VMA

Michael D.P. Clerck

COLLABORATORS			
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ACTION	*NAME*	*DATE*	*SIGNATURE*
WRITTEN BY	Michael D.P. Clerck	April 13, 2022	

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Contents

Chapter 1

VMA

1.1 The Visual Music Application V1.04b - 8 November 1998

```
                          VMA v1.04b  (C) by  Michael D.P. de Clerck 1993

       This is a DEMO version of The Visual Music Application.



            <<<~Click~Me~>>>
                Author note :

This product maybe distributed freely with the rule all it's files
stay unmodifed and there is NO commercial provid made from the
transaction of this product.




            ###

            ###
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              #======================
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|
            ###

            ###
```

1.2 Author

Author :

Welcome to VMA 1.04,

This is a DEMO version of VMA, this version is limited and does not contain complete documentation. VMA is beeing written using Amos Professional 2.0.

The development of the FULL VMA package is still going, the so please be patient for further news, check our home-page for news updates.

If there are any suggestions, bug-reports or questions please write to :

Increased Development
Michael D.P. de Clerck
Kleiweg 91b
3051 GK Rotterdam
The Netherlands

Email : mikec@cybercomm.nl
WWW : welcome.to/xs2

~Introduction~to~VMA~

~Features~of~VMA~~~~~

```
                                        @(" News & Updates      " link "News and  ↩
                                           Updates" 0}

                <<<<~See~more~off~the~I.D.~services~and~products~>>>>
```

1.3 Credits

```
Credits:


        The Visual Music Application

           Designer & Programmer

          Michael D.P. de Clerck



      Monitor design  : Sven Vogelezang
      Sound support   : Ab Karoumi
      AVC support     : Increased Development


      Also I would like to thank :

      Carlo >>Lynx<< von Loesch for using his "Virtual MIDI Keys" tool
```

1.4 News and Updates

```
                VMA is still under development, if U want to be informed on news  ↩
                   about VMA
mail your EMail adress and U will be automaticly updated on the development
of VMA.

Mail your adres to
                ~Author~
                .
```

1.5 Contents

```
                   ----      The Visual Music Application v1.04b      ----

                       ~1.04b DEMO~version~

 Contents :


                ~Quick~Start~~~~~~~~~~~~
                   For those who can't wait
```

1.6 Requirements

System requirements:

The neccesary ingredients for running the VMA system are listed below togheter
with the advised hardware;

```
      AMIGA 68000 OS1.3              / AMIGA 68030 OS3.0 is advised
      1.5MB CHIPRAM + 1.5MB FASTRAM  / 2MB CHIPRAM + 4MB FASTRAM is advised
      5MB harddisk space             / 120MB is advised
```

To get the most out of the VMA software we suggest:

- Parallel 8bit sampler interface for audio synchronisation
- MIDI interface for controlling VMA using MIDI devices
- Sound/Video production system.
- Genlock or video mixer for multisource video productions

Required system files:

```
  C: break
          copy
          execute
          makedir
          status

  Fonts: smfont 6e
```

1.7 Quick-Start

Quick-Start :

Oke then, follows these 'easy' steps to run the main Creator program
and watch the VMA 1.04b Introduction show :

* Run the install script wich will install the neccesary commands.

  => From CLI enter c:execute Install_SystemFiles

  => From WB doubleclick the Install_SystemFiles icon

* Too run the program,

```
    =>From CLI :  Enter the directory where it was unpacked
                  Enter "C:execute Assign_VMA_First"
                  Enter "C:run > nil: Creator"

    =>From WB  :  Open the directory window where it was unpacked
                  Double-click the Assign_VMA_First icon
                  Double-click the Creator icon
```

  When the VMA monitor is visible and the "Launched" message

window has disappeared the introduction show will start.

* To stop the running show
  - press the SPACE bar to go to monitor mode so u can see what your doing
  - press the left ALT key to go to Show mode were the Play/Stop commands are
  - then click the stop button in the right bottom part of the screen

* To Start an show
  - goto Monitor mode (SPACE bar)
  - goto Show mode (left ALT key)
  - click the PLAY mode button in the left bottom of the screen

* To quit the program press Control + Escape and await any messages.

* To forcefully quit the program when its misbehaving use Ctrl+C.

An quick example :

* Make sure u are in Monitor mode (were the VMA user-interface is visible)
  Goto Monitor mode by pressing the SPACE bar once.

* Click in the left bottom corner (system modes) on the button with "TP".
  You have now entered the Task Performance mode where all the graphic tasks
  are generated and modified.

Something about the Task Performance mode;

* Press F1 (select next Shape task) till it says SHAPE in the
  left top corner (second button).
  You have now selected a graphical task of the type SHAPE.

* Press SPACE (switch between monitor & LIVE mode) and then
  press the main ENTER key wich will activate the selected SHAPE task.

* While still in TP mode U can press F1 again to select the next
  SHAPE task or press F2..F10 for different types of graphical tasks.
  Look around for a while and use SPACE to switch to monitor mode to
  see the parameters for a task.
  (! Some tasks might not show anything, these tasks might need another
     screen or data selection then currently is selected.)

* Now deactivate the task using the ENTER key.

* If U used colour tasks the live screen might be a mess. Goto Stage
  mode by pressing the LEFT-ALT key. Then goto LIVE mode so u see the
  screen. Now press the ~ key (top-left), this will clear the screen (Stage)
  as well as deactivate automatic colour effects (flashes, cycles or fades).

* Enter the monitor mode again by using SPACE.

The very important Matrix banks;

The ENTER key (de)activates the task stored in the so called edit bank.
The edit bank will always contain the in TP mode selected graphic task.

Each composed graphic task (TPS) can be placed in a seperate bank, so called Matrix banks. These banks can be (de)activated by pressing the corresponding key, on the Amiga keyboard or MIDI keyboard.

Here comes the tricky part of the VMA system, the keyboard useage has been 'slightly' altered for the benefit of functionality so please bare with me.

* Goto Matrix mode by left-clicking on the Matrix button (left-bottom).

* The demo contains three layers of banks with each 12 entry's
  When using the Amiga keyboard only one layer can be accessed at
  a time.

  The Matrix keys are positioned on the numeric keypad of the Amiga,
  for those who own an A600 read the Installation and Matrix mode
  chapter because your Matrix keys are available but are rerouted.

  The keys 1,2 + 3 select layer 1 to 3 in the matrix, press one and
  look at the left-top where the contents of the layer is listed.
  these 12 task are now at your disposal.

  Remember that there are two banks reserved for the real-time editting
  of graphical (TP) and synchronisation (EC) tasks. These are the ENTER
  key wich (de)activates the TP edit bank and the RIGHT_SHIFT key wich
  (de)activates the EC edit bank.

  With this in mind start counting from the top of the keypad to
  (de)activate the corresponding bank, like this :

```
          1  2  3  4    - matrix bank 1..4

          5  6  7  8    - matrix bank 5..8

          9 10 11 12    - matrix bank 9..12
```

* Press SPACE to enter LIVE mode and (de)activate some banks using the above
  mentioned keys. View the listed PlayList bank in the left-lower of the
  monitor screen (in Matrix mode). These are the current activated tasks.

* At the moment the matrix control is in Switch mode (see button's in the
  lower middle of the monitor). When control is in Press mode the bank is
  activated as long as the corresponding key is pressed.

  (Use Ctrl+'<' or Ctrl+'>' to adjust the key response to respectivily
   normal and fast mode)

Oke this is the shortest I can do for now. These are the main essentials for selecting and running graphic VMA tasks. I could keep on going for the rest of my natural born life but I guess it could be shorted by spontaneous listeners.

If U really wan't to check out VMA take your time to read the rest of this

already compacted guide and surf to the VMA websection on http://vma.amiga.tm

.../V\ike

1.8 Introduction

Introduction to the Visual Music Application (VMA) :

Welcome to VMA, the application for the combining of image to sound. With the help of this application the user has control over the graphical output of the computer through the use of graphical tasks.

These tasks are instructions for the computer in the form of generation or manipulation of colours and images.

The graphical tasks can be triggered by mouse, keyboard, audio port en other devices, this enables the user to interactively synchronise images to sound.

By using VMA the user can compose complete image shows and add these to live or pre-recorded sound. VMA will manage all the needed data to achive this in a user frendly mather.

This documentation has been made very short for quick-use purposes. There is an Quick-start chapter wich handles the installation procedure.

The documentation als describes every system mode of VMA, the data manager included. It describes the monitor layout, controls and simple usage functions.

The VMA system consists of 3 main programs :

The Configurator - For changing system settings. Not included in this demo.

~The~data~Manager
- For handling external data. Not included in this demo.

~The~Creator~~~~~~~
- For composing and executing VMA shows.

The Creator program uses two types of data, these are internal and external. The external data consists of user data like images, objects, text and other. The internal data consists of show data like tasks, screens and more.

Now is the time to check out the rest of this documentation or check out the program, remember that VMA is multitasking so you will be able to keep this guide active for direct help on using VMA. Make sure that the VMA system is NOT in LIVE mode during Workbench multitasking cause VMA causes an annoying screen flicker on the workbench screen. Just goto monitor mode using the SPACE bar to avoid this.

Check the chapter

~The~Creator~
for details on the controls.

Thanx for 'at least' reading this introduction & have fun using VMA,

Mike...

1.9 Features

Features of VMA System :

Features of the DEMO VMA version :

The VMA software bundle contains several tools for use with your video production. Each tool has its unique features, the (main) Creator tool wich produces the video images has many features and effects.

The system has several Real-Time shape, text, colour and image effects.
The extensive controls let u operate the sytem in Real-Time. Keyboard, Mouse, Joystick, General MIDI and PAR-port controls are supported for editting and synchronising the effects in edit and LIVE! mode. An integrated show sequencer saves u time in assembling the effects. The included data Manager tool will help u validate and structure the data used in a show.

The VMA software has an impresive and unique list of features.

Features of the VMA Home and Studio (registered) edition are;

- Shape effects including (dynamic) stars, bars, wipes, lines, grids
- Text effects with support for all bitmap fonts
- Colour effects including flash, cycle, fade, change
- Image manipulation effects for positioning, plane visibility, fading
- Screen manipulation effects like scroll, zoom, feedback, rainbow
- Blitter Object (Bob) and Vector Bob effects
- 10 Effect categories and 16 parameters per effect
- 16 Additional dynamic parameters for effect behaviour
- Screen resolutions upto 1024x1024, interlaced and double buffered

- Real-Time edditing even in live mode!
- Effect synchronisation, manual and automatic
- Detailed but easy2use userinterfaces
- Real-Time monitor environment for testing purposes
- Keyboard, Mouse, Joystick, MIDI and PAR execution support
- Multitask option for multitasking with workbench programs
- 'last session' mechanism wich stores your current edit selections
- Data manager included for easy management of your data files
- Workbench (1.2 or higher) compatible

- VMA Supports the following data formats;
  Standard ASCII textfiles
  Bitmap fonts
  ILBM/IFF image format

```
    Animation mode 5
    Amos Object Moduller
    Amos Bob banks
    Vector Bobs

Additional features of the VMA Studio Edition;

The Studio edittion will include new and more powerfull effects. The full
features list is currently not available as this edittion is still under
development. Guaranteed features will include;

   - AGA support including fade effects
   - A/B transition effects
   - Dual screen support
   - 3D Starfields
   - 3D Vector objects
   - New manipulation effects including splinter, shade bobs, dissolve
   - Internal 4 channel player for the ProTracker song format
   - New synchronisation effects for use with ProTracker modules
   - PowerPacker and Imploder file support


This demo version is crippled, the disabled features are the ones making
the program what it is.  There is an two hour time limit on this demo.
The disabled features are;

  - Restricted amount of tasks and data allowed
  - No animation support
  - Limited documentation and online manual
  - Registration-nag graphs
  - Saving disabled
  - No VMA keyboardfunction cover
  - No acces to VMA support/tutorial webpages or IRC Helpdesk channels


Those that register for the soon to be released Home version of VMA1.04
can expect the following features;

  - Show saving enabled
  - Loading/Saving of sequences & banks enabled
  - Animation mode 5 enabled
  - Data loading restriction disabled
  - Extended matrix banks for up to 500 tasks
  - Multiple screens, maximum of 6
  - New optimized routines
  - System configurator tool
  - Data manager tool
  - Tools for generating and handling external data (Blitter, VecBob, 3D, Text)
  - On-Line context-sensitive guides
  - Keyboard overlay for use with VMA
  - Direct support from the Author
  - Automatic news letters
  - VMA data sharing group
```

1.10 Doc 40

Legal stuff :

This software is copyrighted by its developer(s). That means that you are NOT ALLOWED to modify the program(s) and documentation in any way. Especially you MUST NOT REMOVE the documentation or this text file.

You are NOT allowed to use this software or any part of it for any other purpose than that one mentioned in its documentation, this also includes any fonts, images or samples. If the developer(s) did NOT include the source code of the program(s) in this package you are NOT allowed to de-compile any part of it.

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Any re-distribution has to include all files in this archive, without any modifications. You are NOT allowed to add any files to the archive.

Disk magazines and services that charge extra for file transfers may NOT distribute it without written permission by the developer(s)!

WARNING:
This product is in Beta stage and contains several developmentbugs. No harm can be done to your Amiga system in any way by the VMA software for it does not write to your harddisk. The reset can cause other running programs to invalidate your harddisk, be aware of this fact.

By using this product, you accept the FULL responsibility for any damage or loss that might occur through its use or the inability to use it. The developer(s) of the software and the author and the translators of this "Copyright Note" can NOT be held responsible.

1.11 Manager

The data Manager :

The amount of external data that U would like to use in a show can get pretty large, let's say U would like to use some 50 different images.

These images should be directly usable, this request would lead to some expensive memory usage. With VMA this problem is solved by handling data using so'called datalists.

The data Manager can be used for the following purposes :

- Composing and editting of datalists
- Testing (viewing) the data items or datalist(s)
- Validating the data or datalist(s)
- Exchanging datalists between shows

- Printing of datacontents of show or datalists

The external data that can be used within VMA is categorised in several classes, each class has it’s own extension for reqocnision,

Data class,	File extension	
Images	.IDL	IFF images
Compacted images	.CDL	IFF images, stored compacted (slower)
Blitter objects	.BDL	Blitter object banks (.Abk)
Vectorbank	.VDL	Vector objectcoordinate banks (.Vecbank)
Animatie mode 5	.MDL	IFF Animations
Textfiles (Ascii)	.TDL	Ascii Words or lines
3D objects	.ODL	Amos 3D vector objects
3D Scenes	.SDL	Amos 3D vector Scenes
Applicatie	.ADL	CLI and executables

The monitor layout :

The monitor of the Manager consists of three parts wich contain buttons and data fields. The fields are from top to bottom :

- show information
- datalist information
- data entry information

There are three type of fields, these are button-, text- and valuefields.

A button is activated using the left-mousebutton.

A textfield is accesed by using the left-mousebuton after wich the text can be entered.

A digitfield is changed by clicking it with the left-mousebutton wich increases the value. For decreasing the value some digitfields have an arrowbutton to the right of them.

First U should select a data type in the show file, click on the button with the extension of the data class.

Now U can select an existing datalist or add a new one, select the datalist for editting by clicking the datalist entry number.

Use the Manager to replace the example datalist(s) or compose your own. Remember that all the images in a datalist must be equal or smaller then the first image in the list.

In other words, make sure that the aren’t larger in size or hold more colours that the first image. To do this compose or select the datalist and follow these steps :

! The datalist and the images need to be overwritten !

```
1 - Turn the 'autosave' option in the option menu to on

2 - Select the IDL or CDL datalist

3 - Select the first image entry from that list

4 - Select 'properties' from the data menu and set the values to :

      320 width       (limited for 3D use)
      220 height
      32  colours

5 - Select 'adjust datalist' from the datalist menu
```

1.12 The Creator

```
               The Creator :

The Creator is used to compose, test and combine graphic tasks with other
tasks and external data to form a graphical show. Some task generate there
own graphical data, others need graphical data presented through the use of

               ~datalists~
               .

The Creator consists of different edittors for composing a show,
each edittor is accesable from it's own mode. There are 7 modes available,
these are :

  1 -
               ~Task~Performance~mode~~
                - For composing, editting and testing the
                                graphical tasks.

  2 -
               ~Effect~Connection~mode~
                - For composing, editting and testing the
                                interactivity tasks.

  3 -
               ~Matrix~mode~~~~~~~~~~~~
                - For the editting and executing of the
                                task banks.

  4 -
               ~Stage~mode~~~~~~~~~~~~~~
                - For the editting of the output screens.

  5 -
               ~Show~mode~~~~~~~~~~~~~~~
                - For the composing, editting and executing
                                of compleet sequenced shows.

  6 -
```

~Storage~mode~~~~~~~~~~~~
- For the retrieval of external data.

7 -
~Live~mode~~~~~~~~~~~~~~~
- In this mode the graphic output to the
screens (Stages) will be visible.

To build a VMA show U have to :

- Compose some graphic tasks (Task Performance Sequence's), to do this go to
~TP~mode~
, there are currently 10 types available. Each task with it's own Compose Values (CV's) for controlling sizes, colour, patterns, execution routines, external data use, and many more.

- Then compose some interactive tasks (Effect Connection Sequence's), for this U must go to
~EC~mode~
. A ECS is used to execute the graphical tasks (TPS's) in an interactive mather. Currently there are five types available, each of these types has again it's own parameters.

By using these tasks U can execute the graphical tasks (TPS's) in a number of ways, these are :

- Direct tasks , running without user interactivity

- Connected tasks, executed interactive through the use of :

  - Keyboard
  - Mouse buttons
  - Joystick
  - The clock timer
  - Audio input
  - MIDI devices
  - 16 step sequences

- When the tasks are composed and tested they can be collected in the so'called
~Matrix~
bank where tasks can be executed using the numeric keypad or a MIDI keyboard.

To handle many tasks efficiently the Matrix is divided in :

- Single banks = these will hold a single task for execution

- Layer banks = these will hold 12 tasks as storage

- Group banks = these will hold 36 tasks as storage

You can only execute single tasks, there are three layers reserved for

single tasks. The Layer and Group banks can be altered by copying Single or whole Layers into them. This can be done directly while performing the show.

The monitor layout :

The six system modes each come with it's own screen layout, here is a short description of the main layout wich is visible in each mode, except live mode.

- The top row displays information about current system mode, selection and execution.
- The rows of buttons at the bottom of the screen are the system modes (on the left) and the edit buttons on the right.
- The rest in the middle contains detailed data relevant to the currently selected system mode. These datafields are use for editting the data in the show.
- There is also an information box in every mode, this box shows the current memory available and information relevant to the current mode.
- The grey space above the top bar is used to drag the monitor screen using the LMB until your satisfied.

The controls :

The selecting and editting of the data is done by using the mouse or the keyboard, there buttons, toggles and data fields for editting and processing of data.

A button always has the same name, a toggle can have two states and an data field can show it's contents as ascii, integer, hexidecimal or binairy.

Buttons can be activated by clicking then with the LMB, the same for toggles. Data fields or accessed by holding the LBM and click the RMB. The information box is also used with the LMB.

The keyboard :

The keyboard usage is reorganised so that there are now groeps of keys, in this way the keyboard can function as an matrix keyboard for easy control of the VMA system. An IFF image file (VMA-KeyboardLayout.iff) is included in the archive, this image shows the key groups so if possible print it out and use it alongside this guide.

There are common groups of keys and shared groups, these shared groups are used for different purposes depending on the current system mode. Here is an oversight of the key groups :

```
  ----------- Main Keyboard ------------------

STORAGE  F1  F2 F3  F4  F5  F6  F7  F8  F9  F10

FREE     1  2  3  4  5  6  7  8  9  10 11 12 13 14

MOVE      Q  W  E  R  T  Y  U  I  O  P  15 16 ERB1

CTRL LOCK  A  S  D  F  G  H  J  K  L  ;  '   ENTER

LABEL     +  Z  X  C  V  B  N  M  ,  .  /      ERB2

STAGE SHOW            LIVE                TP   EC


  ------- Numeric Keypad ------


  COPY   HELP      1   2   3   4
                   5   6   7   8
       ^           9  10  11  12
   <=  V  =>      L1  L2  L3
                 MATRIX  ADD CR
```

Group	Keys	Description
1	INVERSE	System modes
2	INVERTED	Arrange keys
3		Matrix bank keys
4	White	Type 1..10 selection keys
5	Outlined	1..16 selection keys
6	Italic	Additional 1..6 selection keys
7	Normal	alphabetical keyboard
8	Italic white	System control keys

Systeem control keys :

For a number of global functions the CONTROL key is used in combination with another key, these functions and the needed key combinations are :

```
     ^D        - Screendump, save the current Stage (screen) to Temp: if it
                 exist.
     ^F        - Screenclear, clears the current Stage.
     ^L + code - (De)Lock keyboard, first ^L then enter the password.
     ^M        - Multitask on/off, when set to on VMA uses less CPU time.
     ^S        - Shell, starts a shell.
     ^Z        - Position current Stage, keep ^Z and use the mouse for
                 (re)placing the stage on your monitor.
     ^<        - Switch to FAST key reaction time, for LIVE mode.
     ^>        - Switch to SLOW key reaction time, for editting.
     ^ESC      - Save the current state of the system en exits the program.
```

1.13 TP mode

```
                The Task performance (TP) mode :


                ~The~concept~~~~~~~~~~~~~~~~

                ~The~monitor~layout~~~~~~~~~

                ~The~keyboard~controls~~~~~~

                ~The~mouse~controls~~~~~~~~~

                ~The~special~settings~~~~~~~

                ~The~Compose~Values~~~~(CV)~

                ~The~Additional~Values~(AV)~
                The concept :
```

A Task Performance Sequence is a sequential list of values wich represent effectroutines and it's parameters. There are 16 parameters to effect the execution of a task, these are called the Compose Values (CV's)

Each CV can be a digital number from 0..63335 ($FFFF), the values can be changed in a number of ways :

- using the keyboard
- using the joystick
- using the mouse
- using audio input
- using MIDI devices
- using the internal clock timer
- using automatic update options call Additional Values (AV's)

A TPS consist of the following data :

- Indentificatinon data : ID no. , task Type, Name of TPS
- Compose Values (CV) : Task effect parameters
- Additional Values (AV) : CV adjust parameters
- Special settings : Task execution specifications

The TPS's are divided in 10 functional groups, each group either uses external data or generates data itself. Here is an overview of the 10 types :

Type name	Function
Shape	Generate 16 bit algoritme shapes
Math	Generate mathematical shapes
Blitter	Display blitter objects (Bobs & Sprites)
Text	Display text (karakters and lines)
Images	Display images
3D	Display 3D vector objects

```
 Screen      Manipulate output stage
 Colors      Manipulate colour palette
 Scroll      Scroll manipulation of output stage
 Layer       Manipulation of stage using effect layers
```

1.14 Document_5

```
                The Effect Connection mode :


                ~The~concept~~~~~~~~~~~~

                ~The~monitor~layout~~~~~

                ~The~keyboard~controls~~

                ~The~mouse~controls~~~~~

                ~The~Compose~values~~~~~
                The concept :

For executing a task when wanted a Effect Connection Sequence is used, this
is again a sequence of values wich represent a device and it's
controlparameters.

There are a number of devices that can be used to execute a task, this way U
can synchronise the graphic output real-time. These are the devices that can
be used :

  - keyboard      - a key executes a task
  - mouse         - a mouse button executes a task
  - joystick      - a direction executes a task
  - Serial port   - a MIDI keysignal executes a task
  - Parallel port - a audio signal using a sampler executes a task
  - System timer  - the system timer with a 32 step pattern executes a task


A ECS consist out of the following data :

  - Identification data   : ID no. , type, label
  - Compose Values (CV)   : Connection specifications
  - Recording data        : Control emulation (patterns)
  - Special settings      : Execution conditions


Here is an list of the ECS types :

  Type name  Function

  Mouse      Execute a task using the mouse buttons
  Pol           "    a task using the audio input signal
  Sync          "    a task using a 32 bit pattern and the timer
  Motion        "    a task using the joystick
  List          "    8 tasks as an sequence
```

G-Sync Synchronise the timer using the mouse

1.15 Matrix mode

The Matrix mode :

~The~concept~~~~~~~~~~~~~~~~

~The~monitor~layout~~~~~~~~~

~The~keyboard~controls~~~~~~

~The~mouse~controls~~~~~~~~~
The concept :

For the execution of tasks the need to reside withing a bank, this bank can then be executed once or placed in the Matrix Playlist where the are continuesly executed. The Matrix Reference Bank (MRB) has numerous banks for this purpose.

A bank can contain a reference to the task in memory, this task can be an TPS or ECS. There are a number of bankkey's reserved, two of them are for the editting of the TPS and ECS.

When

The MRB consist of the following banks :

- Single task banks , these can contain 1 task reference, there are 38 of them of wich 36 divided in three layers. These banks are executable.
- Layer task banks , these can contain 12 task references, there are 10 layer banks.
- Group task banks , these can contain 36 task references, there are 16 group banks.

The Matrix Playlist bank (PLB)

For the live and continues execution of tasks we place banks in the PLB, this PLB is executed in full after wich the stage (screen) is beeing updated.

The order of execution is the same as the order that the PLB shows, each bank is executed after anthort until the last is reached. Before the start of the executino of the PLB the stage is prepared as stated in the Stage mode.

1.16 Stage mode

The Stage mode :

~The~concept~~~~~~~~~~~~~~~~

~The~monitor~layout~~~~~~~~~

~The~keyboard~controls~~~~~~

~The~mouse~controls~~~~~~~~~
The concept :

The stages (screens) are used for displaying the output of the graphical task, there is a total of 6 screen for outputting the graphics. This DEMO is limited to 2 stages only, number 1 is 3D compateble and number 2 is CDL compateble

Each stage can be configured to your needs, the available settings are :

- size
- position
- number of colours
- 3D object compatebility
- buffered

When in live mode the stage needs to be updated in several ways depending on the wanted result U select

1.17 Storage mode

The storage mode :

~The~concept~~~~~~~~~~~~~~~~

~The~monitor~layout~~~~~~~~~

~The~keyboard~controls~~~~~~

~The~mouse~controls~~~~~~~~~
The concept :

In this mode U can select the datalist to load into memory for use with the TPS's. The datalists can be loaded in live and monitor mode but the system mode must be Storage.

1.18 Show mode

Show mode :

This mode contains an sequencer for composing a compleet timed graphic show. Currently we have no documentation available but we'll post an update of this guide to the net and the mailing list.

!To load a show U must select the FILE edit button and select load, only the demo introduction show is available so select it and click OK.

1.19 Live mode

Live mode :

When U enter live mode using the space bar you will see the tasks beeing outputted to the stage(s). Edit control is now gained by using the keyboard only.

1.20 ID Projects

Increased Development Projects :

As an dynamic organisation ID is active in several branches, delivering AVC services and products. We are still growing and expanding, so keep track of our actions.

~Software~Projects~~~~~~~

~Presentations~~~~~~~~~~

~AVC~Facilities~~~~~~~~~~

~Demo~programmers~wanted~

```
      |  HandyBoot  v1.00  FreeWare    Aminet: Util/CLI           |
      |  HandyLink  v2.00  FreeWare    Aminet: Util/CLI           |
      |  VMA        v1.04b Demo        Aminet: Gfx/Misc           |
       ============================================================
```

1.21 Software Projects

```
                This is an list of the current software projects of ID :

Available products :


                ~Handy~Link~v2.0~~~~~~~~~~
                 - A serial communication and transfer tool.

                ~Handy~Boot~v1.02~~~~~~~~~
                 - A startup selection tool.
```

1.22 HLink

```
Handy Link 2.0 - Available now as FREEWARE !

HLink is an serial communication and transfer tool controlled from any DOS
shell. It has easy to use commands and


 - Seperate window for status & reports.
 - Talking with the remote station.
 - Entering remote Amiga DOS commands.
 - A buffer of the last used commands, only > WB2.0.
 - Transfer files and directory's
 - Lowmem transfer mode, spare memory by using file-2-file transfer.
 - Batchscript processing (Local & Remote)
 - Grab & Run remote programs.
 - Automatic file transfer directory.
 - Get {remote-file} command.
```

1.23 HBoot

```
Handy Boot 1.02 - Available now as FREEWARE !

This is an handy boot tool for all you that change your startup tools
regularly. Now select you tools using an mouse interface and store that
config using an user name.

With this tool your system becomes more flexibel to use for yourself and
other users.
```

HBoot has the following features :

- fully ASCII configured
- user password request
- 30 program scripts per user
- mouse controlled
- public or private mail
- save button defaults per user
- forced disklock per user

1.24 Presentations

Presentations :

ID also performs on stage using it's own AVC facilities. We perform on house party's / events and present our own VMA product togheter with lots of video effects and live camera images. We call it our

"Live On Stage Visualisation Of Music"

Checkout our website for example video's about these Visual Shows.
We also produce video's of these presentations with commercial material tailored to your needs.

For more information contact :

Increased Development
Michael D.P. de Clerck
Kleiweg 91b
3051 GK Rotterdam
The Netherlands

Email : id@dans.net
WWW : www.dans.net/id/home/htm

1.25 AVC

AVC Facilities :

ID has it's own AVC studio in Rotterdam and produces custom made video's.
Here is an list of our facilities :

- Digital process facilities
- Recording facilities
- Full stereo edit facilities
- Audio composition facilities
- Profesional guidance

For more information on these facilities contact :

Increased Development
Michael D.P. de Clerck
Kleiweg 91b
3051 GK Rotterdam
The Netherlands

Email : id@dans.net
WWW   : www.dans.net/id/home.htm

1.26 Wanted

Demo programmers wanted :

For our VMA software project I'm searching for programmers to supply routines and effects. The routines are preferred in assembly or AMOSPro.

The idea is that you join the development team. We will work togheter in designing and developing VMA and future projects.

It is preferred that you live in the Netherlands but thanx to the 'Big Net' we should be able to have an productive relation with anyone on this planet.

If you have any interest please answer these questions
and send them to :

Increased Development
Michael D.P. de Clerck
Kleiweg 91b
3051 GK Rotterdam
The Netherlands

Email : id@dans.net
WWW   : www.dans.net/id/home.htm

1.27 Question Form

Demo programmer question form :

Date :

Name :
Adres :
Zipcode :
Country :

Phone :
E-Mail :

```
  Homepage    :

  Male/Female :
  Age         :
  Occupation  :

  Projects/experience:
```

1.28 The monitor layout

```
The monitor layout :

The monitor has the usual system fields on the top and bottom of the screen.
In the middle there are 6 other fields, these are :

 Compose Values fields         left data fields of 16 rows
 Task description (CV 1)       middle text box
 Additional Values field       right buttons field
 Type selection field          left buttons field
 Settings fields (CV 15 + 16)  lower toggle field (4 by 8 toggles)


The top bar has the following information :

  Current mode / Test button        - TPS
  Current TPS type                  - Shape..Layer
  Current TPS ID number             - 1..max
  TPS label                         - 1..15 chars
  Option button for special options
  WB button


The double field below this (the CV field) consist from left to right :

  CV description
  Hex value of CV
  Dec/bin value of CV   or Dec and Hex value of AV when selected
```

1.29 The keyboard controls

```
The keyboard controls :

Most of the actions can be accomplised by using the mouse, of course the
monitor screen must be present. For live editting the keyboard will be
sufficient.

The key groups 1..6 (see The Creator) are used as follows :

  Group  Function

    1    System modes
    2    Arrange keys
```

```
  3    Matrix bank keys
  4    TPS search/add keys, F1..F10 as TP type 1..10
  5    Compose Value 1..16 selection keys
  6    Additional Value 1..6 selection keys
```

Group 1 - System mode

All mode key brings U to that mode, when pressing the TP mode key (right-amiga) the mode is resetted. All CV and AV selection are discared.

Group 2 - Arrange keys

These keys are used to arrange the TPS's in memory, here's an explanation:

```
  Free         - cleares the select CV or AV
  Copy         - clones the current TPS to the next available ID no.
  Label        - relabels the TPS without showing the character entry's
  Label + {CV} - edit CV by entering a numeric value
                 max. 5 chars or use Enter to end input
  Add + {type} - add TPS of {type} to database
  Add + Label  - relabel the current TPS with an alphanumeric name
                 max. 15 chars or Enter to end input
```

Group 3 - Matrix bank keys

These keys are used to execute a task once or continues. The TPS that is currently beeing editted in TP mode is always residing in the Edit Reference Bank 1 (ERB-1)

The ERB-1 is (de)activated using the (main) Enter key, the ERB-1 is useable only from live mode, the system mode does not mather. The rest of the Matrix Reference Banks (the numeric keypad) is also useable from TP mode.

Group 4 - Search and add keys

The F1..F10 each represent a TPS type (Shape..Layer), with these keys U can search for the next TPS of that type or add a new one of that type.

```
  Search - Press the type of the type to search for

  Add    - Press the Add key (the dot on the numeric keypad)
           then press the type of the new TPS (F1..F10)
```

Group 5 - CV selection keys

To edit a effect parameter (CV) U must first select the one to be editted there are 16 CV's this group has 16 keys used for selecting CV1..CV16. In monitor mode U will see a red bar appearing next to the selected CV.

```
    Edit CV - Use the cursor up/down for inc/dec by 1,
              Use the joystick for inc/dec by a value from 1..64.
              Here are the joystick values :

                      +1                  +64

                 -8  NOFIRE  +8      -512  FIRE  512

                      -1                  -64

    * A binairy CV has to be edittied in a binairy mather, to do this
      select the CV, the select the AV "Bit" and press the CV key that
      corresponds to the bit number U wish to flip.


  Group 6 - AV selection keys

  There are currently some 20 AV's to use, to make them selectable and
  avoid dedication of 20 keys to do this a pre-selection method is used.
  Firstly U select the group where the AV is in, there are six groups.
  The first three groups are selected using

    Select AV group - Press the 1,2,3 key (on num-pad) for group 1,2,3
    Select AV       - Press the AV selection key 1..6 for (de)selecting
                      the Av.
    Edit AV         - The cursor keys

    * An CV must be selected first !
```

1.30 The special settings

```
The special options are :

  TPLink - Update another task with the AV's from this one.
  Stage  - Select a stage for forced output
  TPRear - Select a TPS for execution after this task is executed
```

1.31 The mouse controls

```
The mouse controls :

The mouse can be used as a 2-button or 3-button mouse, check the icon of the
Creator tool. The mouse can be used for selecting, editting, adding and
removing tasks. It all depends on what button or field the mouse pointer is
at the time of clicking.

  LMB - add an TPS, select the previous TPS ID number
        select an CV/AV, decreasing the value of the CV/AV
        toggle setting flags, select previous task number
        acces special option settings
```

```
       acces the edit buttons
       acces/exit test mode

  MMB - acces monitor test mode

  RMB - search for the next TPS of a type, select the next TPS ID number
        increasing the CV/AV value
        select next task number
        exits test mode

  LMB+RMB - enter value for TPS ID number, CV/AV
            enter new name for TPS
```

1.32 The Compose Values (CV)

```
The Compose Values :

There are 10 types of TPS's, each type has different versions of that type.
The maximum is 65535 versions, in this  DEMO  version there are currently
some 100 version routines implemented.

There are two CV's to specify the conditions and specifications for
execution, these CV's are used as binairy sequences each containing 16
toggles for user selection.

Settings group 1 is for execution conditions and is stored as 16 bits in CV
15. The contents are :

  Once   on/off     - Reset CV's en execute task once
  Always on/off     - Always execute task
  Local / Global    - use own (Local) or current (Global) graphical
                      settings (CV 15 + 16 ).
  Update / Static   - Update the CV's when executing the task by using
                      the Additional Values (AV's).
  Non Eject / Eject - Launch an clone of this task to the Matrix Play list.

Settings group 2 is stored in CV 16 and determinates the graphical output
form of the task.
```

1.33 The Additional Values (AV)

```
The Additional Values (AV's) :

To automaticly change the CV's on execution (update them) we use the AV's,
for each CV we can select it's own combination of AV's.

The AV's are used for :

  - increase, decrease and multiply CV's
  - define the limit of the CV
  - adjust the CV using mouse and/or timer
```

```
! Remember that an CV is ONLY updated when it's Update CV and the
  main Update settings is set to true.


Here are some examples of AV usage :

First of all when using the AV's U must enter the Update state by setting
the "Update" additional toggles for the relevant CV to "True". This way U
can update only the CV's that need to be changed.

The active value range of a CV can be set using the BEGIN and SIZE
additionals each with a value range of 0..65536.

When setting BEGIN=4 and the SIZE=10 the CV cannot exceed the 4..10 range.

By setting STEP=2 or STEP=-2 the CV is increased or decreased by 2 while
looping within the stated range of BEGIN..SIZE.
```

1.34 The monitor layout

```
The monitor layout :

The standard system fields are on the top and bottom of the screen. In the
middel there are 5 other fields, these are :


 Settings fields (CV 15 + 16)  lower toggle field (4 by 8 toggles)
 Task description (CV 1)       above the settings fields
 Additional Values field       far right buttons field (6 of them )
 Type selection field          middel left buttons field
 Recording selection field     right button field (4 of them)



The top bar has the following information :

  Current mode / Test button        - ECS
  Current ECS type                  - Mouse..G-Sync
  Current ECS ID number             - 1..max
  ECS label                         - 1..15 chars
  Prefered output screen (stage)    - 1..6
  WB button
```

1.35 The keyboard controls

```
The keyboard controls :

Using the ECS's U probable won't edit them when in live mode, the ECS has an
complex structure wich is not represented like an TPS. Every type has an own
way of representing the CV's.
```

The key groups 1..6 (see The Creator) are used as follows :

Group	Function
1	System modes
2	Arrange keys
3	Matrix bank keys
4	ECS search/add keys, F1..F10 as TP type 1..10
5	Compose Value 1..16 selection keys
6	Additional Value 1..6 selection keys

Group 1 - System mode

The EC mode key (right-alt) pressed twice resets the edit selections.

Group 2 - Arrange keys

```
Free          - cleares the select CV
Copy          - clones the current ECS to the next available ID no.
Label         - relabels the ECS without showing the character entry's
Label + {CV}  - edit CV by entering a numeric value
                max. 5 chars or use Enter to end input
Add + {type}  - add ECS of {type} to database
Add + Label   - relabel the current ECS with an alphanumeric name
                max. 15 chars or Enter to end input
```

Group 3 - Matrix bank keys

These keys are used to execute a task once or continues. The ECS that is currently beeing editted in EC mode is always residing in the Edit Reference Bank 2 (ERB-2)

The ERB-2 is (de)activated using the right SHIFT key, the ERB-2 is useable from each mode, the system mode does not mather.
The rest of the Matrix Reference Banks (the numeric keypad) is also useable from EC mode.

Group 4 - Search and add keys

The F1..F10 each represent a ECS type (Shape..Layer), with these keys U can search for the next ECS of that type or add a new one of that type.

```
Search - Press the type of the type to search for

Add    - Press the Add key (the dot on the numeric keypad)
         then press the type of the new ECS (F1..F10)
```

Group 5 - CV selection keys

To edit a effect parameter (CV) U must first select the one to be editted there are 16 CV's this group has 16 keys used for selecting CV1..CV16. In EC mode the CV's are visible in different ways per type, an detailed explenation follows after this.

Edit CV - Use the cursor up/down for inc/dec by 1,
Use the joystick for inc/dec by a value from 1..64.
Here are the joystick values :

```
        +1                +64

   -8  NOFIRE  +8     -512  FIRE  512

        -1                -64
```

* A binairy CV has to be edittied in a binairy mather, to do this select the CV, the select the AV "Bit" and press the CV key that corresponds to the bit number U wish to flip.

Group 6 - AV selection keys

Select AV - Press the AV selection key 1..6 for (de)selecting the Av.
Edit AV - The cursor keys

* An CV must be selected first !

1.36 The mouse controls

The mouse controls :

Again it depends on where the mouse is when clicking a button :

LMB - add an ECS, select the previous ECS ID number
decreasing the value of the CV
toggle setting flags, select previous task number
acces the edit buttons
acces/exit test mode

MMB - acces monitor test mode

RMB - search for the next ECS of a type, select the next ECS ID number
increasing the CV value
select next task number
exits test mode

LMB+RMB - enter value for ECS ID number, CV
enter new name for ECS

1.37 The Compose values

The Compose Values :

Each ECS connects to an device, the conditions for execution by that device are set in the CV's. These CV's are now used for :

- refering to the TPS to execute, reference using TPS ID number
- storing a 32 bit synchronisation pattern
- storing execution conditions
- storing the ouput specifications

Each ECS can be conected to antoher task, a TPS or ECS but never the same as the calling ECS. To connect the ECS to a task you'll have to enter the ID number of the task.

Each ECS has it's own CV field in wich these ID number and other values are set, to the right of the ID number there is a single character for the identification of a TPS "T" or ECS "E" ID number. U can click this character to change the task type to TPS or ECS.

The structure of the ECS is explained in the full documentation, all the neccesary actions can be forfilled using the monitor and mouse control.

Here follows an description of the available ECS types :

EC Mouse : Execute an task using the mouse button(s)
Hold an task using a mouse button (MB)
Mute an task using a MB
Switch an task to active or non-active using MB
Repeat the task when executed
Delay the task

* Select the method of execution, no selection is direct execution, eg. when a MB is pressed. If another method preferred then switch on corresponding flag for that task.

EC Pol : Execute an task using the volume of an audio input signal
Repeat the task when executed
Delay the task

* The threshhold value on the right is the condition for execution, when the audio level (on the left) exceeds this condition the task shall be executed.

* With the settings in the 3th row of the settings field U can set some execute conditions, these settings are :

Pol wait/go	- hold till threshhold or test and go.
parallel/serial	- ONLY parallel Pol is available

```
static/random            - use given ID or random one
static type/random type  - use given type or random one
```

```
EC Sync   : Execute an task using a 32 step pattern and the timer
            Repeat the task when executed
            Delay the task when executed

            * Here an 32 step pattern can be composed wich is synchronised
              with the global period set using the G-Sync ECS.
              The task is executed on the steps that are set (black).
              The 32 steps are checked within the global period time, this
              period time is in fact the duration of one measure.

EC Motion : Execute an task using the joystick directions
            Repeat the task when executed
            Delay the task when executed

EC List   : Executing a maximum of 8 task in row
            Repeat the task when executed
            Delay the task when executed

            * Place the wanted task ID's in the list, this is in fact a
              small sequence of tasks.

EC G-Sync : Set the global period time using the mouse or keyboard
            Repeat the task when executed
            Delay the task when executed

            * This global period is used not only with the EC-Sync type
              but also with the TP additional value Sync. When used it
              will synchronise the CV (in it's range) with the timer.

              For setting the global period time U can use the left- and
              right cursor from within the EC mode or use the mouse.
              Make sure that the ECS is active (in test or live) and that
              the mouse pointer is not in the left-top of the screen, this
              is were the test button resides.

              To set the period U must press (and hold) the LMB on the
              exact first beat of the measure and release exactly in front
              of the first beat of the next measure.

              With the RMB U can hold the period till the begin of the
              and release the RMB so the timer is synchronised with the
              current beat.
```

1.38 The monitor layout

The monitor layout :

Beside the usual fields on the top and bottom there are 9 fields for the control of the MRB. Here are those fields :

Single bank field	- the edit and selected layer banks
Layer bank field	- the layer banks labels
Group bank field	- the group banks labels
Play list bank field	- the contents of the Play list bank
MIDI effect info field	- the values of the MIDI effects
MIDI voice selection field	- the MIDI control methods
Layer selection button field	- for selection of the three Single bank layers.
Additional button field	- for selection of the keyboard control method.
Extra button field	- extra options

The Single bank field :

The first two entry's in this field are always the ERB1 and ERB2, these contain the currently editted TPS and ECS. The banks are executable. From left to right the fields has an 15 char task label, the ID number of the task and the type (TPS or ECS).

The Play list bank (PLB) field :

When a bank is 'switched' it is placed or removed in/from the Play list, the Play list is executed continuesly. By switching the banks on and off u can set the order of execution because the list is always played from top to bottom.

There is room for .. banks in the list but only the first 10 are shown. From left to right the field contains the bank type, task label, task ID number and the task type. These are the available bank type codes :

ERB1	- The Edit Reference Bank 1, for TPS editting
ERB2	- The Edit Reference Bank 2, for ECS editting
Sxxx	- One of the 36 Single banks, the xxx represents the banknumber
Lxxx	- One of the 10 Layer banks, the xxx represents the layernumber
Gxxx	- One of the 16 Group banks, the xxx represents the groupnumber

The MIDI voice selection field :

The lower row contains (on the left) the selected MIDI voice. On the right the voice effect is selected while it's name is shown next to the selected voice number. Now U can let a voice act diferent when used,

Voice effect	Name	Description
0	Not active	Does nothing.
1	Press matrix	When a key is pressed the task in that bank

		is executed only once.
2	Switch matrix	When a key is pressed that bank is placed in matrix play list.
3	Palette	When a key is pressed a palette is installed to the current ouput stage.
4	Shift real	When a key is pressed a colour shift is initiated where the most left key (on the MIDI keyboard stops the colour shift. The rest of the keys are split in two and shift the colours in two directions with different speed.
5	Shift nozero	This is the same as the "Shift real" selection only now the zero colour in the palette is not used in cycle.
6	Show IDL image	When a key is pressed the corresponding loaded image is outputted to the current stage. With this selection the IDL (non compacted) images are used.
7	Show CDL image	Same as the "Show IDL image" but now the compacted images are used for output. !These only work in there original resolution so "Load To Screen" if neccesary.

Extra button field :

For easy filling of the single banks U can click the "TPS to bank" button wich fills the 36 single banks with the first 36 TPS's.

To start and initialise the MIDI port U can click the "Start MIDI" button wich starts a series of initialisation actions, follow the on-screen prompts.

1.39 The keyboard controls

The keyboard controls :

The MRB keys are useable in every mode, only the main enter key is used for alphanumeric input also.

The key groups 2..6 (see The Creator) are used as follows :

Group	Function
2	Arrange keys
3	Matrix bank keys
4	Layer 1..10 selection keys

5 Group 1..16 selection keys
6 Additional 1..6 selection keys

Group 2 - Arrange keys

ENTER (numeric keypad) - executes the last given arrange command, this must be done else the command is not processed.

FREE BANK - removes the bank from the PLB

FREE ADD - cleares the PLB

FREE ADD BANK(S) - removes all given banks from the PLB

Copy BANK1 BANK2 - copy's the contents of bank 1 (source bank) to bank 2 (destination bank),

COPY BANK1 BANK2 BANK1 - swap's bank 1 with bank 2

COPY LAYER BANK1 BANK2 - copy a bank from another layer to a bank in this layer.

Group 3 - Matrix bank keys

By now this group of keys and what it does is known to U, some things however need to be said about these keys.

* Make sure that the right additional mode is selected, it can be in 1 of 6 modes, two of them are available, these are the Switch and Press mode. The rest of the modes (3..6) have no effect when pressing an bank key.

* Make sure that your are in the right layer of the single banks when executing an bank. It does not mather from what layer an edit bank is executed.

* Remember that when copying a layer or group bank to the single banks there are more then 1 banks copied. This means that at least the next 12 single banks are overwritten. In case of a group copy all the 36 banks (except of course the edit banks) are overwritten.

Group 4 - Layer selection keys

There are 10 layers each containing 12 single banks, so one whole layer has 12 tasks references. layers cannot be executed but can only copied to the single banks or to the group banks,

Group 5 - Group selection keys

In total there are 16 group banks wich can each contain 3 layers of banks these groups cannot be executed but can only be copied to the single banks. When done this all the single banks (except the edit banks)

are overwritten.

Group 6 - Additional selection keys

Using these keys U can select if a bank is to be switch on/off or just executed once when pressing the corresponding bank key.

1.40 The mouse controls

The mouse controls :

The mouse can be used for :

```
Switching single banks on/off - LMB on the entry in the single bank field
Copying a layer to singles    - LMB on the entry in the layer bank field
Copying a group to singles    - LMB on the entry in the group bank field
```

```
LMB       - select an bank for switching or copying
            select the current MIDI voice and control method
            acees the edit buttons
LMB + RMB - enter a new name for a bank
```

1.41 The monitor layout

The monitor layout :

The top bar shows the mode (STAGE), the stage ID number and the stage label.
To edit the stages there are fields for stage editting, these are :

```
Stage setup field  - the lower field
Stage ouput field  - the right field with 16 rows
Stage status field - the top middle field
```

The Stage setup field :

Here U configure the stage using the mouse, from left to right the field contains :

- stage ID number
- stage width in pixels
- stage height in pixels
- screen X position (0..400, visible from 98)
- screen Y position (0..400, visible from 32)
- Number of colours (2..4096)
- Type of buffering, single or double screen buffering using two screens.
- Resolution, lowres or hires
- Interlaced or Non-interlaced
- 3D objects compatebility

- Dual screen

The Stage ouput field :

This is were the run-time ouput conditions are selected, these conditions determine if the stage is clear before using is, how it reacts when an image is loaded and more.

The selections are listed here :

Clear screen	- Clear the screen with colour zero from the palette
Screen swap	- Swap the build screen with the visible screen, the screen must be configured as Double buffered,
Wait VBL	- Wait till the vertical blank has passed
Bob Clear	- Clear all blitter objects
Bob Draw	- Redraw all blitter objects
Autoback b0	- bit0 of the draw methode
Autoback b1	- bit1 of the draw methode 00 - Ouput goes to the visible screen 01 - Output goes to the build and visible screen 10 - Combine the output with the Bobs output
Log to Phy copy	- Copy the visible screen to the build screen
Dummy swap	- Swap the build screen with the visible screen
Td Clear	- Remove the 3D objects from screen
Td Redraw	- Redraw the 3D objects
Td Background	- Activate the 3D background (if initialised)

The Stage status field :

This field is used for run-time control of the stage, there are currently 3 available options selected using the layer selection keys on the numeric keypad.

The options are :

Layer key	Option	Effect
1	Freeze/Next	Hold the output to this stage Press it again to display 1 next frame Select the stage (Fx) to disable the freeze setting
2	Hide/Show	Hide or show the stage, make it (in)visible, the output to this stage is not stopped.
3	Back/Front	Place the stage in front or in back of the other stages.

1.42 The keyboard controls

The keyboard controls :

This mode has not much controls, U can select an stage, change it’s run-time settings and status settings.

The key groups 2..6 (see The Creator) are used as follows :

Group	Function
2	Arrange keys
3	Matrix bank keys
4	Stage 1..7 selection keys
5	Stage run-time settings edit keys

Group 2 - The Arrange keys

Only the selection keys 1,2,3 on the numeric keypad are used to change the stage status settings.

Group 3 - The Matrix bank keys

All the bank keys are useble from stage mode, the enter key is used as an normal enter when inputting a value or label.

Group 4 - The stage selection keys

For selecting the stage for output and placing it in front of the others U press the F1..F7 key for selecting stage 1..7.

Group 5 - Stage run-time settings edit keys

For changing the settings U press the 1..16 key wich will change the setting to true or false.

1.43 The mouse controls

The mouse controls :

LMB	- change the run-time settings change the stage status settings decrease a configuration value with 1
RMB	- increase a configuration value with 1
LMB + RMB	- change the label of this stage

1.44 The monitor layout

The monitor layout :

The top bar contains the system mode (STORAGE), the selected datatype (1..10), a description of the data type, the loaded datalist number and the number of data entry's loaded.

There are 5 fields in this mode, these are :

```
  Data type selection field - the button field on the right (20 buttons)
  Datalist entry field      - the big one on the left
  Data entry list field     - the big one on the right bottom
  Sequence selection field  - the button field left of the info box
                              (3 buttons)
  Extra options field       - the button field in the top middle
                              (10 buttons)
```

Datalist entry field :

This shows the loaded datalist of the selected data type (ADL..CDL), on the left is the number of the datalist wich is used to select it for loading. On the right is the name of the datalist file. There is an maximum of 16 datalist per type.

Data entry field :

This field show the loaded data entry's of the selected type, on the left the data number that is used in the TPS's as an reference and on the right is the path and filename of the dataentry.

1.45 The keyboard controls

The keyboard controls :

The key groups 4..6 (see The Creator) are used as follows :

Group	Function
4	Datatype selection keys (ADL..CDL)
5	Dataload selection keys (1..16)

Group 4 - Datalist selection keys

There are 9 types of data used within VMA, using this key group U can load entry's from a datalist or execute an application.

Data type	Code	Description
Applicatie	ADL	CLI and executables
Applic execution	Applic	Execute an application
Blitter objects	BDL	Blitter object banks (.Abk)
Textfiles (Ascii)	TDL	Ascii Words or lines
Images	IDL	IFF images
3D objects	ODL	Amos 3D vector objects
Animation (mode 5)	MDL	IFF Animations
Vectorbank	VDL	Vector objectcoordinate banks (.Vecbank)
3D Scenes	SDL	Amos 3D vector Scenes

```
Compacted images     CDL     IFF images, stored compacted (slower)
                             !These work only in there original resolution
                              so "Load To Screen" if neccesary.

To select the data type press F1..F10 using the above order where F1 is
the ADL type and F10 is the CDL type.


Group 5 - Dataload selection keys

To load an datalist or execute an application the selection keys 1..16
are pressed. In monitor mode an message box informs U about the progress.

When the selected type is Applic, the application refered to in the
datalist is executed. To stop it U should make another datalist with
the neccesary Arexx or system command for exitting the application.
```

1.46 The mouse controls

```
The mouse controls :

Using the mouse U can select the data type and load an datalist. Just click
the button or entry with the LMB.
```