

Vidi-AMIGA RT ARexx MANUAL Supplement

Software Version 2.00+

ROMBO Productions Ltd
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VIDI-AMIGA RT COLOUR DIGITISER MANUAL

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All specifications, times, text, etc are subject to change without notice.

Please note : This software is based in part on the work of the Independent JPEG Group.

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To be used in conjunction with v2.00+ of the Vidi-AMIGA RT software and 12 or 24 RT hardware.

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Introduction

This supplement details the ARexx commands currently implemented in the Vidi-AmigaRT V 2.00 software. Any updates to this manual (if any) can be found in the README file on the supplied program disk. Almost all of the Vidi-AmigaRT functions can be controlled via the interpreted ARexx commands.

There is no 'tutorial' on the use of the ARexx functions in this supplement, please refer to your Amiga manual, independant publication, or any of the 'ARexx Explained' articles that have appeared from time to time in the popular computing magazines.

There is an example ARexx macro provided on the program disk, it tries each of the 3 video sources until it finds one with video, then captures 3 images, mixing and scaling to a 128x162, LoRes, interlaced HAM image.

ARexx Command Templates

The description of each ARexx command uses the following templates to describe the parameters.

/N	a number is expected
/K	This argument is a Keyword
/A	this parameter must always be given
/S	this argument is a Switch
/M	Multiple arguments are accepted
=	an alternative for the keyword

Examples

```
SEQUENCE HRS=HOURS/K/N,MINS=MINUTES/K/
N,SECS=SECONDS/K/N
```

Here, the command is "SEQUENCE", the arguments consist of 3 possible keywords each with an associated number argument, each with an alternative abbreviation, so

```
SEQUENCE HRS 3
SEQUENCE HOURS 3
SEQUENCE HRS 0 MINS 6 SECONDS 55
SEQUENCE SECS 23 MINUTES 5
```

are each valid instances of the command.

ARexx Errors and results

When ARexx commands are called there can be errors or results returned. The ARexx variable RC contains a Return Code which is set by the last command called depending on the outcome. The possible values of RC returned by Vidi-AmigaRT are as follows.

- 0 = OK: command executed with no problems.
- 5 = WARN: A Warning, user aborted command or halted.
- 10 = ERROR: Command can not be executed,
- 20 = FATAL: Missing or invalid arguments, invalid command etc.

Vidi-AmigaRT's ARexx port is named VIDIRT.

Results are only returned when RC=0=OKAY, otherwise the value in RESULT is invalid.

ARexx Commands

Command: BRIGHTNESS LEVEL/N/A

Purpose: Varies the Brightness of captured images.

Example: BRIGHTNESS 50

Increases the brightness to 50

RC: FATAL, No argument or level < -100 or >100

Command: CAROUSELDELETE ALL/K, DESELECTED/ K, SELECTED/K, RANGE/K, FIRST/N, LAST/N

Purpose: Deletes images from the current carousel.

Examples: CAROUSELDELETE ALL

Deletes all images in the current carousel.

CAROUSELDELETE SELECTED

Deletes all selected images in the current carousel.

CAROUSELDELETE RANGE 4 8

Deletes images 4 to 8 from the current carousel.

CAROUSELDELETE RANGE 9

Deletes image 9 from the current carousel.

RC: ERROR, if Grab, Mix or Edit Panels are open.

FATAL, Invalid arguments.

Command: CAROUSELDESELECT ALL/K, RANGE/K FIRST/N LAST/N

Purpose: De-select images in the carousel.

Examples: CAROUSELDESELECT ALL
De-selects all images in the carousel.
CAROUSELDESELECT RANGE 3 7
De-selects images 3 to 7 in the carousel.
CAROUSELDESELECT RANGE 6
De-select image 6 in the carousel.
RC: FATAL, Invalid Arguments.

**Command: CAROUSELSELECT ALL/K,RANGE/K,FIRST/
N, LAST/N**

Purpose: Select images in the carousel.
Examples: CAROUSELSELECT ALL
Select all images in the carousel.
CAROUSELSELECT RANGE 3 19
Select images 3 to 19 in the carousel.
RC: FATAL, Invalid arguments.

Command: CHANGECAROUSEL MODE/S, RESOLUTION/S

Purpose: Changes the current image list.
Examples: CHANGECAROUSEL MODE
Will cycle to the next image list which has a
different screen mode.
CHANGECAROUSEL RESOLUTION
Will cycle to the next image list of the same
screen mode but different resolution.
NOTE: Use GETIMAGESIZE and
GETIMAGETYPE to determine the mode and resolution of
the current list.
RC: FATAL, Invalid argument.

Command: CLOSECAROUSEL

Purpose: Close the carousel.
RC: ERROR, Carousel is not open.

Command: CLOSEEDIT

Purpose: Close the Image Processing screens.
RC: ERROR, Edit is not open.

Command: CLOSEGRAB

Purpose: Close the Grab screens.
RC: ERROR, Grab is not open.

Command: CLOSEMIX

Purpose: Close the Mix Control screens.
RC: ERROR, Mix is not open.

**Command: CLOSEWINDOW GRABPREFS/
S,DISPLAYPREFS/S**

Purpose: To close one of the preferences windows.
Example: CLOSEWINDOW DISPLAYPREFS
Close the Display Preferences window on the
Vidi-AmigaRT Main screen.
RC: ERROR, Window is not open.
FATAL, Invalid argument.

Command: CONTRAST LEVEL/A/N

Purpose: Adjust the contrast of a captured image.
Example: CONTRAST 80
Increase the contrast of a captured image.
RC: FATAL, Invalid argument or LEVEL < -100 or
> 100

Command: CONVRGB ON/S,OFF/S

Purpose: Determines if images are automatically
converted to 24bit when loaded.
Example: CONVRGB OFF
Disables the conversion of images to 24bit
when loaded.
RC: FATAL, Invalid Argument.

Command: DITHER ON/S,OFF/S

Purpose: Controls whether dithering is used during the Mix process.

Example: DITHER ON
Dithering is used during the mix process.

RC: FATAL, Invalid argument.

**Command: DISPLAYCARD NONE/S,HARLEQUIN/
S,RETINA/S**

Purpose: Selects a 24bit card for displaying images.

Example: DISPLAYCARD NONE
Only display images on the Amiga.
DISPLAYCARD RETINA
Display images on both the Amiga and the Retina 24Bit card if it is available.

RC: FATAL, Invalid argument.

**Command: DISPLAYMODE LORES/S,HIRES/S,SHIRES/
S,NOLACE/S,LACE/S,PAL/S,NTSC/S,2/S,4/S,8/
S,16/S,32/S,EHB/S,64/S,HAM/S,128/S,256/
S,HAM8,MONO16/S,MONO256/S**

Purpose: Controls the DisplayID, standard resolution and screen mode of the mix preferences

Examples: DISPLAYMODE LORES LACE
Mixed images will be lores interlaced.
DISPLAYMODE HIRES LACE PAL
Mixed images will be Hires, interlaced and in PAL mode.
DISPLAYMODE HAM8 SHIRES LACE
Mixed images will be in Super-Hires, Interlaced, HAM8 mode.

RC: FATAL, Invalid argument.

Command: EDITALL OPERATOR PARAMETER/M

Purpose: Apply an Image Processing function to all images.

See EDITIMAGE for details.

RC: ERROR, Edit is not open.

Command: EDITIMAGE OPERATOR PARAMETER/M

Purpose: Select and apply an Image Processing function to the current image. If no operator is specified, the currently selected operation is used.

Examples: EDITIMAGE AVERAGE

Apply the Average function to the current image.

EDITIMAGE SATURATION "-100"

Apply the Saturation function removing all colour

EDITIMAGE PIXELIZE 3 5

Apply the Pixelize function setting width to 3 and height to 5

The following operators and parameters are available

AVERAGE/K

BALANCE/K RED/N/A, GREEN/N/A, BLUE/N/A

BLUR/K LEVEL/N/A

BRIGHTNESS/K LEVEL/N/A

COMBINERGB/K

CONTRAST/K LEVEL/N/A

CONVOLVE/K

DISCARDRGB/K

EDGE/K

EMBOSS/K

EQUALIZE/K

EXPOSURE/K LEVEL/N/A

EXTRACTRGB/K

FLIPX/K
FLIPY/K
GAMMA/K LEVEL/N/A
MAXIMUM/K
MEDIAN/K
MINIMUM/K
NEGATIVE/K
PIXELIZE/K WIDTH/N/A,HEIGHT/N/A
QUANTIZE/K LEVEL/N/A
SATURATION/K LEVEL/N/A
SHARPEN/K LEVEL/N/A
THRESHOLD/K LEVEL/N/A

RC: WARN, Operation aborted.
 ERROR, No Memory.
 ERROR, Operator is not valid on image.
 ERROR, Edit is not open.
 FATAL, Invalid arguments or out of range
 parameters.

**Command: EDITCHANGE FIRST/S, LAST/S, NEXT/S, PREV/
S, IMAGE/N**

Purpose: Select the current image to which any Image
 Processing functions will be applied

Examples: EDITCHANGE FIRST
 Select the first image in the image list.
 EDITCHANGE PREV
 Select the image before the current image.
 EDITCHANGE 4
 Select image 4 in the image list.
 FIRST selects the first image in the list
 LAST selects the last image in the list
 NEXT selects the image following the current
 image
 PREV select the image preceding the current
 image

RC: ERROR, Edit is not open.
FATAL, Invalid argument.
RESULT: number of current image.

Command: EDITUNDO

Purpose: Undo the last Image Processing function.
Command: GENLOCK ON/S, OFF/S
Purpose: Determines if colour 0 will be used during Mix to ensure no part of the image will be transparent when used with a genlock.
RC: FATAL, Invalid argument.

Command: GETIMAGECOUNT

Purpose: Returns the number of images selected in the current image list.
RESULT: The image count.

Command: GETIMAGESIZE

Purpose: Returns the X and Y size of images in the current image list.
RESULT: The Width and Height of the image.
Example:
320 256
Image is of width 320 and height 256

Command: GETIMAGETYPE

Purpose: Returns the screen mode of the current image list.
RESULT: Mode of the image list.

Command: GETVALUE COMMAND/A

Purpose: Allows the user to get the values of parameters and preferences.
Examples: GETVALUE BRIGHTNESS

Gets the value of Brightness in the grab preferences and places the value in
RESULT. GETVALUE DISPLAYMODE

The following is an example of what could be returned in the RESULT string.

HAM8 HIRES NOLACE PAL

GETVALUE GRABSIZE

RESULT:- 320 200 16 26

WIDTH 320

HEIGHT 200

OFFSETX 16

OFFSETY 26

GETVALU MIXSIZE

RESULT:- 170 150

WIDTH 170

HEIGHT 150

RC: FATAL, Invalid argument.

RESULT: Dependent on the command. Commands which can be passed as arguments to the GETVALUE command are listed below, the RESULT can contain any of the arguments which can be passed into the command.

COMMAND

BRIGHTNESS

CONTRAST

SATURATION

HUE

DITHER

OPTIMAL

GENLOCK

CONVRGB

DISPLAYCARD

DISPLAYMODE

GRABSIZE
HARDWARE
MIXSIZE
OVERSCAN
PREVIEW
FILEFORMAT
SEQUENCE
SOURCE
USERINTERACTION

Command: GRABIMAGE

Purpose: Grab an image from the digitiser.
RC: WARN, Grab aborted by user.
ERROR, Insufficient memory.
ERROR, Hardware not available.
FATAL, Grab is not open.

**Command: GRABMODE MONO/S,COLOUR/S,AUTO/
S,MANUAL/S,CONT=CONTINUOUS/S,LOOP/
K,ON/S,OFF/S**

Purpose: Select the Grab Mode and Grab Type.
Example: GRABMODE COLOUR CONTINUOUS
Select Continuous colour capture.
GRABMODE AUTO MONO
Select mono grabs, when images are
captured, automatically store them in the
carousel.
RC: FATAL, Invalid argument.

**Command: GRABSIZE WIDTH/N,HEIGHT/N,OFFSETX/
N,OFFSETY/N**

Purpose: Define a part of the incoming video to digitize
Example: GRABSIZE 700 570 12 26
Grab an image of size 700 x 570 offset 12
pixels from the Left-Hand edge and 26 lines
from the top.

RC: ERROR, Specified size and position is invalid.
FATAL, missing or invalid arguments.

Command: GRABSTORE

Purpose: Store a grabbed image in the carousel

RC: WARN, No image to store.
ERROR, Grab is not open.

Command: GRABUNDO

Purpose: Clear the Grab buffer.

RC: WARN, No image in grab buffer.
ERROR, Grab is not open.

**Command: HARDWARE LORES/S,HIRES/S,NOLACE/
S,LACE/S,MONO16/S,MONO256/S**

Purpose: Set the hardware grab references.

Examples: HARDWARE HIRES LACE MONO256
Grabbed images will be HiRes, Interlaced
and 256 mono if not colour.

RC: FATAL, Invalid argument.

Command: HUE LEVEL/N/A

Purpose: Set the HUE level for colour correction of
NTSC video sources.

Example: HUE 24

Set the HUE level to 24 degrees.

RC: FATAL, Invalid argument or out of range
0...359.

Command: LOADPIC FILE

Purpose: Loads an image from the specified file, if no
file is specified, the ASL requester prompts
for a file name.

Example: LOADPIC "df0:pic1.jpg"

Loads the image "df0:pic1.jpg" into
Vidi-AmigaRT.

RC: WARN, No name selected, ASL cancelled.
ERROR, Load failed.

Result: Indicates the success of the Load operation,
possible values are shown below.
if RC=0 then result is

- 1 JPEG
- 2 YUVN
- 3 BMP
- 4 TIFF
- 5 24BIT
- 6 12BIT
- 7 ANIM/ILBM

Command: MIXALL

Purpose: Mix all images in the current image list
according to the current mix preferences.

RC: WARN, Not all images were mixed.
ERROR, Mix is not open.

**Command: MIXCHANGE FIRST/S, LAST/S, NEXT/S, PREV/
S, IMAGE/N**

Purpose: Change the current image.

Examples: MIXCHANGE LAST
Select the last image in the current list.
MIXCHANGE 6
Image 6 is now the current image.

RC: ERROR, Mix is not open.
FATAL, Invalid or missing arguments.

RESULT: Number of current image.

Command: MIXIMAGE

Purpose: Mix the current image according to the mix
preferences.

RC: WARN, Mix was aborted by user.
WARN, Image can not be mixed.
ERROR, Insufficient memory.
ERROR, Mix is not open.

Command: MIXSIZE WIDTH/N/A,HEIGHT/N/A

Purpose: Defines the mix size of an image to be used when OVERSCAN is set to CUSTOM.

Example: MIXSIZE 340 270
The image is mixed and scaled to a size of 340 x 270.

RC: FATAL, Invalid or missing arguments.

Command: MIXSTORE

Purpose: Store the current image if it has been mixed.

RC: WARN, No image to store.
ERROR, Mix is not open.
ERROR, Insufficient memory to store image.

RESULT: 0 OKAY
1 stored okay but mix closed as no images are left.

Command: MIXUNDO

Purpose: Clear the mix buffer.

RC: WARN, There was no image in the undo buffer.
ERROR, The mix panel was not open.

Command: OPENCAROUSEL

Purpose: Opens the Carousel screen. The Grab, Mix or Image processing screen will be closed.

Command: OPENEDIT

Purpose: Opens the Image Processing screen. The Grab, Mix or Carousel screen will be closed.

Command: OPENGRAB

Purpose: Opens the Grab screen. The Mix, Carousel or Image processing screen will be closed.

Command: OPENMIX

Purpose: Opens the Mix screen. The Grab, Carousel or Image processing screen will be closed.

**Command: OPENWINDOW GRABPREFS/
S,DISPLAYPREFS/S**

Purpose: To open one of the preferences windows. If the window is open, it is moved to the front of other windows on the main screen.

Example: OPENWINDOW GRABPREFS
Open the Grab Preferences window on the Vidi-AmigaRT Main screen.

RC: ERROR, Window could not be opened.
FATAL, invalid argument/

Command: OPTIMAL ON/S,OFF/S

Purpose: Switch optimal Palette option on or off.

Example: OPTIMAL OFF
Disable the Optimal palette option.

RC: FATAL, Invalid argument.

**Command: OVERSCAN CUSTOM/S,STANDARD/S,TEXT/
S,GFX/S,MAX/S,VIDEO/S,RGB/S**

Purpose: Selects the overscan preferences.

Example: OVERSCAN CUSTOM
The width and height specified by MIXSIZE will be the size of an image when mixed.

OVERSCAN RGB

The width and height of a mixed image match the size of the RGB or MONO image.

OVERSCAN STANDARD

The width and height of the mixed image are determined by the selected Displaymode.

RC: FATAL, Invalid argument.

Command: PREVIEW MONO16/S, MONO256/S, COLOUR/S, NONE/S, QUARTER/S, FULL/S

Purpose: Select the preview type.

Example: PREVIEW COLOUR

Select a colour preview screen in the grab screen.

PREVIEW MONO256 QUARTER

Select a 1/4 sized 256 mono preview screen.

RC: ERROR, Grab screen is open so Can't change preview preferences
FATAL, Invalid arguments.

Command: QUIT

Purpose: Quit the Vidi-AmigaRT application.

Command: RETAINRGB ON/S, OFF/S

Purpose: Select whether the RGB should be kept or discarded when a colour image is stored in the Grab Panel.

Example: RETAINRGB ON

Store the RGB along with the colour image.

RC: FATAL, Invalid argument.

Command: SATURATION LEVEL/N/A

Purpose: Set the saturation of a digitised image.

Example: Saturation 30

Increase the colour saturation by 30%

RC: FATAL, invalid argument or LEVEL out of range -100...100

Command: SAVEPREFS

Purpose: Save the current preferences settings.

Command: SAVEPIC FILE

Purpose: Save all selected images in the current image list according to the selected file format. If No file is specified, the ASL requester is used to select a file. The grab, mix, edit and carousel panels must be closed.

Example: SAVEPIC "RAM:pic1.ilbm"

Saves the current image to "RAM:pic1.ilbm".
If more than one image is selected in the current image list and the file format is not ANIM, all selected images will be saved with a number appended as:

pic1.ilbm.0001

pic1.ilbm.0002

pic1.ilbm.0003

RC: WARN, Image Can't be saved as selected format
WARN, No File selected/ASL cancelled.
WARN, No Image to save.
ERROR, Save failed.
ERROR, Grab, Mix, Edit or Carousel is open.

Command: SCREENTOBACK CAROUSEL/S,EDIT/S,GRAB/S,MAIN/S,MIX/S

Purpose: Move one of the Vidi-AmigaRT screen behind all others.

Example: SCREENTOBACK GRAB

Move the Grab Control Panel and Preview screen behind all other screens.

RC: ERROR, The screen is not open.
FATAL, Invalid Screen specified.

Command: SCREENTOFONT CAROUSEL/S,EDIT/S,GRAB/S,MAIN/S,MIX/S

Purpose: Move one of the Vidi-AmigaRT screen in front of all other screens.

Example: SCREENTOFRONT MAIN
Move the Vidi-AmigaRT Main screen in front of all other screens.

RC: ERROR, The Screen is not open.
FATAL, Invalid screen specified.

Command: SETFILEFORMAT ANIM/S,ILBM/S,12BIT/S,24BIT/S,BMP/S,TIFF/S,YUVN/S,JPEG/K QUALITY/N

Purpose: Select the file format for saves.

Example: SETFILEFORMAT ANIM
When a save is performed all selected images are saved as an ANIM.
SETFILEFORMAT JPEG 75
When a save is done, all images with a 24Bit RGB will be saved as JPEG with a Quality factor of 75.

RC: FATAL, Invalid fileformat selected.
FATAL, JPEG quality factor invalid or out of range 0...100

Command: SEQUENCE HRS=HOURS/K/N,MINS=MINUTES/K/N,SECS=SECONDS/K/N,IMAGES/K/N,TRIGGER/K,ON/S,OFF/S

Purpose: To define a continuous grab.

Example: SEQUENCE HRS 1 IMAGES 5
Grab 5 images at intervals of 1 hour.
SEQUENCE HRS 0 MINS 1 SECONDS 15 IMAGES 14
Grab 14 images at an interval of 1 Minute and 15 seconds.
SEQUENCE TRIGGER ON IMAGES 44
Capture 44 images whenever a fire button signal is received on JOYSTICK port 2.

RC: FATAL, Invalid, missing or out of range arguments.

HOURS 0...9

MINUTES 0...59

SECONDS 0...59

IMAGES 0...9999

Command:SOURCE 1=VIDEO1/S,2=VIDEO2/S,S=VIDEOS/S

Purpose: Select a video input on the Vidi-AmigaRT

Example: SOURCE S

Select the S-Video input on the digitiser

SOURCE VIDEO2

Select Composite Video input 2.

RC: FATAL, Invalid or missing argument.

Command: STATUS HARDWARE/S,VIDEO/S

Purpose: To read the status of the hardware or the status of the currently selected video source.

RESULT: For HARDWARE:

BOARD_TYPE BOARD_STATUS

BOARD_TYPE is one of:

0 not identified .

12 a 12RT.

24 a 24RT.

BOARD_STATUS is one of:

0 Up and working.

1 No Power.

2 No Board detected.

3 PAR: in use.

4 Device Error.

5 The Board is in use by another application

Examples: 24 0 The board is a 24RT and functioning OK.

0 2 No board has been detected.
12 3 A 12RT, Parallel port is currently in use.

For VIDEO

PICTURE_STD FREQ

PICTURE_STD is one of: PAL
NTSC
SECAM
B/W
NONE
FREQ is one of: 0
50
60

Examples: PAL 50 a 50Hz PAL source
NTSC 60 a 60Hz NTSC source
B/W 60 a 60Hz Black and white source
SECAM 50 a 50Hz SECAM source
NONE 0 No video detectable.

Command: USERINTERACTION ON/S,OFF/S

Purpose: To disable safety during ARexx control. When switched off, safety requesters such as "File Exists" are disabled, but only during ARexx control, otherwise requesters appear as normal.

RC: FATAL, Invalid or missing argument.

Command: VERSION

Purpose: Get the Current version of the Software.

Example: VERSION

RESULT: Name and version of the software. e.g.,
"VIDIAMIGART V2.00"

