111/2828287
  n ← ⌈ω÷4
  Seg ← {⌊α+∘0 1+(ω-α)∘.×n÷~ιn}
  0,~>,/2Seg/(0 7 100)(66 107 203)(237 255 255)(255 170 0)(0 2 0)
}

GreyPalette ← {
  colours ← ⌊255×2*~ω÷~ι1+ω
  1⊘coloursp~3,pcolours
}

```

# Code recap (usage)

```
its ← 50 Mandelbrot -.5 (3 2) Grid 300  
pal ← GreyPalette 50  
colours ← 256⊥pal[;its]  
'c:/tmp/mdb.png' Png.Write colours
```

# Useful links

- Jupyter notebook on the Mandelbrot set  
<https://github.com/Dyalog/dyalog-jupyter-notebooks>
- Brian Becker's post on Mandelbrot + isolates  
<https://www.dyalog.com/blog/2014/08/isolated-mandelbrot-set-explorer/>
- Nicolas Delcros's "Making images and videos of the Buddhabrot" article in Vector  
<https://vector.org.uk/making-images-and-videos-of-the-buddhabrot/>
  - (Png namespace)
- Today's code as a namespace  
<https://github.com/RojerGS/fractals/tree/master/mapl>

# Upcoming webinars

May 20 **BAA** open session

May 27 - - -

Jun 3 **BAA** open session

Jun 10 **Dyalog** Error Handling – Part 3

Jun 17 **BAA** AGM

Apr 29 - - -

July 1 **BAA** open session

July 8 **Dyalog** TBD

[britishaplassociation.org](http://britishaplassociation.org)

# Thanks for watching!

## Questions?