WindowBlender

COLLABORATORS			

	TITLE : WindowBlender		
ACTION	*NAME*	*DATE*	*SIGNATURE*
WRITTEN BY		February 6, 2023	

REVISION HISTORY			

NUMBER	DATE	DESCRIPTION	NAME

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WindowBlender

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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,
```

```
            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 sceen 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.)

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    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                  - When TRUE, forces WindowBlender to do calcul
    ations
                                at a task priority of 0. (Defaults to doing
    calculations
                                to a "background" priority of -1 to allow it
     to be
                                used as a "background backdrop" allowing oth
    er
                                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 (ColorA
    dvance #3 only)
    LP=LowerPeriod/N/K        - Lower value of period variation (ColorAdvanc
    e #3 only)
    HP=HigherPeriod/N/K       - Higher value of period variation (ColorAdvan
    ce #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
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        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 acheive satisfactory results.
        These deficits will be addressed in a later release.
```