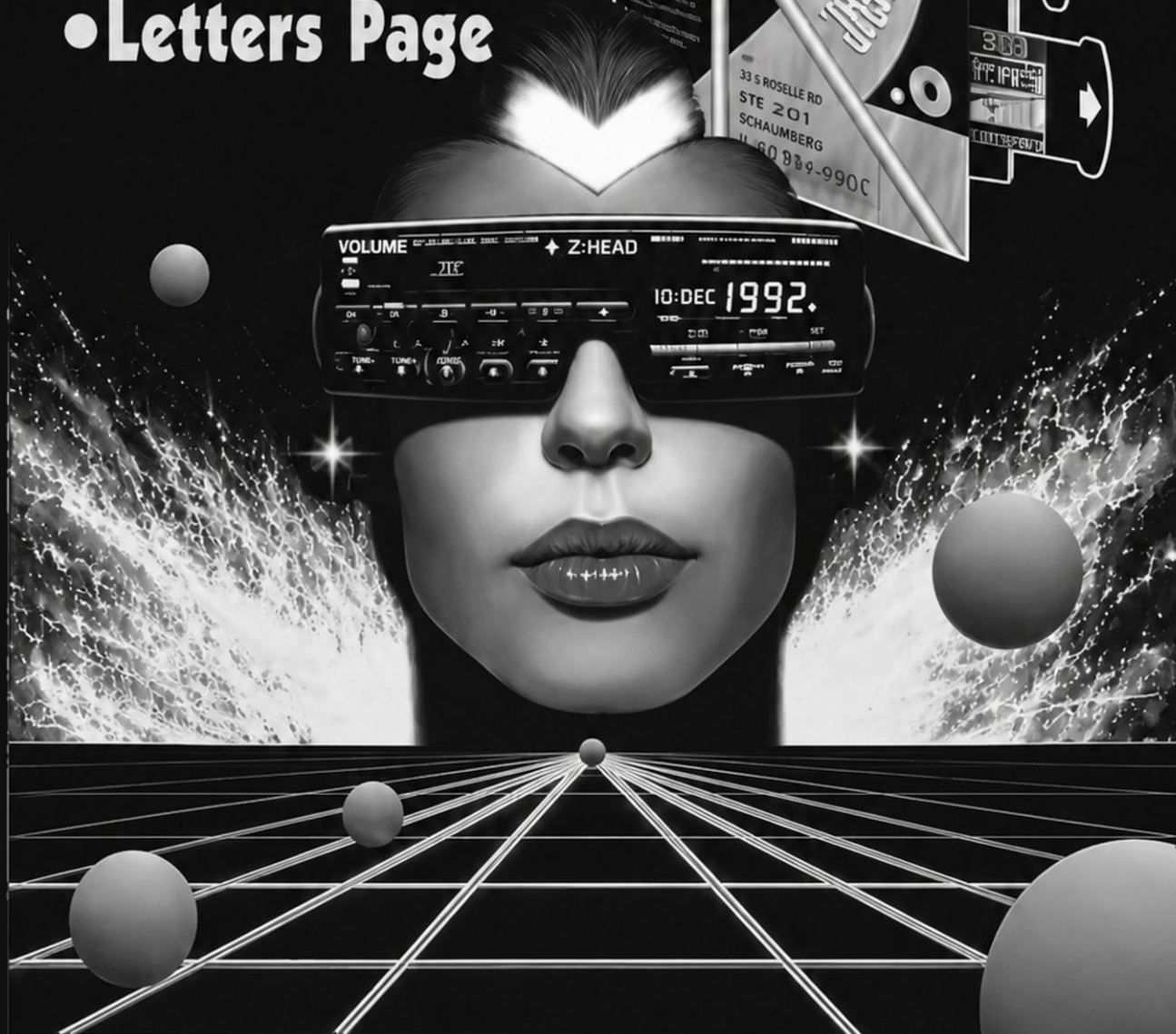
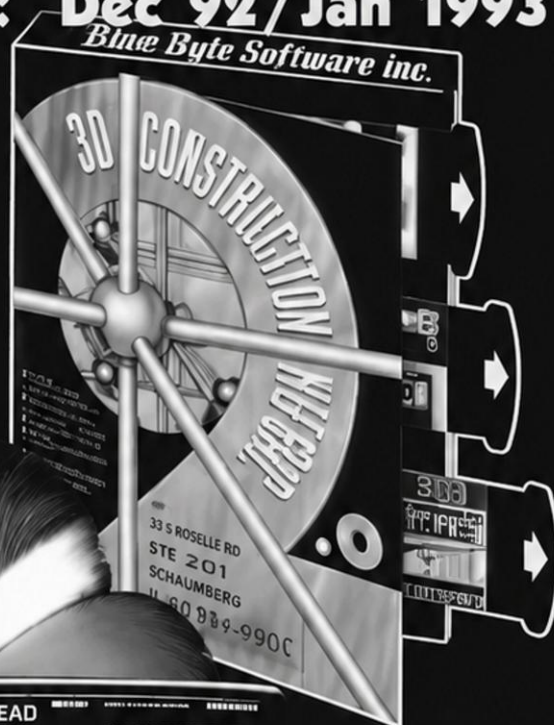


# 3D CONSTRUCTION KIT USER GROUP

Magazine Issue 10 : Dec 92/Jan 1993

- Hints & Tips
- Useful Routines
- Letters Page



# EDITORIAL

## Welcome to issue 10 of the 3D Construction Kit User Group Newsletter.

Once again it has been a particularly hectic month here. I thought I would have loads of time to get the Newsletter typed up, copied and dispatched well before Christmas. Unfortunately, as many of you will know, there have been one or two problems with the upgrades to Kit 2 which have taken up an awful lot of my time so, once again it is arriving at the end of the month instead of near the start! My telephone has literally been RED HOT this month due to the calls from many, rather mystified people, who received an upgrade and wanting to know if they were losing their minds or whether I was! You should all find an explanation for the "teething troubles" somewhere within this newsletter so you all know what is going on. I am hoping that you will all receive this before Christmas or shortly afterwards. I'm afraid that I won't be available over the Christmas holidays so the helpline will be closed for a week, except for emergencies. I'm sure you will all understand that it can be a little hectic trying to answer the telephone when you have your hand full of stuffing and sausage meat stuck up inside a Christmas turkey! Blame the family, not me! They demand a lot of time over Christmas. If it were up to the children we would have decorations up at the start of November and turkey, nuts and crisps all year round!

I asked for a suitable Christmas cover for this issue and a few of you sent in some really nice screen-dumps which you will find here and there in this issue. The cover of this issue, although not festive, was one done by a professional CAD (computer aided designer for novices who may think I am being unkind), and is far too good not to use instead so I hope you will understand my reasons when you see it.

Actually, now that the festive season is almost upon us I am getting full of the Christmas spirit. (Not THAT kind of spirit either - I can't drink - my confession that after one glass of cider and I go completely bananas has put paid to that!). I would like to take this opportunity of thanking you for all your lovely Christmas cards - I've never had so many in my life! I just wish that I could have sent you all one in return but there are so many of you that it would be impossible to do so (without breaking the bank), so I would like to send you all my warmest wishes for the festive season here, and, as the Newsletter travels to so many far flung regions of the World I will try to incorporate as many languages as I can. Bare with me over the spelling - I'll do my best - so here goes; Prettige Kerstdagen en een Voorspoedig Nieuwjaar, Frohe Weihnachten und ein gutes Neues Jahr, Hyvaa Joulua, Gledileg Jol gott og farsaelt komandi ar, Felices Fiestas, Frohliche Weihnachten, Joyeau Noel, Bon Nadal, Gledelig Jul, Boas Festas, Feliz Natal, Buon Natale, God Jul, Gellukkie Kerstfeest, Nadolig Llawen, and a Very Merry Christmas and a prosperous and peaceful New Year to each and everyone of you.

Well, that's about all from me this issue. I sincerely hope that you will enjoy it and find lots to interest and inspire you within the pages. I have had to postpone the User Group Game and the PD Library list and reviews, I'm afraid, but with a thousand and one other things to attend to this month I hope you won't mind having to wait until the February/March issue for them. Bye for now and I will see you all again next issue as usual.

***Mandy***

---

## TEETHING TROUBLES – NEWS

I would like to apologise to everyone who sent off in response to the upgrade offer in the last issue for the long delay they experienced (and in some cases are still experiencing). At the time the plan was that all members of the User Group would be able to receive the upgrade to Kit 2 before they arrived in the shops. Unfortunately, because of some teething troubles this was not to be. The first batch was dispatched to me quite quickly but, on checking them out, I discovered that they were slightly faulty and that if I had sent them out you would only have had to return them for replacements. It was decided that it would be better to wait a while until replacement disks could be sent to me to swap for the ones in the boxes. Unfortunately, when the disks arrived I didn't check them but swapped the disks and dispatched them all straight away (so they would arrive in time for Christmas), and much to the embarrassment of all concerned it turned out that they were all in the wrong language! The language choice option has been removed on Kit 2 and French and German disks were dispatched in error. All at Domark and myself sincerely apologise to you for this.

The Amiga replacement disks arrived and were dispatched but I am still waiting for the English PC disks which will be sent out to you all as soon as I receive them. It has been reported that the Amiga replacement disks may, in a few cases, be faulty also in that the Clip Art disks are for the PC and not for the Amiga. If that is the case then please return the disks to me for replacement.

The Atari ST Kit 2 programs were delayed for quite a while but just as I was about to write a note of explanation to everyone for the delay I had some good news that they were arriving any day. Happily I can report that they are now here and will be dispatched just after Christmas.

Other good news is that the programmers at Incentive have come to the rescue and have supplied me with a full set of the very latest disks for each version so that I can replace and return any faulty disks myself that are sent to me. If the replacement disks already ordered for the PC and Amiga are delayed for any length of time it might be better if we used this method rather than wait for them. It is up to you. I will be extremely happy when everyone has a perfect working version of this fantastic program up and running and, once again, please accept apologies from everyone for the difficulties and thank you all for your patience, good humour and understanding of the situation. You all have a wonderful sense of humour and understanding and the many amusing telephone conversations over the language problems cheered me up just when I was feeling like running away and camping on the top of Snowdon in a tent!

Please be assured that future orders for the upgrade will experience no delay and that the very latest version will be dispatched so if you haven't yet ordered your upgrade to Kit 2, don't be afraid of doing so as all the teething troubles are now over.

**All you need to do is to send your old Kit 1 disks to me together with a cheque, which in this case only should be made payable to Domark Ltd, for £20 and please state if you require 3.5" or 5.25" versions if you are a PC owner. The offer is available to full members of the User Group only who are owners of Atari ST, Amiga and PC computers.**

***NB: Please note that 1 meg minimum is required to run Kit 2.***

---

## LETTERS

Dear Mandy,

I have been in Australia for the last five months because of the serious illness of my eldest granddaughter, but I'm back!! One of the pleasures of being home is catching up with the last few Newsletters and reading the review of Kit 2. I was disappointed, but not surprised, that my name was not among the winners. I am having the same problems as John Wright in newsletter 8 in that my objects, when viewed from the side floated apart. So jolly well done and my sincere congratulations to the over-all winner Peter D Ward and to all the other winners of the Kit 2. It was most heartwarming to get such a response in the letters of back issue 8 and 9 about the difficulty with using Graphic Workshop and my paint package. Will the new Kit support more formats, I wonder? Anyway, thanks to all that sent in suggestions. I am eager to get started in the User Group Game as I'm sure I will learn a lot from it. Which brings me to another problem. A nice one, but still a worry. I am thinking of changing my Amstrad PC 1640 for either a 386 DX or 486 SX with VGA screen. At the moment I have an EGA. Will my present Kit load on a VGA and will the 3D Kit 2 support such a machine? Should I contain myself from rushing you my £20 to upgrade until I know for sure what machine I end up purchasing? I think I may have mentioned before about my hope that perhaps we could have a get-together day for Kit Users. I would be interested to hear if other members in the North think it might be a viable proposition. Maybe York would be a central point, with Mandy, of course, as the guest of honour. Perhaps we could interest Incentive Software or even Domark to sponsor it with a loan of hard and software. Pre-season accommodation for group bookings for B and B could be quite reasonable in early Spring. What do you think Mandy?

***Margaret Christmas, Askrigg, Nr Leyburn  
PC***

*I hope that your granddaughter is much better now, Margaret. Glad you're back home in time for Christmas. You shouldn't have any difficulty running 3D Kit 1 or 3D Kit 2 on your new PC. Domark have just exchanged my Amstrad 1640 for a Samsung 386 (mini tower system) in order that I can sort out PC queries more easily and both Kit 1 and Kit 2 load and run beautifully in the new VGA mode.*

*The computer came with DOS 5 and its massive manual and I am trying hard to work my way through it. I did think of taking up flower pressing instead but decided to keep at it. I think the idea of a get-together is a lovely one and, if there is sufficient support I would be happy to organise one. Let's see what everyone else thinks about it.....Mandy*

---

Dear Mandy,

Thanks for printing my last letter to you and for starting the User Group Game. I have found this to be very useful, although I have come across a couple of problems. The first is that after I have programmed in the syncsnd command in the Animator (1) routine to move the bookcase, there is NO sound produced at all. I have tried SOUND also but to no avail. I have followed the printed routine exactly but still no sound is forthcoming. It's the same result for the trapdoor routine, so what's causing this to happen? My other problem seems to be lack of memory or a slow processor speed. When I have more than about 20 objects on screen in an area the speed control starts to slow down drastically so that when more objects are created or loaded in (still being less than 60) the speed of movement slows right down to a crawl. This is so frustrating that I give up using the kit for weeks at a time and am now left well behind. My Amiga 500 has 1 meg of rom. If it had more, or a faster processor chip installed would user movement be faster? Thanks for producing an interesting newsletter every two months. I find the index to issues 1-7 to be very useful indeed. I wish I had more time to spend on my computer but there always seems to be something else that needs doing doesn't there? So I am still at the beginners stage after a year. I suppose I'll have to go through all the newsletters again from issue 1 and try and catch up. I just hope I don't feel like giving up when the speed slows right down again. Surely the program was designed to run with only 1 meg of RAM?

**Reg McLoughlin, Bidston, Birkenhead**  
**AMIGA**

*Having worked on the Kit on all formats I have to admit, Reg, that out of the 16 bit versions the Amiga is the slowest. The Atari ST is the second fastest and the PC the fastest of all. I really don't know why that is and I agree that it can be rather frustrating. However the speed is the same on half meg and full meg machines and upwards. It is rather ironic that I get letters from PC owners asking me if there is any way to slow down the movement on their machines because it is too fast to do accurate positioning of objects! I assume from what I have seen that it is the computer that is to blame, perhaps. I haven't tried any utility to speed up the Amiga response time so perhaps another member who has tried it can advise of any improvements? It may comfort you a little, Reg, to know that with all the different computers available for me to program the Kit on, the Amiga is still the one I head for first! As for you being worried about being left behind, well don't. As long as you get pleasure out of programming with the Kit it doesn't matter how fast you master it. Besides, because of all the people who have only just bought the Kit and joined the User Group, there are people at all stages of understanding of the Kit so there should always be help for both beginners right up to advanced users in the Newsletters. Now for your problem with the sound. I cannot think why it doesn't work properly for you, Reg. I can only think that there might be a problem with your version of the Kit. If you would like to send me your disk and a disk with your datafile on I will check it out for you and exchange the disk if necessary and see how we go from there. Your disk may be corrupted in some way but unless I can see it I cannot tell.....Mandy*

---

Dear Mandy,

First of all, congratulations on a year and a half of the Club, and here's looking forward to the next 300. I have a little problem (but the doctor says it will get much better if I don't wave it about so much), my animators don't seem to be working very well. If I set the MOVE (x, y, z) control to say MOVE (10,0,0) instead of moving left to right it moved back to front! I've also tried Mark Rose's lift routine, but can't get it to work, any ideas before I commit Hiri Kiri with an overdose of Coronation Street? Many readers will have recognised me from the lift routine I gave tips for for the Spectrum (8 bit), well I still use the Speccy, but have now obtained an Atari STE, upgraded to one meg, and still stuck on lift routines, ironique isn't it?

**Mick Jolley, Blackthorn, Northampton**  
**ATARI ST**

*Well, Mick, there is another poser for me! Why your animations are working back to front? Has anyone else come across this problem? I believe honesty is the best policy always so I have to admit that I haven't the faintest idea what could be causing this. As with the reply to the previous letter, can you send me your disk and datafile for me to investigate please? The problem intrigues me and I want to sort it out as soon as possible. The lift routine problem is probably my fault as checking it out I see that I have left out a START command on page 18 which might be causing the trouble. This should, of course, be inserted between the INCLUDE and the WAITTRIG commands. Now to really cause you distress, does anyone remember the episode in Coronation Street when Ena Sharples and Elsie Tanner got stuck in a lift.....Mandy*

---

Dear Mandy,

In reply to Peter Wards letter in issue 9. I'm afraid I can't offer anything more than your own comments. As you mentioned, you sent my datafile to Paul Gregory and he replied saying my saved file had become corrupt. Obviously the corruption can't be too serious since all the data was still there. I would advise anyone sending their files off to be fixed to ensure they finish the game first. I didn't and only sent a saved copy of the first half so when I got the working copy back I had to re-write the last half. Finally I would like to apologise for my lack of contributions over the last few months. I've been busy with exams and now with re-sits for the ones I failed. Rest assured as soon as they are over I'll be back. PS. To everybody that complained about the ending to THE MAZE, I'm sorry. Yes, it is bad but I was rushing to get it finished before the start of the term.

**David Sambrook**  
**ATARI ST**

*I didn't get any letters of complaint about the ending to The Maze, David. Maybe someone wrote to you with some constructive criticism perhaps. Mind you, I'm still struggling to complete it myself so I haven't seen the ending. You have a devious mind to devise puzzles like that.....Mandy*

---

Dear Mandy,

Well here I am again. First of all, I must tell you how thrilled I was to learn I had won the 16 bit competition! When you hinted that I had won something when I sent you my KAKRIVS game, I thought "Smashing!" and expected to be a runner-up! I never thought I could possibly win the CDTV! I had to re-read the results several times to convince myself it was really true! Now on to other matters, you will see that I have sent you quite a plethora of material this time. First of all, thanks tremendously for offering to send my Kakrivs datafile to Paul Gregory at Incentive to have a look at. It is great to think that my program will be examined by a professional programmer! I really hope the problem of the "Sambrook Bug" can be sorted out, and that it's not too serious. I am really intrigued to discover what is causing the problem. Since I last communicated, I have finished part three of the planned four-part SPEILRAUM saga. It says a lot for the user-friendliness of 3DCK when such a good-looking environment can be produced in such a short space of time once you have used the Kit a few times! I just can't wait to get my hands on 3DCK 2 now that it is finished. It sounds even better than I had hoped. I plan to finish the saga using the new Kit. With all the new features I should be able to make quite a finale! Top marks to Incentive and Domark. Never before, to my knowledge, has such support been given to a program as to 3DCK. Not only do they put the most easy-to-use 3D Construction program on release to the general public, but they actually go on developing it, taking on board ideas and suggestions from users, improve the product and release that to the public, and offer upgrades to User Group members at a reduced rate! I must say, though, that it probably wouldn't have happened without the User Group. If the setting up of the group was your idea, which I suspect it was, we have much to thank you for, Mandy. You have really put a lot into the club to make it successful. I'm afraid I've no hints or tips to offer this time, just one minor observation that folks may find helpful. If considering sending in tips: I've found that what may seem obvious to YOU is not always obvious to other people. If you use a routine or method regularly, seriously ask yourself, "Is this really made clear from reading the Instruction Manual?"

If the answer is no then you have a handy hint to give away! It was this train of thought which enabled me to send in my previous hints and tips. They don't all have to be super-brilliant technical routines like those by J. Hayes!

**Peter Ward, Dartford, Kent**  
**ATARI ST**

*I echo your advice about the hints and tips, Peter. Let's hope that more of the hundreds of members start to send in contributions as the more information we get the more helpful the newsletters will be. The original idea for the User Group came from Ian Andrew, the head of Incentive, himself. I was delighted when he asked me to take charge of it. I do enjoy running the User Group very much indeed. It has given me endless pleasure gradually getting to know everyone via letters and the telephone and, in some cases, meeting members personally. I have noticed that the User Group is really getting a friendly atmosphere now that you are all beginning to get to know each other through the pages of the newsletters and also with the members hot-lines giving you contact. I knew from experience that this would eventually happen, it just takes a little time.....Mandy*

---

Yo!

Greetings and that! This is the second time I've tried typing this, the first time by +D went mad on me and trashed the lot. Ho hum. Oh well I suppose it was because the beastie realised that I was writing about it or something. First of all I have to say that I felt a bit sick reading the 8-bit compo winners list. To think I could have created a cube, printed it and STILL won! Oh well, what's done is done I suppose. By all means do run more compos as this one has taught me a valuable lesson! Now I suppose I had better get onto the main point of this letter otherwise I'll miss Saturday Night Live! As stated above it concerns the +D. By the way do you realise that just by printing Miles' letter you are condoning piracy? After all to make a disk version of the program involves copying said program! I wonder what Domark would say if they read the letters (Don't you just love getting people wound up?!). Anyway I have actually done a full conversion of the 128K editor and the compiler AND as I mentioned last time I wrote added a few more routines to allow animation of as many blocks as you want under loop control. Also there is a block shrink/grow bit as well, for spooky effects like growing a house from a pea (Return To Eden?). If any plus D owners want more information on how it is done etc then they can contact me. Veni, Vidi, Vici,

**Mark Harris**  
**1 Salters Lane, Faversham, Kent, ME13 8YD**

*Printing Miles' letter wasn't condoning piracy at all, Mark. You are entitled to make a copy of the Kit FOR YOUR OWN USE. It is if you make a copy to pass to someone else that it becomes Piracy. If a tape owner wishes to make his back up to disk for his own use I see no problem at all. Careful editing and a little rewording of some letters show that I am extremely concerned about piracy. By the way, both Incentive and Domark do receive the newsletters. Piracy is a problem that will always be with us, I fear. Protection is put on programs to prevent this but as long as Hackers feel that cracking the protection is some kind of a challenge then unfortunately they will always be with us. When my first program was published, within a month I saw a letter in C and VG magazine asking for help on it from a chap in the, then, Yugoslavia! I knew very well that I hadn't sold a copy over there! I even had a lady ring me for help on one of my games recently and confessing that it was a copy she had had from a friend. She said she was enjoying it and wondered if I knew who had written it so she could look out for others. When I told her that I had written it the silence at the other end of the phone was deafening! If, as sometimes has happened in the past, someone sends me a pirate copy of a game. If I intend to use it then I make sure I buy an original copy for myself. It pays, really it does, after all I wouldn't have the trust of companies like Incentive or Domark if I didn't draw the line somewhere, would I?.....Mandy*

---

Dear Mandy,

Many thanks for the latest issue of the Newsletter and the wonderful news that Kit 2 is available and at such a hefty discount. In your reply to the letter from Pete Spooner you mention Incentive's excellent after-sales service. I would like to echo your observation. It is indeed refreshing to find a software house so obviously interested in the end users continued satisfaction with their product. Although I have not had cause to contact Incentive, my copy of the Kit seems to work without problem, it is obvious from the type of comments which repeatedly surface in the newsletters that Incentive expend significant time and effort to resolve users problems either directly or through the newsletter, and yourself of course, Mandy. I can think of no better way to convey my satisfaction with both the initial product and the user group's guidance via the newsletter than to place an order for a copy of Kit 2.

**Peter Sharp, Highworth  
Swindon**

---

Dear Mandy,

I have an oddity to report with my version of the Kit. Upon selecting a language the program waits for a mouse click before continuing. I have blamed my wonky HDE (hard disk interface), which sits between the machines processor and motherboard and currently carries the can for a large number of gurus and things, but I wondered if anyone else has had the same problem?

**Jamie Knight, Malvern, Worcester  
AMIGA**

*I haven't heard of the problem from anyone else, Jamie, but perhaps anyone who has experienced this would write in and we can perhaps discover what is happening.....Mandy*

---

Dear Mandy,

This is the first time of writing to you apart from applying for membership in the first place. I have read every issue in my first years membership with great interest. I have to admit, I haven't really used the Kit yet, but I plan to this winter time permitting. So, why, you ask, if I haven't used the Kit am I buying Kit 2? Well, you seem so excited over it and gave it such a good review that I felt I couldn't miss such a brilliant offer. So, thank you Incentive, thank you Domark for such a tempting offer. I hope it sells better than the original. Thinking about it, I think Mandy would make a good saleswoman for Kit 2 as she seems so interested in a product that is having such an impact on so many people. Thanks must go to the programmers for writing what sounds a very impressive product and also listening to what people wanted in a program. Why can't all company's be so friendly, software quality would improve dramatically as this product will prove. Still, that's enough of your valuable time taken up with my rantings, thank you for the good work you do with the newsletter. If my help is needed in any way helping with the newsletter (if it gets too big or too time consuming for you), then just drop me a line and we'll see what can be done, also if you haven't enough playtesters by now, mine and my family are at your disposal. My family include me, Stephen, my wife Carol, my son Marc and last but not least my daughter Lianne. We are all interested in computers as Carol and I share the Amiga, Marc has an Amstrad 464, Lianne has a Spectrum 48. So here's to another exciting year of 3DCK, thanks once again for creating such a wonderful product.

**Stephen Dennis  
Newton Abbot, Devon**

*Many people will envy you, Stephen, as they may be the only member of their family who is interested in computers. It is great when the whole family gets involved - especially when each have their own computers. (Can be hell if you only have one and everyone is fighting over it though!). My family is exactly like yours and thank goodness we have enough computers to go round. One question though, which one of you has to leave the keyboard to make the coffee? I bet it is Carol. A complete family of computer freaks can have its drawbacks though. Take ours for instance. I only remember to leave off and feed them when I hear three thuds and find them all in a heap outside the kitchen door.....Mandy*

Dear Mandy,

I have a little problem. My A500 having finally given up the ghost, I decided to invest in a posh new Amiga 1200. Great machine. I'd recommend it to anyone, but 3DCK is a little problematic - everything will load up fine and you can create and edit to your hearts content, but the menus don't work. You can call them up but they don't respond to your mouse clicks. I wonder if you could check with the lovely lads and lasses at Incentive to see if its just my copy or version, and if 3DCK 2 will work on the A1200?

**Barry Metcalfe, Salford, Manchester**

**AMIGA**

*Paul Gregory at Incentive tells me that the Menu problem was a fault in version 1 of the Kit and was fixed with version 2. He also assures me that Kit 2 should work without problem on the Amiga 1200. I am sending you version 2 of the original Kit and I hope you have no further trouble. But, as usual, if you do then please do not hesitate to let me know.....Mandy*

---

Dear Mandy,

I wondered if anyone has found a way to link Soundblaster VOC files into the 3D Kit?

**R. P. Nash**

**15 Ullswater Ave, Roath Park, Cardiff, CF2 5PT**

**PC**

*I hope someone out there can come up with an answer to this question for Mr Nash. If so then either write via the Newsletter or directly to Mr Nash. His address is printed in full.....Mandy*

---

Dear Mandy,

Please find enclosed my registration and cheque for membership of the User Group. My main reason for purchasing 3DCK 2 is to model building interiors, although I expect to indulge in the sheer entertainment value of the product as well. Having only installed the product for the first time yesterday, I have not really had sufficient time to evaluate its features, but I have discovered a few problems. The product fails to install the Adlib sound driver with my Soundblaster Pro card. In fact the problem is fatal. I get a text screen with the message Divide Error at the top and a dead machine. All the graphic primitives must be aligned with the axis. This means that all the edges of cubes, pyramids etc, lie in the same direction and objects only rotate with 90 degree granularity in each axis. This might cause me a few problems with my "serious" use of the product and personally I would strongly recommend an enhancement in this area for future release. I would like to see an ability to edit an objects orientation in each axis as well as changing the size and other attributes. Anyway, having got those two issues off my chest, I must say that I am pleased that a User Group exists for 3DCK 2 and look forward to contributing where I can.

**Luke Evans, Colchester, Essex**

**PC**

*I am afraid that there is a problem with the Soundblaster sound card at present, Luke. It is being fixed and I will keep everyone informed via the newsletter of when the problem has been solved. Then of course, everyone who has had this problem can return their disks for replacement. Meanwhile, I'm afraid that you will have to select PC bleep or PC sound during the 3Dedit phase to get it to run properly. I would also advise that Kit 2 be loaded directly from DOS as problems may be found if you try to run it through "windows". These are just a couple of teething troubles with the new program and, although annoying to you at present, will be ironed out as quickly as possible. Keep watching this space for news!.....Mandy*



***3D SEASONAL GREETINGS BY PETER D. WARD***  
***ATARI ST***

---

## **8 BIT ROUTINES**

### **MODE CHANGE PROBLEM SOLVED** **Thanks to Yannick Gour - AMSTRAD CPC**

I would like to offer some help to David Lacey (Issue 9) with his problem but first a few remarks: the speed in an area depends on the scale of the area (see EDIT AREA). It is the case too for the point of view. The more the scale, the more the X or Z step is affected. Remember too that the standard height of view in fly 1 mode is half of the one in WALK mode. That means that if we change from WALK to FLY 1 (by using icons or by writing in FCL "MODE 3"), the height (Y position) is suddenly divided by two.

## **TO GO FROM WALK MODE TO FLY (1) MODE WITHOUT CHANGING SCALE**

I propose to use a FCL solution which should be much better than trying to explain in sentences:

```
CMPV "J" 121      - test if key J (for Jetpack) has been pressed
IFEQ
THEN
XORV 1 100        - yes: change flag
ENDIF
TEST 1 100        - test if jetpack activated (1=yes 0=no)
IFEQ
THEN              - jetpack ACTIVATED:
MODE 3            - select FLY 1 mode
SETV 224 114      - set Y position as Y position for WALK mode and
SETV 001 115      - scale 2: 480 = 224 + 1*256
ELSE
MODE 1            - jetpack DEACTIVATED: select WALK mode
SETV 224 114      - (if Y position is not set, the height is
SETV 001 115      - multiplied by 2 for the first screen in
ENDIF             - walk mode!)
```

It is necessary to adapt this routine to the scale of the area.

## **THE SAME THING BUT WITH CHANGING THE SPEED**

I think there is no other way but to create two areas with the same objects of the same size at the same positions BUT with different scales. For example Area A with scale2 for WALK mode and Area B with scale 8 for FLY 1 mode. The FCL routines are:

```
FOR AREA A
  CMPV "J" 121
  IFEQ          - jetpack ACTIVATED
  THEN
  MODE 3        - select FLY 1 mode
  SETV 224 114  - set Y position
  SETV 001 115
  GOTO 0 Area B - same position in Area B (see GEOGRAPHICAL
ENDIF          - LINKER by M Harris (issue 9 p.29))
FOR AREA B
  CMPV "J" 121
  IFEQ          - jetpack ACTIVATED
  THEN
  MODE 1
  SETV 224 114
  SETV 001 115
  GOTO 0 Area A - same posiiiton in Area A
ENDIF
```

---

## **MAKING PUZZLES**

### **BY STEVEN FLANAGAN**

Following the idea of the user group game in newsletters 7 and 8, I decided to contribute a little room puzzle that I have included in my latest game. The room contains five stepping stones that are far above the ground, so that the player will fall if he/she steps off of one. At both ends of the room are doors. On the northern wall are two triggers which transport the player from one stepping stone to another when shot. The puzzle is to get to the other side of the room to go through the door and continue the adventure. See diagram A.

The four walls and floor should be global objects. The walls should be as high as possible. The numbers before the comma shown in the diagrams are the object numbers. The numbers after the comma are the entrance numbers. All the entrances should be in the middle of the stepping stones and facing north. Load in the kit and create the room. Here is a list of the objects:

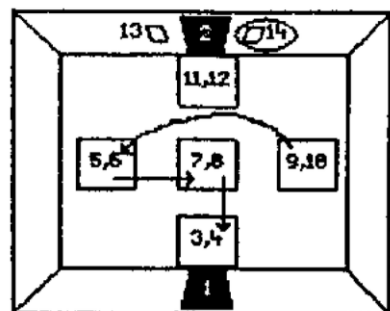
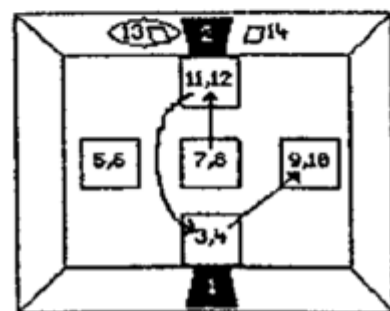
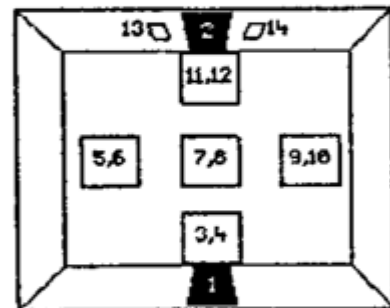
- 1 & 2 - RECTANGLES - DOORS
- 3 & 4 - CUBE AND ENTRANCE
- 5 & 6 - CUBE AND ENTRANCE
- 7 & 8 - CUBE AND ENTRANCE
- 9 & 10 - CUBE AND ENTRANCE
- 11 & 12 - CUBE AND ENTRANCE
- 13 & 14 - TRIGGERS CAN BE ANY SHAPE

It does not matter what object numbers the walls and floor are.

Let's review the puzzle again and sort out the details. The player arrives in the room via door 1. He/she starts at entrance 4, on stepping stone 3. If the player falls off any of the stepping stones, the game is over. In order to get to the other side, the player needs to shoot the triggers which will transport him/her to another stepping stone. The two triggers move the player differently. The stepping stone that the player is transported to depends on which trigger was shot and which stepping stone the player is standing on. Diagram B shows where the player will be transported if trigger 13 is shot. Diagram C shows where the player will be transported if trigger 14 is shot. For example, if the player is on stepping stone 3 and shoots trigger 13, he/she will be transported to entrance 10 on stepping stone 9.

If you study the two diagrams you will see that the solution to the puzzle when standing on stepping stone 3 is to shoot trigger 13, then 14, then 14 again and finally 13. You will now be at the other door.

Hopefully you should now understand the idea. Please note that in my version of this puzzle the stepping stones, doors and triggers are very high up above the ground so you can't walk from one stepping stone to another. You can use other methods such as the stepping stones being islands above water and the player drowns if he/she falls in. You would need to create another rectangle coloured blue to be the water.



Right, you've got the basic idea and should have the objects finished so load in your condition editor and let's start writing some conditions.

**It's always a good idea to plan what your conditions are going to do before you write them. So here's the plan:**

The first thing that needs to be done is to test if either of the two triggers have been shot. If they have, the player needs to be transported to the relevant entrance depending on which stepping stone the player is standing on. But how can the computer tell which stepping stone the player is standing on? I suspect your initial response will be to use IFHIT to test which platform the player is standing on but this will not work for reasons I will explain.

**Imagine we created a mat in an empty area and entered the following routine:**

```
IFHIT    2    -    The mat
THEN
SOUND    1    -    Ping sound
ELSE
SOUND    2    -    Buzz sound
END
```

If we were to stand in front of the mat the buzz sound would continually be heard as we would not be standing on the mat. If we then walked forward across the mat then the ping sound would be heard as we crossed the mat and the buzzing sound would return when we walk off it. This is as we would expect. The problem is that if we walked onto the mat and stayed on it, the kit would ping as we move onto the mat but when we stop on the mat the buzzing sound would return even though we would be standing on the mat. The IFHIT command only returns a truth if the player moves on or into an object. It will not return a truth if the player is just touching or standing on the object without moving. I know I am going on a bit about this but I have seen a few routines in the newsletters which would not work as they should because they use the IFHIT command incorrectly. I am also guilty of this crime as the routine I had printed in newsletter 4 which tested if the player had landed would not work for the above reasons.

So you see we can not test if the player was standing a certain stepping stone with IFHIT unless the player keeps moving all the time. The answer to this problem is to store the object number of the stepping stone the player is standing on in a variable. Let's use variable 1 for this purpose. When the player first enters the room, the variable should be set to 3. When the player shoots a trigger we can test if he/she is standing on a certain stepping stone and if so, set variable 1 to the stepping stone number the player will be transported to and then move the player to the entrance at that stepping stone. That's the theory completed. Now the conditions.

### **LOCAL 1**

```
IFFALL
THEN
  (Insert any end of)
  game messages here.)
ENDGAME
```

If your platforms are not high up as you are using another idea such as water, you need to change LOCAL 1 to suit your needs.

### **LOCAL 2**

```
IFSHOT    13      -      Tests if the left trigger has been shot
THEN
ELSE
END
ENDIF
CMPV      3    1    -      Tests if player is on platform 3
IFEQ
THEN
SETV      9    1    -      Player will be transported to
GOTO     10      -      entrance 10 at platform 9
ENDIF
CMPV      7    1    -      Tests if player is on platform 7
IFEQ
THEN
SETV     11    1    -      Player will be transported to
GOTO     12      -      entrance 12 at platform 11
ENDIF
CMPV     11    1    -      Tests if player is on platform 11
IFEQ
THEN
SETV      3    1    -      Player will be transported to
GOTO      4      -      entrance 4 at platform 3
END
```

### **LOCAL 3**

```
IFSHOT    14      -      Tests if right trigger has been shot
THEN
ELSE
END
ENDIF
CMPV      5    1    -      Tests if player is on platform 5
IFEQ
THEN
SETV      7    1    -      Player will be transported to
GOTO      8      -      entrance 8 at platform 7
ENDIF
CMPV      7    1    -      Tests if player is on platform 7
IFEQ
THEN
SETV      3    1    -      Player will be transported to
GOTO      4      -      entrance 4 at platform 3
ENDIF
CMPV      9    1    -      Tests if player is on platform 9
IFEQ
THEN
SETV      5    1    -      Player will be transported to
GOTO      6      -      entrance 6 at platform 5
END
```

That completes the routines for the puzzle. All that needs to be added now are the local routines to allow the player to walk through the doors. It would be a good idea to create another entrance on platform 11 with your back to the door for when the player enters the room from the north.

The last thing to be done is to ensure that variable 1 is set the the right value when the player first enters the room, for example, if the player enters the room from the south he/she will be standing on platform 3 so variable 1 needs to be set to 3 before the player is transported to the entrance in the room.

In the area to the south of the room, add a SETV 3 1 command to the condition that tests if the player has walked through the north door, so it would look like this:

```
IFHIT  ???      - If the player has walked through a door
THEN
SETV   3    1    - Sets variable 1 to the platform you will
                  transported to.
GOTO   4    (area) - Transports player to the room.
```

Similarly, the area to the north of our puzzle room needs a SETV 11 1 command in the door routine before the player is transported to entrance 12.

This puzzle room is a cut down version of my original puzzle, which had nine platforms and five triggers.

**UPDATE: Members may remember me mentioning that Incentive kindly sent me an Amstrad 1640 PC with 5.25" drive last year and that if you wanted to send me anything to look at it would have to be in that format. Good news is that Domark have swapped the old PC with a Samsung 386 mini tower system PC with full VGA. As this computer only has 3.5" drive at present if anyone has anything they would like me to take a look at please send on 3.5" disk and not 5.25". The PD library for PC will still be run by Mark Rose but now I can get chance to see all your great datafiles too!.....Mandy**

---

## MORE ABOUT GLOBALS

**By Pete Spooner - ATARI ST**

There was considerable input, in the last issue of the newsletter, about Globals, so I thought that I might as well add to the debate.

The first thing to realise is that there is, in fact, only one "Global". Every time that you use this, you just get a copy of the same room. That is why, if you change the colour of one Global Area, all those that have been created previously, change to the last selected palette, as reported in issue No 8.

Personally, I find the dimensions of the default Global area to be disproportionate. The area is too large and the ceiling too high for the sort of atmosphere I am trying to create. I, therefore, set about altering the area after it was created and found myself, for a time, quite confused.

Oh, it was no great problem shrinking the walls and dropping the ceiling; it was, however, a problem to create any objects inside this suitably claustrophobic zone that I now had.

I had to raise the ceiling back up out of the way in order to get my "starting blocks" into the room before I could work on them. (*I know **EXACTLY** what you mean - Ed*). I suppose that I could have created them elsewhere and saved them as objects, but that would have meant working out sizes, mathematically - and my maths is about as good as my literary style - pretty basic.

The next problem that I encountered was that, when I programmed a door, in area 1, to take me to area 2 (the new global area, as I thought), I found myself in the right area, but OUTSIDE my global room with no way to enter it. Of course, I had arrived at the default entrance in area 2, which was, now, not inside my shrunken room. Logical, isn't it? Not to me it wasn't. It took me ages to come to that simple conclusion.

What to do? I started by lowering a wall, walking into the room, raising the wall again and creating a new entrance. Imagine my surprise when the new entrance had a number that read 257. I didn't like the look of that - thought that I must have done something horribly wrong so I scrubbed that and thought again. After working my single brain cell really hard I realised the solution. I plotted the positions of the east and south walls of my global room (from the outside), projected a point west and north of these co-ordinates and modified the default entrance to bring me to this point when the door in area 1 was activated.

Eureka! It worked! I was quite chuffed with myself. How silly and vain we human beings are, at times, aren't we? All that I had to do then was to modify the entrance, once more, to take me into the exact location, within my global room, that I wanted.

Simple when you know how, isn't it? I'm sure that other members have worked their way through other similar mundane, but to them, baffling problems and I urge them not to be shy - but to share them with the rest of us. There must be dozens of members out there who need these very basic concepts explained to them - just as I do. So come on, write in.

***(I couldn't agree more - so come on, lets hear from you....Mandy)***

---

## BEGINNER'S SECTION

### STEP-BY-STEP GUIDE TO USING THE MAKE COMMAND ON THE AMIGA

**By Mieke Van Der Poll - AMIGA**

Firstly have a blank formatted and installed (being made bootable) disk ready (see my step-by-step guide for loading screens for Amiga in issue 8).

#### **SINGLE DRIVE USERS:**

**Load Workbench, go into Shell.**

|                      |                    |
|----------------------|--------------------|
| Type: cd c           | Press Return/Enter |
| Type: copy copy ram: | "                  |
| Type: copy cd ram:   | "                  |
| Type: cd ram:        | "                  |

**Put your 3DKit disk in drive df0.**

|                        |   |
|------------------------|---|
| Type: cd df0:          | " |
| Type: copy runner ram: | " |
| Type: cd ram           | " |

**Put your blank formatted disk in drive df0:**

|                       |   |
|-----------------------|---|
| Type: copy runner df0 | " |
|-----------------------|---|

Put your 3DKit disk, containing your game-datafile, border (and maybe a relevant sample sound bank) in df0. Re-boot and load 3DKit (+ sample sound bank), load border and datafile.

Swap 3DKit-disk with the blank one (with Runner on it) in df0. Save your datafile to df0. Now choose the MAKE command from the top menu bar. When the file-requester appears, it asks for the Runner-file. Click on the file Runner and click on OK. The next question in the file-requester is "Select Make Path". Click on the name of your game and click on OK. The drive starts whirring and a couple of times you get the questions such as "are you sure this is the runner disk?" and "are you sure this is the destination disk?". Click on OK until the drive has stopped whirring and the drive light is out.

If all has gone well you have the four files of your stand-alone game on the right disk. You can delete runner from it now. Reboot your computer. When the CLI window appears just type in the name of your game followed by Return/Enter and it will be loaded.

#### **TWO DRIVE USERS:**

Load 3DKit (+ samplesnd.bnk). Load Border and your game-datafile. Put your blank formatted disk in drive df1 and save your datafile on it. Then select the MAKE command. The requester asks for the Runner-file. Put your 3DKit disk in drive df0 and click on df0:. After whirring of the drive look in the file-requester for the Runner-file and click on it and click on OK. The next question is "Select Make Path". After the drive has stopped whirring click on df1 and click on the name of your game. Click on OK. After a while and whirring of both drives without questions, your stand alone game is ready in df1. Re-boot in df0 and type the name of your game followed by Return/Enter.

# BOXES INSIDE YOUR GAME

## (VARIABLES FOR BEGINNERS)

By Stephen Moore - AMIGA

If you are a beginner you are probably wondering what's so magical about variables. The answer is NOTHING AT ALL! Everyone has to start somewhere and sadly you may have started in the wrong place! Members will have looked at George Dixon's (very good) article on variables and said WHAT? Well, while the article is SUPERB for those who can program already it is no good to those who can't. So here is the potted guide for variables.

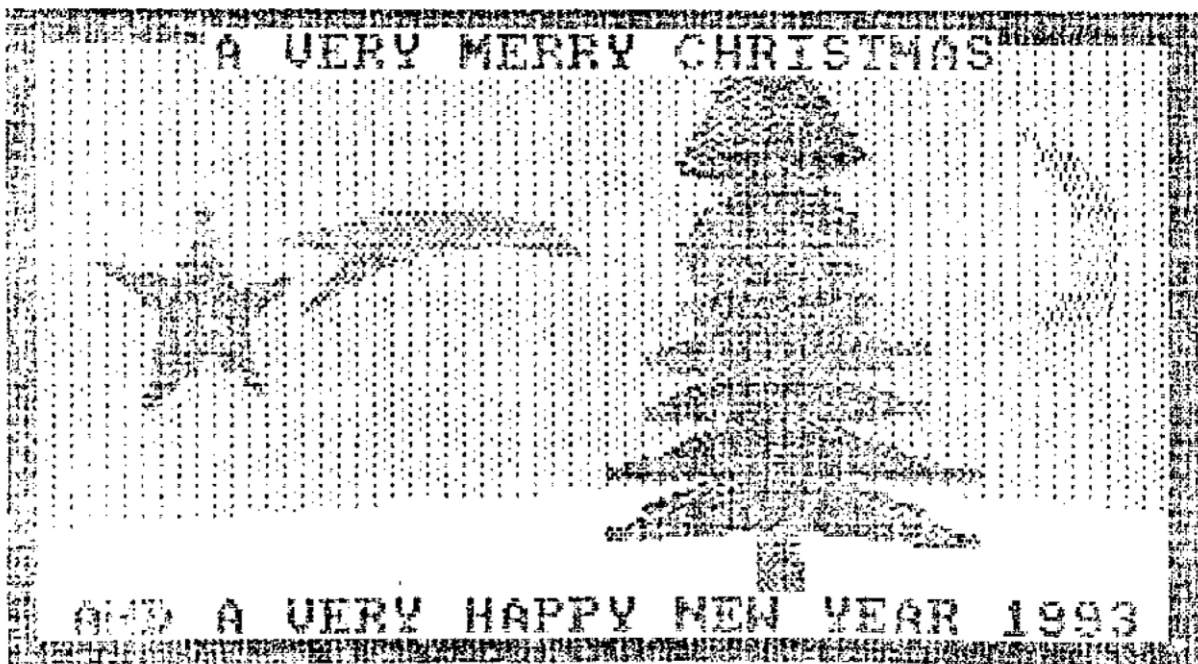
Variables can be looked at as boxes with a piece of paper and a pencil in them! Pardon, you say. Well a variable is a place to keep a number, the variable has a name (V a number), and can be used to look up a number. If you want to remember things you might have a notepad, well a variable is one stage better. A variable is like a notepad but it also has a name. So if you forget which piece of paper you wrote on all you need to do is look at the box's name.

Admittedly that was a very simple explanation, it doesn't touch on variables problems. Variables can NORMALLY only be one thing at a time, and cannot contain words. It is possible to use a variable for more than one thing but it is VERY tricky for beginners.

So how can you use variables? Well one could be used for score, one could be used for energy, another could be used to tell you if you had the fabulous laser cannon of doom or not. They are just electronic notes for you the programmer. Now go and mess around with variables and when you have an idea of how to use them try Mr Dixons brilliant article.

### THE START...

***Newer members of the User Group may be wondering, if they haven't yet purchased the back issues of the Newsletters, where the article by George Dixon is to be found. It is to be found in issue 3 (Oct/Nov 1991). Other issues which contain help and explanations on how to use variables, together with routines to try using variables for yourselves, can be found in issue 1 (June/July 1991), issue 2 (Aug/Sept 1991) and issue 4 (Dec/Jan 1991/1992). See page 3 for prices of back issues and how to order them.....Mandy***



**3D SEASONAL GREETINGS BY YANNICK GOUR  
AMSTRAD CPC6128**

# 16/32 BIT ROUTINES

## PROGRAMMING A FLIGHT-SIMULATOR - PART TWO

By Thomas Stufe - AMIGA

Continued from last issue.

### HOW TO PROGRAM VARIOUS WEAPON SYSTEMS:

This routine allows the user to program various weapon systems, as many as he thinks necessary. In my example I have programmed four systems. The following variables are needed:

ws                - current weapon system (1... x, in my example 1...4)  
a1...a8          - ammunition of the various systems  
a                - this variable contains the ammunition of the current system  
V20, V21        - system variables explained in the manual  
Instruments:  
Instrument 1 - text  
Instrument 2 - numerical, variable a

### The routine consists of two general conditions. The first is:

```
IF VAR=? (81,V15)                                - if key Q is pressed then:
THEN
SETVAR (0,V15)
SETVAR (15,V20)
ADDVAR (1,Vws)
IF VAR=? (5,Vws)                                - count ws from 1 to 4
THEN SETVAR (1,Vws)
ENDIF
IF VAR=? (1,Vws)                                - first weapon system:
THEN SETVAR (a,a4)                             - save ammo of old system
SETVAR (a1,a)                                - and get the new ammo
PRINT ("NAME WEAPON SYSTEM 1",1)           - print name of new system
ENDIF
IF VAR=? (2,Vws)                                - and so on...
THEN SETVAR (a,a1)
SETVAR (a2,a)
PRINT ("NAME WEAPON SYSTEM 2",1)
ENDIF
IF VAR=? (3,Vws)
THEN SETVAR (a,a2)
SETVAR (a3,a)
PRINT ("NAME WEAPON SYSTEM 3",1)
ENDIF
IF VAR=? (4,Vws)
THEN SETVAR (a,a3)
SETVAR (a4,a)
PRINT ("NAME WEAPON SYSTEM 4",1)
ENDIF
ENDIF
```

### Second General Condition:

```
IF VAR<? (0,V21)                                - if fired since last check
THEN SUBVAR (V21,a)                           - then reduce current ammo.
SETVAR (0,V21)                                - (once only)
ENDIF
IF VAR>? (1,a)                                - if a is 0
THEN SETVAR (0,V20)                           - switch off V20
ENDIF
```

The result is that the ability to fire is switched on each time the button "key Q" is pressed and the weapon system changed, but, if the ammunition is used up, it will immediately be switched off by the second routine. In the object conditions of the targets it is possible to request the variable ws, and, according to its value, to vary the effect of the bullets or missiles.

***Next issue Thomas will show how to handle flying characteristics to achieve a realistic aircraft movement.***

---

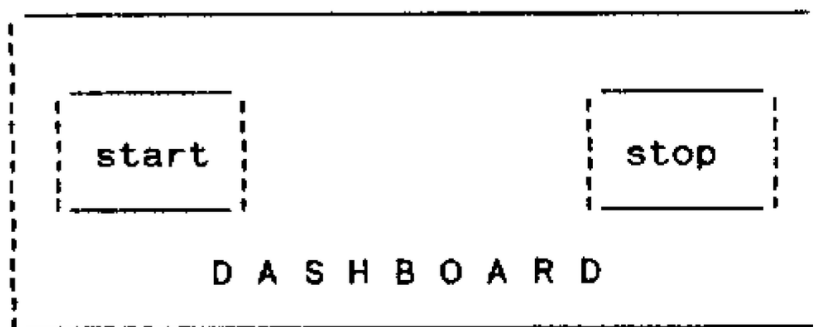
## DRIVING AROUND

**By Ozzie O'Mara - ATARI STE**

### UPDATE FROM STEPHEN SHIELD'S ROUTINE IN ISSUE 7

This routine gives the impression of driving around by being able to activate a car dashboard.

First you must create a dashboard, a cube and knobs together with controls and make them into a group. Move them to the base of the view and make all the tiems in the group moveable once they are in the correct position. A very simple dashboard might look like this example:



```
CREATE ANIMATOR (1)
  INCLUDE (5)          (Group number)
  START
  LOOP (10)            (The speed of the group)
  SETVAR (V0,V40)
  SETVAR (V1,V41)
  SETVAR (V2,V42)
  ADDVAR (10,V42)
  MOVE (0,0,10)
  LOOP (10)            (The speed of the viewer)
  SETVAR (V40,V0)
  SETVAR (V41,V1)
  SETVAR (V42,V2)
  RESTART
  AGAIN
CONDITION FOR START BUTTON:
  IF ACTIVATED?
  THEN STARTANIM (1)
  ENDIF
CONDITION FOR STOP BUTTON:
  IF ACTIVATED?
  THEN STOPANIM (1)
  ENDIF
```

This routine is open for a lot of improvement but the basics are there so have fun and perhaps if you improve it you can send in your routine for the newsletter.

# STEP-BY-STEP GUIDE FOR LOADING SCREENS ON THE AMIGA

## SUPPLEMENT TO ARTICLE IN ISSUE 8

By Mieke Van Der Poll

I have now found a way in which the player can choose to go directly into the game or read game instructions first. You can use some Amiga-Dos commands to obtain this. These commands are:

```
Ask
Echo
Endcli
Else
Execute
If
```

They can all be found in the C-directory of the Workbench disk. You have to copy the commands in the C-directory of your game-disk. Then, instead of one, make two start-up sequences as shown below:

### **Using the text-editor ED type the following:**

ED startup-sequence (press Enter/Return)

### **Then type in the following text:**

```
cls
picshow pic1
noiseplayer -p2 Mod.name
picend pic1
cls
echo"                                " (blank line)
echo"                                "
echo"                                "
echo"                Welcome to    "
echo"                                "
echo"                The name of your game    "
echo"                                "
echo"                created by      "
echo"                your name      "
echo"                                "
echo"                Using the 3D CONSTRUCTION KIT    "
echo"                Domark/Incentive    "
echo"                                "
echo"                Do you want instructions?    "
echo"                                "
echo"                Type (Y)es or (N)o + Enter    "
if warn
echo"                                "
echo"                                "
echo"                Please wait a moment...    "
echo"                                "
cls
picshow pic2
wait 20
picshow pic3
picend pic2
wait 30
picend pic3
wait 01
cls
```

```
tbar Please wait LOADING..
gamename
endcli

else
cls
execute s/startup2
```

**Then press ESC x and again ESC x to save and leave the textfile.**

**Then again type:**

```
cls
tbar Please wait LOADING..
echo" Press right mouse-button to stop music!"
gamename
endcli
```

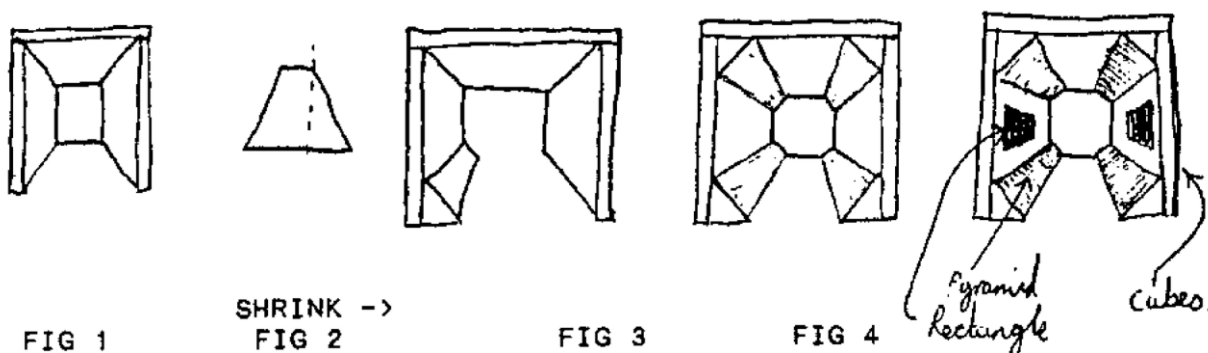
**Then press ESC x and again ESC x to save and leave the textfile.**

**Make sure these startup-sequences are both in the s-directory of your game-disk.**

## MAKING THE MOST OF PYRAMIDS

**By Tony Hartley - Atari STE**

All the following ideas involve using pyramids. The first one is for creating a space passageway as used in TV/Films like Aliens, Star Trek, Star Wars etc. It is very easy to do and very effective. First you have to make a normal tunnel using three flattened cubes just like the one made in the video that comes with the Kit (Fig 1). Then use a pyramid to make a triangle by shrinking one side of it (Fig 2). Next you place the pyramid in one of the corners of the tunnel and stretch it along its length (Fig 3). Copy the pyramid three more times placing one in each corner of your tunnel (Fig 4). Make all sides of the pyramids and walls that won't be seen invisible. Colour the pyramids grey and the walls white with a white roof also. Then finish it all off with a few black rectangles on the walls for windows. There you have it - the space tunnel. It looks great with an animated robotic type dog moving along its length which you could arrange to kill you if it hits you.



A great volcano spewing lava can be achieved by using a large brown pyramid as a mountain with another smaller red one on top. You could also animate a few hexagons moving up out of the top for smoke effect (Fig 5). A simple wigwam can be made with a pyramid with a few short lines on the top of it (Fig 6). Pointed pyramids on the roof and floor of tunnels or caves gives a very realistic feeling (Fig 7).



FIG 5

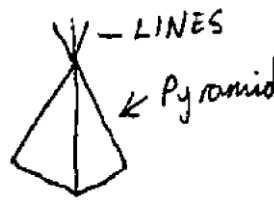


FIG 6

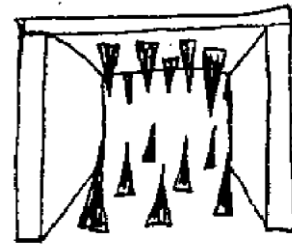
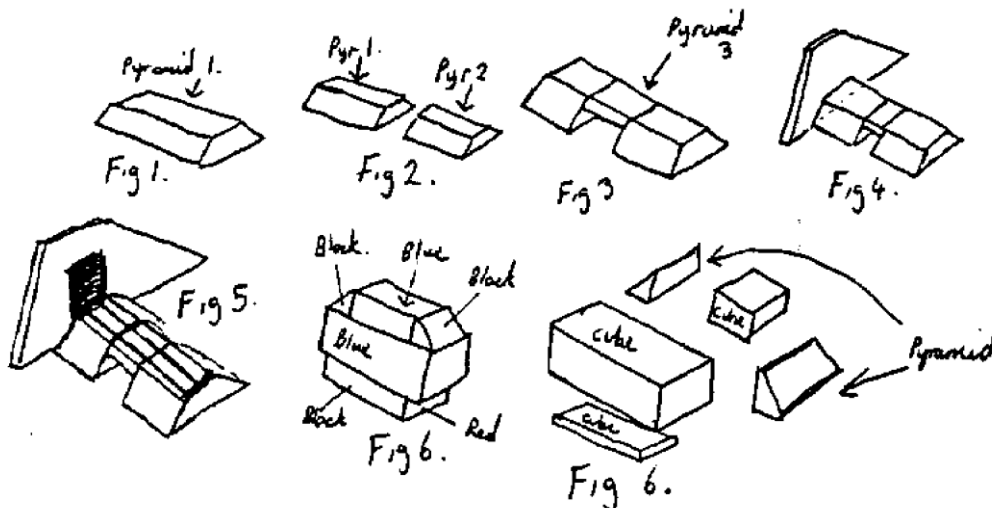


FIG 7

Here is an idea for using a full area using simple pyramids. First you need to create a pyramid and stretch it to the ground then stretch it left until it is almost at the edge of the area so that it looks like a railway embankment (Fig 1 (below)). Make another pyramid by copying the first one to the right of it and leave a space between the two wide enough for a tunnel (Fig 2). Use a third pyramid to make a bridge between the first two (Fig 3). There you have a railway embankment. Next use another pyramid on the far left to use as a tunnel and squeeze it into the gap (Fig 4), making it larger and wider than the embankment. Next use a rectangle on the left for a tunnel mouth (Fig 5). After that, make railway lines using two long, thin cubes on top of the embankment along its length. You can make a simple train using three blocks and two pyramids for the windows (Fig 6). Make the windows black and the sides of the train blue. Make the cube used for the wheels black at the sides and red front and back. Save the engine as a group with all its shapes made moveable using the attributes.



Animate the group (train) to move along the tracks back and forth. Then you could use the whole area so that you have to climb up the steps (create these where you like to get you up the embankment), and run into the tunnel without being hit by the train. This is easily done by making the condition for the tunnel mouth (rectangle):

```
IF COLLIDED?
GOTO (n,n) - next area
ENDIF
```

The train cube condition:

```
IF COLLIDED?
THEN SOUND (6)
ENDGAME
ENDIF
```

***Why not send in your routines for the next newsletter?***

## STOP PRESS!!

For everyone who has been enquiring about how to use the Video Record facility in Kit 2 I have found out what the problem is. Unfortunately an important FCL command was left out of the manual. The command is

### SEQUENCE (n)

single parameter after the command is the number of the recorded sequence. When you record a sequence it is stored in memory with the datafile (and saved with the datafile) and can be recalled at any time by using this command within the program so it can be used for items such as the boat/lighthouse sequence in Kit 1 or an endgame routine. This can be incorporated into a command such as:

```
IF COLLIDED?  
THEN SEQUENCE (2)  
ENDIF
```

Another command not stated in the manual is EDIT SEQUENCE which is used to call up your recorded sequence for editing. When you use the SEQUENCE (n) command your recording is immediately played and when finished the player will be put back into the game at the same point as they were prior to the recording being shown.....Mandy

---

## HINTS AND TIPS

### CORRECTION BY STEPHEN FLANAGAN - COMMODORE 64

STEPHEN wrote in to say "You made a small mistake in an 8 bit routine for the User Group game. It is the routine that tests if the key has been taken. The routine should be:

```
IFVIS 6 5  
THEN  
END  
ENDIF  
Etc...
```

So that the routine ends if the key is visible (not taken). It is ironic that in the same issue you wished there was an IFINVIS command which would have prevented this."

I don't suppose it would wash if I said that I did it on purpose just to see if everyone was paying attention, would it? -- No, thought not.

### USEFUL SHORTCUTS BY NIGEL ALEFOUNDER - PC

NIGEL wrote in to say that the PC function keys are used for shortcuts as follows:

```
F1 - TOGVIS (  
F2 - SETVAR (  
F3 - ADDVAR (  
F4 - SUBVAR (  
F5 - IF VAR=? (  
F6 - IF ACTIVATED? (  
F7 - PRINT (  
F8 - UPDATE (  
F9 - MOVE (  
F10 - GOTO (  

```

***All very useful and not pointed out in the manual.***

# MAXIMUM MEMORY ON 1 MEG AMIGA

BY MIEKE VAN DER POLL

If you load in 3D Kit you can, with a clear screen, choose GENERAL in the top menu bar and click on PREFERENCES. You are then presented with a requester in which you type in a different number in the buffer size to allocate more memory. The first time I typed 1000000 bytes, trying to obtain as much memory as I could get. When you press Enter and click on OK the next requester tells you that all data will be lost. As you didn't have a datafile loaded in this doesn't matter so click on OK. The next requester informs you how many bytes are allocated. With me it was over 200,000. Do not use your Workbench to load the Kit. Instead use a blank formatted, installed disk containing the 3D Kit files you need to load it and, if you created a new sample sound bank, copy that one on this also. Then type in 3DKIT -SSAMPLE.BNK (name of your sample bank) and ENTER and in this way you can allocate the maximum memory for your game.

***MIEKE also gives a tip for PC users: When you run a stand-alone game of 3DKit on PC you can quit the game by pressing SHIFT + ESC and you are back in DOS, so you don't have to reboot after playing a game.***

---

## SPECIAL EFFECTS

BY BARRY METCALF - AMIGA

Take a tip from the Hollywood special-effects men and use forced perspective to create an illusion of greater scale than actually exists. For example, I've created a room with a window (actually a hole in the wall, plugged with an invisible cube) and on the other side of the window I have created a miniature landscape with little buildings and mountains (pyramids), getting smaller in scale as they go towards the horizon.

The effect can be strengthened with carefully chosen colours to create an illusion of atmospheric perspective (haze), and in addition I have used mis-shapen polygons to make one or two clouds which move v-e-e-e-e-ry slowly across the sky!

Note that the illusion will be destroyed if the player can wander freely in that part of the area (hence my enclosed room).

Another thought I had. I play role-playing games (mainly Dungeons and Dragons) with my friends and, whilst working on some maps the other day I had the idea of making an interactive dungeon map! This is not a complete game in itself, but a visual aid for the players, controlled - of course - by the Dungeon Master. A reasonable working scale would be 200 units per ten feet. The border should be minimal, just the basic controls and a numerical instrument giving the room number so the DM can consult his maps.

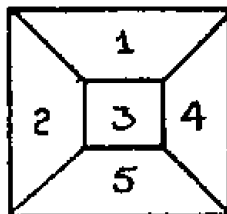
The immediate benefit would be in, say, an area full of teleporters (pains to deal with!) which would be automatically taken care of by means of a few IFF COLLIDED? commands and area entrances. This will simplify the job immensely, especially if (and when!) my powers of verbal description dry up!

---

## TUNNEL ILLUSION

BY MICK JOLLEY

Tunnels don't have to be as short as you think. Create your tunnel, colour the walls, ceiling and floor anyway you like, but don't block off the end yet. Facing the end of the tunnel, take a pyramid, turn it so the top of it is facing you (like this:)



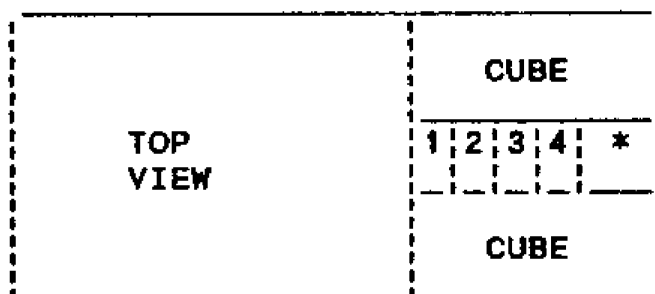
You can now make it fit the end of the tunnel. Colour it as follows. 1. same as the ceiling. 2. same as the left hand wall. 4. same as the right hand wall. 3. same as the end door or exit. 5. same as the floor. Now use the point editor to move colour zones 1, 2, 3, 4 and 5 around to match the way the walls and ceiling and floor are angled. You now have a tunnel which appears twice the length it was before.

## TIPS BY DAVID LACEY

### COMMODORE 64

First I would like to thank that genius, M Harris for answering my first query about moving between areas without changing the coordinates - I can't believe how simple it was when it was explained. My next question was about getting a percentage for nearness to a point. Well the only way I have been able to think of doing this so far is to use invisible triggers. Here is a short example to illustrate what I mean. Create an area something like this:

Objects 1, 2, 3 and 4 are rectangles placed on the ground and coloured invisible.



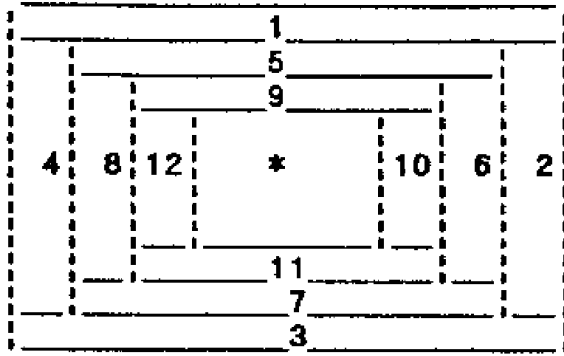
The asterisk is the spot we are judging nearness to.

#### Create a LOCAL CONDITION:

```
IFHIT      1
THEN
SETV       0      10
ELSE
IFHIT      2
THEN
SETV      33      10
ELSE
IFHIT      3
THEN
SETV      67      10
ELSE
IFHIT      4
THEN
SETV 100      10
ENDIF
END
```

Note that variable 10 notes the percentage of nearness, if that makes sense. 100% = next to and 0% = far from.

Then edit an instrument to be numerical, and display the value of variable 10, and you will see the process at work. Of course in a game you could use this variable to test if other actions can be carried out such as a drilling process. Also if your point is out in the open you obviously need more triggers:



Rectangles 1, 2, 3 and 4 will set 10 to 33, rectangles 4, 5, 6 and 7 will set 10 to 67 and so on.

This clearly is quite memory consuming, but is the only way I can think of solving this question. Perhaps someone else can come up with a better way, if so, please write in with your routines.

***MORE HINTS AND TIPS REQUIRED FOR THE NEXT NEWSLETTER PLEASE - MANDY***

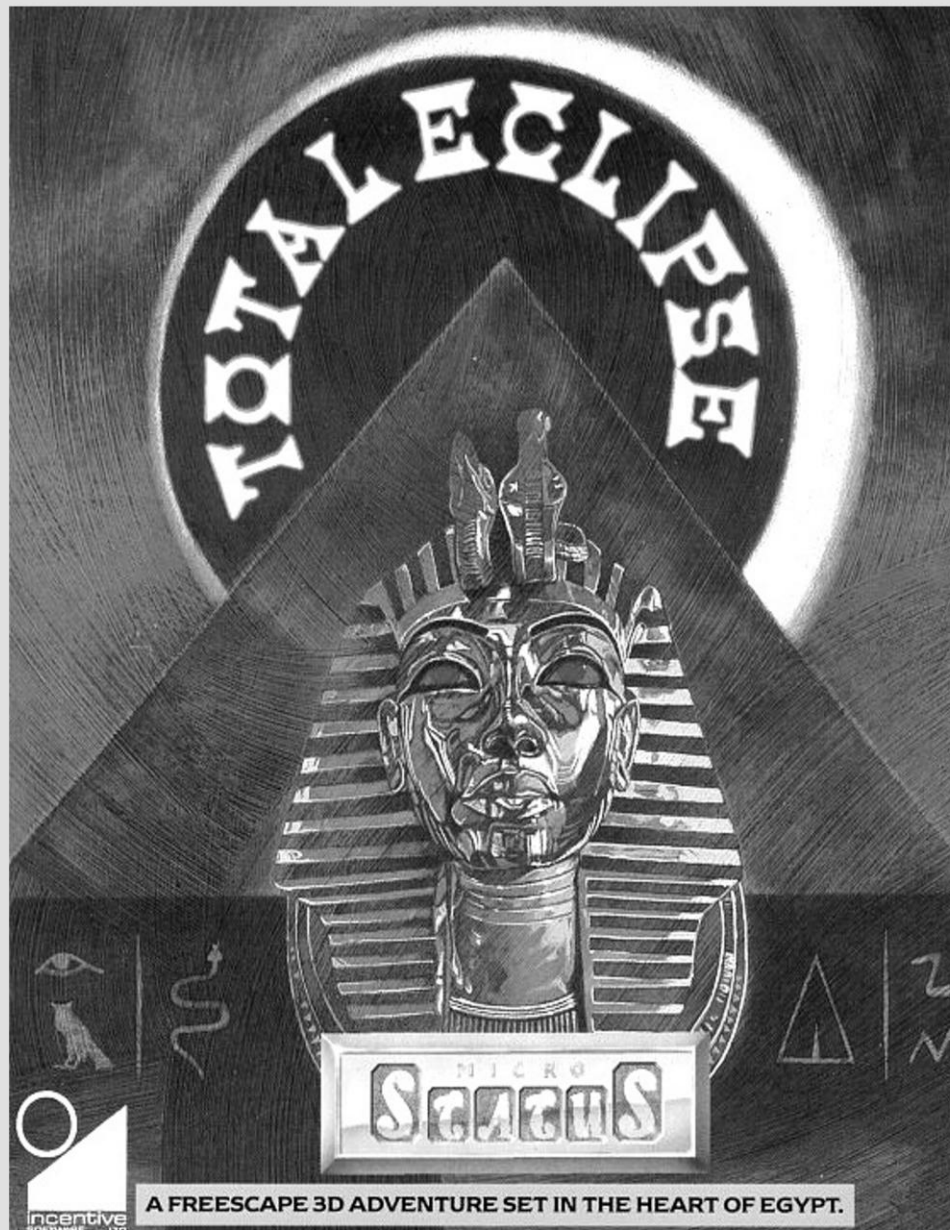
## HALL OF FAME

Sincere thanks to the following members who took the time and trouble to send in contributions for the newsletters during the past two months:

MICK JOLLEY, STEVEN FLANAGAN, MARK ROSE, OZZIE O'MARA, TONY HARTLEY, S.T.DENNIS, YANNICK GOUR, MIEKE VAN DER POLL, AL STRAKER, PETER D. WARD, CHRIS LOWIS, DAVID LAACEY, STEPHEN MOORE, NIGEL ALEFOUNDER, MARGARET CHRISTMAS and PETE SPOONER.

All members are cordially invited to send in contributions for the newsletters. Anything from just a simple hint or tip right up to a full blown article are all very welcome indeed. Why don't YOU send in something for the next issue and get your name in the Hall of Fame. You will also be helping your fellow members. The wider our sources of information, hints, tips, routines etc the better for everyone. Don't be shy, if you have discovered a way to solve a programming problem that was giving you trouble then the chances are that someone else is struggling in just the same way and could do with a little help, so do write in with your routines.

***The next newsletter will be the February/March 1993 issue and should be sent out around the end of February. Copy date for inclusion is the first week in February. Hope to see lots of contributions from you all by then so that we might be able to make it a bumper issue..ED***



# 3D

CONSTRUCTION  
KIT USERS GROUP