

# **Arexx**

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**COLLABORATORS**

|               |                         |                 |                  |
|---------------|-------------------------|-----------------|------------------|
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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'  <- choicenumber, 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        | - read only, specifies the size of the 2D-window  |
| 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 - biomorphtype: '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  
  
 HLIGHTANGLE  
 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 &lt;Palettename&gt;/A &lt;colornum&gt;/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 unknown
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>

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.

INPUT PARAMETERS

<Fractalname> : Name of the fractal

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

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 attribute 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:

| Topicidentifier | 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 &lt;Filename&gt;

## 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 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

---

## 1.83 Undo

NAME

Undo

SYNOPSIS

Undo &lt;Fractalname&gt;

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

&lt;Fractalname&gt; : Name of the fractal

RESULTS

RC:

5 ... fractal unknwon

8 ... wrong number of parameters

Result:

N.A.

BUGS

---

SEE ALSO

Redo

## 1.84 WindowFallback

NAME

Windowfallback

SYNOPSIS

Windowfallback &lt;ScreenID&gt; &lt;Window&gt; &lt;left&gt; &lt;top&gt; &lt;Num&gt; &lt;Fractalname&gt;

FUNCTION

Closes the window and opens it again on the screen defined by the &lt;ScreenID&gt;.

INPUT PARAMETERS

&lt;Window&gt; 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

---

## 1.85 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

---

## 1.86 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

---