BuddhaBrot-MT manual

Table 1: Changing layer mode, changing color table (noncycle and cycle) (ct), changing BuddhaBrot (bb) type (0=BuddhaBrot, 1=Anti-Buddhabrot, 2=Anti-Buddhabrot with some lobes cut), permutating layer color, toggling info displayed in title bar

| | F1 | F2 | F3 | 4 | Tab | Esc |
|---|------------|-------------|----------|---------|------------------|------------------|
| - | layer mode | noncycle ct | cycle ct | bb type | perm layer color | toggle title bar |

Table 2: Saving, loading, calculation thread handling, changing animation frame rate

| | F9 | F10 | F11 | F12 |
|---------------|-------------|---|--|---------------------------|
| Shift Ctrl | save status | load status load parameters load status (threads=3) | pause calculations threads $+=3$ threads $-=3$ | 1 fps 10 fps 30 fps |

Table 3: Writing window, tiled (T) render, full render to PNG in working directory, changing auto write mode (awm) (0=no auto write, 1=auto write based on elapsed time, 2=auto write based on number of paths plotted)

| | Backspace | \ | Return | [|] |
|-------|----------------------------|--|----------------------------|-------------------------|---------------------------|
| Shift | write window awm window | write render tiled awm render tiled | write render awm render | inc T width dec T width | inc T height dec T height |

Table 4: Changing time between each auto PNG write (t_{Δ}) , changing number of paths plotted difference between each auto PNG write (Pp_{Δ})

| | - | = | ; | , |
|---|--------------------|--------------------|---------------------|---------------------|
| - | $t_{\Delta} /= 10$ | $t_{\Delta} *= 10$ | $Pp_{\Delta} /= 10$ | $Pp_{\Delta} *= 10$ |

Table 5: Changing render (R) size, zooming BuddhaBrot (bb), panning window (W) in render, panning BuddhaBrot

| | Page Up | Page Down | \leftarrow | \rightarrow | \uparrow | ↓ |
|-----------------------|-----------------------|------------------------|---|---|--|--|
| Shift Ctrl Shift+Ctrl | inc R size zoom in bb | dec R size zoom out bb | $\begin{array}{c} \text{pan bb} \leftarrow 10\% \\ \text{pan W} \leftarrow 1\% \end{array}$ | $\begin{array}{c} \text{pan W} \rightarrow 10\% \\ \text{pan bb} \rightarrow 10\% \\ \text{pan W} \rightarrow 1\% \\ \text{pan bb} \rightarrow 1\% \end{array}$ | pan bb $\uparrow 10\%$ pan W $\uparrow 1\%$ | pan W \downarrow 10% pan bb \downarrow 10% pan W \downarrow 1% pan bb \downarrow 1% |

Table 6: Changing BuddhaBrot parameter: bailout (bail)

| | 1 | q | a | Z |
|------------|--------------------------|------------------------|------------------------|------------------------|
| - | layer 123 bail $+= 1$ | layer 1 bail += 1 | layer 2 bail += 1 | layer 3 bail $+= 1$ |
| Shift | layer 123 bail $*= 10$ | layer 1 bail $*= 10$ | layer 2 bail $*= 10$ | layer 3 bail $*= 10$ |
| Ctrl | layer 123 bail $-= 1$ | layer 1 bail $-= 1$ | layer 2 bail $-= 1$ | layer 3 bail $-= 1$ |
| Shift+Ctrl | layer 123 bail \neq 10 | layer 1 bail $\neq 10$ | layer 2 bail $\neq 10$ | layer 3 bail $\neq 10$ |

Table 7: Changing BuddhaBrot parameter: path plot start (pps)

| | 0 0 | • | 1 (11) | |
|------------|-----------------------|---------------------|---------------------|-----------------------|
| | 2 | W | \mathbf{S} | X |
| - | layer 123 pps $+= 1$ | layer 1 pps += 1 | layer 2 pps $+= 1$ | layer 3 pps $+= 1$ |
| Shift | layer 123 pps $*= 10$ | layer 1 pps $*= 10$ | layer 2 pps $*= 10$ | layer 3 pps $*= 10$ |
| Ctrl | layer 123 pps $-= 1$ | layer 1 pps $-= 1$ | layer 2 pps $-= 1$ | layer 3 pps $-= 1$ |
| Shift+Ctrl | layer 123 pps /= 10 | layer 1 pps $/=10$ | layer 2 pps $/=10$ | layer 3 pps $\neq 10$ |

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Table 8: Changing BuddhaBrot parameter: path plot end (ppe)

| | 3 | e | d | C |
|-----------------------|-----------------------|---------------------|---------------------|---------------------|
| - | layer 123 ppe $+= 1$ | layer 1 ppe $+= 1$ | layer 2 ppe $+= 1$ | layer 3 ppe $+= 1$ |
| Shift | layer 123 ppe $*= 10$ | layer 1 ppe $*= 10$ | layer 2 ppe $*= 10$ | layer 3 ppe $*= 10$ |
| Ctrl | layer 123 ppe $-= 1$ | layer 1 ppe $-= 1$ | layer 2 ppe $-= 1$ | layer 3 ppe $-= 1$ |
| Shift+Ctrl | layer 123 ppe $/=10$ | layer 1 ppe $/=10$ | layer 2 ppe $/=10$ | layer 3 ppe $/=10$ |

Table 9: Changing BuddhaBrot parameter: path minimum n_inf (minn)

| | 0 0 | 1 1 | \ | / |
|------------|--------------------------|----------------------|------------------------|----------------------|
| | 4 | r | f | V |
| - | layer 123 minn $+= 1$ | layer 1 minn += 1 | layer 2 minn += 1 | layer 3 minn += 1 |
| Shift | layer 123 minn *= 10 | layer 1 minn $*= 10$ | layer 2 minn *= 10 | layer $3 \min *= 10$ |
| Ctrl | layer 123 minn $-= 1$ | layer 1 minn -= 1 | layer $2 \min -= 1$ | layer $3 \min -= 1$ |
| Shift+Ctrl | layer 123 minn \neq 10 | layer 1 minn $/=10$ | layer 2 minn \neq 10 | layer $3 \min /= 10$ |

Table 10: Changing coloring method (cm) (0=rank-order mapping, 1=histogram mapping, 2=log+rank-order mapping, 3=log+histogram mapping), changing logarithmic offset for coloring methods 23 (log)

| | 5 | t | g | b |
|------------|---------------------|-------------------|-------------------|-------------------|
| - | layer 123 normal cm | layer 1 normal cm | layer 2 normal cm | layer 3 normal cm |
| Shift | layer 123 log cm | layer 1 log cm | layer 2 log cm | layer 3 log cm |
| Ctrl | layer 123 log += 1 | layer 1 log += 1 | layer 2 log += 1 | layer 3 log += 1 |
| Shift+Ctrl | layer 123 log -= 1 | layer 1 log -= 1 | layer 2 log -= 1 | layer 3 log -= 1 |

Table 11: Changing color table offset (ct_o)

| | 6 | у | h | n |
|---------------|---|--|---|---|
| Shift Ctrl | layer 123 ct_o += 1 layer 123 ct_o += 10 layer 123 ct_o = 0 | $\begin{array}{l} \text{layer 1 ct_o} += 1 \\ \text{layer 1 ct_o} += 10 \\ \text{layer 1 ct_o} = 0 \end{array}$ | $\begin{array}{l} \text{layer 2 ct_o} += 1 \\ \text{layer 2 ct_o} += 10 \\ \text{layer 2 ct_o} = 0 \end{array}$ | layer 3 ct_o $+= 1$ layer 3 ct_o $+= 10$ layer 3 ct_o $= 0$ |

Table 12: Changing color table cycle speed (ct_v)

| | 7 | u | j | m |
|---------------|--|---|---|--|
| Shift Ctrl | layer 123 ct_v += 1 layer 123 ct_v -= 1 layer 123 ct_v = 0 | $\begin{array}{l} \text{layer 1 ct_v} += 1 \\ \text{layer 1 ct_v} -= 1 \\ \text{layer 1 ct_v} = 0 \end{array}$ | $\begin{array}{l} \text{layer 2 ct_v} += 1 \\ \text{layer 2 ct_v} -= 1 \\ \text{layer 2 ct_v} = 0 \end{array}$ | layer 3 ct_v $+= 1$ layer 3 ct_v $-= 1$ layer 3 ct_v $= 0$ |