

# **Arexx**

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<b>COLLABORATORS</b>
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	<i>TITLE :</i> 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:

About	GetActPicture	Recalc
AddFractal	GetAttr	Redo
BoxZoom	GetColor	RefreshParms
CalcFract	GetPicture	RGBToHSV
ChangeFractName	GetScreenDepth	SavePicData
ChangePaletteName	HSVToRGB	SavePicture
ChoiceRequest	IsTask	SetAttr
CloseAnim1	LoadPicData	SetColor
CloseAnim2	MakeNewUndo	SetPalette
CloseDataWindow	MakeProportional	SetShowJul
ClosePalette	Move	SetShowLoc
ClosePalWork	OpenAnim1	SetTaskPri
CloseParm1	OpenAnim2	SetToDefault
CloseParm2	OpenDataWindow	ShowHelp
CloseParm3	OpenPalette	StopCalc
CloseParms3D1	OpenPalWork	SystemInfo
CloseParms3D2	OpenParm1Window	Undo
CloseParms3D3	OpenParm2Window	WindowFallback
CloseShowJulWindow	OpenParm3Window	WindowType
CloseShowLocWindow	OpenParms3D1Window	Zoom
CloseUserWindow	OpenParms3D2Window	
Colorcycling	OpenParms3D3Window	
ContinueCalc	OpenShowJulWindow	
DelCalced	OpenShowLocWindow	
DelPicture	OpenUserWindow	
DupPicture	Quit	

## 1.2 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  
---

## 1.3 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

---

---

## 1.4 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

---

## 1.5 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

## 1.6 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

---

## 1.7 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

---

## 1.8 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 '\\', makeing it impossible to start a new line in the body.

#### SEE ALSO

---

## 1.9 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

## 1.10 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

## 1.11 ClosePalette

## NAME

ClosePalette

## SYNOPSIS

ClosePalette

## FUNCTION

Closes the palettewindow.

## INPUT PARAMETERS

---

## RESULTS

RC:

3 ... window already closed

Result:

N.A.

## BUGS

---

## SEE ALSO

OpenPalette

---

## 1.12 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

## 1.13 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

---

## 1.14 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

## 1.15 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

## 1.16 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

## 1.17 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

---

## 1.18 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

## 1.19 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

## 1.20 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

## 1.21 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

## 1.22 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

---

## 1.23 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

## 1.24 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

---

## 1.25 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

## 1.26 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

## 1.27 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

## 1.28 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 IEEEFP-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 Lorenzattractor, 1 means Roesslerattractor

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

## 1.29 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

## 1.30 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

## 1.31 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

---

---

## 1.32 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

## 1.33 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

---

## 1.34 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

## 1.35 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

## 1.36 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 unknown

8 ... wrong number of parameters

Result:

N.A.

BUGS

---

SEE ALSO

---

## 1.37 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**

---

## 1.38 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

## 1.39 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

## 1.40 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

## 1.41 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

## 1.42 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

## 1.43 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

## 1.44 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

## 1.45 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

## 1.46 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

## 1.47 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 unknown  
8 ... wrong number of parameters  
10 ... error while opening window

## Result:

N.A.

## BUGS

---

## SEE ALSO

CloseParms3D3Window

## 1.48 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

## 1.49 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

## 1.50 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 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 ... window with this number not available
- 8 ... wrong number of parameters
- 10 ... error while opening window

Result:

N.A.

BUGS  
---

SEE ALSO  
CloseUserWindow

## 1.51 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**

---

## 1.52 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**

---

## 1.53 Redo

---

## NAME

Redo

## SYNOPSIS

Redo &lt;Fractalname&gt;

## 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

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

## RESULTS

RC:

5 ... fractal unknown

8 ... wrong number of parameters

Result:

N.A.

## BUGS

---

## SEE ALSO

Undo

## 1.54 RefreshParms

## NAME

RefreshParms

## SYNOPSIS

RefreshParms &lt;Fractalname&gt; 3D1|3D2|3D3|PARM1|PARM2|PARM3|ALL

## FUNCTION

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

## INPUT PARAMETERS

&lt;Fractalname&gt; : 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

## 1.55 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

## 1.56 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 unknowon
8 ... wrong number of parameters
Result:
  N.A.
```

BUGS  
---

SEE ALSO  
LoadPicData

## 1.57 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 unknowon  
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  
---

## 1.58 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

## 1.59 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

## 1.60 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

---

## 1.61 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

## 1.62 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 unknown

```
8 ... wrong number of parameters
Result:
N.A.
```

```
BUGS
---
```

```
SEE ALSO
OpenShowLocWindow
CloseShowLocWindow
```

## 1.63 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
---
```

## 1.64 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

---

## 1.65 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:

Topicidentificator	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

---

## 1.66 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

## 1.67 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

---

## 1.68 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 unknown

8 ... wrong number of parameters

Result:

N.A.

## BUGS

---

## SEE ALSO

Redo

## 1.69 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**

---

## 1.70 Windowtype

**NAME**

WindowType

**SYNOPSIS**

WindowType <Fractalname> <Backdrop>

**FUNCTION**

Specifies the windowtype. <Backdrop> determines, whether it 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**

---

## 1.71 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

---

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