Mostra 1.06

A Universal IFF Viewer

© 1990,1991,1992 Sebastiano Vigna

There are many utilities for viewing IFF ILBM files, but none I'd seen until now met the goal of displaying every IFF picture; each had its idiosyncrasies. If one viewer could display overscan pictures, then every picture with more than 640 pixels on a line would be shifted like there were 700 pixels; some programs could only show a directory of pictures by forcing the user to enter all the filenames; some programs would crash with PAL pictures; others would do the same with pictures larger than any screen; it was rare to have an option to force a screen mode (for the tech-folks out there: old IFF ILBM files don't have the CAMG chunk!); there were no comfortable file requesters for use when you didn't know the exact name of the file (who can remember GRABBiT file names?); pressing the right mouse button could cause a useless drag bar to corrupt the picture...

If a program had one feature, it lacked another, so I decided to write a show utility. I never would have succeeded without the best friend of an Amiga programmer: the ARP library. If I have been able to write **Mostra**, it's only to ARP's credit. Pattern matching, resource tracking, powerful resident functions... The only drawback is that you *must* have the arp.library (V39!) in your libs: directory in order to run **Mostra**. Otherwise, a message will be displayed, and **Mostra** will refuse to run. However, the next release of **Mostra** will work only under Release 2 and will not need arp.library. **Mostra** is a pure program, i.e., it can be made resident.

Note that you can run **Mostra** from Workbench: called by itself it will pop the file requester and will show you pictures until you select `CANCEL` or close the file requester window. Otherwise, you can select multiple icons, or you can change the default tool of your pictures. Note that if you do this with an IFF CAT or LIST you will have an automatic little slideshow.

Mostra can process *any* IFF ILBM file; this means not only IFF ILBM FORMs, but also nested ILBM, FTXT, FORMs, CATs, LISTs and PROPs! It will always try to find the screen type that fits the best, and won't give up if you want to see 1×1 brushes or *very* large pictures: Tom tried up to 5120×4096 (thanks Tom). In any case, you can force the screen type with several options.

One of the major features in this release is support for multi-palette pictures, i.e., pictures with the new PCHG chunk which should substitute the old CTBL and SHAM chunks. See the Changes.doc file for additional informations. SHAM is still supported, but

the support of CTBL pictures via external call has been dropped since it was shown to be unreliable.

To get the syntax in AmigaDOS style type:

```
M ?
```

This will produce the input template:

```
Files/...,A=All/S,R=Repeat/S,Q=Quiet/S,NoFastDraw/S,
C=Center/S,B=BlackBackground/S,W=Width/K,H=Height/K,Cycle/S,
Secs/K,Fade/K,NO=NoStartup/S,Batch/K,LockPic/S,
N=NoMouse/S,F=FreeMouse/S,LockKeys/S,NA=NoActivate/S,DB=DoubleBuffering/S,
Hires/S,Lace/S,Lores/S,NoLace/S,HAM/S,Halfbrite/S
```

If you ask for more help by typing '?' again, you will see:

```
Mostra 1.06 © 1990,1991,1992 Sebastiano Vigna
Usage:  M <wildcards [...]  | !> [All] [Repeat] [Quiet] [NoFastDraw]
[Center] [BlackBackground] [Width n] [Height n] [Cycle]
[Secs time] [Fade speed] [NoStartup] [Batch file] [LockPic]
[NoMouse] [FreeMouse] [LockKeys] [NoActivate] [DoubleBuffering]
[Hires | Lores] [Lace | NoLace] [HAM | Halfbrite]
```

The same help is displayed if you call **Mostra** with no arguments.

Mostra's first argument is a list of patterns (or file names) as long as you want; you will get every picture whose name matches one of the patterns.

Alternatively, you can type only the '!' character, and **Mostra** will display the famous Heath File Requester, allowing you to scan the entire file system.

When you're tired of looking at the picture, move the mouse pointer to the very top of the screen and press the right button (you can also press the `RETURN`, `SPACE` or `ESCAPE` keys). You can drag or depth- arrange the screen with the left mouse button (the gadgets are invisible, but they really are there!). `TAB` will toggle on/off color cycling. To stop pattern matching or IFF scanning use `CTRL-C` at any moment.

If the screen size is less than the size of the picture, you can move around with cursor keys by themselves (moving by 8 pixels) or in combination with the `SHIFT` (a screenful minus 16 pixels), `ALT` (which brings you to the borders), or `CTRL` (16 pixels) keys. A noteworthy feature of **Mostra** is that the picture is *not* decrunched all at one time in a very large chunk of memory; instead, a fast LM routine decrunches the file in real-time every time you move (the routine could be faster, but it has lots of controls to get rid of damaged IFF BODY chunks; safety always first). This is not as fast as the memory-eating method, but I think it's

much better! Very large pictures (like 800×900) will be shown in a full screen (generated on the fly at Workbench size) which you can move around. Overscan pictures will retain their size of it's not greater than 362×283 lo-res pixels (362×241 on a NTSC Amiga). For hi-res pictures, there is also a 704 pixel width limit due to Intuition (724 under Release 2). Small brushes will be shown in a minimum 256×128 pixel screen. Of course, moving vertically with multi-palette pictures involves a high system overhead, since CopperLists are continuously built and deleted.

A weird effect of this method is that you can see pictures that can't even be *loaded* into your Amiga. Let's suppose you have a really crunched picture; the BODY chunk and a 256×256 lo-res screen could take much less space than the decrunched picture, so you could create pictures that only **Mostra** could let you see in all of their parts. Why you would want to do this, well, that's another matter.

Then we have a lot of options (parentheses show how to shorten 'em):

- `ALL (A)` recursively scans all of the subdirectories during the wildcard search.
- `REPEAT (R)` will endlessly restart from the first pattern when it has finished with the last; if you used the '!' line arguments, the file requester will pop up after every picture until you `CANCEL` or close.
- `QUIET (Q)` turns off all messages except in case of error.
- `NOFASTDRAW` leaves the program at priority 0; by default, **Mostra** will surround the BODY decrunching operations with a SetTaskPri(1). This will not lock the system, but in a multitasking situation **Mostra** will perform quickly when needed.
- `CENTER (C)` will force the screen to be centered (640×200 pictures on PAL screens look so ugly...) and will use overscan if necessary.
- `BLACKBACKGROUND (B)` will create a 0-bitplane (almost no memory consumed!) black screen that will stay until you saw the last picture. This is for aesthetic purposes only.
- `WIDTH` and `HEIGHT (W,H)` want an argument that specifies the dimensions of the viewing screen. However, **Mostra** is an intelligent program, and will almost always find the correct screen by itself. WARNING: dimensions allowed are from 64 to 1024, at your own risk. Your Amiga won't crash, but weird things can happen...
- `CYCLE` will automatically activate color cycling on every picture. Usually this happens only by request, through `TAB`.
- `SECS` must be followed by a number between 0 and 1000 (the zero delay was a request from a BIXen). **Mostra** will display the picture for the number of seconds specified, but you can skip it with mouse, `RETURN`, `SPACE`, and `ESCAPE` keys as always or stop

the show with CTRL-C. Cursor keys are disabled. Greatly reworked on Warren's request.

- FADE lets you specify a speed for pictures to fade in and out. Valid numbers are 1 to 4, with four the slowest. Note that HAM pictures can't be faded.
- NOMOUSE (N) will hide the mouse pointer while **Mostra** is displaying a picture.
- FREEMOUSE (F) will let you pass from one picture to another by clicking either of the mouse buttons at any position on the screen.
- LOCKKEYS will discard any input from the keyboard during the display. You must use the mouse to pass to the following picture. Note that if FREEMOUSE is not activated, the only way to go is clicking the right mouse button while the mouse pointer is at the top of the screen.
- LOCKPIC will lock the picture displayed. You won't be able to scroll around, but the memory in which the file is loaded will be immediately freed after the decompression, thus minimizing the memory usage.
- NOACTIVATE (NA) will inhibit the activation of the picture screens, so you can keep on typing on your current screen. This was a request from Tom.
- DOUBLEBUFFERING (DB) sets a double buffering show mode: while a new picture is being loaded you see the old one, no Workbench pop-up or black screens. Eats lots of memory, too. Again, a request from Tom. (Note: it's canceled if you call the file requester.)

Centering is no longer performed via Preferences, so if you move the screen the centering will go away. NOSTARTUP and BATCH options will be discussed later.

Now, the graphics options. You can force all screens to be HIRES or LORES, LACE or NOLACE, HAM or HALFBRITE. Note that if **Mostra** finds a six bitplane picture with no indications (no CAMG chunk), it won't set the HAM flag by default. These flags are "dumb," that is, they'll do exactly what you say, even if it is meaningless. However, if you use both HALFBRITE and HAM together, only the former will take place.

And now, some examples:

```
M MyPics:* SECS 5 FADE 1 NOMOUSE BLACKBACKGROUND REPEAT CENTER ALL
```

will generate a real (and endless!) slide show of the pictures in the MyPics: dir and in all its subdirs, centered and with no mouse pointer hanging around. In order to stop the slide show, you must press CTRL-C.

```
M df0:*.image df0:pictures/*.pic HIRES LACE
```

will show the files ending with .image on the drive df0: and the files ending with .pic in the

directory df0:pictures. **Mostra** will be forced to use high resolution, interlaced screens. Setting the `HIRES` flag on pictures with more than 4 bitplanes usually leads you to see absolutely nothing.

```
M dh0:hirespic LORES NOLACE
```

will show a hi-res picture in lo-res ('zooming in'). You can move around with the cursor keys as described above.

`WIDTH` and `HEIGHT` can be useful when you have a picture that cannot be displayed because there's not enough Chip RAM (you get the "Can't open Screen" error message). In such a case, try:

```
M pic WIDTH 128 HEIGHT 128
```

This will usually allow you to at least get a peek at something.

Advanced features

For maximum flexibility, **Mostra** allows you to use "startup" files and "startup" Tool Types, with which you can configure the program to suit your tastes.

There is a standard startup file, called 'S:Startup-Mostra'. **Mostra** will search for it when run from CLI. The format of this file is *exactly* the same as the **Mostra** line format minus the command name (`M`). Commands may be spread out over several lines or gathered together onto a single line. Every switch or keyword in the startup file will act as a default, and will be toggled or superseded by any command line arguments. Command line switches will act as toggles (if your startup file has the keyword `ALL` and you say `M * ALL`, you *won't* go into subdirectories), while keywords simply assert the new value (if you have `FADE 1` in your startup file and you say `FADE 3` in the command line, your pictures will be faded at speed 3).

Two options concern startup files:

- `NOSTARTUP` inhibit the search for startup files, useful if you have one of them and you want to specify your options from scratch; it can be shortened with `NO`.
- `BATCH` wants a complete path/filename that **Mostra** will use as startup file.

From the WB side, you can write the startup options in the Tool Types of the **Mostra** icon, and it will use them. The format is the same of 'Startup-Mostra'. Please note that `FADE=1`, `WIDTH=352` are valid, but `FREEMOUSE=ON` is not; use only `FREEMOUSE`.

Or you can set the first Tool Type of a project icon to `STARTUP` and put your options in the following lines; the project picture file will be shown with those options when you

double-click its icon. You can do the same thing with an icon that has no related file, and put some wildcards in the Tool Type. The wildcards will then be shown with those options. If you don't put in wildcards, you get a "style" icon: you can `SHIFT` click some icons, `SHIFT` click the "style" icon (in *this* order) and then `SHIFT` double-click the **Mostra** icon (or directly `SHIFT` double-click the last icon, if its default tool is **Mostra**): you will see the selected picture files with the options specified in the style icon. The style icon by itself will pop up the file requester. Please note that even an icon with wildcards can be used as a style icon because multiple selections supersede wildcards.

I know, it seems a little twisted, but using it you'll find, instead, that it's the way you'd think.

WARNING: strange interactions can take place. If you have some picture icons, and you `SHIFT` click all but one of them and then you `SHIFT` double click the last *and* the last picture icon you clicked had some `STARTUP` options, you will see *all* of the pictures with those options. Right?

For curious/tech/interested people, here is the exact algorithm:

1. If sm_NumArgs>1 (the user started **Mostra** with al least an icon argument), check if sm_ArgList[1] (the first 'real' argument) has Tool Types with first Tool Type = `STARTUP`. If so, scan the whole Tool Types list like a command line, accepting mixed commands on a single Tool Type as well as separated commands in separated Tool Types.

2. If 1. goes wrong, check the **Mostra** icon Tool Types, and take them as a command line. (Note: `STARTUP` is not requested.)

3. Now, if sm_NumArgs>1, check every sc_ArgList[i] with i>0 and if there is a related file (*not* a .info file!) generate a list of arguments as if the user entered them manually, *superseding* eventual filenames/wildcards found in 1. and 2.

Now, examples, by means of common problems:

1. "I have a hundred pictures on my 360M hard disk, and I've organized them in a few groups. How can I make simple slideshows, with each group separate?"

Simple: Create a project icon for each group, and add a Tool Type `STARTUP`. Then add a Tool Type like `PICS:Group1/* ALL SECS 5 CENTER` to choose your options, set the default tool to `C:M` (or wherever you put it) and double-click (of course, this must be done with every group icon). Don't give the icons the same name as a directory, or **Mostra** will collapse in confusion.

2. "I want to always see the black screen when I start from WB."

Set a **Mostra** Tool Type to `BLACKBACKGROUND`.

3. "I have some pictures. Sometimes I want to see a few of them with a full screen and no mouse, sometimes with a 128×128 screen, sometimes centered."

Create three "style" icons. Each icon must have as its first Tool Type `STARTUP`, and the following ones must be something like `NOMOUSE`, `WIDTH 128 HEIGHT 128` and `CENTER`. The default tool must be `C:M`. When you want to see in a certain style, `SHIFT` click the picture icons and *then* `SHIFT` double-click the style icon you desire.

4. "I like to click my pics one at a time, each one with different options. I'd like also to see them in irregular groups, each picture with its options."

   You need a psycho-analyst, not **Mostra**.

Acknowledgments

I wish to thank some people, first of all the ARP team for the arp.library and the SAS team for the best Amiga C compiler. Speed and compactness of **Mostra** come from the fabulous 5.10b release. Also I would like to thank the people that encouraged me someway or helped me to find bugs, in particular Warren Block, Tom Rokicki, Christopher A. Wichura and Loren Wilton.

If you're reading this, you probably have access to a TEX system. Anyway, if you spent a good part of your time preparing and printing documents, I'd suggest you to take a look at AmigaTEX, a wonderful package from Radical Eye Software which is probably the best implementation of TEX you can find on any computer.

Mostra is © 1990,1991,1992 Sebastiano Vigna and it's not public domain: it is shareware. You should send me $20 (or more, why not?) if you find it useful. Please don't send checks drawn on a US bank, they're almost impossible to cash. I'd prefer postal money orders, currency or checks drawn on an italian bank (in this order). **Mostra** is freely distributable as long as all of its files are included in their original form without additions, deletions, or modifications of any kind, and only a nominal fee is charged for its distribution. This software is provided "AS IS" without warranty of any kind, either expressed or implied. By using **Mostra**, you agree to accept the entire risk as to the quality and performance of the program.

Comments, complaints, desiderata are welcome.

Sebastiano Vigna
Via Valparaiso 18
I-20144 Milano MI

BIX: svigna
INTERNET: vigna@imiucca.csi.unimi.it
UUCP:seba%sebamiga@cbmita.uucp
...{uunet|pyramid|rutgers}!cbmvax!cbmehq!cbmita!sebamiga!seba
FIDO: 2:331/301.6 (aka 2:21301/6)