Arexx

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COLLABORATORS

	TITLE : Arexx		
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Contents

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:

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About
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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 <Fracalname>/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, separararated 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 '\', makeing 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 IEEESP-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 multiplicator 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      - multiplicator 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 colormultiplicator
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        - multiplicators

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       - multiplicator for the depth
EXTBUFFER      - additional buffer

RESULTS
RC:
 5 ... fractal unknwon
 7 ... AttrIdent unknown
 8 ... too few parameters
Result:
 actual parameter value


BUGS
---


SEE ALSO
SetAttr
```

1.38 GetColor

```
NAME
GetColor

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

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

INPUT PARAMETERS
<Palettename>: name of the palette
<colornum>: color number

RESULTS
RC:
 5 ... palette unknwon
 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 unknwon
 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 re-
                 solution 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 re-
                 solution 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 re-
                 solution 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 re-
                  solution 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 re-
                 solution 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 re-
                 solution 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 re-
                 solution 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 re-
                 solution 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 re-
                 solution 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 re-
                 solution 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 re-
                 solution 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 re-
                 solution 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 pro-
gram will quit in every case.

INPUT PARAMETERS
<Force> : Variable

RESULTS
RC:
 0 ... Quit, ChaosPro runs not any more
 5 ... not quitted, ChaosPro runs...
Result:
 N.A.

BUGS
---

SEE ALSO
---
```

1.63 Recalc

```
NAME
Recalc

SYNOPSIS
Recalc <Fractalname> <Force>

FUNCTION
Corresponds to choosing the menu item 'Recalc'.

INPUT PARAMETERS
<Fractalname>  : Name of the fractal
<Force>        : non null ==> the whole fractal will be calced again
                 0        ==> the fractal will only be drawn again according to
                 the buffer values

RESULTS
RC:
 3 ... fractal not calculated
 5 ... fractal unknown
 8 ... wrong number of parameters
```

Result:
 N.A.

BUGS

SEE ALSO

1.64   Redo

NAME
Redo

SYNOPSIS
Redo <Fractalname>

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

INPUT PARAMETERS
<Fractalname> : Name of the fractal

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

BUGS

SEE ALSO
Undo

1.65   RefreshParms

NAME
RefreshParms

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

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

INPUT PARAMETERS
<Fractalname> : Name of the fractal
3D1, 3D2, 3D3,
PARM1, PARM2,

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

RESULTS
RC:
```
 5 ... unknown keyword or unknown fractal
 8 ... wrong number of parameters
```
Result:
```
 N.A.
```

BUGS

SEE ALSO
SetAttr

1.66 RGBToHSV

NAME
RGBToHSV

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

FUNCTION
Converts RGB-values to HSV-values.

INPUT PARAMETERS
```
<Red>   :  Red  from 0 to 255
<Green> : Green from 0 to 255
<Blue>  : Blue from 0 to 255
```

RESULTS
RC:
```
 8 ... too few parameters
```
Result:
```
 3 digits for hue, space, 3 for saturation, space, 3 for value, end
```

BUGS

SEE ALSO

GetColor
SetColor
HSVToRGB
SetPalette

1.67 SaveAnimData

NAME
SaveAnimData

```
SYNOPSIS
SaveAnimData <Filename>/K

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

INPUT PARAMETERS
<Filename>  : Name of the AnimData file.

RESULTS
RC:
 5 ... Error while saving
Result:
   N.A.

BUGS
---

SEE ALSO
---
```

1.68 SavePicData

```
NAME
SavePicData

SYNOPSIS
SavePicData <Fractalname>

FUNCTION
Saves the data of a picture. A filerequester appears.

INPUT PARAMETERS
<Fractalname> : Name of the fractal

RESULTS
RC:
 3 ... userabort in filerequester
 5 ... fractal unknwon
 8 ... wrong number of parameters
Result:
 N.A.

BUGS
---

SEE ALSO
LoadPicData
```

1.69 SavePicture

```
NAME
SavePicture

SYNOPSIS
SavePicture <Fractalname> <NumPlanes>

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 Num-
Planes 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 para-
                meterwindows. 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 identificators 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:

```
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

1.79   StartAnim

```
NAME
StartAnim

SYNOPSIS
StartAnim <Filename>

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

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

RESULTS
RC:
 5 ... error, either 'Abort' chosen in filerequester, too few AnimKeys or
       too few memory etc.
Result:
  N.A.
```

BUGS

SEE ALSO

1.80   StopCalc

```
NAME
StopCalc

SYNOPSIS
StopCalc <Fractalname>

FUNCTION
Stops the calculation of the fractal

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

```
           stopped.
```

RESULTS
RC:
 5 ... unknown fractal
Result:
 N.A.

BUGS

SEE ALSO
ContinueCalc

1.81 SystemInfo

NAME
SystemInfo

SYNOPSIS
SystemInfo

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

INPUT PARAMETERS

RESULTS
RC:
 always 0
Result:
 N.A.

BUGS

SEE ALSO

1.82 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 <Fractalname>

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

INPUT PARAMETERS
<Fractalname> : Name of the fractal

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

BUGS

SEE ALSO
Redo

1.84 WindowFallback

```
NAME
Windowfallback

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

FUNCTION
Closes the window and opens it again on the scren defined by the <SceenID>.

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 un-
equal 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