

00318ef0-5

Curt Esser

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Chapter 1

00318ef0-5

1.1 Blitz Tips

BLITZ TIPS GUIDE v1.0

8/97

~~~About~this~Guide~~~  
~ASCII~Key~Codes~~~~~  
~Banks~~~~~  
~Blitz~List~~~~~  
~Center~Window~~~~~  
~ChDir~Command~~~~~  
~CON~~Window~~~~~  
~Control~Tasks~~~~~  
~Copper~\$string~~~~~  
~Copper~Mouse~~~~~  
~CGX~DoubleBuffer~~~~~  
~Decrease~Bitplanes~~~  
~Dos~&~Arexx~Commands~  
~Empty~Menu~Bar~~~~~  
~Fast~Multiply~~~~~  
~File~Comments~~~~~  
~Find~Screen~~~~~  
~Find~Task~~~~~

---

---

~Find~Colours~~~~~  
~Font~Questions~~~~~  
~Functions~~~~~  
~GT~Questions~~~~~  
~HAM~Screen~~~~~  
~Headers~~~~~  
~IFF' s~~~~~  
~INC~BIN~~~~~  
~Menu~Problems~~~~~  
~Modem~Example~~~~~  
~Newtype~Arrays~~~~~  
~Overscan~Mouse~~~~~  
~Parsing~Strings~~~~~  
~PC~to~Amiga~~~~~  
~Pointers~~~~~  
~Progress~Indicator~~~  
~Palette~Fading~~~~~  
~Program~Speedup~~~~~  
~Qblit~&~Bblit~~~~~  
~ReqTools~Requestors~~  
~Requestor~Taglist~~~~  
~Front~Screen~~~~~  
~ROL~&~ROR~~~~~  
~Runtime~Error~~~~~  
~Speedup~Tips~~~~~  
~No~Screen~Title~~~~~  
~Shape' s~Palette~~~~~  
~Screen~Scrolling~~~~~

---

```
~Screen~Tags~::~::~::~::~  
~Shapes~&~Sprites~::~  
~Superbitmap~::~  
~Taglist~for~ASL~::~  
~Version~$string~::~  
~Variables~::~
```

## 1.2 About this Guide

This Guide was put together by Curt Esser <camge@ix.netcom.com>

It consists of useful bits of information I have collected from the Blitz-List and saved for my own use. While digging through the drawer full of tips, I thought - this would be much easier if it was all put together in a guide file! - so here it is. I hope it will be of some use to you.

PLEASE NOTE: USE THESE TIPS AT YOUR OWN RISK! THESE TIPS ARE PRESENTED FREE OF CHARGE, AND NEITHER I NOR THE AUTHORS OF ANY OF THE TIPS ARE IN ANY WAY RESPONSIBLE FOR ANY PROBLEMS OR DAMAGES YOU MAY HAVE FROM USING OR ATTEMPTING TO USE THEM.

These tips were gathered from the letters sent to the Blitz-List and I have presented them pretty much as-is, only removing the un-necessary parts (duplications, mailing headers, etc.) I used Heddley to make up this guide file, and unfortunately Heddley sometimes does funny things with empty spaces and carriage returns, especially on source code examples. I think I have gotten everything straightened back out again, but be careful! I may have missed something. If you find something wrong, please let me know! Also, Heddley tends to scramble the signature blocks, so don't be offended if you see one of your tips here without your complete signature block - sometimes it was messed up so bad I had no choice but to leave it off.

---

You may use and distribute this guide as you wish, everything in it was sent to the mailing list which is accessible to all, so I don't see any copyright problem with this.

I hope you find this of some use!

Curt Esser

8/97

### 1.3 ASCII Key Codes

Edward Farrow wrote: ~

```
> I was wondering if anyone has a list of keys and~their~decimal~character ~
> number (a' la Chr$(n)).
```

```
~~~~~
The quickest way to identify the values of keys for use with CHR$ is~to~run~a~
test program and write down the results yourself. Use something~like~this:~~
```

Repeat

```
 NPrint Asc(Inkey$) ~
 Until Joyb(0)=1
 End
```

The above program will show you each key code that you press.~Click~the~LMB~to quit the program. (Also, this program is CLI-Only, in~case~you~didn't~know).

--

Regards, Paul.

```
E-Mail Address: cat@aic.net.au
Amiga Web Site: http://www.aic.net.au/~cat/
```

Frank Otto wrote:

```
> how can I check if a key like Esc or Shift is pressed?
```

The following code will detect a keypress in any mode, any time, any place, anywhere. :) You'll have to make a list of your own values though, by trial-and-error.

```
key.w=Peek($bfec00) AND $ff
```

Actually, I can tell you now that ESC returns 117. :) I think the "KeyCode" command returns the same values, but the code above is smaller in your final executable.

--



Regards, Paul.

## 1.4 About the Blitz-List

The Blitz-List:

```

 AVAILABLE~COMMANDS~WITH~THIS~LIST~::~:~
~::~:~
To~use~these~commands,~mail~to:~blitz-list-request@netsoc.ucd.ie

```

This mailing list is run by a script called SmartList. It basically splits each mailing list into two separate list - the actual mailing list and another list that commands are sent. In this case the mailing list address is "blitz-list@netsoc.ucd.ie" and the commands list is "blitz-list-request@netsoc.ucd.ie". Commands have to be in the "Subject:" line of the message. Anything in the normal body text is ignored.

SmartList understands the following commands :-

```

subscribe
 Subscribe yourself to the list.

unsubscribe
 Unsubscribe yourself from the list.

help
 Get sent a helpfile.

archive help
 Get sent the archive helpfile.

```

All mail sent to blitz-list is archived. If you would like to get any old mail you can obtain it from the archive/latest/directory. The messages are numbered (until I can find an easy way to thread the mails together!). To retrieve them first read the archive helpfile.

By default, copies of your own submissions will be returned.

```

 WELCOME~TO~THE~BLITZ-LIST~!!~
~::~:~
This list is for any kind of conversation, news and questions concerning Blitz
Basic 2.

```

```

 List's address is: blitz-list@netsoc.ucd.ie

```

```

 HOW~TO~REPLY~TO~BLITZ-LIST'S~MESSAGES~
~::~:~
Since november 95 there is following header in all messages which are sent to
the list: "Reply-to: blitz-list@netsoc.ucd.ie".

```

This means that the easiest way of replying to the list is to~just~use~your mailsoftwares "reply" command. On the other hand, if you want to~do~a~private reply to the original sender, you'll have to take the~address~from~message's header.

Some mail packages (e.g. Pine) ask you to which address you want~your~reply~to~be posted to when you are sending the mail.

~~~~~RULES~~~~~

~~~~~  
There aren't any rules about what should be posted~to~the~list,~but some messages are bounced by  
listserver:~~~~~

- messages~containing~more~than~7000 chars~~~~~
- messages with administrative contents~(subcriptions~etc.)

~~~~~POLITENESS~TO~OTHERS~ON~THE~LIST~~~~~

~~~~~  
--As~the~list is unmoderated, the importance of politeness and good "netiquette" is not to be underestimated. As many people have to pay for their email and even those, who have free email don't usually want to receive lots of "junkmail", please note the following:

- Please don't take part to threads which aren't Blitz related. While many may find the thread interesting, the other half may find it very irriating having to read about the subject from this forum, which should be dedicated to Blitz.
- When you reply to the list, please don't quote whole message to which you are replying, as this is pure waste of bandwith & diskpace. Instead find out how to cut text in your mail software's editor and just quote the part which is important for understanding the reply. In emacs, CTRL+k cuts one line and Esc, CTRL+w cuts one paragraph (text section surrounded with empty lines).

~~~~~BUMS~~~~~

~~~~~  
If you have sent your registration card, you should~receive~a~letter~from Acid telling you to whom to turn in your part of the~world~in~order to~subscribe it. If you have sent your card a long time ago~but~there's~no~letter, I suggest you ask about it from Acid via the list.

~~~~~FTP SITES~~~~~

~~~~~  
There are couple of sites you can check for blitz stuff:

x2ftp.oulu.fi

The login procedure is as follows:

```
Username: anonymous
Password: <your email address>
```

...and you're in. Then cd to pub/amiga/prog/blitz , change-your-datamode-to-"binary" and download all the stuff you want. It's easy-to-automize the-login-procedure if you are using Unix (see manual page-for-.netrc) or if you-can use-Arexx.

another one is:

```
ftp.ee.port.ac.uk /pub/blitz (use the same login procedure)
```

```
~~~~~USENET~NEWSGROUPS~~~~~
Blitz newsgroup has-been-started.~It's~name is:
```

```
~~~~~
~~~~~ alt.sys.amiga.blitz ~~~~~
~~~~~
```

This newsgroup is linked with blitz-list so that every-message,~which~is mailed to the list, will be mailed to the newsgroup as~well.

```
~~~~~WORLD~WIDE~WEB~~~~~
Check the following www-pages:
```

```
http://sun1.bham.ac.uk/cca93057/ProgPage.html~(Mark~Tiffany)~http://phymat.bha
~m.ac.uk/BaxterMA/me.html~(Mark~Baxter)~http://www.helsinki.fi/~mmmakela/
```

let me know, if you want your own page mentioned here !

```
~~~~~LIST OWNER'S EMAIL ADDRESS~~~~~
If~you~have~problems~with list, you can send me email: daireb@netsoc.ucd.ie
```

That's it, keep on Blitzing !

Daire Byrne '97

## 1.5 ChDir Command

On 13-May-97, AJD wrote:

```
Please, I'd love to be able to scan directories like this,
but~I~can't~get~the example code to work (I have got the elmore dos
library).~It~seems~that~the ChDir command does not work for me.. any ideas?
```

I'm using an '030 with 3.0 & I think I'm using v 2.2 of the library (I have the docs for 3.2). I have tried getting this to work on many occasions..

And you never will ;-/ The library was changed from (I think from Bum 8 to 9) but the old documentation was still in Bum 9 :-< Sounds like you're using the Bum 8 docs with the Bum 9 library. To make it worse, the ChDir shows up as an command, but doesn't work.

Try this:

```
Examine("ram:") ; replaces ChDir in new lib

While MoreEntries ; check if there's any more entries

 File_Name$=EntryName$; get its name
 If EntryDir ; check if its a directory
 Print "Dir: "
 NPrint File_Name$
 Else
 NPrint File_Name$
 EndIf

Wend

MouseWait End
```

--

```
Anton Reinauer <anton@ww.co.nz>
Machine: A500,DF1:,1MC,8MF,60HDD,WB3.1 &1.3/2.0
 - Now with gigantic new disk box!
Project: Pyromid - status [C***L!]
Webpage: http://www.ww.co.nz/home/anton
```

## 1.6 Center Window and get Font Height

On 05-Jun-97 09:22:45, Bruce Henderson wrote...

```
BH> What I'm TRYING to do is get the System-font height from the WB-screen.
BH> I don't believe I've got the hang of this (*) pointer thing yet.
```

Well have a look at this. It basically does what you what (I think) -- I'm a little rusty on all this Blitz stuff, not that I was very cluded up to start with...

```
;-----
.screen ; get our screen objects' structure

*scr.Screen=Peek.l(Addr Screen(0))

Let~fsize=*scr\BarHeight-10~
myfont$=Peek$(*scr\Font\ta_Name)~~~~~
fontsize.w=*scr\Font\~ta_YSize ~~~~~
Let~myfont=fontsize-8 ; determine~title
```

bar~height

```
If win_x>(*scr\Width-#GUI_WIDTH) ; centre window if x/y positions
 win_x=(*scr\Width-#GUI_WIDTH)/2 ; exceed
 screen~width/height~EndIf~If~win_y>(*scr\Height-(#GUI_HEIGHT+myfont))
 win_y=(*scr\Height-(#GUI_HEIGHT+myfont))/2 EndIf
```

```

```

Just a few pints though...

1. Don't ask me how this works /exactly/ it just does and~that's~good~enough~for me. :)
2. The #GUI\_WIDTH and #GUI\_HEIGHT constants are my own --not~created~by~Blitz/os etc. They are of course self explanatory as~all~constants~and~variables should be. ;)
3. This code also gives the variables win\_x and win\_y the~positions~to~center~the program on~screen. I found the commands from the~manual~were~unreliable~when used with non~standard screen sizes.
4. The bit u r interested in is 'myfont' which is the fon'ts~height~less~8,~which is used later when opening your window to ensure the~title bar~is~the~correct height. I think.
5. If I've made any mistakes here can someone let me know? ;-)

Bye now,

```

 /__) / // E-mail: paul@blitzer.demon.co.uk //
 / AUL /__ATHWELL // http://www.blitzer.demon.co.uk // _ _ _
~_~_~_~_ _ _ _ _ // IRC: Blitzer_ //
```

## 1.7 Using Banks

> Hello,

>I would like to load 1 mod, 1 module, 2shapes file, and 1 palette in to banks, and save these banks into 1 file, like LEVEL1.DATA, and when I load the bank I should have a way of seperating the data to diffrent banks. I already use the ENCRYPT and DECRYPT commands to protect my files

Quite easy actually. Just use a FileHeader :

```
NEWTYPE.FileHeader
 Mod1Pos.l ; Offset in file for module#1
 Mod2Pos.l ; Offset in file for module#2
 Shp1Pos.l ; Offset in file for Shape#1
 Shp1Len.l ; Lenght of Shape#1 file
 Shp2Pos.l ; Offset in file for Shape#2
 Shp2Len.l ; Lenght of Shape#2 file
 Bmp1Pos.l ; Offset in file for BitMap#1
```

```
DataPos.l ; Offset in file for LevelData
DataLen.l ; Lenght of DataFile End NEWTYPE
```

```
Mem.l = Start(0) ~
*Header.FileHeader = Mem DecodeModule 0,Mem + *Header\Mod1Pos ~ CludgeBitMap
0,320,256,8,Mem + *Header\Bmp1Pos ~ ~ ~ You can encrypt the whole file, and
decrypt it once you've loaded it.
```

For CludgeShapes you need to know the number of shapes. You can save this in the header also, but there is also a way to find out with the data :

```
Shp_Count.w = 0 ~
Offset.l = 0 ~
While Offset <= *Header\Shp1Len ~
 Shp_Size = Peek.w(*Header\Shp1Pos+Offset+26) ~
 Offset + Shp_Size + 32 ~
 If Offset <= *Header\Shp1Len Then Shp_Count + 1 ~
Wend ~
CludgeShapes 0,Shp_Count,*Header\Shp1Pos ~
```

To create a file is just as easy :

First you need to know the size the file is going to be. To find this out, just add up all filesizes of the files you're going to use, and store it in Total\_Size.l

```
HeadSize.w = SizeOf.FileHeader ~
Total_Size + Head_Size ~
InitBank 0,Total_Size,65536 ~
Mem.l = Start(0) *Header.FileHeader = Mem ~
Offset.l = 0 ~
FILENAME$ = "module#1.mod" ~
FSiz.l = FileSize(FILENAME$) ~
If Bload(FILENAME$,Mem+Head_Size+Offset) ~
 *Header\Mod1Pos = Head_Size + Offset ~
 Offset + FSiz ~
Else ~
 Nprint "Error reading file" ~
 End ~
endif ~
FILENAME$ = "module#2.mod" ~
FSiz.l = FileSize(FILENAME$) ~
If Bload(FILENAME$,Mem+Head_Size+Offset) ~
 *Header\Mod2Pos = Head_Size + Offset ~
 Offset + FSiz ~
Else ~
 Nprint "Error reading file" ~
 End ~
endif ~
FILENAME$ = "Shapefile#1.shp" ~
FSiz.l = FileSize(FILENAME$) ~
If Bload(FILENAME$,Mem+Head_Size+Offset) ~
 *Header\Shp1Pos = Head_Size + Offset ~
 *Header\Shp1Len = FSiz ~
 Offset + FSiz ~
Else ~
 Nprint "Error reading file" ~
```

```

End ~
Endif ~
~
Well you get the idea... Just encrypt it before writing...

Good Luck,

Serge Veugelers

- THE QUALITY TEAM - (sergev@cistron.nl)

```

## 1.8 Output to Con: window

On 13-Jun-97, Paul Lathwell wrote: ~~~~~  
>Hi,

>My current project requires to output data to a window and I thought it may  
>be easier just to use the CON: device using a routine based upon the program  
>below...

```

>WBStartup ~~~~~
>Use Screen 0 ~~~~~
>If WriteFile (2,"CON:0/230//320/Rictor Output/CLOSE") ~~~~~
> FileOutput 2 ~~~~~ >
Print "Hello World" ; just some test data ~~~~~ >
Delay_5 ~~~~~ ~ >
MouseWait ~~~~~ ; for the purpose of this test prog ~~~~~ >
CloseFile 2 ; close the file afterwards. ~~~~~
>Else ~~~~~
> BeepScreen 0 ; if there is a problem opening~the file ~~~~~
>EndIf ~~~~~
>End

```

>...Now the only problem I have with this is that that data is not displayed  
>until you hit a mouse button, but this also closes the file and therefore the  
>CON: window is closed. I've tried various additions to the Print "Hello  
World" >including the following which I thought may be the cause of my  
problems...

blitz uses buffered file output, so the output isn't displayed until the  
buffer is full. Try setting the buffer size to 0 with DosBuffLen to make  
output go directly to the file (and thus to your window).

Steve Mc. Red When Excited Ltd.

-----

## 1.9 Break a running task

I watched as Dave Fisher entered 'Breaking a running task' into the terminal.

```
DF> When run from a CLI window, its simply a CTRL-C to stop it. Now I'm
DF> running it from the GUI, I'm not sure how I'd issue the CTRL-C to the
DF> task. I obviously must "RUN" the task rather than just execute it, IE
DF> Execute_ "RUN >NIL:c:mpega...."
DF> rather than Execute_ "c:mpega...." as I won't be able to take anymore
DF> user input, IE a click on the stop button. Any one got any ideas ?
```

Well lets try something like this:

```
*task.Process = FindTask_("mpega") ; or whatever the name of the executable is
If *task ; if the task is found...
 Signal_ *task,#SIGBREAKF_CTRL_C ; ...send a break~~~~~
Endif
```

That should do it.

'Run' ing the application will then allow your gui to multitask. This way the STOP gadget can have an effect.

---

```
Blitz User No: 532 ~~~~~ sa@thenet.co.uk
 -O-O- or
 [0] simon@darkside.demon.co.uk
 \ = / Of Creative Software In memory of
Team *AMIGA* _/
Rick Lembree _/
```

## 1.10 Custom Copper String

```
At 15:03 5-06-97 -0100, you wrote: ~~~~~
>I need some examples about using CustomCop$. ~~~~~
>Blitz's manual reports that "CustomCop$ string: string is a string~~~~~
>representing your copper instructions...". No examples about how made~~~~~
>is the string!!!
```

The string is simply a representation of the coplist, so instead of just putting in characters, you need to put words in the string. This can be done with Mki\$() :

```
#COLOR00 = $180 #COLOR01 = $182 #COLOR02 = $184
```

```
Cop$ = Mki$(#COLOR00)+Mki$($0000) ; Change Color#0 to $000 (black)~~~
Cop$ + Mki$(#COLOR01)+Mki$($0FFF) ; Change Color#1 to $FFF (white)~~~
Cop$ + Mki$(#COLOR02)+Mki$($0F00) ; Change Color#2 to $F00 (red)
etc...
```

If you use the display-library, you'd better use CustomString. You have to reserve a few coplines for every scanline though. The number of coplines you need to reserve is (2+(Len(Cop\$)/4)) \* -1 (i.e. make negative)



Bye now,

Serge Veugelers

```
- THE QUALITY TEAM - (sergev@cistron.nl)
| ~ ~ | oO| Serge Veugelers (Coding) | C| 0 0 |D |
Raymond Zachariasse (Graphics) |
| {} | |=====|
| ~ ~ | | Current projects : BrainTeaser : Puzzle (10%)|
~~~~~ | | IRQBlit : Blitzlib (20%)|
||||||| ----- Additional
Coding : Vittorio Ferrari ----- (A)bort
(R)etry (I)nfluence with large hammer
```

## 1.11 Copper Mouse

Andreas Håkansson wrote: ~~~~~~  
 >I'm programming in blitz mode, and I want a pointer to be displayed. i have  
 >turned on mouse readings with #Mouse On#, and I have found the  
 >#Pointer > Sprite,Sprite Channel# commands, but it only works with  
 >slices

You are right with Mouse On. This lets you read MouseX and MouseY values.

So just use DisplaySprite CopList#,Sprite#,MouseX,MouseY,SpriteChannel#

See you,

Liz.

Member of \*Desktop Corruption\*  
 ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

```
tucks@pavilion.co.uk      projects:  BlitzMAP  complete
A1200T 10meg 850hdd       Swarm      10%
```

## 1.12 Double Buffered Window for CyberGraphics

Hi Curt,

>I would be very interested how you were able to do double-buffered~~~ ~~~~~  
 >drawing using just a window? And how do you change the "viewing area" from  
 >the top of the window to the bottom (and back)?

There are two main ways to double buffer with the AmigaOS. The best way is to use the AmigaOS double buffering which is a method that I have not tried. The reason I've not used that system is because the CyberGraphX system doesn't yet support it. For me, I found the Blitz method of bitmap swapping to be enough.

The second method which is the one I use and the one that works with CyberGFX is to open a screen that is twice as high as the view. A common CyberGFX screen is 640x480 so I would open a 640x960 screen. Then you can either open

one very tall window or two windows for each half. Render your graphics to the hidden half and then switch the views using something like:-

```
;Our screen is 640x960 but the variables ScrW and ScrH are ~~~~~~
;setup with 640x480 which is the actual view size. ~~~~~~
Statement show_bitmap{}~~~~~
  SHARED ScrH,ScrW~~~~~
  *vp.ViewPort=ViewPort(0)           ;ViewPort of screen
  rast.w=*vp\RasInfo\RyOffset        ;Y Offset of Screen

  If rast=0 Then rast=ScrH else rast=0 ; toggle from top/bottom

  *vp\RasInfo\RyOffset=rast          ; Setup new offset pointer
  WaitBOVP_(*vp)                    ; Wait till bottom of ViewPort
  ScrollVPort_(*vp)                  ; Now Scroll to new position! ~~~~~
End Statement~~~~~
```

What I have just explained is ALL you need to know in order to create a double buffer CyberGraphX compatible game. Obviously you'll need to render graphics using system calls that can be redirected to the GFX card. Something like WBlit would work fine. If your game doesn't need super fast update ie, 12fps or less then you can easily cheat by rendering everything to normal bitmaps using normal blit commands like BBlit, ClipBlit etc.. Then the bitmap can be copied with BitMapToWindow at the end of each frame. This is pretty fast on lowres screens. You could easily write a 12fps game using that system.

Cheers,

Paul

```
-- <----->
  Paul Burkey - Project: Foundation [#####-----] 79%
  paul@sneech.demon.co.uk -- Amiga Realtime Strategy Wargame --
  Foundation Home http://www.sadness.demon.co.uk/foundation.html
<----->
```

## 1.13 Decreasing Bitplanes

On Sun, 10 Aug 1997, Andreas Håkansson wrote:

```
> and blit my object on a separate bitmap and save it. The only problem is
>that I only want the mask bitmap to be in one bitplane (2 colors),
>but I can't do that because then I get an error saying "Shape has got too
>many bitplanes".
~~~~~
```

I'm not sure if this will work Andreas, but you could play with the following idea:

```
BitMap 4,320,256,6
BitplanesBitmap 4,5,$01 ;From the above bitmap, establish a 1
 ;bitplane bitmap

Use Bitmap 4 : Cls 0
BlitMode SolidMode
```

```

Blit your shapes
Use BitMap 5 ;setup to get shapes from the 1 bitplane
Do your GetaShape commands

```

Note: this example is for a 6 instead of 8 bitplane, but  
I think will could work with an 8 bitplane too.

I hope this is of some help

Tom

## 1.14 Dos Commands

```

>I'm using Execute_ to run some executable programs but that doesn't work in >
the following:~~~~~
> Execute_ "rx wibble.rx"0,0~~~~~
 ^
 ", "

```

Please try execute\_ "rx wibble.rx",0,0

> I didn't really expect it to but it was worth a try. Anybody have a method  
> of running these scripts?

Your experiment was right - execute\_ "RX xxx.xxx",0,0 should be successfull,  
perhaps you've forgotten ", " after "...rx" - s. a.

Bye...Armin...

```

- _ _ _ /_____/\ _ _ _
.:\/ http://insider.regio.net/ecs - Electronic Schmidhuber \/:.
.:_____| 08628/988998 (V.34) - 988997 (V.34) - 988988 (ISDN) |_____:.
| | Time Warp BBS - LoRay@timewarp.insider.org |

```

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## 1.15 Empty Menu Bar

On 30-Jul-97, Paul Burkey wrote:

```

> I'm >drawing my graphics direct to the screen via a window and for some ~~~~
>reason my screen seems to have an empty menu that never used to be there. ~~
>To explain myself fully... When you hold the right button down the title bar
>becomes active.

```

>Is it the window that is causing this empty Menu to show up?

Yes! You might try the Menus Off command.

```
~~~~~
```

Yours electronically,

Curt Esser  
camge@ix.netcom.com

## 1.16 Fast Multiply

> What about the maths commands? Stuff like multiplying/dividing/raising to >a power/rooting. Could (has) that be (been) made any faster?

Use shifts instead of multiplies/divides, if your multiplying/dividing by a power of two (2,4,8,...)

To multiply by 9, try `i LSL 3 + i`, to multiply by 12, `i LSL 3 + i LSL 2`, etc.

I did a test earlier for `z*45`, seeing how fast this was...

ResetTimer~~~~~

```

For i.l=1 To 200000
  MOVE.b test,d0
  !EXTB{0}
  MOVE.l d0,d1
  LSL.l #5,d0
  SUB.l d1,d0
  LSL.l #4,d1
  ADD.l d1,d0
  LSR.l #3,d1
  SUB.l d1,d0
  MOVE.l d0,test2 ; 35 ticks ~~~~~
; answer.l=z LSL 5 +z LSL 4 - z LSL 1 - z ; 60 ticks ~~~~~ ;
answer.l=z*45 ; 100 ticks ~~~~~
~Next

```

As you can see, the assembly was fastest, but even just using LSL is about twice as fast as a multiply. Though you can't use GetReg/PutReg, because they're are very slow.

Cheers,

Julian Kinraid jkinraid@clear.net.nz

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## 1.17 File Comments

```
joj> what i really want to do thou is to read the file comment on a
joj> particular
joj> file and be able to display it to the user.
joj> Is this possible in blitz
```

There may well be a Blitz'y way to do this, but in pseudo code:

```
mylock.l = Lock_("Sys:my_File",#ACCESS_READ) If mylock ; locked OK
*myFIB.FileInfoBlock = AllocMem_(SIZEOF .FileInfoBlock, #MEMF_ANY)
If *myFIB ; alloc'ed memory OK
  If Examine_(mylock,*myFIB) ; examined OK
    NPrint "Comment: ",peek$(*myFIB\fib_Comment) ; the comment!
  EndIf
  FreeMem_ *myFIB
EndIf
Unlock_ *mylock EndIf
```

That's not pseudo, hell it may even run! ;)

---

```
Blitz User No: 532      ~~~~~      sa@thenet.co.uk
                      -O-O-      or
                      [  O  ]      simon@darkside.demon.co.uk
Team *AMIGA*          \ = /      Of Creative Software In memory of
Rick Lembree \_/
```

## 1.18 Find Screen

On 26-Jun-97 15:36:56, Stephen McNamara wrote...

```
>>I have a simple program which has a configuration file. In this
>>configuration, I wish to have an option for the user to set what screen my
>>program's window will open on, so far so good. Right so I use the FindScreen
>>command specifying the screen's name... <snip>
```

SM> If the screen you're finding is a public screen then you can do:

```
SM>   if LockPubScreen_("Voyager")
SM>       FindScreen 0,"Voyager"
SM>       UnlockPubScreen "Voyager"
SM>   endif
```

Hmmm that may just be enough for what I want to do. This is not exactly a wonderful application I've knocked up, just a simple and quick to use util.

—

```

/___) / // E-mail: paul@blitzer.demon.co.uk //
/ AUL /___ATHWELL // http://www.blitzer.demon.co.uk // _ _ _ _ _
_ _ _ _ _ // IRC: Blitzer_ //
---

```

## 1.19 Find Task

On 21-Jun-97, Andreas Håkansson wrote:

>And do some know how I can from my Blitz program find out if another  
>program is running? I have tried FindTask\_() but it always returns the >same  
thing, even if the task isn't running.

Try it this way. This works on my system:

WBStartup

```

y.w= FindTask_("Yam") ~~~~~
d.w= FindTask_("Dpaint") ~~~~~
NPrint "y=",y, " d=",d ~~~~~
Ify>0
  NPrint "YAM Running" ~~~~~
Else
  NPrint "YAM not found" EndIf

If d>0
  NPrint "Dpaint Running" ~~~~~
Else
  NPrint "Dpaint not found" ~~~~~
EndIf

MouseWait End

```

It needs the quotes on the task name, and also seems to be case sensitive. For example:

Findtask\_("YAM") does not work for me Always gives me 0 Findtask\_(Yam) also does not work but it doesn't give a syntax error.

It should give you 0 if the task is not running, and a positive number if it is.

You may need to experiment to find the correct name of the task you are looking for.

--

Yours electronically,  
Curt Esser  
camge@ix.netcom.com

## 1.20 Find Colours

On 30-Jul-97, Xavier NUEL wrote:

```
> I'm working on an Image Processing program (wich is already on Aminet and
>on my Homepage) and I just want to know if anybody know how to find the most
>nearly color coded with R-G-B in a palette from a picture.
```

```
> I'll try to explain better:
```

```
> If I've want to find the best colour for $000000 (pure black) in a 4
>colour palette $FF0000 , $00FF00 , $0000FF, $112233 (for example), how can I do
>this?
```

One possible way is :

```
mycolour.l=$000000 ~~~~~
myred.w=(mycolour AND $ff0000) ASR 16 ~~~~~
mygreen.w=(mycolourAND $00ff00) ASR 8 ~~~~~
myblue.w=(mycolour AND $ff)
myvalue.l=(myred*myred)+(mygreen*mygreen)+(myblue*myblue) ~~~~~
closest.l=$FFFFFF ~~~~~
closestcolour.b=0~~~~~
For n.l=0 to numcolours
  r.w=AGAPalRed(n)
  g.w=AGAPalGreen(n)
  b.w=AGAPalBlue(n)
  thisvalue.l=(r*r)+(g*g)+(b*b)
  If Abs(thisvalue-myvalue)<closest
    closest=Abs(thisvalue-myvalue)
    closestcolour=n
  EndIf ~~~~~
Next n
```

Steve. --

```
.-----
. |Red When Excited Ltd      | WWW          http://www.ldngedge.demon.co.uk |
|2 Slimmons Drive,         | My EMail Big.Will.Riker@ldngedge.demon.co.uk | |St.
Albans,                    | A1200T/040@40/18Mb/1.6Gb/33.6k/8xCDROM/1.76MbFD   | |
|Herts. AL4 9AS. ENGLAND | Company EMail redwhen@ldngedge.demon.co.uk |
\-----
```

Steve, your code is more faster than my own code, and near its. I don't know why I don't made it like yours...

Mine is :

```
m=255
For cc=0 to NColour
  m1=Max(Abs(AGARed(cc)-R),Abs(AGAGreen(cc)-G))
  m1=Max(m1,Abs(AGABlue(cc)-B))
  If m1>Tolerance ; <---Searching tolerance
    color=cc
    Pop For
    Goto out
  Endif
  if m1<m
    m=m1
    color=cc
  Endif
Next
out:
```

For more speed, I use a table like this :

```
Newtype.col
  b.w
  colour.w
End Newtype
```

```
Dim ColourFind(255,255).col
```

And I can store the result from the research in it.  
I'm not sure this is the best method to do this,  
but it works...

Simon, I will try what you was explain to me...  
I hope it will be more faster than my code...

Again , Big thanks to you !!!

--

Xavier.

---

I know from reading the autodocs that the internal FindColor\_ command uses an  $x^2$  formula to calculate the nearest match. If you are colour remapping an entire picture then you should store them in a lookup table to greatly speed things up.

---



Heres the code I wrote for my program.

```
Function.l MatchRGB{r.l, g.l, b.l} ~~~~~
SHARED *scr.Screen ~~~~~
best.l = 1000000~~~~~
d = 2^*scr\_BitMap\Depth~~~~~
Repeat~~~~~
```

```
diff.l =Abs (AGARed(a)-r)^2+Abs (AGAGreen(a)-g)^2+Abs (AGABlue(a)-b)^2~~~~~
If diff <= best Then best = diff : bestcol.l = a
a + 1~~~~~
Until a=d OR diff=0~~~~~
Function Return bestcol.l~~~~~
End Function
```

```
PaletteInfo 2
```

```
Use BitMap 1
```

```
ncol = 2^ILBMDepth
Dim stored2.l(ncol)
For a = 0 To ncol-1
    stored2(a) = -1
Next
```

```
For y = 0 To ILBMHeight
    CheckButtons{}
    For x = 0 To ILBMWidth
        c = Point(x,y)
        If stored2(c) = -1
            stored2(c) = MatchRGB{AGAPalRed(c),AGAPalGreen(c),AGAPalBlue(c)}
        EndIf
        Plot x,y,stored2(c)
    Next
Next
```

That should do it.

-- Cheers,

```

  /_/_ \ /_/_ \ /_/_ /_/_ /_/_ /_/_ /_/_ /_/_ /_/_
 / ' // ' // / / / / / / / / / / / / / / / / /
 / o / - \_/_ /_/_ / / / / / / / / / / / / / / /
 /_/_ /_/_ \_/_ /_/_ /_/_ /_/_ /_/_ /_/_ /_/_ /_/_ \
```

WEB-Term -> 90% Complete

## 1.21 Fonts

Jarmo Laakkonen wrote:

> How can I get the system font size?

Make sure that AMIGALIBS.RES is present in the RESIDENT list of your COMPILER OPTIONS. Then, have your code like so:

```
WBenchToFront_:FindScreen 0; Use the Workbench screen
*scr.Screen=Peek.l(Addr Screen(0)); Get screen info
fy=*scr\Font\ta_YSize; Get height of system font
```

The variable "fy" will now hold the system font height. Everything above is case-sensitive, so take care! This tip only works if you use Workbench as the screen, which is natural since private screens use their own font and not the system one (usually).

--

Regards, Paul.

E-Mail Address: [cat@aic.net.au](mailto:cat@aic.net.au) Amiga Web Site: <http://www.aic.net.au/~cat/>

---

I watched as Bruce Henderson entered 'Screen Pointing (Was GTLists &....)' into the terminal.

```
BH> Here's my test-code. Don't laugh. (well ok, if you have to)
```

```
BH>           WbToScreen 0
```

```
BH>           *Myscreen.Screen=Addr Screen(0)
```

```
BH>           *Myfont.TextAttr = *Myscreen\Font
```

```
BH>           Value.w = Peek.w(*Myfont\ta_YSize)
```

Oooops! GURU ;) )

```
Try Value.w = *MyFont\ta_YSize. #;)
```

```
BH>           Print Value
```

---

I watched as Paul Lathwell entered 'Screen Pointing

```
PL> .screen                                ; get our screen objects' structure

PL> *scr.Screen=Peek.l(Addr Screen(0))

PL> Let fsize=*scr\BarHeight-10
PL> myfont$=Peek$(*scr\Font\ta_Name)
PL> fontsize.w=*scr\Font\ta_YSize
```

So far so good, untill we get to the next line...

```
PL> Let myfont=fontsize-8                    ; determine title bar height
```

NOT GOOD, the '8' is not guaranteed. A better way? Oh yes...

```
Either use *BarHeight* (not very reliable), or                                ~~~~~
BHeight.b = *scr.Screen\BarHeight
```

This is the friendly way to get the barheight. Intuition will automatically size this when loading the font, and doing a refresh. You never need to worry. It is useful, however, for working out where eveything should be in font sensing GUI's.

```
PL> If win_x>(*scr\Width-#GUI_WIDTH)      ; centre window if x/y positions
PL>   win_x=(*scr\Width-#GUI_WIDTH)/2     ; exceed screen width/height
PL> EndIf
PL> If win_y>(*scr\Height-(#GUI_HEIGHT+myfont))
PL>   win_y=(*scr\Height-(#GUI_HEIGHT+myfont))/2
PL> EndIf
```

Altho' the rest is scruffy, it's technically acceptable ;)

Toodle.....

```
-----
Blitz Basic mailing list -- Brought to you by daireb@netsoc.ucd.ie To
un/subscribe, send a mail to blitz-list-request@netsoc.ucd.ie with the
word un/subscribe as the subject.
```

## 1.22 Find Front Screen

```
> Why, when I have Screen 1 at the front of the display, is ActiveScreen ~~~
> not the same as Addr Screen(1)?
```

I'm using something similar to that in my game although I'm testing for



## 1.24 GT Questions

EH> I have used the GTCycle tool, but can't find out how to get the value  
EH> from it.

When you detect the gadgethit from it, use EventCode to return the active  
face.

-----  
On 20-Jun-97, Curt Esser wrote:

>Does anyone know how to force a set of GT buttons to use a particular font?

Gadgets should use the current intuifont when they are created. Thus do a Use  
IntuiFont # before creating the gadgets. This should force them to use the  
font. When you load a font it becomes the currently Used font, so you have to  
reselect your previous one.

>Also, how do I make GT gadget's position be relative to the bottom of the  
>window rather than the top? And relative to the right side of the window?

You cannot make GT gadgets relative to anything other than the top-left corner  
of the window.

Steve Mc. Red When Excited Ltd.

-----  
I watched as Tyler Lund entered '[Blitz] GadTools problems...' into the  
terminal.

TL> 1. The GTsetattrs commands that are supposed to set the checkboxes  
TL> don't. BUT if I move the MX gadget preceding them to another  
TL> location... it suddenly works. Weird huh?

This is the age old problem of Gadget ID's. Set the ID's from 50 upwards,  
works fine then.

-----  
TM> Please excuse my ignorance, but can anyone describe how to set up a  
TM> GTLISTVIEW a bit better than how it does in the manual?  
TM> Do the options have to be in one string, or can they be in an  
TM> array/list?  
TM> How can a string be second in a list after a .W? Don't lists have to  
TM> be of  
TM> the same type?

Some code.....

```
WbToScreen 0 ; let's have a screen~~~~~
; lets define a list and fill it with crap for now ~~~~~
NEWTYPED .listview
    pad.w
    string.s ~~~~~
```

```

End NEWTYPE ~~~~~
Dim List MyList.listview(5) ~~~~~
If AddItem(MyList()) Then MyList()\string = "Item 1" ~~~~~
If AddItem(MyList()) Then MyList()\string = "Item 2" ~~~~~
If AddItem(MyList()) Then MyList()\string = "Item 3" ~~~~~
If AddItem(MyList()) Then MyList()\string = "Item 4" ~~~~~
If AddItem(MyList()) Then MyList()\string = "Item 5" ~~~~~
; some gadgets ~~~~~
GTString 0,50,8,39,100,13,"",0,256,"" ~~~~~
*strGad.Gadget=GTGadPtr(0,50) GTTags #GTLV_ShowSelected,*strGad ~~~~~
; dont worry too much about this ;) ~~~~~
GTListView 0,51,8,-5,100,50,"",0,MyList(),0,0 ~~~~~
; our wonderful window ~~~~~
Window 0,10,10,150,100,$140e,"Test",1,2

AttachGTList 0,0 ; lets see them ; ~~~~~
Repeat ; our main loop
    ev = WaitEvent ; wait for intuition event ~~~~~
Until ev = $200 ; quit when close gadget hit ~~~~~
CloseWindow 0 : Free GTList 0 ~~~~~
End

```

This should show you nicely about the ListView and how to use intuition to attach a string gadget automatically to the listview.

---

```

Blitz User No: 532          ~~~~~          sa@thenet.co.uk
                        -O-O-          or
                        [ 0 ]          simon@darkside.demon.co.uk
Team *AMIGA*              \ = /          Of Creative Software In memory of
Rick Lembree  \_/_/

```

I watched as James entered '[Blitz] GTScroller' into the terminal.

```

J> According to the manual, when you create a GTScroller, it should have
J> arrows attached to it for moving the bar. When I create one, I don't
J> get any arrows.

```

This is achieved using the flags. Try a flag value of \$200. To set the size of the arrows, use GTArrowSize xx.

```

J> Also, how could I get my program to respond to the scroller, everytime
J> the bar changes position. At the moment it only responds when you let
J> go of the bar, I want to be able to update the window constantly, not
J> just when the bar has finished moving.

```

The gadgetflags value should include \$80 (#GA\_Immediate)

```

Blitz User No: 532          ~~~~~          sa@thenet.co.uk

```

The gtscroller can be made to scream while moving it by hitting this line in

the beginning of the prog : AddIDCMP \$400000|\$10 -Ariakas

-----  
On 26-Jul-97, Tom Miles wrote:

>Hello Curt Esser, on 22-May-97 04:19:13, you said,

>>>Thirdly - How come GTBevelBox appears to do nothing what-so-ever (i.e. I  
>>>can't get it to draw a bevelbox at all!)

> CE> The bevelboxes must be drawn AFTER you attach the GT list (the manual >  
CE> doesn't say, I found this out by accident) Also, if you use 0 for the >  
CE> flag, you get a normal bevelbox (looks like a button) and 1 gives a > CE>  
recessed bevelbox.

Hi,

Why don't you write a Statement at the top of your program such as

```
Statement bbox(x,y,width,height,state)
  if state=1
    col1=1          ; BLACK
    col2=2          ; WHITE
  else
    col1=2          ; WHITE
    col2=1          ; BLACK

  wline x,y,x+width,y,col1
  wline x,y,x,y+height,col1
  wline x+width,y,x+width,y,col2
  wline x,y+height,x+width,y+height
End Statement
```

That should work, I'm not sure if the coordinates are right cause I've just done of the top of my head, you may need to mess around with the colours and corrdinates to get it right.

Now everytime you want a box in your code just use the statement with your parameters, i.e. :

```
bbox{10,10,100,75,1}
```

Cheers,

Daniel

-----

---

On 06-Jul-97, Dennis de Haan wrote:

>I have problems reading a GTString using the command GTGetString...

>The Blitz manual talks about a #GadgetUP message, but i have no idea >what that is...

I had some problems with this one too, but I finally got it figured out. You need to do it like this:

```
a$ = GTGetString (GTlist#,id)
```

Note the parenthesis! They are missing in the manual.

The gadgetup message means to check the string gadget when you get Event \$40

--

Yours electronically,  
Curt Esser  
camge@ix.netcom.com

-----  
-

Le 30-Jul-97, Curt Esser a écrit:

> Hi All,

> I am trying to read the selection from a GTMX gadget using Eventcode but this

> doesn't work. If I change this gadget to a GTCycle gadget, it does work. Is

> there a different command I should use for a GTMX gadget?

Hi,

I think this will work... I'm sure your are using an Event of \$40 for detect the 'push' gadget. But, in case of GTMX, you must use \$20. See my source bellow ...

```
repeat
  ev.l=waitevent
  if ev=$20 <----- not $40 !!!
    if gadgethit=#GTMX
      ec.l=eventcode
      select ec
      case 1
        .
        .
      case 2
      endselect
    endif
  endif
until Quit
```





There are actually 2 ways you can zoom a window. One is by clicking on the Zoom gadget, the other is by using an event (say.. RMB-click).

The best way to set up your Zoom requires your window taglist and another list for "Zoomed" positioning. (You'll need your amigalib.res thingy on too)

```
; This is required for the Zoomed-state of your window.
Dim zoombits.w(3)
zoombits(0)= <x-coord>
zoombits(1)= <y-coord>
zoombits(2)= <width>
zoombits(3)= <height>          (if you just want a BAR.. use the Bar Height
here)

; This is your Window taglist
Dim taglist.l(10)
taglist(0) =#WA_Left
taglist(1) = <x-coord>
taglist(2) =#WA_Top
taglist(3) = <y-coord>
taglist(4) =#WA_Width
taglist(5) = <width>
taglist(6) =#WA_Height
taglist(7) = <height>
taglist(8) =#WA_Zoom          (The important part)
taglist(9) =&zoombits(0)

; Your basic window with taglist
WindowTags 0,$2|$4|$8,"My Window",&taglist(0)
```

That gets you your working Window with Zoom.

I also set \$20000000 in my flags there. Don't know if it is necessary. That tells Intuition that the window is zoomable. (There is MORE code required, as a ZOOM returns 3 individual events, and you need to trap at least ONE of these events.)

There ARE problems associated with using the ZOOM gadget if you don't check properly. As an example. Someone startup HippoPlayer. Now... click on the "Zoom" gadget. It turns into a bar... now. click it back... now click REALLY fast so that it flicks on and off between the two.. What happens ?

The Problem. Intuition is changing the Zoomed-state of the window faster than poor Hippoplayer can keep up. (well, does with my version). Probably does for OTHER proggies too.

You CAN code around that. I did.

anyway.. that's window zooming.

-> I'm also interested in the ListView thing-can it be made to inverse or -> hilight the colors of the selected item?

The List View.

This is fun, this one.

For a GTListView you MUST have your list set up like this:

```
; Sets up the List
  NEWTYPE .ltype          (anything else won't work)
    pad.w
    text.s
  END NEWTYPE

  DIM LIST mylist.ltype(<size>)
```

Setting up your GTListView Gadget :

```
; add a tag - for showing the item
GTags #GTLV_ShowSelected,GTGadPtr(0,1) ; your list
GTListView 0,1,<x>,<y>,<width>,<height>,"",0,mylist(),0,0
```

When you add something to your list, and you want to update it use this:

```
; update the GTList
GTChangeList 0,1
GTChangeList 0,1,mylist()
```

To move the "selected" pointer manually use this :

```
; change current selected
GTSetAttrs 0,1,#GTLV_Selected,0
```

If you want to get REALLY cool, you can dynamically attach a GTString gadget to the list...

```
--
0000000000000000.....0000000000000000
O                               /|    O
O   brucey@thenet.co.uk        /_|  .  O
O                               / |M|GA O
.   The PAGE >>>>>           ( BaH )   .
.   www.thenet.co.uk/~brucey   O         .
.                               o         > BMG V1.401 < .
.                               ^_ \textdegree{}          (Mpega GUI)  .
.   Catch the Sheep on      ( )o\         .
O Dalnet at #Kimva         (____)         on Aminet at O
O BaH or Woolly           /\ /\         mus/play/BMG.lha O
O                               The Sheep has Spoken         O
0000000000000000.....0000000000000000
```

## 1.25 Ham Screens

Thanx everybody who answered to my question about HAM screens. Although nobody could give me a clear solution I did solve the problem myself with the

help of all the suggestions.

To open a HAM screen in any screenmode (DblPAL, Euro72, Multiscan etc.) using the ScreenTags command all you have to do is add \$200 to the Viewmode ID. It's a shame that ILBMViewMode doesn't recognise HAM screens automatically. Maybe there is another way to check if an IFF picture/animation is in saved the HAM format?

The only big question still unanswered is why the ASL screenrequester doesn't give HAM screens as an option.

```
So long! ---/\ \-----\ \ / /-----
~~~~~ / / \arco \ \ /igelius ~~~~~
~~~~~ / /--\ \-----\ /-----
```

-----

## 1.26 Read File Headers

>Can someone tell me how I can read the header of a file, >and use it to identify what format it is?

You just have to open the file with OpenFile for example and then look for the identifications letters. (see the IFF example below)

>If I can read the header if an IFF file, can I then >read the header of, JPG, GIF, TXT, DOC, PCX ect the >same way? (I know they have diffrent headers, but do >you do it the same way?)

Yes, I do it on the same way, but with different chunks headers. To find them, you have to watch the file in hexa and look for some ID letters (like JFIF or things like that).

So here is an example to check if a file is in IFF format :

```
If ReadFile(0,PathTemp$)=-1
  FileInput 0
  Fields 0,Value.b
  For k=0 To 3
    Get 0,k
    Found$=Found$+Chr$(Value)
  Next
  For k=8 To 11
    Get 0,k
    Found$=Found$+Chr$(Value)
  Next
  CloseFile 0
  NPrint Found$
  CloseFile 0
  If UCase$(Found$)="FORMILBM"
    NPrint "Your file is a real IFF file !!"
  EndIf
EndIf
```

I hope this will help you.

Best Regards,

Mathieu

Mathieu Chènebit / LifeTeam  
 EMail : matc999@spidernet.tm.fr  
 LifeTeam Home Page : <http://www.spidernet.tm.fr/~matc999/index.html>  
 Nickname "matc" on #artbas, #amigafr and sometimes #amiga

-----~

This is the easiest way :

```
If ReadFile(0,"myfile.iff")
  FileInput 0
  A$ = Edit$(12)      ; Read 12 bytes or upto a chr$(10)
  CloseFile 0
  If Left$(A$,4) = "FORM" AND Right$(A$,4) = "ILBM"
    ;--- Do your stuff ---
  Else
    Nprint "Not an ILBM file !"
  Endif Else
  Nprint "Couldn't Open file !" Endif
```

Bye now,

Serge Veugelers

- THE QUALITY TEAM - (sergev@cistron.nl)

## 1.27 Display IFF's

>I'm trying to have my program display different IFFs with different joystick  
 >movements. It will display the first one but after that I get a bunch of~~~~  
 >vertical lines. Heres my code: ~~~~~

>bitmap 0,640,200,8~~~~~

---

```

>LoadIFF "BlahBlah",0,0~~~~~
>LoadIFF "BlahBlah",1,1~~~~~
>Initcplist 0,44,200,$13108,8,256,0 ~~~~~
>Blitz ~~~~~
> CreateDisplay 0 ; <---Activates Copperlist and is only needed once~~~~~
> Old = -1 ~~~~~
>While Gameb(1)=0~~~~~
>  If joy(1)=0 then r=0~~~~~
>  if joy(1)=2 then~r=1~~~~~
~~~VWAIT          ; <--- Wait until VBlank for smooth transition~~~~~
~~~If r <> Old          ; <--- Only update when changed~~~~~
~~~Old = r ~~~~~
>~DisplayPalette 0,r ~~~~~ >
DisplayBitmap 0,r~~~~~
 Endif ~~~~~
>Wend
~~~~~

```

> Bye now,

Serge Veugelers

```

#####      - THE QUALITY TEAM -      (sergev@cistron.nl)
| ~ ~ | | Serge Veugelers      (Coding)~~~~~|~~~~~
~| 0 0 | | Raymond Zachariasse  (Graphics) |
| {} | | =====|
| ~ ~ | | Current projects : BrainTeaser : Puzzle (10%)|
~~~~~ | | IRQBlit : Blitzlib (20%)|
||||||| | -----|

```

Member of CineTech : Soon to release Sixth Sense Investigations

## 1.28 INCBIN

```

>If I load an ILBM-picture with the IncBin command, how to I take it back~~~~~
>with the DecodeILBM command? The DecodeILBM command needs to know the~~~~~
>address-locations of the picture, how do I find it?

```

```
mylabel: IncBin "file.iff"
```

The address of mylabel is :           ?mylabel

Steve. --

```

.-----
. |Red When Excited Ltd | WWW http://www.ldngedge.demon.co.uk |
|2 Slimmons Drive, | My EMail Big.Will.Riker@ldngedge.demon.co.uk | |St.
Albans, | A1200T/040@40/18Mb/1.6Gb/33.6k/8xCDROM/1.76MbFD | |
|Herts. AL4 9AS. ENGLAND | Company EMail redwhen@ldngedge.demon.co.uk |
\-----

```

Use the ILBMGrab command, then you can get the palette at the same time.

Short example:

```
Bitmap 0,320,256,8 ; Lores 256color bitmap~~~~~
ILBMGrab ?Mypic,0,0 ; Grab the IncBin file to bitmap 0 ~~
; and palette 0 (ILBMGrab addr,bmp#,pal#)
```

```
Mypic:
 IncBin <filename$>
```

--

```
ReGaRDS : aNDReaS HÅKaNSSoN aLias : TJoMMe e-MaiL :
andy@bjuv.mail.telia.com HoMe :
www.geocities.com/SiliconValley/Height/4956/
```

-->> ReMeMBer THaT THE aMiGa WiLL oNLy Die iF We LeT iT To <<--

## 1.29 Menus

AFAIK, the only way of telling Blitz to change the menu colour is via the MenuColour command, but that only changes the colour of the foreground writing. The shortcuts still appear as colour 0 and the menu background is an icky black.

Sounds to me like you should be using the NewLookMenus flag for your window. Add a \$200000 to the flags for your window for instant improvement.

GY>Does anyone know how to get the menu width right, BTW?

---

I always add four spaces on to the end of each item. That seems to space it about right.

Bye, Alex

```
-- +-- Alex Wingrove / awingrove@thenet.co.uk --+
```

```
[Blitz Program Collection - www.thenet.co.uk/~awingrove/blitz.html]
```

## 1.30 Modem

Hello everyone,

a few people have been asking about serial and modem stuff... here's some example code taken from my forthcoming game, which allows head to head play over a standard phone line. Hope it is of some help, James

```
modem_port=#modem_port modem_speed=#modem_speed modem_timeout=#modem_timeout
serial_port=#serial_port serial_speed=#serial_speed
serial_timeout=#serial_timeout modem_init$="ATZ" modem_dial$="ATD"
modem_pickup$="ATS0=2" ; Statement flush_serial_buffer{port.b}
 SHARED serial_buffer
 For ll=1 To serial_buffer
 t=ReadSerial(port)
 Next ll End Statement ; Function.b
wait_for_response{port.b,response$,timeout.b}
;function to wait for modem response
SHARED user_terminated
time=timeout*50
response.b=True
e.l=0
For ll=1 To Len(response$)
 Repeat
 e=Event
 If (e=$200 AND EventWindow=0) OR time=1
 response=False
 If e=$200 AND EventWindow=0
 user_terminated=True
 End If
 End If
 If time>0
 time-1
 End If
 VWait
 Until ReadSerial(port)=Asc(Mid$(response$,ll,1)) OR response=False
Next ll
Function Return response End Function ; Statement
send_command{port,command$}
;function to send modem command
WriteSerialString port,command$,2
WriteSerial port,13 End Statement ; Function.b dial{port.b,number$}
;function to dial other players computer
SHARED modem_init$,modem_dial$,modem_timeout
ret.b=True
NPrint number$
```



```

send_command{port,modem_init$}
ret=wait_for_response{port,"OK",modem_timeout}
dial$=modem_dial$+number$
send_command{port,dial$}
If ret=True
 ret=wait_for_response{port,"CONNECT",0}
End If
flush_serial_buffer{port}
If ret=False
 NPrint "Modem not responding"
End If
Function Return ret End Function ; Function.b pickup{port}
;function to pick up call from other player's computer
SHARED modem_init$,modem_pickup$,modem_timeout
ret=True
send_command{port,modem_init$}
ret=wait_for_response{port,"OK",modem_timeout}
If ret=True
 send_command{port,modem_pickup$}
 ret=wait_for_response{port,"OK",modem_timeout}
End If
If ret=True
 ret=wait_for_response{port,"CONNECT",0}
End If
flush_serial_buffer{port}
If ret=False
 NPrint "Modem not responding"
End If
Function Return ret End Function

```

```

----- | Homegrown
Software - Independent Amiga Games Developers | | | | Web:-
http://www.eclipse.co.uk/homegrown | | email:- homegrown@eclipse.co.uk
| -----

```

-----

Blitz Basic mailing list -- Brought to you by daireb@netsoc.ucd.ie To un/subscribe, send a mail to blitz-list-request@netsoc.ucd.ie with the word un/subscribe as the subject.

## 1.31 Newtype Arrays

```

> #num=5 ~~~~~
> NEWTYPE.mod ~~~~~
> info$[#num] ~~~~~
> End NEWTYPE ~~~~~
> Dim QnA.mod(30) ; for a max of 30 sets of Questions And answers ????? ~~~~~
> if readfile(0,NSW.module) ~~~~~
> fileinput 0 ~~~~~
> for i=1 to #num ~~~~~
QnA.mod\info[i]=edit$9193) ~~~~~ >
next ~~~~~ >
end if ~~~~~ >
closefile 0 ~~~~~ >

```

Now, the main problem I have is when I run Blitz without the Debugger it

compiles & runs fine (even exe's), but when I use the (damn) debugger I get the following error:

```
~~~~~
QnA.mod\info[i]=edit$(193) ~~~~~
[Offset out of range]~~~~~
What the hell does this mean ? Why won't it work, when it seems to run quite fine ?
```

I have found that when I declare an array in a newtype (say a.b[x]) valid array values are from 0 to x-1 (a.b[4] allows a[0]...a[3]). Try using #num-1 as your max array subscript value.

Why this is different than a normal array not in a newtype (a.b[4] actually allows a[0]...a[4]), I don't know.

Tom

A newtype array works differently from a standard array.

```
** Where Dim myarray$(5) has SIX (6) cells.... 0-5 **
```

but in a newtype array -

```
** Where info$(5) only has FIVE (5) cells.... 0-4 **
```

so you need to use:

```
For i=0 to 4
    .....
Next
```

Which is 5 times...

You have to be careful also, when running the prog WITHOUT the debugger if you are trying to access the array out of its range. It may work well most of the time, but you WILL get a guru... I know, I've done it.

Happy Programming...

Brucey

--

```
OOOOOOOOOOOOOOO.....OOOOOOOOOOOOOOO
O                               /|    O
O  brucey@thenet.co.uk       /_|  ·  O
O                               / |M|GA O
·   The PAGE >>>>>          ( BaH )   ·
```



```
*reg.Region=NewRegion_()

*reg\bounds\MinX=0 ; Minimum x for mouse pointer *reg\bounds\MinY=0 ; "
y " " " *reg\bounds\MaxX=640 ; Maximum x for mouse pointer
*reg\bounds\MaxY=480 ; " y " " "

ScreenTags 0,"",#SA_DisplayID,id,#SA_DClip,*reg
```

This would avoid my mouse pointer to from falling below the bottom of my visable screen. Even if my Screen is 960 pixels hight.

This was so easy to do that I guess thre must be some sort of Limit Mouse x,y,x2,y2 command? Maybe there is but it was fun working out the AmigaOS way of doing it.

Cheers,

Paul

```
-- <----->
  Paul Burkey - Project: Foundation [#####-----] 78%
  paul@sneech.demon.co.uk -- Amiga Realtime Strategy Wargame --
  Foundation Home http://www.sadness.demon.co.uk/foundation.html
<----->
```

## 1.34 Parsing Strings

I am after a \*quick\* way to extract the words from a string, the complication being that there can be as many as 30 spaces inbetween words.

Example String: "Lab BcF Status,2"

I am searching through the strings for commands such as "BcF". As there are over 100 possible commands, I am extracting words from the string and matching them with the commands (as opposed to checking every command against the string).

At the moment I have a loop that pathetically goes round using instr() to search for the next space and checking to see if there is room for other text inbetween them.

Surely there's a way of quickly extracting the words?

What about :

```
StringPtr.l = &String$ StringLen.l = Len(String$) Word$ = "" For i.l =0 to
StringLen
  char.b = peek.b(StringPtr+i)
  if char <> 32
    Word$ + chr$(char)
  else
```

```

If Word$ <> ""
  DoSomething{Word$}
  Word$ = ""
Endif
endif Next If Word$ <> ""
DoSomething{Word$} Endif

```

Or do you mean something else ?

Buh-bye,

Serge Veugelers

## 1.35 PC to Amiga

On Sun, 18 May 1997, Dave wrote:

```

> A little off subject but a day or two ago someone wrote about getting >
files from a PC to amiga using 720k dos formatted disks.Can someone > explain
this as I want to download files with my dads PC and transfer > them to my
Amiga and I don't know much about PCs.

```

Okay, here's how:

1. Format a floppy on the pc by typing at a DOS prompt: Format a: /f:720  
Use b: instead of a: if a: isn't a 3.5" floppy drive
2. On your Ami, look in devs/dosdrivers or storage/dosdrivers (on your  
boot partition) for pc0, and double click that.
3. Insert the formatted disk from the pc into df0: and you should get  
an icon on Workbench representing it (not Df0:????) If you don't then  
try cd'ing to it in a shell by typing pc0: and you can access it  
that way (or with DOpus or something). Its icon might eventually  
appear on WB after doing this.

You should be able to use it as a normal disk now, just refer use PC0:  
instead of DF0:.

Hope this helps, and wasn't too hard to understand,

```

///      John Mason	~~~~~
/// Amiga User Extraordinaire!	~~~~~
\\///      ah210@chebucto.ns.ca	~~~~~
\XX/      A500 020+881 3.1 7MB RAM	~~~~~
www.ccn.cs.dal.ca~ah210/Profile.html	

```

Make sure that you're using Double density disks, or cover up the extra hole  
with cello tape (otherwise the PC will assume it's a high density disk).

Use a PC that runs Win95 ('85 :- ) otherwise all the filenames will be  
shortened to 8.3 format. Then use WinZip to archive the files you want onto  
your disks. If you don't, Win95 will screw up any long filenames (because of  
the kludge it uses for long filenames :-/ ). Then get an unzipper for your

Amiga like Unzip to, well, unzip them :-).

```
--
Anton Reinauer <anton@ww.co.nz>
Machine: A500,DF1:,1MC,8MF,60HDD,WB3.1 &1.3/2.0
        - Now with gigantic new disk box!
Project: Pyromid - status [C***L! ]
Webpage: http://www.ww.co.nz/home/anton
```

## 1.36 Pointer

```
> ~~~~~~
> Which is the best command to receive a pointer to a variable?~~~~~
> ~~~~~~
```

```
Try &<varname>, like~~~~~
a.s="Hoi"~~~~~
&a now points to this string.~~~~~
```

```
Ralf~~~~~
```

```
#-----#-----# /| ~~~~~~
| Ralf Berkvens | A1200w030+882@50mhz+18mb Ram | /| ~~~~~~
#-----#-----# /__| \ / | / \ | \~~~~~
| Blitz Rulez!! | ralf@stack.nl (E-mail) | / | \| | | __ | _\~~~~~
#-----#-----# / | | | | \_/ | \~~~~~
```

>examples of using pointers in blitz :)

OK. This program shows how to do a bit of simple pointer arithmetic in Blitz. Remember that a pointer holds the address of variable, and is a variable in itself. I haven't really used pointers in Blitz much so this may be slightly wrong.

(BTW how do you highlight text in YAM ;)

```
; Small Pointer Example. Matt Daniels - 20/8/97
```

```
text.s = "Viva Pavimento"
```

```
*pnt = &text
        ; the * tells pnt to hold an address.
        ; the & returns the address of the variable
        ; in this case the start of our string.
```

```
For count = 0 To 13
  NPrint "Value = ",Chr$(Peek.b(*pnt)) ," / Address =", Hex$(*pnt)
```

```
  *pnt + 1 ;This moves the pointer to the next address
          ; i.e. in this case 1 byte forward
```

```
MouseWait
VWait Next
```

End

(end program)

You should be careful when using pointer arithmetic, as it is easy to point to the wrong address and mess up memory.

If you send a pointer to a statement you can change the info in a pointed to array. You gain speed by passing a lot less data to your function, and I think that it is a lot neater than the SHARED command.

Later, 'Gators

-- Matt Daniels. matt@d@underused.u-net.com <http://www.underused.u-net.com>

> hum i guess the next thing is how to create a res file. > so my functions become more like blitz commands but written for > my specific purposes.

res files are for constants, newtypes and other compiler things. I think macros can be used too. You'll not be able to use functions or statements in a res file (I don't think so anyway). You can store your functions in a normal blitz file and then INCLUDE it.

> so blitz does casting for us to an extent :)

Thats a feature that most forms of Basic do for you. The only places where some sort of vasting is still needed is when you want to cast an int to work as a float. Placing a .0 after constants is a good idea here.

> examples of using pointers in blitz :)

I've not used pointers much although I do use 100's of them in my current project but they are all based on the same thing:

```
*ntpoint.mytype=type.mytype
```

```
then I use *ntpoint\ in place of type\
```

or

```
*list.mytype=mylist()
```

```
then I use *list insted of mylist()
```

A lot of the time you get a big speedup from using pointers instead of things like lists and newtypes. It's usually best to avoid pointers where speed is not 100% needed because errors will not show up in bugtesting!

> how to create res files.

If your code is made up of newtypes, constants, macros etc.. Just use compile & run and then when it returns you choose the make resident option.

---

> how to include my homebrewed generic functions

Stick with INCLUDE for your modular functions

Cheers,

Paul

```
-- <----->
  Paul Burkey - Project: Foundation [#####-----] 80%
  paul@sneech.demon.co.uk -- Amiga Realtime Strategy Wargame --
  Foundation Home http://www.sadness.demon.co.uk/foundation.html
<----->
```

### 1.37 Progress Indicator

>>Does anyone know why the NeilsProgressLib can only be run once within a program? I can set one up and use it no problems, but when I try and do a second indicator my program freezes! Any thoughts?

>Are you trying to run a second PI alongside the first?~~~~~

>>Nope, just the one, which i finish off with the 'PiEndRequest' call, but then if I try to set up another request it just hangs the machine, the debugger doesn't stop it or anything!

>Does the demonstration program work? It uses two requesters, one after the other. What exactly happens? Just a freeze? Or, a freeze then a GURU? >After you reboot, does the system come up instantly or does it guru first?

BTW /what/ demo program ?

Okay guys, try this. I read this last night & figured, hell I can muck about and add my 2 cents worth aswell. I don't recall seeing any docs, but I just read the .obj library and came up with this simple example:

```
WBStartup~~~~~
FindScreen 0~~~~~
Window 0,0,0,200,100,$2|$4|$8,"Test",1,2~~~~~
a=PICreateRequest("Hello",0,100)~~~~~
For x=1To100~~~~~
~ b=PIUpdateRequest(x)~~~~~
  VWait~~~~~
Next~~~~~
PIEndRequest~~~~~
a=PICreateRequest("Test",0,2000)~~~~~
PIEndRequest~~~~~
MouseWait
```

This simple little test confirms that you /can/ run 2 PI reqs (BTW lovely work Neil, I love it !). This will not crash, well it didn't on my machine /if/ left to run it's course ! If you interrupt the program by hitting the cancel button /then/ the Amiga will hang, but not until then. I haven't



looked at it any further, but I would presume that if you add some code in to handle the stopping of the PIReq then you should be fine, I only "hacked" this up in 5 minutes...

I hope it helps ?!

Catchya

RodderZ

```

+-----+-----+
| Rodney Norton,           Sydney AUS. |-----+
| A1200/060/50. ~~~~~~ |-----+
| Email : rodneyn@aic.net.au ~~~~~~ |-----+
| 4 Speed CD. Zip ~~~~~~ |-----+
| slade@suburbia.com.au ~~~~~~ |-----+
| Team AMIGA~~~~~ |-----+
+-----+-----+
| AMIGA      :  IBM, MAC, ATARI, C64, MSX, ~~~~ |-----+
|            :  VIC20, SPECTRUM, GAMEBOY.    // |-----+
| All Rolled :                               // |-----+
| Into One   :                               \ // |-----+
|            :  29-Jul-97 19:23:40          \X/ |-----+
+-----+-----+

```

## 1.38 Palette Fade

```

; fade the current screen to a new palette object - for fades to & from black
; just set a palette to all black. You can fade to and from any palette for
; special effects (fade to blue, or red, or go from day to night, etc.)~~~~~
; works in Blitz mode and Amiga mode - for AGA using Display commands it will
; need to be modified with the AGA commands. You will also need to send the
; modified palette to another palette object and then send that to the screen
; each "j" loop ; Curt Esser <camge@ix.netcom.com>

```

```

Statement fadeto{palobj, delay} ;delay must be 1 or more
;Runerrsoff ;goes like molasses with errors on
PaletteInfo palobj
For i = 0 To 15 ;number of available colour steps
  For j=0 To #NUM.COLORS ;number of currently used colours
    rd = Red(j)
    If rd < PalRed(j) Then rd+1 ;check each for the difference
    If rd > PalRed(j) Then rd-1 ;between current colour and
    bl = Blue(j) ;the target colour
    If bl < PalBlue(j) Then bl+1 ;and reset as needed
    If bl > PalBlue(j) Then bl-1
    gr = Green(j)
    If gr < PalGreen(j) Then gr+1
    If gr > PalGreen(j) Then gr-1
    RGB j, rd, gr, bl ;and reset current screen
  Next j
VWait delay ;pause for a bit

```

```

Next i                ;increase if too fast
;Runerrson           ;turn errs on if needed~~~~~
End Statement

```

## 1.39 Program Speedup

4. Keep loops as small as possible, put absolutely everything outside the loop

Loops aren't any worse in blitz than in any other language, but the more you put within a loop, the slower the loop becomes (as in any language). Take the following loop

```

for x = 1 to 5
  t=17
  p(x) = x+t next

```

This loop will repeat 5 times, therefore each command inside repeats 5 times. Moving "t=17" before the "for"

```

t=17 for x = 1 to 5
  p(x) = x+t next

```

Now only the "p(x)=" part is repeated 5 times, the "t=17" is only executed once, hence total execution time is reduced.

2. Avoid using divides and multiplies as much as possible~~~~~

One bit of my current development version of the engine that I know is BAD news is the collision detection with scenery blocks. This looks up the type of blocks where a shape wants to go to.. using arrays but the index is [x+(y\*20)].. The game area is 20 blocks wide.. the map being a long single dimension array. Now.. if I padded the map out adding 12 spaces after every 20 blocks I could use [x+(y\*32)] or even better (?) [x+(y LSL 5)].~~~~~

In theory I'd say that would be faster, didn't someone do a speed test between \* and ASL recently? You could always try both methods and see which is faster.

>I thought about a 2d array [x,y] but thats going to have to do the same calculation underneath isnt it? Lookup... [x+y20(y)], y20 being 20 times table.~~~~~

I think the y20 lookup would be the same as 2d table 'cos blitz has to \*y for the y20 as well

>Is there an even better way...~~~~~

Try an offset table like so

```
[x+ peek.w(?y20 + y + y) ;two "+ y"s so that you get a WORD offset
                        ;or just one if you want BYTE offset.
                        ;"?y20" returns the address of the y20 data~~~~~
y20:~~~~~
~ data.w 0,20,40,60,80,100,120,140,160,180,200
```

-----  
 You'll need to check the syntax, but basically I think thats right and it avoids multiplies altogether.

If you don't have any issues of BUM, try and get a hold of them. Most of this stuff is(was) covered in there anyway.

Stevie W. ----- A1200/030/50, 18MB, 1.2G HD, 4X CDROM  
<http://www.geocities.com/TimesSquare/Alley/2688/> stevie\_woj@hotmail.com

-----  
 ---  
 On 13-May-97, Paul Burkey wrote:

-- Here's a old post that might help.--

From : Crossbones (xbones@xbones.cet.com) Subject : Tricks on how to speed up the code

There's been a lot of talk on tips 'n' trix for beginners, well here's something for the people out there who want more speed that's a little more advanced. I don't think I've ever seen it used (except by me) but it's quite useful.

If you don't have one, go out and look for a book that covers assembly on the 680x0 machines. It doesnt have to be overly complicated, or even get in to the hardware of the machine. That's what Blitz can do for you.

With basic understanding of comparing and moving information around the registers, you'll have good reason to use this command:

TOKEJSR

The why's:

Some of the speed loss in Blitz2 is caused by variable handling. Especially if you use lots of them. Each time you call a command in a library, blitz has to do some shuffling around, to get parameters set. The more variables you use the more it has to shuffle when it processes them.

How's:

Calling ANY of blitz's library commands via assembly & tokejsr is fairly easy. (Unless you're dealing with strings.. I haven't quite gotten the hang of how blitz stores the length of strings on the stack.)

---

As an example, if you want to call QBLIT via assembly, it would be like this:

```
TokeJSR Qblit
```

Of course, Qblit wants parameters. Most all commands do. You preload registers before calling the command, and do so as follows. The beginning argument is D0. Qblit wants these:

```
D0      D1  D2 D3
Queue, Shape, X, Y
```

To use plot, it would use:

```
D0 D1      D2
X, Y, Colour
```

If you need to move a variable to or from a register, use PutReg or GetReg.

Remember: If your program starts to require more horsepower to run, it doesn't mean that you'll have to require faster machines to run it. There are always options available to speed up your code. This is one option no one should overlook.

--

```
Anton Reinauer <anton@ww.co.nz>
Machine: A500,DF1:,1MC,8MF,60HDD,WB3.1 &1.3/2.0
        - Now with gigantic new disk box!
Project: Pyromid - status [C***L! ]
Webpage: http://www.ww.co.nz/home/anton
```

---- Blitz Basic mailing list -- Brought to you by daireb@netsoc.ucd.ie

## 1.40 Qblit & Bblit

Last night I was running this simple speed test program I've written to see how many 24x24x5 shapes I can handle in 1/50th second:

```
BBlit      17      QBlit      25
```

The game play needs about 24.. but QBlit isn't useable because of scenery etc..

However, I thought there was a blitting command that stored the positions like QBlit, but then rather than just erasing the shapes, leaving a whole, it repaired the scenery from a copy of the scenery bitmap. I reckon this should be capable of nearly QBlit performance.. which is GREAT news for us.

Thanks,

Colin.

-----

That's: UnQueue Queue#, [BitMap#]

You may want to consider the method I use in Foundation. It's a damn simple idea and it's a bit crazy but it works.

1. Keep a copy of your background on a spare bitmap. You could even render your background direct to this bitmap.....
2. Do lots of Blitting using any method you like "Blit" or even Block!!!
3. Then instead of using Unbuffer or UnQueue you simply do a BlockScroll from your copied background (part 1).

Advantages:

Block is way faster than anything else Even Blit is much faster than any buffered or Queue commands. No need to reserve large buffers. You can use fast Asm code to do the Blitting.

Disadvantages:

You need a copy of your background (same as queue..) It's only faster if you have 30 or more shapes or your shapes will cover a lot of the bitmap.

In my game there could be 30+ people, 25+ trees, 15+ buildings and lots of shadows and other effects. The method I explained above was the only option. Maybe it'll help some people but if you have a known limit of blitter shapes or you only ever cover a small percentage of your bitmap then the buffer or Queue method would be better.

I hope this is of some help,

Paul

```
-- <----->
  Paul Burkey - Project: Foundation [#####-----] 78%
  paul@sneech.demon.co.uk -- Amiga Realtime Strategy Wargame --
  Foundation Home  http://www.sadeness.demon.co.uk/foundation.html
<----->
```

## 1.41 Reqtools Requestors

There's just weird thing - I can't set the default path/file >to RTFileRequest although I can set it to RTLoadFile and SaveFile,

Try this instead. ASL is in someways much better than ReqTools...

```
a$=ASLFilerequest("Title Bar info",path$,file$,pattern$,x,y,w,h)
```

path\$, file\$, and pattern\$ all need to be previously defined... I gave up on reqtools simply coz it was easier to use ASL for what I needed, I didn't need to add several other lines to set a default pattern etc.

eg.

```
path$="dh1:temp/" file$ ; DO NOT SET THIS ONE ! pattern$="#?.whatever"
```

>but what I need is to set the Y size to the requester - and that I >can't set to RTLoadFile/RTSaveFile but can set to RTFileRequest...

HHhmmm... If you /really/ need it. I take it you mean:

```
name$=RTEZLoadFile("Pick a file",file$)
```

when you say RTFileRequest....

Use this:

```
pat$="" While pat$=""
  pat$=RTEZGetString("Pattern Request","please enter a pattern",10,"#?") ; 10
  is the max length, "#?" is the default pattern Wend

RTEZSetPattern 0,pat$

name$=RTEZLoadFile("Pick a file",fi$)
```

This will set the pattern for this requester ! BTW this was "lifted" from the demo that came with the library. Thanks Neil.

>Ehh, so in other words I want to have a File requester to what I >can set both: default path/file AND ysize...anyone have any ideas >how? Thnx! Oh, and it would be also nice if I could set default font >to RTFontRequester...

As for defining the Verticle height ?! I'm beat there ! And the other font requester question, again I'm beat. I don't think it can be done.... Sorry.

Thats why I use ASL !

>\*\*\* Ott (ott@lbi.ee)

RodderZ Rodney Norton,Sydney AUS. Email : rodneyn@aic.net.au

## 1.42 Font Requestor Taglist

```
> Here's the code: ~~~~~
> Bye.. ~~~~~
> Jarmo Laakkonen jami@dlc.fi~~~~~
```

```
InitTagList 1,4~~~~~
Use TagList 1~~~~~
AddTags #ASL_FontHeight,13~~~~~
```

```

AddTags #ASL_FuncFlags,#FONF_FIXEDWIDTH~~~~~
AddTags
#TAG_DONE,0~~~~~

deftype .FontRequester *FontRequester
    *FontRequester=AllocAslRequest_(#ASL_FontRequest,TagList)~~~~~

If AslRequest_(*FontRequester,0)

    Usepath *FontRequester
    NPrint "Name = ", \fo_Attr.ta_Name.
    NPrint "Size = ", \fo_Attr.ta_Ysize
    NPrint "Style = ", \fo_Attr.ta_Style

EndIf~~~~~
FreeAslRequest_ *FontRequester~~~~~
End~~~~~

```

I assume thats the sort of information you want?

Any probs, mail me.

Slimez

--

```

O-----O-----O
Simon N. Westerby BSc (Hons)	AMIGA 1200/GVP 1230-II 50/50 20 Meg
email: slimez@simywimy.demon.co.uk	WD 850 Meg HD / Coldstar 4x CD Drive
phone: +44 (0) 1494 440841	http://www.simywimy.demon.co.uk
O-----O-----O

```

## 1.43 Taglist for ASL

On Sun, 18 May 1997, John Mason wrote:

```

> Does anyone know how to set up a taglist for an ASL fontrequester? I'm >
> trying to set the intial values for font, size, and colours, etc, but the >
> most I've been able to do it cause a crash :(

```

~~~~~

Try to use system calls instead blitz ASL commands.

Example of ASL file requester

```
DEFTYPE.FileRequester *ASLFile~~~~~
Dim Tags.TagItem(4) ;tag list

;Now define your taglist...~~~~~
Tags(0)=#ASLFR_InitialDrawer,&YOURINITIALDRAWER$
.....~~~~~
.....~~~~~
Tags(4)=#TAG_DONE,0

;Now alloc ASL font or file requester... (for font requester use ;
;#ASL_FontRequest)

*ASLFile=AllocASLRequest_(#ASL_FileRequest,&Tags(0))

;Open your ASL requester~~~~~
if ASLRequest_(*ASLFile,0)
  ;Peek datas...
  f$=peek$(*ASLFile\fr_File)
  d$=peek$(*ASLFile\fr_Drawer)
  ;use datas...~~~~~
end if

FreeASLRequest_ *ASLFile
```

To use TagItem, FileRequester and ASL Tags, use resident file amigalibs.res.

If you want an ASL font requester, change #ASL_FileRequest with #ASL_FontRequest and use Font requester tags.

Regards,

```
*****
* Luca Ferraris - mail to: ferraris.luca@educ.di.unito.it *
* URL: http://www.di.unito.it/pub/WWW/www_student/amiga/LucaFerraris *
* A1200 Blizzard 1230IV/882/10Mb/HD 80Mb/2 external floppy drives *
* ----- *
* Now working on APHASIA and DARK AGES - THE FIFTH TALISMAN for all Amigas *
* ----- *
*****
```

1.44 ROL ROR Commands

> Does anybody know how to use the ROL,ROR,ROXL and ROXR commands work? >
 These commands are used to rotate bits in a word or longword, but > the manual
 is not very clear (not clear at all!) about these commands..

The commands on page 252 are Assembly instructions. If you know anything about
 assembly then they're self explanatory and they form some of th basics of Asm

language.

On the other hand you could use the commands in normal Blitz code and they work in the same way as the other maths operators which you can see on page 13 - in my manual ;)

For example

```
a=3 * 16 a=3 LSL 4
```

```
Z=H / 2 Z=H LSR 1
```

You will also find that the two groups of code will give the exact same results since shifting bits to the left by 4 is the same as multiply by 16. Experiment with it and you'll soon work it out. You'll also find some extra speed in the Shift instructions. Sometimes a lot of extra speed.

Cheers,

Paul

```
-- <----->
  Paul Burkey - Project: Foundation [#####-----] 77%
  paul@sneech.demon.co.uk -- Amiga Realtime Strategy Wargame --
  Foundation Home http://www.sadeness.demon.co.uk/foundation.html
<----->
```

1.45 Runtime Error?

On 09-Aug-97, Hans Olsen wrote:

>I have encountered a strange bug...

>The problem now is that when one of the statements is called I get a >runtime error, "Command only available in AMIGA mode" (I'm in BLITZ >mode) the command it stops at is 'VWait'.

Hi,

I believe I know the problem....

The commands BLITZ and AMIGA serve two purposes :

i) Command (that is, they actually execute some code) ii) Compiler directive (that is, they tell the compiler which mode the following commands should be executed in)

To solve your problem, I suggest you put the line

```
BLITZ
```

immediately before the definition of your statement.

Sometimes it is possible for the compiler to compile a command in AMIGA mode, but then try to execute it in BLITZ mode - hence your problem.

I don't think I've explained it well - if you want more explanation, e-mail me personally and I'll try and think of a good example.

Regards,

Steve. --

```

-----
. |Red When Excited Ltd      | WWW                http://www.ldngedge.demon.co.uk |
|2 Slimmons Drive,         | My EMail Big.Will.Riker@ldngedge.demon.co.uk | |St.
Albans,                     | A1200T/040@40/18Mb/1.6Gb/33.6k/8xCDROM/1.76MbFD   | |
|Herts. AL4 9AS. ENGLAND | Company EMail redwhen@ldngedge.demon.co.uk |
\
-----
,
```

1.46 ScreenTags

> is it possible to open a screen in Amiga mode without the title bar so
 ~~~~~> that it is impossible to drag the screen?

Are you familiar with using screentags, as this will enable you to achieve what you want. You will need Blitzlibs:amigalibs.res resident.

```

sc.l=ScreenTags(0,tit$,?ScreenTags)
Mousewait
Free Screen 0
End
```

```

ScreenTags
  Dc.l    #SA_LikeWorkbench,1
  Dc.l    #SA_Quiet,1          ;removes the titlebar
  Dc.l    #SA_Draggable,1      ;makes the screen non dragable ;    Dc.l
TAG_DONE,0

  Dc.l    #SA_Width,640
  Dc.l    #SA_Height,256
  Dc.l    #SA_Depth,4
  Dc.l    #SA_DisplayID,$8000
  Dc.l    #SA_SysFont,1
  Dc.l    TAG_DONE,0
```

Andrew

-- Andrew Guthrie andrewg@nectar.com.au  
<http://www.nectar.com.au/~andrewg/edht/>

## 1.47 Scrolling Screens



```

If Joyx(1)=1      ; joystick right
  If b\x<960      ; not at righthand edge
    b\x+xspeed    ; move bitmap
    a\x+xspeed    ; keep tank in centre of display
  EndIf
EndIf

If Joyy(1)=-1    ; joystick up
  If b\y>0        ; not at top of bitmap
    b\y-yspeed    ; move bitmap
    a\y-yspeed    ; keep tank in centre of display
  EndIf
EndIf

If Joyy(1)=1     ; joystick down
  If b\y<200     ; not at bottom of bitmap
    b\y+yspeed    ; move bitmap
    a\y+yspeed    ; keep tank in centre of display
  EndIf
EndIf

BBlitMode CookieMode
BBlit 0,0,a.tank\x,a.tank\y
DisplayBitMap 0,0,b.scrn\x,b.scrn\y Wend End

```

## 1.48 Speedup Programs

I would appreciate any hints and tips on how to get time efficient code out of Blitz for the game engine. ←

Here's a few tips for you, (no order)

1. Plan your code, making it as simple as possible
2. Avoid using divides and multiplies as much as possible, both are slow
3. Using lookup~tables (arrays) for common formulas used within your code can increase speed at the expense of memory usage
4. Keep loops as small as possible, put absolutely everything outside the loop if it can
5. Constants are faster than variables, use them instead when possible

When your engine is complete (or nearly) re-write some of the slower parts in ASM if you can, particularly loops and formula (and lookups). This will shave vital time off your code. Also, longer code can sometimes be faster than a single instruction

eg MULU #9,d0 (it's been a while so syntax may be wrong!)

is slower than

```

MOVE d0,d1
ASL #3,d0      (syntax? anyway shift left3 to *8)
ADD d1,d0

```

Stevie W. ----- A1200/030/50, 18MB, 1.2G HD, 4X CDROM  
<http://www.geocities.com/TimesSquare/Alley/2688/> stevie\_woj@hotmail.com

\*\*\*\*\*~

On similar note I'll let you into a few secrets I use in Foundation.

The game can have up to 800 buildings and 1200 people so obviously it's not a good idea to calculate them every frame. To make things much faster and to avoid things getting slower as the game expands I use the following system.

Use a list of buildings from 1-800 and a list of people from 1-1200. Give each person and building a number so some list entries will be empty and some will contain information ie,

Building1 - Armoury Building2 - N/A Building3 - Farm Building4 - N/A Building5  
 - N/A and so on...

The people are arranged in a similar way. Then each frame I check 3 buildings and 5 people. The checks involve health, energy, decisions etc.. if it's a building then checks involve making things, removing things, and triggering off events.

After the checks a counter is moved to the next set and the frame continues. The checks will loop around forever but there is only a small portion of work done in each frame. Knowing how best to distribute the calculations between frames is an important part of making complex games work in fractions of a second intervals.

The biggest problem with complex Amiga games these days is the graphic work takes up 90% of the time and the gameplay is left to work in a very small time scale. It's not a good situation but if you can work to these limits then you can get some good results.

Cheers,

Paul

<----->

Paul Burkey - Project: Foundation [#####-----] 78%

```

paul@sneech.demon.co.uk -- Amiga Realtime Strategy Wargame --
Foundation Home http://www.sadness.demon.co.uk/foundation.html
<----->

```

## 1.49 Shape Palette

>How can I load a shape onto a screen with a different palette and~~~~~  
>have the shape keep it's old palette?

I would do this by copying the colours from the shape into the main palette. To keep things simple, say we have an 8 colour screen. The first 4 colours may belong to the background, or things that are always on screen. If we had an 8 colour shape that only used the last 4 colours of it's palette then we could merge the two palettes together like this.~~~~~

```
InitPalette~0,8~~~~~
```

```

LoadPalette 0,"screen.pal" ;Load~background~Palette~~~~~
LoadShape 10,"shape.ilbm",1 ;Load~Shape~with~Palette~~~~~
PaletteInfo 1 ;All RI Palette Commands on this PAL~~~~~
For c=4 To 7 ;Copy~Colours~4~to~7~fromPAL~1~to~PAL~0~~~~~
  AGAPalRGB~0,c,AGAPalRed(c),AGAPalGreen(c),AGAPalBlue(c)
Next~~~~~

```

Now the shape can be displayed on your screen using PAL 0 only.

```
*****
```

Some time ago (before I need to get a job for a living), I was developing a BIG lucas-style adventure game, and since all the program was going to push A1200 to its video limits, it was designed to allow 256 color screens with at least 64 color shapes with other thingies. The problem was, I couldn't use sprites because the size/colors of the images, so I had to use tricky shapes to speed up the thing. So, as that guy said, using the same shape over tons of backgrounds screwed up the shape's colors, and remaping shape doesn't work always. So, the backgrounds were examined to see how many colors were using for sure (256 color bitmap usually uses around 64-128 colors for real), and I create a 256 color bitmap, but leaving the unused colors to the end of the palette (at least 64). Next, I create the shapes in a 256 color bitmap, but ONLY using the last palette's 64 colors. After that, I could copy the right shape colors always in the same positions in every backgroud palette, so I hadn't to waste time remaping ever time a background changes.

I hope this can be useful for all people.

-----  
Blitz Basic mailing list -- Brought to you by daireb@netsoc.ucd.ie To

## 1.50 Shapes & Sprites

On 02-Aug-97, Andreas Håkansson wrote:

> Now I'm wondering what would be best, to make them shapes or to make them sprites. I have a faint memory that sprites is limited to a seratin amount of sprites, and that they can only use 16 colors. And I know that shapes hasn't these restrictions.

You can have only 8 sprites (including the pointer) if you are using 3 colour sprites, or 4 if you use 15 colour sprites. Also, unless you are using AGA only, each sprite may only be 16 pixels wide.

>It's important that I can detect when the pointer (a sprite), has "collided" or been placed over an person or object, I know there are many commands to detecte collisions between both sprite/sprite and shape/sprit, but only to check if the given sprite has collided with the given sprite or shape. I want to to detecte if it has collided with any sprite or any shape, and get the sprite/shape number. Is this possible?

I think the only way to do this is to make your own code for the detection, as I know of no command to do this :(

>So what I really whould want to know, is the advantages and disadvatages of using sprites, and the same with shapes. I think shapes whould be the best, if I'm not to wrong. But the pointer whould still





```
*Pc = 2 * *Pa End Function
```

```
double{&a, &b, &c, &d}
```

>ok thats roughly one form of what i want > >second variant would be for the first two vars to not be effected >in the main program by any manipulation in the local function double >but the last two to hold the doubled values when returning to main > Besides I think using a function for this will only slow things down. Fortunately for you Blitz2 is still BASIC, and thus it has the gosub command.

```
a = 1 b = 2 c = 0 d = 0 Gosub Double End
```

```
Double: ;---
```

```
c = 2 * a ;--- return > is it possible for arrays ? >2 dimentional arrays ?
```

Using pointers you can access any type of variable, and also gosub allows everything to be accessed.

>btw newtypes can't be returned by functions so using newtypes >won't work > I will when you predefine the structure in memory and let the function fill that in. This is the way Examine\_ works.

```
Newtype.AnyType
```

```
x.w
y.w
z.w
t.l
r.l
name.b[30]
test.b[30] End Newtype
```

```
Deftype.AnyType MyType
```

```
Function DidConvert{TypePtr.l}
```

```
status = true
*ReadType.AnyType = TypePtr
USEPATH *ReadType
\x = 1
\y = 2
\z = 3
\t = 0
\r = 10
poke$ \name,filename$ ; Don't know if this works,
poke$ \test,"This is a test" ; but you need the address + Offset of the
string.
function return status End Function
```

```
if DidConvert{&MyType}
```

```
NPrint MyType\x Endif
```

>anyone found answers to these problems. >(apart from coding in C or C++)

Well... it's the same technique ;)

Bye now,

Serge Veugelers

## 1.53 Version \$string

> Can anyone explain how I can include a version string in a Blitz program so the version number could be read by the cli Version command?

-----  
 You only have to add one line to your program, that looks like this:

```
VER$="$VER: MyProgram 1.0 (25.7.97)"
```

You can name that string anything, but I usually use VER\$. The date should be entered like that, since the version command will reformat it to your local settings.

(You can add a comment or something after the date.)

Hans Olsen,

A1200/030-40/882/18/240, Surf Squirrel, ZIP, CDROM & 33k6 modem  
 pt96hol@student.hk-r.se <http://www.student.hk-r.se/~pt96hol>

-----  
 As everyone was saying, use a string with "\$VER: bla bla bla" in it. Don't use any chr\$(10)'s in it, as any info behind that won't work.

BUT Don't forget a space behind the string, because it is possible that the immediate character behind your string is text, and then your version will be terrible. In the space, using a hex-editor, put a chr\$(0).

Ralf

-----  
 Put this line somewhere in your program (probably at the end, but would be better nearer the start)

```
versionstring: dc.b "$VER: myprogram 1.00",0 Even
```

Steve. --

-----  
 Put this at the very top of your program, replacing the necessary details:

```
Goto SkipVer
  Even
```

Dc.b "\$VER: RefInsert 1.1 by Andy Macklin {13/02/97}"  
Even SkipVer:

I can't remember where this tip came from, but I'd attribute it if I could.

Andy -- \*Refman Homepage:\* <http://www.toadhall.u-net.com> Team AMIGA

-----  
--

I always make a variable like this:

a\$="\$VER: MyGreatProgram 1.20 (16.08.97) (C)Marco Vigelius 1997"

The normal version command included with Workbench will only return the version number and the program's name, but try VersionWB (available from Aminet) and it will also return the other information included in the string.

So long!~~~~~  
---/\ \ \-----\ \ / /-----  
~~ / \ \arco \~~/igelius~~~~~  
- / / \~\-----\ /-----

-----  
---

Use this:

ver\$="\$VER: MyProggy v6.66"

near the top if your prog.

#Richard Hodger# - /rick@rhodger.demon.co.uk/  
#<http://www.rhodger.demon.co.uk>#