

FM_ARexx

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Chapter 1

FM_ARexx

1.1 Welcome

Welcome to the world of FlashMandel-ARexx!

This guide supports you to write arexx-scripts for FlashMandelWOS. Please notice, that on the following pages only the special features of the FlashMandelWOS-arexx are explained. If you are not familiar with the basic arexx-syntax, please refer the arexx-manual distributed with the most Amiga-computers (or something like that ;-)).

general general informations for writing scripts for FlashMandelWOS.

commands list of all commands implemented in FlashMandelWOS.

examples the example-scripts.

problems when arexx refuses to work.

1.2 general informations

General informations to FlashMandelWOS-arexx:

* Where to store the scripts

The standard-path is "FLASHMANDEL:arexx". It is easier for you, when you store all script into this drawer.

* The hostname

The hostname is allways spelled like this: FLASHMANDEL.n, The first launched process has n = 1, the second n = 2 and so on...

* How to launch a script

There are several possibilities for this:

1. Of course you can start a script by typing it into a shell. For example:

```
> rx FLASHMANDEL:arexx/test.rexx FLASHMANDEL.1
```

2. You can choose the menu-item "ARexx/Launch...". After this a asl-filerequester appears, where you can click onto the script you want to start.

3. You can create a sub-item in the arexx-menu by using the icon-tooltypes. The first should have the name REXXCMD.1, the next

REXXCMD.2 and so on...

There is no limit to the number of menu-items - only the limits of the AmigaOS.

IMPORTANT:

Every script started from FlashMandelWOS, gets the actual arexx-hostname as the first argument. So you can always set the correct

hostname, if you have started FlashMandelWOS several times.

* If there is a special arexx-script named "FLASHMANDEL:arexx/startup.rexx", it will be launched at starttime of FlashMandelWOS.

Usefull to configure FlashMandelWOS or for playing a background-sound or ...

1.3 problems

Problems with FlashMandelWOS-arexx:

* FlashMandelWOS uses the reaction-arexx-class. Because of this you need AmigaOS 3.5+ to use this functionality - sorry.

It is not planned to support lower versions,

But: Why not updating your system - with OS 3.5+ you will have a modern reaction-GUI as well!

* No more known problems.

1.4 examples

Examples distributed with FlashMandelWOS:

* PlayMovie.rexx:

Just makes some zooms into your actual picture.

* RunningColor.rexx:

Shows you, how to manipulate the palette. It just moves a color through the palette.

* SaveAnim.rexx:

Makes 10 zooms into your actual picture and saves it as an IFF-animation. Path can be choosed using an asl-requester.

* startup.rexx:

example-statup-script for FlashMandelWOS. Will be executed at starttime and plays the welcome sound.

* StopSound.rexx:

Just stops playing a sound.

* Test_ARExx.rexx:

Here you can find example-code for all arexx-commands implemented in FlashMandelWOS. If you want to test a command, you have to set

the "IF 0"-line to "IF 1".

1.5 Welcome

Here is a list of all arexx-commands implemented in FlashMandelWOS:

Project-commands:

ABOUT Open about-requester.

SYSINFO Open system-info-requester.

HELP Open help-guide.

LOAD_PICTURE Load a picture.

SAVE_PICTURE Save a picture.

LOAD_PALETTE Load a palette.

SAVE_PALETTE Save a palette.

PRINT Print picture.

QUIT Quit FlashMandelWOS

Options-commands:

SHOW_TITLE Toggle screen-title.

SHOW_ELAPSED Show elapsed time.

SET_COORDINATES Set complex-coordinates.

GET_COORDINATES Get complex-coordinates.

SET_ITERATIONS Set number of iterations.

GET_ITERATIONS Get number of iterations.

SET_POWER Set power-parameter.

GET_POWER Get power-parameter.

SET_PRIORITY Set task-priority.

GET_PRIORITY Get task-priority.

SET_COLOR_REMAP Set color-remap-method.

GET_COLOR_REMAP Get color-remap-method.

SET_FRACTAL_TYPE Set fractal-type (Julia/Mandelbrot).

GET_FRACTAL_TYPE Get fractal-type (Julia/Mandelbrot).

SET_CPU_TYPE Set cpu-type (68k/PPC)

GET_CPU_TYPE Get cpu-time (68k/PPC)

calculation-commands:

SHOW_PREVIEW Open preview-window.

RENDER Render fractal.

UNDO Undo last changes.

SET_FRAME Set zoom-frame.

GET_FRAME Get zoom-frame.

video-commands:

ZOOM Zoom into the picture.

DO_COLORCYCLING Start color-cycling.

SET_DELAY Set delay-time for color-cycling.

GET_DELAY Get delay-time for color-cycling.

SET_PALETTE Set screen-palette.

GET_PALETTE Get screen-palette.

SET_SCREENATTRS Set screen-attributes.

GET_SCREENATTRS Get screen-attributes.

SET_FONT Set screen-font.

GET_FONT Get screen-font.

misc-commands:

START_TIMER Start timer.

STOP_TIMER Stop timer.

PLAY_SOUND Play a datatype-sound.

STOP_SOUND Stop sound.

1.6 arexx-command ABOUT

NAME

ABOUT - open about-requester.

SYNOPSIS

"ABOUT"

FUNCTION

Opens the about-requester, just like choosing the 'About...'-menu-item. Must be closed by clicking the 'OK'-button.

INPUTS

-

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

-

EXAMPLE

"ABOUT"

BUGS

-

1.7 arexx-command SYSINFO

NAME

SYSINFO - open system-info-requester.

SYNOPSIS

"SYSINFO"

FUNCTION

Opens the system-info-requester, just like choosing the 'System info...' -menu-item. Must be closed by clicking the 'OK' -button.

INPUTS

-

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

-

EXAMPLE

"SYSINFO"

BUGS

-

1.8 arexx-command HELP

NAME

HELP - open help-guide.

SYNOPSIS

"HELP"

FUNCTION

Opens the help-guide, just like choosing the 'Help...' -menu-item.

INPUTS

-

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

-

EXAMPLE

"HELP"

IF RC THEN SAY "Can't open help-guide!"

BUGS

-

1.9 arexx-command LOAD_PICTURE

NAME

LOAD_PICTURE - load a FlashMandelWOS-picture.

SYNOPSIS

"LOAD_PICTURE"

"LOAD_PICTURE" "PATH,FAST/S"

FUNCTION

Loads an FlashMandelWOS-Picture into the program, If you call this command without any parameter, it will behave like choosing the menu-item "Load Picture...".

INPUTS

PATH:

path of the desired FlashMandelWOS-picture.

FAST:

If specified, the picture will be loaded as fast as possible, this means no fading.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

SAVE_PICTURE

EXAMPLE

"LOAD_PICTURE" "FLASHMANDEL:Pictures/Mandelbrot_def.iff" "FAST"

IF RC THEN SAY "Can't open picture:" ErrorText(RC2)

BUGS

-

1.10 arexx-command SAVE_PICTURE

NAME

SAVE_PICTURE - save a FlashMandelWOS-picture.

SYNOPSIS

"SAVE_PICTURE"

"SAVE_PICTURE" "PATH,FORCE/S"

FUNCTION

Save an FlashMandelWOS-picture, If you call this command without any parameter, it will behave like choosing

the menu-item "Save Picture...".

INPUTS

PATH:

desired path to save the FlashMandelWOS-picture.

FORCE:

If specified, the picture will be saved, even if the specified filename already exists,

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

LOAD_PICTURE

EXAMPLE

```
"SAVE_PICTURE" "FLASHMANDEL:Pictures/Mandelbrot_test.iff" "FORCE"
```

```
IF RC THEN SAY "Can't save picture:" ErrorText(RC2)
```

BUGS

-

1.11 arexx-command **LOAD_PALETTE**

NAME

LOAD_PALETTE - load a FlashMandelWOS-palette.

SYNOPSIS

```
"LOAD_PALETTE"
```

```
"LOAD_PALETTE" "PATH,FAST/S"
```

FUNCTION

Loads a FlashMandelWOS-palette into the program, If you call this command without any parameter, it will behave like choosing the menu-item "Load Palette...".

INPUTS

PATH:

path of the desired FlashMandelWOS-palette.

FAST:

If specified, the palette will be loaded as fast as possible, this means no fading.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

SAVE_PALETTE

EXAMPLE

"LOAD_PALETTE" "FLASHMANDEL:Palettes/Palette_def.256" "FAST"

IF RC THEN SAY "Can't load palette:" ErrorText(RC2)

BUGS

-

1.12 arexx-command **SAVE_PALETTE**

NAME

SAVE_PALETTE - save a FlashMandelWOS-palette.

SYNOPSIS

"SAVE_PALETTE"

"SAVE_PALETTE" "PATH,FORCE/S"

FUNCTION

Save an FlashMandelWOS-palette, If you call this command without any parameter, it will behave like choosing the menu-item "Save Palette...".

INPUTS

PATH:

desired path to save the FlashMandelWOS-palette.

FORCE:

If specified, the picture will be saved, even if the specified filename already exists,

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

LOAD_PALETTE

EXAMPLE

"SAVE_PALETTE" "FLASHMANDEL:Palettes/Palette_test.256" "FORCE"

IF RC THEN SAY "Can't save palette:" ErrorText(RC2)

BUGS

-

1.13 arexx-command PRINT

NAME

PRINT - print FlashMandelWOS-picture.

SYNOPSIS

"PRINT" "FORCE/S"

FUNCTION

prints the actual picture on your printer.

INPUTS

FORCE:

If specified, the picture will be printed immediately without any questions.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

-

EXAMPLE

"PRINT" "FORCE"

IF RC = 5 THEN SAY "User-aborted"

BUGS

-

1.14 arexx-command QUIT

NAME

QUIT - quit FlashMandelWOS.

SYNOPSIS

"QUIT" "FORCE/S,FAST/S"

FUNCTION

When calling this command, FlashMandelWOS will quit.

INPUTS

FORCE:

If specified, FlashMandelWOS will quit without any questions.

FAST:

If specified, the command will be executed as fast as possible, this means no fading.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

-

EXAMPLE

"QUIT" "FORCE"

BUGS

FAST-parameter has no effect.

1.15 arexx-command SHOW_TITLE

NAME

SHOW_TITLE - turn screen-title on/off.

SYNOPSIS

"SHOW_TITLE" "BOOLEAN/A/N"

FUNCTION

Specify, if the screen-title should be visible or not.

INPUTS

BOOLEAN:

0 = Hide screen-title.

1 = Show screen-title.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

-

EXAMPLE

"SHOW_TITLE" "0"

BUGS

-

1.16 arexx-command SHOW_ELAPSED

NAME

SHOW_ELAPSED - show elapsed time.

SYNOPSIS

"SHOW_ELAPSED"

FUNCTION

Show needed time for the last calculation in the screen title.

INPUTS

-

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

-

EXAMPLE

"SHOW_ELAPSED"

BUGS

-

1.17 arexx-command SET_COORDINATES

NAME

SET_COORDINATES - set the limits.

SYNOPSIS

"SET_COORDINATES"

"SET_COORDINATES" "STEM"

FUNCTION

Set the limits for calculations. If you call this command without any parameter, it behaves just like choosing the menu-item "Limits...".

INPUTS

STEM:

Name of the stem-variable, which contains all needed data.

Following extensions are defined:

.RMIN: Left complex-coordinate.

.RMAX: Right complex-coordinate.

.IMIN: Bottom complex-coordinate.

.IMAX: Top complex-coordinate.

.JKRE: Julia-real constant.

.JKIM: Julia-imag constant.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

This command only sets the parameter. If it should take effect to your display, you have to call the command **RENDER** afterwards.

SEE ALSO

GET_COORDINATES

EXAMPLE

COORD.RMIN = -2.0

COORD.RMAX = +1.2

COORD.IMIN = -1.2

COORD.IMAX = +1.2

COORD.JKRE = -0.72

COORD.JKIM = -0.26

"SET_COORDINATES" "COORD"

IF RC THEN SAY "Can't set coordinates:" ErrorText(RC2)

BUGS

-

1.18 arexx-command GET_COORDINATES

NAME

GET_COORDINATES - get the limits.

SYNOPSIS

"GET_COORDINATES" "STEM/A"

FUNCTION

Get the limits for calculations.

INPUTS

STEM:

Name of the stem-variable, which will contain all coordinates.

Following extensions are defined:

.RMIN: Left complex-coordinate.

.RMAX: Right complex-coordinate.

.IMIN: Bottom complex-coordinate.

.IMAX: Top complex-coordinate.

.JKRE: Julia-real constant.

.JKIM: Julia-imag constant.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

SET_COORDINATES

EXAMPLE

```
'GET_COORDINATES' 'COORDS'
```

```
IF RC THEN SAY "Can't get coordinates:" ErrorText(RC2)
```

```
ELSE DO
```

```
SAY "RMIN: " COORDS.RMIN; /* Left */
```

```
SAY "RMAX: " COORDS.RMAX; /* Right */
```

```
SAY "IMIN: " COORDS.IMIN; /* Bottom */
```

```
SAY "IMAX: " COORDS.IMAX; /* Top */
```

```
SAY "JKRE: " COORDS.JKRE; /* Julia Real */
```

```
SAY "JKIM: " COORDS.JKIM; /* Julia Imag */
```

```
END
```

BUGS

-

1.19 arexx-command SET_ITERATIONS

NAME

SET_ITERATIONS - set iterations.

SYNOPSIS

```
"SET_ITERATIONS"
```

```
"SET_ITERATIONS" "NUMBER/N"
```

FUNCTION

Specify the number of iterations. If this command is called without any parameters, it behaves just like choosing the menu-item "Iterations/Custom...".

INPUTS

NUMBER:

a numeric value between 32 and 32768.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

This command only sets the parameter. If it should take effect to your display, you have to call the command **RENDER** afterwards.

SEE ALSO

GET_ITERATIONS

EXAMPLE

```
"SET_ITERATIONS" "1024"
```

```
IF RC THEN SAY "Can't set iterations:" ErrorText(RC2)
```

BUGS

-

1.20 arexx-command GET_ITERATIONS

NAME

GET_ITERATIONS - get number of iterations.

SYNOPSIS

```
"GET_ITERATIONS" "VAR/A"
```

FUNCTION

Get the number of iterations.

INPUTS

VAR:

Name of the variable, which should contain the number of iterations after calling this command.

The result is a number between 32 and 32768.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

SET_ITERATIONS

EXAMPLE

```
"GET_ITERATIONS" "ITERATIONS"  
IF RC THEN SAY "Can't set iterations:" ErrorText(RC2)  
ELSE SAY "Number of iterations:" ITERATIONS  
BUGS  
-
```

1.21 arexx-command SET_POWER

NAME

SET_POWER - set power-parameter.

SYNOPSIS

```
"SET_POWER" "NUMBER/A/N"
```

FUNCTION

Specify the power-parameter.

INPUTS

NUMBER:

a numeric value. Following values are possible:

2

4

8

16

32

64

128

256

512

1024

2048

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

This command only sets the parameter. If it should take effect to your display, you have to call the command **RENDER** afterwards.

SEE ALSO

GET_POWER

EXAMPLE

```
"SET_POWER" "1024"
```

```
IF RC THEN SAY "Can't set power:" ErrorText(RC2)
```

```
BUGS
```

```
-
```

1.22 arexx-command GET_POWER

NAME

GET_POWER - get power-parameter.

SYNOPSIS

```
"GET_POWER" "VAR/A"
```

FUNCTION

Get the power-parameter.

INPUTS

VAR:

Name of the variable, which should contain the value of the power-parameter after calling this command.

Following results are possible:

2

4

8

16

32

64

128

256

512

1024

2048

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

```
-
```

SEE ALSO

SET_POWER

EXAMPLE

```
"GET_POWER" "POWER"
IF RC THEN SAY "Can't get power-parameter:" ErrorText(RC2)
ELSE SAY "Power-parameter:" POWER
BUGS
-
```

1.23 arexx-command SET_PRIORITY**NAME**

SET_PRIORITY - set the priority of the own task.

SYNOPSIS

```
"SET_PRIORITY" "PRI/A"
```

FUNCTION

Specify the tasks priority.

INPUTS**PRI:**

a numeric value between -5 and +5.

RETURNS**RC:**

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

GET_PRIORITY

EXAMPLE

```
"SET_PRIORITY" "+1"
IF RC THEN SAY "Can't set priority:" ErrorText(RC2)
BUGS
-
```

1.24 arexx-command GET_PRIORITY**NAME**

GET_PRIORITY - get priority of the own task.

SYNOPSIS

```
"GET_PRIORITY" "VAR/A"
```

FUNCTION

Get the priority of this task.

INPUTS**VAR:**

Name of the variable, which should contain the value of the priority after calling this command.

The returned values are between -5 and +5.

RETURNS**RC:**

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

SET_PRIORITY

EXAMPLE

```
"GET_PRIORITY" "PRIORITY"
```

```
IF RC THEN SAY "Can't get the priority:" ErrorText(RC2)
```

```
ELSE SAY "Priority:" PRIORITY
```

BUGS

-

1.25 arexx-command SET_COLOR_REMAP

NAME

SET_COLOR_REMAP - set the color-remap-method.

SYNOPSIS

```
"SET_COLOR_REMAP" "INDEX/A/N"
```

FUNCTION

Specify the method, how colors are assigned.

INPUTS**INDEX:**

a numeric value between 1 and 8.

The numbers have following meanings:

1 = Linear

2 = Ln (x)

3 = Repeated

4 = Sqrt (x)

5 = x^2-x

6 = Sqrt($x^3 - x^2 - x$)

7 = Sinh (Ln (x^3))

8 = Cosh (Log (x^3))

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

This command only sets the parameter. If it should take effect to your display, you have to call the command **RENDER** afterwards.

SEE ALSO

GET_COLOR_REMAP

EXAMPLE

"SET_COLOR_REMAP" "2"

IF RC THEN SAY "Can't set color-remap-method:" ErrorText(RC2)

BUGS

-

1.26 arexx-command GET_COLOR_REMAP

NAME

GET_COLOR_REMAP - get the color-remap-method.

SYNOPSIS

"GET_COLOR_REMAP" "VAR/A"

FUNCTION

Get the specified the method, how colors are assigned.

INPUTS

VAR:

Name of the variable, which should contain the color-remap-method after calling this command.

Following results are possible:

1 = Linear

2 = Ln (x)

3 = Repeated

4 = Sqrt (x)

5 = $x^2 - x$

6 = Sqrt($x^3 - x^2 - x$)

7 = Sinh (Ln (x^3))

8 = Cosh (Log (x^3))

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

SET_COLOR_REMAP

EXAMPLE

```
"GET_COLOR_REMAP" "REMAP"
```

```
IF RC THEN SAY "Can't get color-remap-method:" ErrorText(RC2)
```

```
ELSE SAY "Color-remap-method:" REMAP
```

BUGS

-

1.27 arexx-command SET_FRACTAL_TYPE

NAME

SET_FRACTAL_TYPE - set the fractal type.

SYNOPSIS

```
"SET_FRACTAL_TYPE" "INDEX/A/N"
```

FUNCTION

Specify the type of fractal, which should be rendered.

INPUTS

INDEX:

a numeric value between 1 and 2.

The numbers have following meanings:

1 = Julia rendering formula.

2 = Mandelbrot rendering formula.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

This command only sets the parameter. If it should take effect to your display, you have to call the command **RENDER** afterwards.

SEE ALSO

GET_FRACTAL_TYPE

EXAMPLE

```
"SET_FRACTAL_TYPE" "2"
```

```
IF RC THEN SAY "Can't set the fractal-type:" ErrorText(RC2)
```

```
BUGS
```

-

1.28 arexx-command GET_FRACTAL_TYPE

NAME

GET_FRACTAL_TYPE - get the fractal type.

SYNOPSIS

```
"GET_FRACTAL_TYPE" "VAR/A"
```

FUNCTION

Get the specified type of the fractal.

INPUTS

VAR:

Name of the variable, which should contain the color-remap-method after calling this command.

Following results are possible:

1 = Julia rendering formula.

2 = Mandelbrot rendering formula.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

SET_FRACTAL_TYPE

EXAMPLE

```
"GET_FRACTAL_TYPE" "TYPE"
```

```
IF RC THEN SAY "Can't get the fractal-type:" ErrorText(RC2)
```

```
ELSE SAY "Fractal-type:" TYPE
```

```
BUGS
```

-

1.29 arexx-command SET_CPU_TYPE

NAME

SET_CPU_TYPE - set the CPU type.

SYNOPSIS

"SET_CPU_TYPE" "INDEX/A/N"

FUNCTION

Specify the type of CPU, which should be used for rendering.

INPUTS

INDEX:

a numeric value between 1 and 2.

The numbers have following meanings:

1 = 68k-processor.

2 = PPC-processor.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

GET_CPU_TYPE

EXAMPLE

"SET_CPU_TYPE" "2"

IF RC THEN SAY "Can't set the cpu-type:" ErrorText(RC2)

BUGS

-

1.30 arexx-command GET_CPU_TYPE

NAME

GET_CPU_TYPE - get the CPU type.

SYNOPSIS

"GET_CPU_TYPE" "VAR/A"

FUNCTION

Get the specified type of CPU, which is used for rendering.

INPUTS

VAR:

Name of the variable, which should contain the color-remap-method after calling this command.

Following results are possible:

1 = 68k-processor.

2 = PPC-processor.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

GET_CPU_TYPE

EXAMPLE

"SET_CPU_TYPE" "2"

IF RC THEN SAY "Can't set the cpu-type:" ErrorText(RC2)

BUGS

-

1.31 arexx-command SHOW_PREVIEW

NAME

SHOW_PREVIEW - open preview-requester.

SYNOPSIS

"SHOW_PREVIEW"

FUNCTION

Opens the preview-requester, just like choosing the 'Preview'-menu-item. Must be closed by clicking the 'OK'-button.

INPUTS

-

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

-

EXAMPLE

"SHOW_PREVIEW"

BUGS

-

1.32 arexx-command RENDER

NAME

RENDER - render the fractal.

SYNOPSIS

"RENDER" "FORCE/S"

FUNCTION

Renders the fractal depending on the actual settings.

INPUTS

FORCE:

If specified, the fractal will be rendered without any questions.

RETURNS

RESULT:

Elapsed time for the rendering in seconds.

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

-

EXAMPLE

"RENDER" "FORCE"

BUGS

-

1.33 arexx-command UNDO

NAME

UNDO - undo the last changes.

SYNOPSIS

"UNDO"

FUNCTION

Resets the last changes to the render-settings.

INPUTS

-

RETURNS

RC:

-

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

This command only sets the parameters. If it should take effect to your display, you have to call the command **RENDER** afterwards.

SEE ALSO

-

EXAMPLE

"UNDO"

BUGS

-

1.34 arexx-command SET_FRAME

NAME

SET_FRAME - set the zoom-frame.

SYNOPSIS

"SET_FRAME" "STEM/A"

FUNCTION

Set the coordinates of the zoom-frame.

INPUTS

STEM:

Name of the stem-variable, which contains all needed data.

Following extensions are defined:

.LEFT: Left corner of the frame-box.

.TOP: Top corner of the frame-box.

.RIGHT: Right corner of the frame-box..

.BOTTOM: Bottom corner of the frame-box.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

Please check the screen-dimensions before you call this command. Maybe your desired frame is bigger than the screen. Use **GET_SCREENATTRS** for it.

The right-coordinate must be higher than the left-coordinate.

The bottom-coordinate must be higher than the top-coordinate.

SEE ALSO

GET_FRAME

EXAMPLE

FRAME.LEFT = 10

FRAME.TOP = 20

FRAME.RIGHT = 200

FRAME.BOTTOM = 300

"SET_FRAME" "FRAME"

IF RC THEN SAY "Can't set frame:" ErrorText(RC2)

BUGS

-

1.35 arexx-command GET_FRAME

NAME

GET_FRAME - get the zoom-frame.

SYNOPSIS

"GET_FRAME" "STEM/A"

FUNCTION

Get the coordinates of the zoom-frame.

INPUTS

STEM:

Name of the stem-variable, which will contain the desired coordinates after calling this command.

Following extensions are defined:

.LEFT: Left corner of the frame-box.

.TOP: Top corner of the frame-box.

.RIGHT: Right corner of the frame-box..

.BOTTOM: Bottom corner of the frame-box.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

SET_FRAME

EXAMPLE

"GET_FRAME" "FRAME"

```
IF RC THEN SAY "Can't get frame:" ErrorText(RC2)
ELSE DO
SAY "Left:" FRAME.LEFT;
SAY "Top:" FRAME.TOP;
SAY "Right:" FRAME.RIGHT;
SAY "Bottom:" FRAME.BOTTOM;
END
BUGS
-
```

1.36 arexx-command ZOOM

NAME

ZOOM - zoom into the picture.

SYNOPSIS

"ZOOM" "LEFT/A/N, TOP/A/N, WIDTH/A/N, HEIGHT/A/N, REPEATS/N, FAST/S, STEPS/N"

FUNCTION

Zoom into the picture according to the given dimensions.

INPUTS

LEFT:

Left edge of the zoom-frame.

TOP:

Top edge of the zoom-frame.

WIDTH:

Width edge of the zoom-frame.

HEIGHT:

Height edge of the zoom-frame.

REPEATS:

Number of repeats.

FAST:

If specified, the zoom is rendered as fast as possible, this means no fading.

STEPS:

Defines, in how many steps the zoom is divided (Sorry, not supported yet).

RETURNS

RESULT:

Elapsed time for the zoom in seconds.

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

-

EXAMPLE

```
"ZOOM" "30 40 400 300 2" "FAST"
```

```
IF RC THEN SAY "Can't zoom:" ErrorText(RC2)
```

```
ELSE SAY "Elapsed time:" RESULT
```

BUGS

The STEPS-parameter has no effect.

1.37 arexx-command DO_COLORCYCLING

NAME

DO_COLORCYCLING - start color-cycling.

SYNOPSIS

```
"DO_COLORCYCLING" "FORWARD/S,BACKWARD/S"
```

FUNCTION

Starts the color-cycling, just like choosing the menu-item "Cycle...". To stop it, you have to click into the window.

INPUTS

FORWARD:

Colors should move in forward direction.

BACKWARD:

Colors should move in backward direction.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

Of course only one parameter is possible, otherwise the command fails.

SEE ALSO

-

EXAMPLE

```
"DO_COLORCYCLING" "FORWARD"
```

BUGS

-

1.38 arexx-command SET_DELAY

NAME

SET_DELAY - set the delay for color-cycling.

SYNOPSIS

"SET_DELAY"

"SET_DELAY" "SECONDS/N"

FUNCTION

Specify the number of seconds between a color-cycling-step. If this command is called without any parameter, it behaves just like choosing the menu-item "Cycle/Delay...".

INPUTS

SECONDS:

a numeric value between 0 and 200.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

GET_DELAY

EXAMPLE

"SET_DELAY" "10"

IF RC THEN SAY "Can't set delay-time:" ErrorText(RC2)

BUGS

-

1.39 arexx-command GET_DELAY

NAME

GET_DELAY - get the delay-time for color-cycling.

SYNOPSIS

"GET_DELAY" "VAR/A"

FUNCTION

Get the number of seconds between a color-cycling-step.

INPUTS

VAR:

Name of the variable, which will contain the desired delay-time after calling this command.

The result is a numeric value between 0 and 200.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

SET_DELAY

EXAMPLE

```
"GET_DELAY" "TIME"
```

```
IF RC THEN SAY "Can't get delay-time:" ErrorText(RC2)
```

```
ELSE SAY "Delay-time:" TIME
```

BUGS

-

1.40 arexx-command SET_PALETTE

NAME

SET_PALETTE - set the screens palette.

SYNOPSIS

```
"SET_PALETTE"
```

```
"SET_PALETTE" "STEM,FAST/S"
```

FUNCTION

Set the screen-colors. If this command is called without any parameter, it behaves just like choosing the menu-item "Palette...".

INPUTS

STEM:

Name of the stem-variable, which contains the color-values. If a color is not defined, the color will not change. The colors must defined like this:

`COLORS.x = '00RRGGBB'x` /* RR = red value, GG = green value, BB = blue value. */

For example:

The name of the variable is 'COLORS'. So the first color must defined like this:

```
COLORS.0 = '008833BB'x
```

Please notify, that the value should be written as a hex-number.

FAST:

If specified, the colors are changed as fast as possible, this means no fading.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

Please determine the number of available colors using the **GET_SCREENATTRS** command.

SEE ALSO

GET_PALETTE

EXAMPLE

```
COLORS.0 = '008833BB'x
```

```
"SET_PALETTE" "COLORS"
```

```
IF RC THEN SAY "Can't set palette:" ErrorText(RC2)
```

BUGS

-

1.41 arexx-command GET_PALETTE

NAME

GET_PALETTE - get the screens palette.

SYNOPSIS

```
"GET_PALETTE" "STEM/A"
```

FUNCTION

Get the screen-colors.

INPUTS

STEM:

Name of the stem-variable, which will contains the color-values.

The colors are defined like this:

00RRGGBB RR = red value, GG = green value, BB = blue value.

Important:

The datatype of the color-definition is a string, which contains a binary value. Because of this, you can use this values directly for **SET_PALETTE**.

For example:

```
'GET_PALETTE' 'COLORS'
```

```
COLORS.1 = '00FFFFFF'x
```

```
'SET_PALETTE' 'COLORS'
```

If you want to print the value on screen, you must convert the string-value to hex-value:

```
SAY "Color 1:" C2X(COLORS.1)
```

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

Please determine the number of available colors using the **GET_SCREENATTRS** command.

SEE ALSO

SET_PALETTE

EXAMPLE

```
"GET_PALETTE" "COLORS"
```

```
IF RC THEN SAY "Can't get palette:" ErrorText(RC2)
```

```
ELSE DO
```

```
DO I = 0 TO NumColors
```

```
SAY "Color" I ||": " || C2X(COLORS.I) || "'x";
```

```
END I
```

```
END
```

BUGS

-

1.42 arexx-command SET_SCREENATTRS

NAME

SET_SCREENATTRS - set screens-attributes.

SYNOPSIS

```
"SET_SCREENATTRS"
```

```
"SET_SCREENATTRS" "STEM,FAST/S"
```

FUNCTION

Set the attributes of the screen. If this command is called without any parameter, it behaves just like choosing the menu-item "Screen mode...".

INPUTS

STEM:

Name of the stem-variable, which contains the needed data.

Following extentions are defined:

.MODE: desired screen-mode.

.WIDTH: width of the screen.

.HEIGHT: height of the screen.

.DEPTH: screen-depth.

.OSCANTYPE: definition of the desired overscan-type. Following definitions are possible:

- "TEXT"

- "STANDARD"

- "MAX"
- "VIDEO"

Default is "TEXT".

FAST:

If specified, the attributes are changed as fast as possible, this means no fading.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

GET_SCREENATTRS

EXAMPLE

DIMS.MODE = '40D20001'x

DIMS.WIDTH = 640

DIMS.HEIGHT = 480

DIMS.DEPTH = 8

DIMS.OSCANTYPE = "TEXT"

"SET_SCREENATTRS" "DIMS"

IF RC THEN SAY "Can't set screen-attributes:" ErrorText(RC2)

BUGS

-

1.43 arexx-command GET_SCREENATTRS

NAME

GET_SCREENATTRS - get screens-attributes.

SYNOPSIS

"GET_SCREENATTRS" "STEM/A"

FUNCTION

Get the attributes of the screen.

INPUTS

STEM:

Name of the stem-variable, which will contain the desired data.

Following extentions are defined:

.MODE: desired screen-mode.

.WIDTH: width of the screen.

.HEIGHT: height of the screen.

.DEPTH: screen-depth.

Important:

The datatype of the screenmode-definition is a string, which contains a binary value. Because of this, you can use this values directly for **SET_SCREENATTRS**.

For example:

```
'GET_SCREENATTRS' 'DIMS'
```

```
'SET_SCREENATTRS' 'DIMS'
```

If you want to print the value on screen, you must convert the string-value to hex-value:

```
SAY "Screen-mode:" C2X(DIMS.MODE)
```

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

SET_SCREENATTRS

EXAMPLE

```
"GET_SCREENATTRS" "DIMS"
```

```
IF RC THEN SAY "Can't get screen-attributes:" ErrorText(RC2)
```

```
ELSE DO
```

```
SAY "screenmode: '" || C2X(DIMS.MODE) || "'x";
```

```
SAY "width:" DIMS.WIDTH
```

```
SAY "height:" DIMS.HEIGHT
```

```
SAY "depth:" DIMS.DEPTH
```

```
END
```

BUGS

-

1.44 arexx-command SET_FONT

NAME

SET_FONT - set screen-font.

SYNOPSIS

```
"SET_FONT"
```

```
"SET_FONT" "STEM,FAST/S"
```

FUNCTION

Set the screen-font. If this command is called without any parameter, it behaves just like choosing the menu-item "Font settings...".

INPUTS

STEM:

Name of the stem-variable, which contains the needed data.

Following extentions are defined:

.FONTNAME: name of the desired font.

.SIZE: font size.

.STYLE: font-style. Following definitions are possible:

- "NORMAL"
- "BOLD"
- "ITALIC"
- "UNDERLINED"
- "EXTENDED"

Default is "NORMAL"

FAST:

If specified, the font is changed as fast as possible, this means no fading.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

GET_FONT

EXAMPLE

```
FONT.FONTNAME = "diamond.font"
```

```
FONT.SIZE = 13
```

```
FONT.STYLE = "BOLD,ITALIC"
```

```
"SET_FONT" "FONT"
```

```
IF RC THEN SAY "Can't set screen-font:" ErrorText(RC2)
```

BUGS

-

1.45 arexx-command GET_FONT

NAME

GET_FONT - get screen-font.

SYNOPSIS

"GET_FONT" "STEM/A"

FUNCTION

Get the screen-font definitions.

INPUTS

STEM:

Name of the stem-variable, which will contain the desired data.

Following extentions are defined:

.FONTNAME: name of the desired font.

.SIZE: font-size.

.STYLE: font-style. Following definitions are possible:

- "NORMAL"
- "BOLD"
- "ITALIC"
- "UNDERLINED"
- "EXTENDED"

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

SET_FONT

EXAMPLE

"GET_FONT" "FONT"

IF RC THEN SAY "Can't get screen-font:" ErrorText(RC2)

ELSE DO

SAY "fontname:" FONT.FONTNAME

SAY "font-size:" FONT.SIZE

SAY "font-style:" FONT.STYLE

END

BUGS

-

1.46 arexx-command START_TIMER

NAME

START_TIMER - start timer.

SYNOPSIS

"START_TIMER"

FUNCTION

Set timer to 0 and start the timer. Usefull for speed calculations.

INPUTS

-

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

STOP_TIMER

EXAMPLE

"START_TIMER"

BUGS

-

1.47 arexx-command STOP_TIMER

NAME

STOP_TIMER - stop timer.

SYNOPSIS

"STOP_TIMER"

FUNCTION

Stop timer and return the passed time since the last call of the **START_TIMER**-command. Usefull for speed calculations.

INPUTS

-

RETURNS

RESULT:

the passed time since the last **START_TIMER**-call in seconds.

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

START_TIMER

EXAMPLE

"STOP_TIMER"

SAY "needed time:" RESULT

BUGS

-

1.48 arexx-command **PLAY_SOUND**

NAME

PLAY_SOUND - play a sound-file.

SYNOPSIS

"PLAY_SOUND" "PATH/A,ASYNC/S,REPEAT/S"

FUNCTION

Plays a sound-file using the AmigaOS-datatypes.

INPUTS

PATH:

The path of the sound-file.

ASYNC:

If TRUE, FlashMandelWOS starts an own process for playing the sound.

REPEAT:

If TRUE, the sound will be played in an endless loop. Will be ignored, if ASYNC is not specified.

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

STOP_SOUND

EXAMPLE

"PLAY_SOUND" "FLASHMANDEL:Welcome.8svx"

IF RC THEN SAY "Can't play sound:" ErrorText(RC2)

BUGS

-

1.49 arexx-command STOP_SOUND

NAME

STOP_SOUND - stop sound.

SYNOPSIS

"STOP_SOUND"

FUNCTION

stop a sound started with **PLAY_SOUND**.

INPUTS

-

RETURNS

RC:

error-level, 0 if successfull.

RC2:

error-code, 0 if successfull.

NOTES

-

SEE ALSO

PLAY_SOUND

EXAMPLE

"STOP_SOUND"

BUGS

-

1.50 arexx-error-levels

Following error-levels are defined:

0 = OK everything is o.k.

5 = WARN just a feedback, e.g. a requester was cancelled.

10 = ERROR an error occured, e.g. a wrong parameter was defined.

20 = FATAL a serious error - program should quit.

Every command returns one of this level-codes in the variable 'RC'.

1.51 arexx-error-codes

Following error-codes are defined:

0 = everything is o.k.

01 = program not found

02 = execution halted

03 = no memory available
04 = invalid character in program
05 = unmatched quote
06 = unterminated comment
07 = clause too long
08 = unrecognized token
09 = symbol or string too long
10 = invalid message packet
11 = command string error
12 = error return from function
13 = host environment not found
14 = required library not found
15 = function not found
16 = no return value
17 = wrong number of arguments
18 = invalid argument to function
19 = invalid PROCEDURE
20 = unexpected THEN/ELSE
21 = unexpected WHEN/OTHERWISE
22 = unexpected LEAVE or ITERATE
23 = invalid statement in SELECT
24 = missing THEN clauses
25 = missing OTHERWISE
26 = missing or unexpected END
27 = symbol mismatch on END
28 = invalid DO syntax
29 = incomplete DO/IF/SELECT
30 = label not found
31 = symbol expected
32 = string or symbol expected
33 = invalid sub-keyword
34 = required keyword missing
35 = extraneous characters
36 = sub-keyword conflict
37 = invalid template
38 = invalid TRACE request
39 = uninitialized variable
40 = invalid variable name
41 = invalid expression

42 = unbalanced parentheses

43 = nesting level exceeded

44 = invalid expression result

45 = expression required

46 = boolean value not 0 or 1

47 = arithmetic conversion error

48 = invalid operand

Every command returns one of this error-codes in the variable 'RC2'.