

**WindowBlender**

**COLLABORATORS**

|               |                                 |               |                  |
|---------------|---------------------------------|---------------|------------------|
|               | <i>TITLE :</i><br>WindowBlender |               |                  |
| <i>ACTION</i> | <i>NAME</i>                     | <i>DATE</i>   | <i>SIGNATURE</i> |
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**REVISION HISTORY**

| NUMBER | DATE | DESCRIPTION | NAME |
|--------|------|-------------|------|
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# Chapter 1

## WindowBlender

### 1.1 WindowBlender Table Of Contents

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WindowBlender.application/WindowBlender

### 1.2 WindowBlender.application/WindowBlender

#### NAME

WindowBlender -- Does various mappings in a window.

#### SYNOPSIS

PUB=Screen/K,  
Shanghai/S,  
Depth/N,  
DISP=Display/H/K,  
NC=NColors/K/N,  
Formula/N,  
CY=Cycle/N,  
CS=ColorStep/N,  
CSA=ColorStepAdvance/S,  
PRED=RedPeriod/N/K,  
PGREEN=GreenPeriod/N/K,  
PBLUE=BluePeriod/N/K,  
Diag/K,  
HR=HighRate/D/K,  
LR=LowRate/D/K,  
NCB=NoColorBand/S,  
HP=HPlane/D/K,  
VI=Visual/D/K,  
NoSlow/S,  
JR=JuliaR/D/K,  
JI=JuliaI/D/K,  
MJ=MJIter/N/K,  
BD=BackDrop/S,  
Phase/D/K,

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LP=LowerPeriod/N/K,  
 HP=HigherPeriod/N/K,  
 IUX=InitialUpperX/D/K,  
 IUY=InitialUpperY/D/K,  
 ILX=InitialLowerX/D/K,  
 ILY=InitialLowerY/D/K,  
 BHC=BHCount/N/K,  
 BHD=BHDTime/D/K,  
 BHM=BHMass/D/K,  
 BHxv/D/K,  
 BHyv/D/K,  
 BHER=BHEscRadius/D/K,  
 BHCR=BHContRadius/D/K,  
 BHG=BHGravConst/D/K,  
 BHP=BHPlacement/N/K,  
 ScrWidth/N/K,  
 ScrHeight/N/K,  
 ScrOScan/N/K,  
 ScrAutoScroll/S

(Tooltypes and ReadArgs)

#### FUNCTION

Opens a window, fills it with a mapping using the given formula, and cycles the colors using the given cycling method.

Parameters can be taken from either the Workbench ToolTypes or CLI ReadArgs, depending how it was started.

#### INPUTS

|                        |   |
|------------------------|---|
| Screen/K               | - Public Screen Name to open or use (If not given and Display is not given, will initially pop up an ASL screenmode requester.) |
| Depth/N                | - Depth of screen to open. Works in conjunction with Display.   |
| DISP=Display/H         | - Display ID in hex. If given, opens its own screen accordingly and uses Screen as the public screen name, if given.            |
| Formula/N              | - Formula # of selected operation.  |
| CY=Cycle/N             | - A cycling function #.   |
| CS=ColorStep/N         | - Color-stepping function (see NOTES) for Blend cycling mode.   |
| CSC=ColorStepAdvance/S | - Step color stepping (see NOTES) for Blend cycling mode.   |
| PRED=RedPeriod/N/K     |   |
| PGREEN=GreenPeriod/N/K |   |
| PBLUE=BluePeriod/N/K   |   |
|                        | - Period variation with time (Blend cycling only.)  |

- Diag - Name of file/channel to dump diagnostic information.
- HR=HighRate/D/K  
LR=LowRate/D/K - sweeps per palette. Randomized between these two.
- NCB=NoColorBand/S - Turns on/off color band on right side.
- HP=HPlane/D/K  
VI=Visual/D/K - floating-point values for Oddesey calculations
- NoSlow/S  
ations  
calculations  
to be  
er  
calculations  
at a task priority of 0. (Defaults to doing to a "background" priority of -1 to allow it used as a "background backdrop" allowing other useful work to be done).
- JR=JuliaR/D/K - Julia Real (Julia Set only)  
JI=JuliaI/D/K - Julia Imaginary (Julia Set only)  
MJ=MJIter=/N/K - Max Mandelbrot/Julia Iterations (Mandelbrot, Julia, and Gravity only)
- Phase/D/K - Phase relationship of the three guns (ColorAdvance #3 only)  
LP=LowerPeriod/N/K - Lower value of period variation (ColorAdvance #3 only)  
HP=HigherPeriod/N/K - Higher value of period variation (ColorAdvance #3 only)
- BHC=BHCount/N - Number of Black Holes  
BHD=BHDTime/D - Delta-time increments  
BHM=BHMass/D - Default Masses of indivual black holes  
BHxv/D - Initial x-component velocity of particle  
BHyv/D - Initial y-component velocity of particle  
BHER=BHEscRadius/D - Escape radius to end iteration on  
BHCR=BHContRadius/D - Radius to contain black hole placement in  
BHG=BHGravConst/D - Gravitational Constant to run system with  
BHP=BHPlacement/N - Placement code of the black holes:  
0 - circular  
1 - circular with pinpoint  
2 - linear  
3 - random  
4 - manual

## RESULT

At prsent, nothing is returned.

## NOTES

Color stepping steps the palette every CS entries, where CS is the color-stepping factor. That is, CS independent and interleaved

waves of color-churning will occur.

#### BUGS

If in cycle-forwards or cycle-backwards mode, sometimes the color palette is cleared if the Screen is changed. For now, just select another color mode.

The GUI for this version of WindowBlender is incomplete. However, enough functionality is present to achieve satisfactory results. These deficits will be addressed in a later release.