

Arexx

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Chapter 1

Arexx

1.1 The Arexx-Interface

The Arexx-Interface

The Arexx-port of the program is named ChaosPro.Rexx. Several commands aren't implemented, because I don't want to waste time for something, which perhaps nobody uses. So if you really use it and miss some commands, don't hesitate to suggest them to me.

The following commands are implemented:

```
AbortAnim
About
AddAnimKey
AddFractal
AnimKeyFrames
AnimKeyPalette
BoxZoom
CalcFract
CalculateFrames
ChangeFractName
ChangePaletteName
ChoiceRequest
CloseAnim1
CloseAnim2
```

CloseDataWindow
ClosePalette
ClosePalWork
CloseParm1
CloseParm2
CloseParm3
CloseParms3D1
CloseParms3D2
CloseParms3D3
CloseShowJulWindow
CloseShowLocWindow
CloseUserWindow
Colorcycling
ContinueCalc
DelAnimKey
DelCalced
DelPicture
DupPicture
FrameToPic
GetActPicture
GetAnimData
GetAnimKey
GetAttr
GetColor
GetPicture
GetScreenDepth
HSVToRGB
IsTask
LoadAnimData
LoadPicData
MakeNewUndo

MakeProportional
Move
MoveAnimKey
OpenAnim1
OpenAnim2
OpenDataWindow
OpenPalette
OpenPalWork
OpenParm1Window
OpenParm2Window
OpenParm3Window
OpenParms3D1Window
OpenParms3D2Window
OpenParms3D3Window
OpenShowJulWindow
OpenShowLocWindow
OpenUserWindow
Quit
Recalc
Redo
RefreshParms
RGBToHSV
SaveAnimData
SavePicData
SavePicture
SetAnimData
SetAttr
SetColor
SetPalette
SetShowJul

SetShowLoc
SetTaskPri
SetToDefault
ShowHelp
StartAnim
StopCalc
SystemInfo
TimeUnit
Undo
WindowFallback
WindowType
Zoom

1.2 AbortAnim

NAME

AbortAnim

SYNOPSIS

AbortAnim

FUNCTION

Aborts the calculation of an animation.

INPUT PARAMETERS

RESULTS

RC:

3 ... currently no animation is calculated

Result:

N.A.

BUGS

SEE ALSO

1.3 About

NAME

About

SYNOPSIS

About

FUNCTION

Corresponds to choosing the menu item About. Shows some information about the version, the author, etc.

INPUT PARAMETERS

RESULTS

RC:

always 0

Result:

N.A.

BUGS

SEE ALSO

1.4 AddAnimKey

NAME

AddAnimKey

SYNOPSIS

AddAnimKey <Fractalname>/A <AnimKey>/K

FUNCTION

This command duplicates the specified fractal and inserts it into the AnimKey list as an AnimKey after the specified AnimKey. If <AnimKey> isn't specified, then the new AnimKey is inserted at the top position.

INPUT PARAMETERS

<Fractalname> : name of a fractal.

<AnimKey> : name of an AnimKey.

RESULTS

RC:

8 ... wrong number of parameters

5 ... a) unknown fractal

b) specified AnimKey unknown

c) error while inserting new AnimKey

Result:

name of the new AnimKey

BUGS

SEE ALSO

1.5 AddFractal

NAME

AddFractal

SYNOPSIS

AddFractal JULIA/S MANDEL/S BIFURCATION/S DYNAMICSYSTEM/S PLASMA/S LYAPUNOV/S

FUNCTION

This command adds a new fractal of the given type to the list and initializes it with the standard parameters for the type.

INPUT PARAMETERS

Keywords for the different fractal types.

RESULTS

RC:

5 ... fractaltype unknown

8 ... too few parameters

10 ... error during creation, most likely not enough memory

Result:

Name of the newly added fractal

BUGS

SEE ALSO

1.6 AnimKeyPalette

NAME

AnimKeyPalette

SYNOPSIS

AnimKeyPalette CLEAR <AnimKey>/A

AnimKeyPalette GET <AnimKey>/A

AnimKeyPalette SET <AnimKey>/A <Palettename>/K <PaletteOffset>/K <PaletteSkip>/K

FUNCTION

The keyword CLEAR removes the palette from the AnimKey

The keyword GET places the name, offset and skip value in result.

The keyword SET lets you assign a palette to the AnimKey. If you don't specify anything after that, then the current palette, offset and skip values are taken. Otherwise the values are set according to the given values.

INPUT PARAMETERS

<AnimKey> : name of an AnimKey
<Palettename> : name of a palette
<PaletteOffset> : offset for the palette
<PaletteSkip> : skip value for the palette

RESULTS

RC:

8 ... wrong number of parameters
5 ... unknown Animkey or unknown keyword

Result:

if GET was specified, then 'result' will contain the following string:
<palette name><space><offset><space><skip>

BUGS

SEE ALSO

1.7 AnimKeyFrames

NAME

AnimKeyFrames

SYNOPSIS

AnimKeyFrames SET <AnimKey>/A <Frames>/N/A
AnimKeyFrames GET <AnimKey>/A

FUNCTION

This command sets or asks for the number of frames, which should be calculated from the last AnimKey to this AnimKey.

INPUT PARAMETERS

<AnimKey> : name of an AnimKey
<Frames> : integer, which specifies the number of frames

RESULTS

RC:

8 ... wrong number of parameters
5 ... unknown AnimKey
unknown keyword

Result:

if GET is used, then 'result' will contain the number of frames

BUGS

SEE ALSO

1.8 BoxZoom

NAME

BoxZoom

SYNOPSIS

BoxZoom <Fractalname>/A <In>/A/N

FUNCTION

Just the same as choosing the menu item 'BoxZoom in/Out'.

INPUT PARAMETERS

<Fractalname> : Name of a fractal

<In> : This is a number, if equal to 0, it means BoxZoom out, otherwise
BoxZoom in...

RESULTS

RC:

3 ... fractal not calculated

5 ... fractalname unknown

8 ... too few parameters

Result:

N.A.

BUGS

SEE ALSO

1.9 CalcFract

NAME

CalcFract

SYNOPSIS

CalcFract <Fractalname>/A <LeftEdge>/A/N <TopEdge>/A/N <Width>/A/N <Height>/A/N

FUNCTION

Corresponds to choosing the gadget 'Calculate picture'. But here you can also define the screen coordinates for the window.

INPUT PARAMETERS

<Fractalname> : Name of a fractal

<LeftEdge>

<TopEdge>

<Width>

<Height> : Numbers, which define the position and size of the window. A virtual coordinate-system with a resolution of 10000x10000 is used. If a coordinate is negative, then the default value for this item is used.

RESULTS

RC:

5 ... fractal unknown

8 ... too few parameters

```
10 ... not enough memory
Result:
N.A.
```

```
BUGS
---
```

SEE ALSO

DelCalced

1.10 CalculateFrames

NAME

CalculateFrames

SYNOPSIS

CalculateFrames <AnimKey>/K

FUNCTION

This function tries to calculate an optimal number of frames between the AnimKeys. If <AnimKey> isn't specified, then this function is applied to all available AnimKeys. Otherwise this function affects only the specified AnimKey.

INPUT PARAMETERS

<AnimKey> : name of an AnimKey

RESULTS

RC:

8 ... wrong number of parameters

5 ... unknown AnimKey

Result:

if AnimKey is specified, then the number of frames is returned

BUGS

SEE ALSO

1.11 ChangeFractName

NAME

ChangeFractName

SYNOPSIS

ChangeFractName <Old name>/A <New name>/A

FUNCTION

Changes the name of the fractal. The name is always converted to uppercase, spaces

are replaced by a `'_'`. The name is made unique, i.e. if already another fractal with the same name exists, then a number is appended.

INPUT PARAMETERS

`<Old name>` : Name of the fractal, whose name should be changed
`<New name>` : New name for this fractal

RESULTS

RC:

5 ... fractal `<Old name>` is unknown
8 ... too few parameters

Result:

New name of the fractal

BUGS

SEE ALSO

1.12 ChangePaletteName

NAME

ChangePaletteName

SYNOPSIS

ChangePaletteName `<Old name>/A <New name>/A`

FUNCTION

Alters the name of a palette.

INPUT PARAMETERS

`<Old name>` : Name of the palette
`<New name>` : New name for this palette

RESULTS

RC:

5 ... palette not found
8 ... too few parameters

Result:

new name for the palette

BUGS

SEE ALSO

1.13 ChoiceRequest

NAME

ChoiceRequest

SYNOPSIS

```
ChoiceRequest <Body> <Choices>
```

FUNCTION

Creates and shows a requester with the content <Body> and lets the user choose something...

INPUT PARAMETERS

```
<Body>      : Bodytext.
<Choices>  : Choices, separated by '|'
```

RESULTS

RC:

```
0 ... user has choosed, result in Result
8 ... too few parameters
```

Result:

```
choice (intuition-conform)
```

Example

```
ChoiceRequest "Please choose a number..." "1|2|3|Abort"
```

A requester appears, which looks like follows:

```
|-----|
|
| Please choose a number... |
|
|
| 1      2      3      Abort |
|
|-----|
|
|  ^      ^      ^      ^   |
|  |      |      |      |   |
| '1'  '2'  '3'  '0'  <- choicenum, placed in Result
```

Attention:

The rightmost choice has always the codenumber 0, because it's always ment to be some kind of 'Abort'. The other choices have numbers from left to right, starting with 1.

BUGS

RexxMast does some string-conversions. Normally it's possible, to start a new line with '\n', but Arexx replaces the backslash '\' by '\\', making it impossible to start a new line in the body.

SEE ALSO

1.14 CloseAnim1 und CloseAnim2

NAME

CloseAnim1

CloseAnim2

SYNOPSIS

CloseAnim1
CloseAnim2

FUNCTION

Closes the animationwindow 1 or 2.

INPUT PARAMETERS

RESULTS

RC:

3 ... window already closed

Result:

N.A.

BUGS

SEE ALSO

OpenAnim1

OpenAnim2

1.15 CloseDataWindow

NAME

CloseDataWindow

SYNOPSIS

CloseDataWindow <Fractalname>

FUNCTION

Closes the datawindow of the fractal.

INPUT PARAMETERS

<Fractalname> : Name of the fractal

RESULTS

RC:

3 ... window already closed

5 ... unknown fractal

8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

OpenDataWindow

1.16 ClosePalette

NAME

ClosePalette

SYNOPSIS

ClosePalette

FUNCTION

Closes the palettewindow.

INPUT PARAMETERS

RESULTS

RC:

3 ... window already closed

Result:

N.A.

BUGS

SEE ALSO

OpenPalette

1.17 ClosePalWork

NAME

ClosePalWork

SYNOPSIS

ClosePalWork

FUNCTION

Closes the palette-editing windows.

INPUT PARAMETERS

RESULTS

RC:

3 ... windows already closed

Result:

N.A.

BUGS

SEE ALSO

OpenPalWork

1.18 CloseParm1Window

NAME

CloseParm1Window

SYNOPSIS

CloseParm1Window <Fractalname>

FUNCTION

Closes the parameterwindow 1 of the fractal

INPUT PARAMETERS

<Fractalname>: Name of the fractal

RESULTS

RC:

3 ... window already closed
5 ... unknown fractal
8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

OpenParm1Window

1.19 CloseParm2Window

NAME

CloseParm2Window

SYNOPSIS

CloseParm2Window <Fractalname>

FUNCTION

Closes the parameterwindow 2 of the fractal

INPUT PARAMETERS

<Fractalname>: Name of the fractal

RESULTS

RC:

```
3 ... window already closed
5 ... unknown fractal
8 ... wrong number of parameters
Result:
  N.A.
```

BUGS

SEE ALSO

OpenParm2Window

1.20 CloseParm3Window

NAME

CloseParm3Window

SYNOPSIS

CloseParm3Window <Fractalname>

FUNCTION

Closes the parameterwindow 3 of the fractal

INPUT PARAMETERS

<Fractalname>: Name of the fractal

RESULTS

RC:

```
3 ... window already closed
5 ... unknown fractal
8 ... wrong number of parameters
Result:
  N.A.
```

BUGS

SEE ALSO

OpenParm3Window

1.21 CloseParms3D1Window

NAME

CloseParms3D1Window

SYNOPSIS

CloseParms3D1Window <Fractalname>

FUNCTION

Closes the 3D-parameterwindow 1 of the fractal

INPUT PARAMETERS

<Fractalname>: Name of the fractal

RESULTS

RC:

3 ... window already closed
5 ... unknown fractal
8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

OpenParms3D1Window

1.22 CloseParms3D2Window

NAME

CloseParms3D2Window

SYNOPSIS

CloseParms3D2Window <Fractalname>

FUNCTION

Closes the 3D-parameterwindow 2 of the fractal

INPUT PARAMETERS

<Fractalname>: Name of the fractal

RESULTS

RC:

3 ... window already closed
5 ... unknown fractal
8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

OpenParms3D2Window

1.23 CloseParms3D3Window

NAME

CloseParms3D3Window

SYNOPSIS

CloseParms3D3Window <Fractalname>

FUNCTION

Closes the 3D-parameterwindow 3 of the fractal

INPUT PARAMETERS

<Fractalname>: Name of the fractal

RESULTS

RC:

3 ... window already closed
5 ... unknown fractal
8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

OpenParms3D3Window

1.24 CloseShowJulWindow

NAME

CloseShowJulWindow

SYNOPSIS

CloseShowJulWindow <Fractalname>

FUNCTION

Closes the window, in which a juliafractal can be choosed, whose parametervalue can be displayed in the mandelbrot set.

INPUT PARAMETERS

<Fractalname> : Name of the fractal

RESULTS

RC:

3 ... window already closed
4 ... fractal not calculated
5 ... unknown fractal
8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

OpenShowJulWindow

1.25 CloseShowLocWindow

NAME

CloseShowLocWindow

SYNOPSIS

CloseShowLocWindow <Fractalname>

FUNCTION

Closes the window, in which one can choose the fractal, whose area values can be displayed.

INPUT PARAMETERS

<Fractalname> : Name of the fractal

RESULTS

RC:

3 ... window already closed
4 ... fractal not calculated
5 ... unknown fractal
8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

OpenShowLocWindow

1.26 CloseUserWindow

NAME

CloseUserWindow

SYNOPSIS

CloseUserWindow <Num>

FUNCTION

Closes the user defined window <Num>

INPUT PARAMETERS

<Num>: Windownumber

RESULTS

RC:

3 ... window already closed
5 ... window with this number not available
8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

OpenUserwindow

1.27 Colorcycling

NAME

Colorcycling

SYNOPSIS

Colorcycling ON/S OFF/S UPWARDS/S DOWNWARDS/S SPEED/K/N

FUNCTION

Controls colorcycling...

INPUT PARAMETERS

ON : If given, ColorCycling is switched on
OFF : If given, ColorCycling is switched off
UPWARDS : If given, cycling is done in direction to higher colorregisters.
DOWNWARDS : same as before, but downwards
SPEED : If given, the number after that defines the cycling speed.
10 is fast, 50 is slow...

RESULTS

RC:

8 ... Keyword 'Speed' given, but no number after that
10 ... unknown keyword

Result:

N.A.

BUGS

SEE ALSO

1.28 ContinueCalc

NAME

ContinueCalc

SYNOPSIS

```
ContinueCalc <Fractalname>/A
ContinueCalc
```

FUNCTION

Continues calculation of the fractal, if given. Otherwise it wakes up all sleeping tasks.

INPUT PARAMETERS

<Fractalname> : Name of the fractal

RESULTS

RC:

5 ... Fractalname unknown

Result:

N.A.

BUGS

SEE ALSO

StopCalc

1.29 DelAnimKey

NAME

DelAnimKey

SYNOPSIS

```
DelAnimKey <AnimKey>/A
```

FUNCTION

Deletes the specified AnimKey.

INPUT PARAMETERS

<AnimKey> : name of an AnimKey

RESULTS

RC:

8 ... wrong number of parameters

5 ... unknown AnimKey

Result:

N.A.

BUGS

SEE ALSO

1.30 DelCalced

NAME

DelCalced

SYNOPSIS

DelCalced <Fractalname>/A

FUNCTION

Corresponds to clicking onto the closegadget of the 2D-fractalwindow.

INPUT PARAMETERS

<Fractalname> : Name of the fractal, whose window and task should be deleted.

RESULTS

RC:

3 ... fractal not calculated

5 ... fractal unknown

8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

CalcFract

1.31 DelPicture

NAME

DelPicture

SYNOPSIS

DelPicture <Fractalname>/A

FUNCTION

Corresponds to choosing the gadget 'Clear Picture'. The fractal is completely deleted.

INPUT PARAMETERS

<Fractalname> : Name of the fractal, which should be deleted

RESULTS

RC:

0 ... success

5 ... unknown fractal

8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

AddFractal

CalcFract

DelCalced

1.32 DupPicture

NAME

DupPicture

SYNOPSIS

DupPicture <Fractalname>/A

FUNCTION

Corresponds to choosing the gadget 'Duplicate Picture'. A new entry will be created. ↔

INPUT PARAMETERS

<Fractalname> : Name of the fractal to duplicate

RESULTS

RC:

5 ... unknown fractal

8 ... wrong number of parameters

10 ... not enough memory

Result:

name of the new (duplicated) fractal

BUGS

SEE ALSO

AddFractal

1.33 FrameToPic

NAME

FrameToPic

SYNOPSIS

FrameToPic <FrameNum> <Name>

FUNCTION

This function calculates the specified frame, creates a FractPic with these values

and sets the name of this fractal to <Name>. This FractPic then generates the same fractal picture as the <FrameNum>th animation frame would be.

INPUT PARAMETERS

<FrameNum> : frame number starting with 1...
<Name> : name, which the fractal then should have

RESULTS

RC:
3 ... error while creating
Result:
name of the created fractal

BUGS

SEE ALSO

1.34 GetActPicture

NAME

GetActPicture

SYNOPSIS

GetActPicture

FUNCTION

Returns the name of the active picture out of the picture list.

INPUT PARAMETERS

-none-

RESULTS

RC:
5 ... none is active
Result:
name of the active fractal

BUGS

SEE ALSO

GetPicture

1.35 GetAnimKey

NAME

GetAnimKey

SYNOPSIS

GetAnimKey <Number>

FUNCTION

Returns the name of the <Number>th AnimKey.

INPUT PARAMETERS

<Number> : Number of the AnimKey in the list, starting with 0...

RESULTS

RC:

8 ... wrong number of parameters

5 ... there's no AnimKey with this number

Result:

name of the AnimKey

BUGS

SEE ALSO

1.36 GetAnimData

NAME

GetAnimData

SYNOPSIS

GetAnimData <Keyword>

FUNCTION

Returns the specified parameter.

INPUT PARAMETERS

<Keyword> : You can choose one of these:

WIDTH

HEIGHT

DEPTH

3DANIM

BUFFER

INTERPOLATION

SAVEMODE

STARTFRAME

ENDFRAME

3DBUFFER

RESULTS

RC:

5 ... unknown keyword

Result:

parameter according to the keyword

BUGS

SEE ALSO

1.37 GetAttr

NAME

GetAttr

SYNOPSIS

GetAttr <Fractalname>/A <AttrIdent>/A

FUNCTION

Fetches the value of the parameter from the fractal.

INPUT PARAMETERS

<Fractalname> : Name of the fractal

<AttrIdent> : identifies the attribut. It may be one out of the following identifiers:

BUFTYPE	- read only, 0 means 16Bit-int-buffer, 1 means IEEEESP-buffer, 2 means no buffer
DATA	- read only, specifies, whether a datawindow is available
DIMSWIDTH	
DIMSHEIGHT	- read only, specifies the size of the 3D-window
INT_FPU	- read only, 0 ==> FPU is used, otherwise integer-emulation
WIDTH	
HEIGHT	- these strings specify the size of the 2D-window. The size can be changed, too, but only if the fractal calculation process is launched.
IS_3D	- read only, specifies, whether the 3D-window is opened
MOVE	- read only, specifies, whether the 2D-fractal can be moved around
NUMWINDOWS	- read only, 1 means 1 window for 2D&3D, 2 means one window for 2D and another for 3D
PALETTEMODE	- read only, 0 means, using the own palette, 1 means using the global palette
PALOFFSET2D	
PALSKIP2D	- read only, specify the offset-value and the skipvalue for the 2D-palette
PALOFFSET3D	
PALSKIP3D	- read only, specify the offset-value and the skipvalue for the 3D-palette
PREVIEWWIDTH	
PREVIEWHEIGHT	- size of the preview
SHOWDONE	- read only, non null means, that it's displayed in the titlebar, how far the calculation is proceeded
SUBTYPE	- read only, fractal subtype, i.e. the number of the used formula user defined formulae always have numbers greater than 6 normally all these formulas have the number 6, but this may change in the future
TYPE	- read only, fractaltype
ZOOM	- read only, zooming allowed?

For an explanation of the following type specific parameters you can refer to the chapters of the parameterwindows or the datawindows. The names of the parameters should lead you to the desired explanation.

1) Julia- and Mandelbrotsets

ANGLE - rotation angle of the fractal
 BAILIN
 BAILOUT - clear

 BIOMORPHY - biomorphy, switched on (TRUE) or off (FALSE)?
 BIOMORPHTYPE - biomorphytype: 'and' or 'or'...
 BIOMORPHVAR - the biomorphy variable

 LEFT
 TOP
 RIGHT
 BOTTOM - the area values of the fractal

 CIRCLEINVERSION - circle inversion: 0 means switched off, otherwise switched on
 CIRCINVMIDREAL
 CIRCINVMIDIMAG - midpoint of the circle
 CIRCINVRADIUS - the radius

 DECOMP - decomposition, 0 means switched off, otherwise switched on
 CODING - coding number

 INFINITE - 'infinite' considered as attractor ?
 FINITE - search for finite attractors, 0 means no, otherwise yes
 FIXUSER - search for user defined point as attractor
 FIXCYCLUS - search for a cyclus

 FIXUSERR
 FIXUSERI - user defined fixpoint
 ZYKSTART - starting with this iteration level the program searches for a
 cyclus

 INF_SUP_MULT - the multiplier for coloring=Infimum or Supremum
 INSIDECOLOR - inside color
 INSIDECOLORING- mode for inside coloring
 ITERATION - maximum of iterations to be evaluated

 OUTSIDECOLOR - outside color
 OUTSIDECOLORING - mode for outside coloring
 OUTERMULT - multiplier for the outside colors
 PARM1R
 PARM1I
 PARM2R
 PARM2I - the parameters

 PASSES - number of draw passes

2) Bifurcationdiagrams

AMIN
 AMAX - minimal/ maximal values for A
 VARMIN
 VARMAX - minimal/ maximal values for the variable

 ITERATION - number of iterations to be evaluated

VARTOUSE - variable to draw, 0:variable x, 1:variable y, 2:both

3) Dynamic Systems

A

B

C - the 3 parameter for the system

ALPHA

BETA - view angles

LEFT

TOP

RIGHT

BOTTOM - area to draw (front view)

DELTA - timeunit

LEGAL - 0 means illegal, 1 means conform to the system

MIDDISPL - average point-distance at the beginning

POINTS - read only, number of points

SPEED - speed of the drawing

SYSTDRAWMODE - read only, 0 means 'draw points', 1 means draw lines, 2 means, draw a cloud of points

SYSTTYPE - 0 means Lorenz attractor, 1 means Roessler attractor

TIME - the end time

X

Y

Z - the coordinates of the start point

4) Plasma

COLORMULT - the colormultiplier

H - indirectly the dimension

SEED - initialization for the random number generator

SIGMA - the square root of the variance

5) Lyapunov-Space

AMIN

AMAX

BMIN

BMAX - specify the area

CHAOSCOL - color to use for chaos

EXPMIN - minimal exponent

ITERATION - maximal number of iterations to evaluate

PASSES - number of draw passes

SEQUENCE - read only, the sequence

SETTLE - number of iterations for stabilization

STARTX

STARTY - start values for the points

6) 3D-Parameter

AMBIENT - lightintensity of the surrounding

BACKGROUND - background color
 FRONTMULT
 BACKMULT - multipliers

DIFFUSE - proportion of the reflection light to the normal light
 DISTANCE
 DRAWMODE - 0:points, 1:lines, 2:rectangles, 3:triangles
 FIRST3DCOLOR
 LAST3DCOLOR - colors to use
 GRIDX
 GRIDY - resolution of the raster

HIGHLIGHTANGLE
 VLIGHTANGLE - position of the light source

HOBSANGLE
 VOBSANGLE - position of the observer
 INVERS - 0 means not inverse, 1 means inverse
 LIGHT - if TRUE ==> light source enabled
 MOVEX
 MOVEY - object displacement
 PLATEAU - height of the plateau
 REFLECTION - reflection of the surface
 SATURATION - influence of light at the saturation of the color in percent
 SLOPE - slope
 TYPE - 0 means orthogonal, 1 means projection
 UPDOWN - movement of the heights up/down
 VALUE - influence of light at the value of the color in percent
 WATER - height of the water
 YSTRETCH - multiplier for the depth
 EXTBUFFER - additional buffer

RESULTS

RC:

5 ... fractal unknown
 7 ... AttrIdent unknown
 8 ... too few parameters

Result:

actual parameter value

BUGS

SEE ALSO

SetAttr

1.38 GetColor

NAME

GetColor

SYNOPSIS

GetColor <Palettename>/A <colornum>/A/N

FUNCTION

Fetches the red/green/blue values of the color or the palette

INPUT PARAMETERS

<Palettename>: name of the palette

<colornum>: color number

RESULTS

RC:

5 ... palette unknown

8 ... too few parameters

Result:

3 digits for red, space, 3 for green, space, 3 for blue, space, digit 0/1 for ColCyc, then end of the string

BUGS

SEE ALSO

SetColor

RGBToHSV

HSVToRGB

SetPalette

1.39 GetPicture

NAME

GetPicture

SYNOPSIS

GetPicture <Num>/A/N

FUNCTION

Gets the 'Num'th picture in the picture list, 'Num' starts at 0...

INPUT PARAMETERS

<Num>: number of the picture

RESULTS

RC:

5 ... fractal unknown

8 ... too few parameters

RESULT:

name of the <Num>th fractal

BUGS

SEE ALSO

GetActPicture

1.40 GetScreenDepth

NAME

GetScreenDepth

SYNOPSIS

GetScreenDepth

FUNCTION

Returns the depth of the fractalscreen in planes

INPUT PARAMETERS

RESULTS

RC:

always 0

Result:

depth of the screen

BUGS

SEE ALSO

1.41 HSVToRGB

NAME

HSVToRGB

SYNOPSIS

HSVToRGB <Hue>/A/N <Saturation>/A/N <Value>/A/N

FUNCTION

Converts HSV to RGB

INPUT PARAMETERS

<Hue> : Hue from 0 to 359

<Saturation> : Saturation from 0 to 255

<Value> : Value from 0 to 255

RESULTS

RC:

8 ... too few parameters

Result:

3 digits for red, space, 3 for green, space, 3 for blue, end

BUGS

SEE ALSO

GetColor

SetColor

RGBToHSV

SetPalette

1.42 IsTask

NAME

IsTask

SYNOPSIS

IsTask <Fractalname>/A

FUNCTION

Asks, whether the specified fractal is calculated (task available).

INPUT PARAMETERS

<Fractalname> : name of the fractal

RESULTS

RC:

0 ... fractal calculated

5 ... fractal not calculated, perhaps fractal even unknown

8 ... too few parameters

Result:

N.A.

BUGS

SEE ALSO

1.43 LoadAnimData

NAME

LoadAnimData

SYNOPSIS

LoadAnimData <Filename>/K

FUNCTION

Loads an AnimData file. If the name isn't specified, then a filerequester appears.

INPUT PARAMETERS

<Filename> : Name of an AnimData file.

RESULTS

RC:

5 ... error while loading

Result:

N.A.

BUGS

SEE ALSO

1.44 LoadPicData

NAME

LoadPicData <Name>/A

LoadPicData

SYNOPSIS

LoadPicData <Name>/A

LoadPicData

FUNCTION

Loads the data of a fractal picture and inserts it into the picture list at the right place. Base directory is the directory, from which the program was started, i.e. PROGDIR:

If <Name> isn't specified, then a filerequester appears. In this case 'Result' isn't defined (because you can load several files at once using filemultiselect)

INPUT PARAMETERS

<Name> : filename of the picture data to load

RESULTS

RC:

5 ... error

8 ... wrong number of parameters

Result:

name of the new fractal picture, if name was specified

BUGS

SEE ALSO

SavePicData

1.45 MakeNewUndo

NAME

MakeNewUndo

SYNOPSIS

MakeNewUndo <Fractalname>/A

FUNCTION

This command examines the parameters. If they differ from the last entry in the undo-list, then a new entry for this list is made. This command is useful, if you alter some parameters...

INPUT PARAMETERS

<Fractalname> : Name of the fractal

RESULTS

RC:

5 ... fractal unknown

8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

Undo

Redo

1.46 MakeProportional

NAME

Makeproportional

SYNOPSIS

Makeproportional <Fractalname>/A

FUNCTION

Corresponds to choosing the menuitem 'Proportional'. Alters the area values of the fractal, so that it doesn't occur distorted.

INPUT PARAMETERS

<Fractalname> : Name of the fractal

RESULTS

RC:

5 ... fractal unknwon

8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

1.47 Move

NAME

Move

SYNOPSIS

Move <Fractalname>/A <DeltaX>/A/N <DeltaY>/A/N

FUNCTION

Corresponds to choosing the menuitem 'Move', but here you can define the exact movement.

INPUT PARAMETERS

<Fractalname> : Name of the fractal
<DeltaX>, <DeltaY> : Movement in pixel

RESULTS

RC:

3 ... fractal not calculated
5 ... fractal unknown
8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

1.48 MoveAnimKey

NAME

MoveAnimKey

SYNOPSIS

MoveAnimKey <AnimKey> (UP/DOWN)/S

FUNCTION

Moves an AnimKey one position up or down

INPUT PARAMETERS

<AnimKey> : Name of an AnimKey

RESULTS

RC:

5 ... unknown AnimKey

Result:

N.A.

BUGS

SEE ALSO

1.49 OpenAnim1 und OpenAnim2

NAME

OpenAnim1

OpenAnim2

SYNOPSIS

OpenAnim1 <left>/A/N <top>/A/N <place>/A

OpenAnim2 <left>/A/N <top>/A/N <place>/A

FUNCTION

Opens the Animationwindow 1 or 2 at the specified position on the specified screen.

INPUT PARAMETERS

<left>,<top> - left top corner in the virtual coordinates system with the resolution of 10000x10000 pixel.

<Place> - specifies the screen, the window should open on:

0 - on the fractalscreen

1 - on the parameterscreen (eventually opened)

2 - on the workbench

3 - on the public screen, specified in the preferences program

negative values ==> use defaultvalues

RESULTS

RC:

3 ... window already open

8 ... wrong number of parameters

10 ... error, most likely not enough memory

Result:

N.A.

BUGS

SEE ALSO

CloseAnim1

CloseAnim2

1.50 OpenDataWindow

NAME

OpenDataWindow

SYNOPSIS

OpenDataWindow <Fractalname>/A <left>/A/N <top>/A/N <Place>/A/N

FUNCTION

Opens the datawindow for the fractal, if it's supported by the type.

INPUT PARAMETERS

<left>,<top> - left top corner in the virtual coordinates system with the resolution of 10000x10000 pixel.

<Place> - specifies the screen, the window should open on:
 0 - on the fractalscreen
 1 - on the parameterscreen (eventually opened)
 2 - on the workbench
 3 - on the public screen, specified in the preferences program

negative values ==> use defaultvalues

RESULTS

RC:

3 ... datawindow already open
 5 ... fractal unknown
 8 ... wrong number of parameters
 10 ... error, most likely not enough memory

Result:

N.A.

BUGS

SEE ALSO

CloseDataWindow

1.51 OpenPalette

NAME

OpenPalette

SYNOPSIS

OpenPalette <left>/A/N <top>/A/N <Place>/A/N

FUNCTION

Opens the palettewindow.

INPUT PARAMETERS

<left>,<top> - left top corner in the virtual coordinates system with the resolution of 10000x10000 pixel.

<Place> - specifies the screen, the window should open on:

- 0 - on the fractalscreen
- 1 - on the parameterscreen (eventually opened)
- 2 - on the workbench
- 3 - on the public screen, specified in the preferences program

negative values ==> use defaultvalues

RESULTS

RC:

- 3 ... palettewindow already open
- 8 ... wrong number of parameters
- 10 ... error, most likely not enough memory

Result:

N.A.

BUGS

SEE ALSO

ClosePalette

1.52 OpenPalWork

NAME

OpenPalWork

SYNOPSIS

```
OpenPalWork <CW:left> <CW:top> <PW:left> <PW:top> <PW:width> <PW:height>
           <FW:left> <FW:top> <FW:width> <FW:height>
```

FUNCTION

Opens the windows for editing the palette.

INPUT PARAMETERS

<CW:left>

<CW:top> - left top corner in the virtual coordinates system with the resolution of 10000x10000 pixel.

<PW:left>

<PW:top>

<PW:width>

<PW:height> - left top corner, width and height in the virtual coordinates system with the resolution of 10000x10000 pixel.

<FW:left>

<FW:top>

<FW:width>

<FW:height> - left top corner, width and height in the virtual coordinates system with the resolution of 10000x10000 pixel. Whether this window appears, depends of course on the ToolType COLORWHEEL. In addition to that the operation system must support the colorwheel (OS3.0 or higher).

negative values ==> use defaultvalues

RESULTS

RC:

3 ... palette editing windows already open
 8 ... wrong number of parameters
 10 ... error while opening windows

BUGS

SEE ALSO

ClosePalWork

1.53 OpenParm1Window

NAME

OpenParm1Window

SYNOPSIS

OpenParm1Window <Fractalname>/A <left>/A/N <top>/A/N <Place>/A/N

FUNCTION

Opens the parameterwindow 1 for the specified fractal.

INPUT PARAMETERS

<Fractalname> - Name of the fractal
 <left>,<top> - left top corner in the virtual coordinates system with the resolution of 10000x10000 pixel.
 <Place> - specifies the screen, the window should open on:
 0 - on the fractalscreen
 1 - on the parameterscreen (eventually opened)
 2 - on the workbench
 3 - on the public screen, specified in the preferences program

negative values ==> use defaultvalues

RESULTS

RC:

3 ... window already open
 5 ... fractal unknown
 8 ... wrong number of parameters
 10 ... error while opening windows

Result:

N.A.

BUGS

SEE ALSO

CloseParm1Window

1.54 OpenParm2Window

NAME

OpenParm2Window

SYNOPSIS

OpenParm2Window <Fractalname>/A <left>/A/N <top>/A/N <Place>/A/N

FUNCTION

Opens the parameterwindow 2 for the specified fractal.

INPUT PARAMETERS

<Fractalname> - Name of the fractal

<left>,<top> - left top corner in the virtual coordinates system with the resolution of 10000x10000 pixel.

<Place> - specifies the screen, the window should open on:

0 - on the fractalscreen

1 - on the parameterscreen (eventually opened)

2 - on the workbench

3 - on the public screen, specified in the preferences program

negative values ==> use defaultvalues

RESULTS

RC:

3 ... window already open

5 ... fractal unknown

8 ... wrong number of parameters

10 ... error while opening window

Result:

N.A.

BUGS

SEE ALSO

CloseParm2Window

1.55 OpenParm3Window

NAME

OpenParm3Window

SYNOPSIS

OpenParm3Window <Fractalname>/A <left>/A/N <top>/A/N <Place>/A/N

FUNCTION

Opens the parameterwindow 3 for the specified fractal.

INPUT PARAMETERS

<Fractalname> - Name of the fractal
 <left>,<top> - left top corner in the virtual coordinates system with the resolution of 10000x10000 pixel.
 <Place> - specifies the screen, the window should open on:
 0 - on the fractalscreen
 1 - on the parameterscreen (eventually opened)
 2 - on the workbench
 3 - on the public screen, specified in the preferences program

negative values ==> use defaultvalues

RESULTS

RC:

3 ... window already open
 5 ... fractal unknown
 8 ... wrong number of parameters
 10 ... error while opening window

Result:

N.A.

BUGS

SEE ALSO

CloseParm3Window

1.56 OpenParms3D1Window

NAME

OpenParms3D1Window

SYNOPSIS

OpenParms3D1Window <Fractalname>/A <left>/A/N <top>/A/N <Place>/A/N

FUNCTION

Opens the 3D-parameterwindow 1 for the specified fractal.

INPUT PARAMETERS

<Fractalname> - Name of the fractal
 <left>,<top> - left top corner in the virtual coordinates system with the resolution of 10000x10000 pixel.
 <Place> - specifies the screen, the window should open on:
 0 - on the fractalscreen
 1 - on the parameterscreen (eventually opened)
 2 - on the workbench
 3 - on the public screen, specified in the preferences program

negative values ==> use defaultvalues

RESULTS

RC:

```

3 ... window already open
5 ... fractal unknown
8 ... wrong number of parameters
10 ... error while opening window

```

Result:

N.A.

BUGS

SEE ALSO

CloseParms3D1Window

1.57 OpenParms3D2Window

NAME

OpenParms3D2Window

SYNOPSIS

OpenParms3D2Window <Fractalname>/A <left>/A/N <top>/A/N <Place>/A/N

FUNCTION

Opens the 3D-parameterwindow 2 for the specified fractal.

INPUT PARAMETERS

<Fractalname> - Name of the fractal
 <left>,<top> - left top corner in the virtual coordinates system with the resolution of 10000x10000 pixel.
 <Place> - specifies the screen, the window should open on:
 0 - on the fractalscreen
 1 - on the parameterscreen (eventually opened)
 2 - on the workbench
 3 - on the public screen, specified in the preferences program

negative values ==> use defaultvalues

RESULTS

RC:

```

3 ... window already open
5 ... fractal unknown
8 ... wrong number of parameters
10 ... error while opening window

```

Result:

N.A.

BUGS

SEE ALSO

CloseParms3D2Window

1.58 OpenParms3D3Window

NAME

OpenParms3D3Window

SYNOPSIS

OpenParms3D3Window <Fractalname>/A <left>/A/N <top>/A/N <Place>/A/N

FUNCTION

Opens the 3D-parameterwindow 3 for the specified fractal.

INPUT PARAMETERS

<Fractalname> - Name of the fractal

<left>,<top> - left top corner in the virtual coordinates system with the resolution of 10000x10000 pixel.

<Place> - specifies the screen, the window should open on:

0 - on the fractalscreen

1 - on the parameterscreen (eventually opened)

2 - on the workbench

3 - on the public screen, specified in the preferences program

negative values ==> use defaultvalues

RESULTS

RC:

3 ... window already open

5 ... fractal unknwon

8 ... wrong number of parameters

10 ... error while opening window

Result:

N.A.

BUGS

SEE ALSO

CloseParms3D3Window

1.59 OpenShowJulWindow

NAME

OpenShowJulWindow

SYNOPSIS

OpenShowJulWindow <Fractalname> <Left> <Top> <Place>

FUNCTION

See menuitem 'Set Juliaparameter'. Opens the window, in which you can choose a juliafractal, whose parametervalue will be displayed in the mandelbrotset.

INPUT PARAMETERS

<Fractalname> - Name of the fractal, must be a mandelbrot-fractal

<left>,<top> - left top corner in the virtual coordinates system with the resolution of 10000x10000 pixel.

<Place> - specifies the screen, the window should open on:
 0 - on the fractalscreen
 1 - on the parameterscreen (eventually opened)
 2 - on the workbench
 3 - on the public screen, specified in the preferences program

negative values ==> use defaultvalues

RESULTS

RC:

3 ... window already open
 4 ... fractal not calculated
 5 ... fractal unknown
 8 ... wrong number of parameters
 10 ... error while opening window

Result:

N.A.

BUGS

SEE ALSO

CloseShowJulWindow

SetShowJul

1.60 OpenShowLocWindow

NAME

OpenShowLocWindow

SYNOPSIS

OpenShowLocWindow <Fractalname> <Left> <Top> <Place>

FUNCTION

See menuitem 'Show position'. This command opens the window, in which you can choose a fractal, whose area values should be displayed in the fractal.

INPUT PARAMETERS

<Fractalname> - Name of the fractal
 <left>,<top> - left top corner in the virtual coordinates system with the resolution of 10000x10000 pixel.
 <Place> - specifies the screen, the window should open on:
 0 - on the fractalscreen
 1 - on the parameterscreen (eventually opened)
 2 - on the workbench
 3 - on the public screen, specified in the preferences program

negativ values ==> use defaultvalues

RESULTS


```
RC:
 3 ... window already open
 4 ... fraktal not calculated
 5 ... fractal unknown
 8 ... wrong number of parameters
10 ... error while opening window
```

```
Result:
  N.A.
```

```
BUGS
---
```

SEE ALSO

CloseShowLocWindow

SetShowLoc

1.61 OpenUserWindow

NAME

OpenUserWindow

SYNOPSIS

```
OpenUserWindow <WindowNum>/A <left>/A/N <top>/A/N <Place>/A/N
```

FUNCTION

Opens the user defined window with the specified number.

INPUT PARAMETERS

```
<WindowNum>    - number of the window
<Fractalname>  - name of the fractal
<left>,<top>    - left top corner in the virtual coordinates system with the reso-
                  lution of 10000x10000 pixel.
<Place>        - specifies the screen, the window should open on:
                  0 - on the fractalscreen
                  1 - on the parameterscreen (eventually opened)
                  2 - on the workbench
                  3 - on the public screen, specified in the preferences program
```

negative values ==> use defaultvalues

RESULTS

```
RC:
 3 ... window already open
 5 ... window with this number not available
 8 ... wrong number of parameters
10 ... error while opening window
```

```
Result:
  N.A.
```

```
BUGS
---
```

SEE ALSO

CloseUserWindow

1.62 Quit

NAME

Quit

SYNOPSIS

Quit <Force>/S

FUNCTION

Corresponds to choosing the menu item 'Quit', if <Force> is TRUE, then the program will quit in every case.

INPUT PARAMETERS

<Force> : Variable

RESULTS

RC:

0 ... Quit, ChaosPro runs not any more

5 ... not quitted, ChaosPro runs...

Result:

N.A.

BUGS

SEE ALSO

1.63 Recalc

NAME

Recalc

SYNOPSIS

Recalc <Fractalname> <Force>

FUNCTION

Corresponds to choosing the menu item 'Recalc'.

INPUT PARAMETERS

<Fractalname> : Name of the fractal

<Force> : non null ==> the whole fractal will be calced again

0 ==> the fractal will only be drawn again according to the buffer values

RESULTS

RC:

```

3 ... fractal not calculated
5 ... fractal unknown
8 ... wrong number of parameters
Result:
  N.A.

```

```

BUGS
---
```

```

SEE ALSO
---
```

1.64 Redo

NAME

Redo

SYNOPSIS

Redo <Fractalname>

FUNCTION

Undoes the last undo. Internally there's a list with all the changes made. With undo you step back through this list, with redo you step forward.

INPUT PARAMETERS

<Fractalname> : Name of the fractal

RESULTS

RC:

```

5 ... fractal unknwon
8 ... wrong number of parameters
Result:
  N.A.

```

```

BUGS
---
```

```

SEE ALSO
```

Undo

1.65 RefreshParms

NAME

RefreshParms

SYNOPSIS

RefreshParms <Fractalname> 3D1|3D2|3D3|PARM1|PARM2|PARM3|ALL

FUNCTION

Refreshes the parameters of the specified fractal in the specified window.

INPUT PARAMETERS

<Fractalname> : Name of the fractal

3D1, 3D2, 3D3,

PARM1, PARM2,

PARM3, ALL : keyword for the desired window (you may specify only one per call)

RESULTS

RC:

5 ... unknown keyword or unknown fractal

8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

SetAttr

1.66 RGBToHSV

NAME

RGBToHSV

SYNOPSIS

RGBToHSV <Red>/A/N <Green>/A/N <Blue>/A/N

FUNCTION

Converts RGB-values to HSV-values.

INPUT PARAMETERS

<Red> : Red from 0 to 255

<Green> : Green from 0 to 255

<Blue> : Blue from 0 to 255

RESULTS

RC:

8 ... too few parameters

Result:

3 digits for hue, space, 3 for saturation, space, 3 for value, end

BUGS

SEE ALSO

GetColor

SetColor

HSVToRGB

SetPalette

1.67 SaveAnimData

NAME

SaveAnimData

SYNOPSIS

SaveAnimData <Filename>/K

FUNCTION

Saves the AnimKeys in an AnimData file with the specified name. If the name isn't specified, then a filerequester appears.

INPUT PARAMETERS

<Filename> : Name of the AnimData file.

RESULTS

RC:

5 ... Error while saving

Result:

N.A.

BUGS

SEE ALSO

1.68 SavePicData

NAME

SavePicData

SYNOPSIS

SavePicData <Fractalname>

FUNCTION

Saves the data of a picture. A filerequester appears.

INPUT PARAMETERS

<Fractalname> : Name of the fractal

RESULTS

RC:

3 ... userabort in filerequester

5 ... fractal unknwon

8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

LoadPicData

1.69 SavePicture

NAME

SavePicture

SYNOPSIS

SavePicture <Fractalname> <NumPlanes> [<Filename>]

FUNCTION

Saves the fractal picture as an IFF-ILBM with the choosed planedepth. If NumPlanes contains an illegal value, then the program offers a requester, which asks for the desired planedepth. If both a 2D- and a 3D-fractal exist, then the program offers a requester, in which you make your choice. If you save the 3D-fractal, then NumPlanes has no effect. 3D-fractals are always saved in the screen depth. The parameter <Filename> is optional. If specified, then the fractal will be saved using the provided name, otherwise a filerequester appears.

INPUT PARAMETERS

<Fractalname> : Name of the fractal

<NumPlanes> : Number of planes, ranging from 3 to 8, additionally you may specify 24

<Filename> : Name of file to save

RESULTS

RC:

3 ... fractal not calculated

5 ... fractal unknwon

8 ... wrong number of parameters

Result:

N.A.

BUGS

The Routine 'SavePicture' of ChaosPro offers more possibilities, as example saving only a part of the fractal. But this possibility at this time isn't implemented.

SEE ALSO

1.70 SetAnimData

NAME

SetAnimData

SYNOPSIS

SetAnimData <Keyword> <Value>

FUNCTION

Sets the specified parameter to the specified value.

INPUT PARAMETERS

<Keyword> : Choose one of these:

WIDTH
HEIGHT
DEPTH
3DANIM
BUFFER
INTERPOLATION
SAVEMODE
STARTFRAME
ENDFRAME
3DBUFFER

<Value> : ...

RESULTS

RC:

3 ... animation gets calculated, no change possible.

Result:

N.A.

BUGS

SEE ALSO

1.71 SetAttr

NAME

SetAttr

SYNOPSIS

SetAttr <Fractalname> <AttrIdent> <Value> <NewUndo> <Update> <ForceNew>

FUNCTION

Sets the attribut to the new value specified by <Value>.

INPUT PARAMETERS

<Fractalname> : Name of the fractal

<AttrIdent> : Keyword for the attribute. For the possible keywords please refer to
GetAttr

.

<NewUndo> : TRUE means, that you can undo the change.

<Update> : TRUE means, that the values are immediatly actualized in the parameterwindows. Because the program can only update whole windows, this can take a long time, perhaps 1 second

<ForceNew> : TRUE means, that the fractal is calculated again immediatly in

order to reflect the changes of the parameter.

Hint:

If you want to change more parameters at a time, I recommend to set `NewUndo`, `Update` and `ForceNew` to `FALSE (=0)` and when you set the last parameter, then to set all of them to `TRUE`. The attribut identifiers are the same as with `GetAttr`. Refer to that command. Please notice, that some values are read only, and you can't alter them...

RESULTS

RC:

```
3 ... value is READ ONLY
5 ... fractal unknown
7 ... AttrIdent unknown
8 ... wrong number of parameters
```

Result:

N.A.

BUGS

SEE ALSO

`GetAttr`

1.72 SetColor

NAME

`SetColor`

SYNOPSIS

```
SetColor <Palettename> <colornumber> <red> <green> <blue> <colcyc>
```

FUNCTION

Sets the color `<ColNum>` of the palette `<PaletteName>` to the specified color. `<ColCyc>` defines, whether the color should take part on the colorcycling.

INPUT PARAMETERS

```
<Palettenname> : Name of the palette
<Farbnummer>   : color number from 4 to 255
<Red>
<Green>
<Blue>         : color components from 0 to 255
<ColCyc>       : 0 ==> color takes part at colorcycling, 1 ==> color doesn't take
                  part
```

RESULTS

RC:

```
3 ... color number, red, green or blue too small or too large
5 ... palette unknown
8 ... wrong number of parameters
```

Result:

N.A.

BUGS

SEE ALSO

GetColor

RGBToHSV

HSVToRGB

SetPalette

1.73 SetPalette

NAME

SetPalette

SYNOPSIS

SetPalette <Palettename> <coloroffset> <skip>

FUNCTION

Sets a new palette for the Fractalscreen. If the palettename doesn't exist, then the defaultpalette is used.

INPUT PARAMETERS

<coloroffset> : Specifies the first color to use from the palette

<Überspringen> : Let x be equal to <skip>. Then only every x-th color from the palette is used.

RESULTS

RC:

3 ... coloroffset or skip out of range (4-255, or 1 to 252)

8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

GetColor

SetColor

RGBToHSV

HSVToRGB

1.74 SetShowJul

NAME

SetShowJul

SYNOPSIS

SetShowJul <Fractalname> <fractal to show>

FUNCTION

If the ShowJul-window for the fractal <Fractalname> is open, then it shows the parameter of the specified julia-fractal.

INPUT PARAMETERS

<Fractalname> : Name of a fractal of type Mandelbrot.

<fractal to show> : Name of a fractal of type Julia, whose parameter should be displayed graphically inside the mandelbrot-fractal.

RESULTS

RC:

3 ... Mandelbrotfractal not calculated, or ShowJul-window not open.

4 ... fraktals don't match (one must be a Mandelbrot, the other a Juliaset)

5 ... one of the two fraktals is unknown

8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

OpenShowJulWindow

CloseShowJulWindow

1.75 SetShowLoc

NAME

SetShowLoc

SYNOPSIS

SetShowLoc <Fractalname> <fractal to show>

FUNCTION

If the ShowLoc-window for the fractal <Fractalname> is open, then it shows the area of the fractal <fractal to show> inside it.

INPUT PARAMETERS

<Fractalname> : Name of a fractal

<fractal to show> : Name of the fractal, whose area should be displayed. The two fractals must be of the same type.

RESULTS

RC:
4 ... fractals not of the same type
5 ... one of the two fractals is unknwon
8 ... wrong number of parameters
Result:
N.A.

BUGS

SEE ALSO

OpenShowLocWindow

CloseShowLocWindow

1.76 SetTaskPri

NAME
SetTaskPri

SYNOPSIS
SetTaskPri <TaskPri>

FUNCTION
Corresponds to choosing the menu item 'Taskpriority'. This function sets the priority of the mothertask to the specified value and after that the priorities of all of its subtasks to the priority <TaskPri> minus 1.

INPUT PARAMETERS
<TaskPri> : Taskpriority, value must be something between -10 and 10

RESULTS
RC:
5 ... <TaskPri> out of range
8 ... wrong number of parameters
Result:
N.A.

BUGS

SEE ALSO

1.77 SetToDefault

NAME
SetToDefault

SYNOPSIS

SetToDefault <Fractalname>

FUNCTION

Corresponds to choosing the menuitem 'Data to default'. Sets all data of the fractal to the standard values (stored in the program).

INPUT PARAMETERS

<Fractalname> : Name of the fractal

RESULTS

RC:

5 ... fractal unknown
8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

1.78 ShowHelp

NAME

ShowHelp

SYNOPSIS

ShowHelp <Topic>

FUNCTION

Displays the help-text correspondig to the topic in the amigaguide-window, which is eventually opened, if closed.

INPUT PARAMETERS

<Topic> : Keyword for the topic, if unknown, then the content will be shown (Node MAIN).

'Topic' may contain any of the following strings:

Topicindicator	Contents
Animation	animationwindows
Author	author
Bifurk_Data	bifurcationdiagrams, datawindow
Bifurk_Parm1	bifurcationdiagrams, window 1
Bifurk_Theory	bifurcationdiagrams, theory
Dims_Intro	3D-view, introduction
Dims_Parm1	3D-view, window 1
Dims_Parm2	3D-view, window 2
Dims_Parm3	3D-view, window 3
DSyst_Parm1	dynamic systems, window 1
DSyst_Parm2	dynamic systems, window 2
DSyst_Theory	dynamic systems, theory
Fractals	2D/3D-fractalwindows

Index	index
Installation	installation
JulMand_Data	julia- and mandelbrotsets, datawindow
JulMand_Formula	julia- and mandelbrotsets, formula-editor
JulMand_Parm1	julia- and mandelbrotsets, window 1
JulMand_Parm2	julia- and mandelbrotsets, window 2
JulMand_Parm3	julia- and mandelbrotsets, window 3
JulTheory	juliasets, theory
Lyap_Data	lyapunov-space, datawindow
Lyap_Parm1	lyapunov-space, window 1
Lyap_Theory	lyapunov-space, theory
MAIN	table of contents
MandTheory	mandelbrotsets, theory
Menu_Extras	menus/extras
Menu_Fractal	menus/fractal
Menu_Fractalwindows	menus/fractalwindows
Menu_System	menus/project
Menu_UserMenu	user defined menu
Menu_Windows	menus/windows
Others	others worth mentioning
Palette	colorpalettes
PalWork	palette-editing
Pictask	PicTask-window
Plasma_Parm1	plasma, window 1
Plasma_Theory	plasma, theory
Preface	preface
Preferences	preferencesprogram
Problems	some problems
ProgDirs	program directories and their contents
Reasons	Why should I use this program?
Requirements	requirements
Rights	legal stuff
ToolTypes	tooltypes
Userwindows	user defined window

RESULTS

RC:

always 0

Result:

N.A.

BUGS

SEE ALSO

1.79 StartAnim

NAME

StartAnim

SYNOPSIS

StartAnim <Filename>

FUNCTION

Starts the calculation of an animation. The filename can be specified. Otherwise a filerequester appears.

INPUT PARAMETERS

<Filename> : name, which should be used for the animation

RESULTS**RC:**

5 ... error, either 'Abort' chosen in filerequester, too few AnimKeys or too few memory etc.

Result:

N.A.

BUGS

SEE ALSO

1.80 StopCalc

NAME

StopCalc

SYNOPSIS

StopCalc <Fractalname>

FUNCTION

Stops the calculation of the fractal

INPUT PARAMETERS

<Fractalname> : Name of the fractal, whose calculation should be stopped. If not specified, then, every calculation of any fractal will be stopped.

RESULTS**RC:**

5 ... unknown fractal

Result:

N.A.

BUGS

SEE ALSO

ContinueCalc

1.81 SystemInfo

NAME

SystemInfo

SYNOPSIS

SystemInfo

FUNCTION

Corresponds to choosing the menu item 'SystemInfo'. Shows some information about the current system.

INPUT PARAMETERS

RESULTS

RC:

always 0

Result:

N.A.

BUGS

SEE ALSO

1.82 TestProgress

NAME

TestProgress

SYNOPSIS

TestProgress <Fractalname>/A

FUNCTION

Checks, whether the fractal calculation is finished or not.

INPUT PARAMETERS

<Fractalname> : Name of the fractal to check

RESULTSE

RC:

0 ... Fractal calculation is finished

3 ... Fractal is still being calculated

5 ... Fractal task not available or fractal unknown

8 ... too few parameters

Result:

not defined

BUGS

SEE ALSO

1.83 TimeUnit

NAME

TimeUnit

SYNOPSIS

TimeUnit SET <Unit>/N/A

TimeUnit SETNORM <Unit>/N/A

TimeUnit GET

FUNCTION

Sets or returns the time unit.

SET effects, that only the time unit changes. This doesn't affect the animation. It only recalculates the times of the animation.

SETNORM changes the time unit. Now all times stay fixed. For this to work, of course the number of frames have to be changed. So if you want to smooth the animation, you should half the time unit, so all frame numbers are doubled.

GET returns the actual time unit.

INPUT PARAMETERS

<Unit> : the time unit

RESULTS

RC:

8 ... wrong number of parameters

Result:

if GET was chosen, the time unit

BUGS

SEE ALSO

1.84 Undo

NAME

Undo

SYNOPSIS

Undo <Fractalname>

FUNCTION

Undoes the last change. Internally there's a list with all the changes made. With 'Undo' you step back through this list, with 'Redo' you step forward.

INPUT PARAMETERS

<Fractalname> : Name of the fractal

RESULTS

RC:

5 ... fractal unknwon

8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

Redo

1.85 WindowFallback

NAME

Windowfallback

SYNOPSIS

Windowfallback <ScreenID> <Window> <left> <top> <Num> <Fractalname>

FUNCTION

Closes the window and opens it again on the screen defined by the <ScreenID>.

INPUT PARAMETERS

<Window> may contain any of the following strings:

PicTask	Palette	Anim1	Anim2
User	Parm1	Parm2	Parm3
Data	ShowLoc	ShowJul	Parm3D1
Parm3D2	Parm3D3	Formula	CycleControl

<Num> : Only needed, if <Window>=User. In this case <Num> specifies the number of the user defined window.

<Fractalname> : Must be specified, if <Window> = Parm1, Parm2, Parm3, Data, ShowLoc, ShowJul, Parm3D1, Parm3D2 or Parm3D3.

<left>,<top> : left top corner in the virtual coordinates system with the resolution of 10000x10000 pixel.
Negative values ==> use defaultvalues

<ScreenID> : specifies the screen, the window should open on:

- 0 - on the fractalscreen
- 1 - on the parameterscreen (eventually opened)
- 2 - on the workbench
- 3 - on the public screen, specified in the preferences program

RESULTS

RC:

5 ... fractal unknown or <Window> unknown

8 ... wrong number of parameters, or <Window> unknown

Result:

N.A.

BUGS

The errors can be somehow confusing under some circumstances. If <Window> is unequal to PicTask, Palette, Anim1, Anim2 and User, then the program thinks, that a fractal must be specified. If no additional parameter is specified, then the routine returns RC=8, for example the following call:

```
WindowFallback 2 "PALETTEN" 5000 5000
```

PALETTEN is a slight mistake, should be PALETTE, but the program says 'not enough parameters' (?) ...

SEE ALSO

1.86 Windowtype

NAME

WindowType

SYNOPSIS

WindowType <Fractalname> <Backdrop>

FUNCTION

Specifies the windowtype. <Backdrop> determines, whether is should be a backdrop-window.

INPUT PARAMETERS

<Fractalname> : Name of the fractal

<Backdrop> : 1 ==> window should be a backdropwindow, 0 ==> window should be a normal window with border, sizegadget, etc.

RESULTS

RC:

3 ... fractal not calculated

5 ... fractal unknown

8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO

1.87 Zoom

NAME

Zoom

SYNOPSIS

Zoom <Fractalname> <PosX> <PosY> <Faktor> <Frames>

FUNCTION

This command makes the same as a double click onto a place of the window.

INPUT PARAMETERS

<Fractalname> : Name of the fractal

<PosX>

<PosY> : Specify the place in the virtual coordinates system of the size 10000x10000 , i.e. PosX=5000, PosY=5000 means the mid of the window, independent of the actual size of the window.

<Faktor> : Specifies the zooming factor, greater than 1 means zoom in, values between 0 and 1 zoom out. The maximum and minimum for this value are 0.5 and 2. Values, which exceeds this range, are brought to the nearest extremevalue.

<Frames> : Specifies, how often the content of the window is scaled. Minimum is 0, maximum is 20.

RESULTS

RC:

3 ... fractal not calculated
5 ... fractal unknown
8 ... wrong number of parameters

Result:

N.A.

BUGS

SEE ALSO
