News for this year, 1990, may see Sinclair computers out-doing even previous glories. Rumours are that Apple Macintosh and NeXT computer emulators for the QL are being readied by software developers, to follow the MS DOS and CP/M emulators already available. Cambridge is rumoured to have a 3½ lb., MS DOS laptop with 3½ inch disk drives and optional hard disk. But the big news is that most of us are still here, looking forward to another year of user group activity. Ottawa-Hull TSUG has a BBS now,(613)745-8838 (afterhours), 300 baud, 8/n/1, Xmodem, planned to be upgraded to 1200 baud. The writer is still working on photocopy-published Sinclair books, including additions to the ZX-81 Assembly Language Booklet and Tips, Tricks & Techniques from the User Group Masters for the ZX-81/TS1000.A third book, Master Guide to the LDOS ZX-81 Disk System, is winding up final stage of preparation, altho it looks like it will be expensive to sell the full-length, extended edition, at about 100pp., for reasons of its size alone (photocopying & mailing expenses running over $25). Local group is showing renewed interest in Pascal programming and work on a simplified compiler (NOT BASICnor Pascal, but a sort of development system macro language) is continuing for the ZX-81/TS1000.The QL is still being advertised at US$100 (by Sharp's). New ZX-81 kits are still available too from one supplier. The Z-88 notebook computer still looks good in comparison to its latecomer competitors. Commodore 64 and Tandy 1000 H? computers are almost being dumped on the market at bargain basement boxing day time specials (C-64, $169, Tandy $399). The computer revolution is seeing a new round of dis-counting of the cheaper models and an increase in sophistication in the $1000-$3000 models. Even Macintoshes are penetrating the $2000 price barrier in Canada. Faster modems at 2400 bps are being seen in stores, Radio Shack is calling its 80286 MS DOS computer its most popular beginner's model (though it is not AT com-patible) and laser printers have reached the small business/serious amateur price ranges. In the big leagues, the slowness of OS/2 to reach its intended place in the market and the IBM PS/2 computers to become the new standard, once touted as the success stories of the forseeable future has again proven that the future isn't forseeable at all. This year is also the tenth anniversary of the release of the Sinclair ZX-80 and the start of the Sinclair saga in computing.

Mailing list updates: Harrisburg Area TSUG(HATS) may be deleted from our lists since the Dec.,1989 was the final newsletter and notification of disolution of the group. Former members will operate through the Washington, DC group (CATS). A new listing in the Computer Shopper has alerted us to the existence of Quantuum Leap User Group, c/o Gale Henslee,4411 2nd Ave.,Amarillo, TX,USA 79106. The Dallas/Fort Worth users are still going strong altho they don't appear to be still issuing a newsletter to exchange with other groups. They support especially the Aerco TS2068 disk system and the CP/M compatible RP/M operating system.

News from SNUG is that due to the illness of a member's wife and personal situat-ions of others involved in the group, work on the newsletter has been delayed and all memberships have as a consequence been extended 6 months (that is into 1990). Looks like they will soon have a really terrifically large public domain program library for the QL,TS2068 and TS1000, but they are still looking for more donat-ions of programs for it. It looks like a good way to consolidate the libraries of the local user groups who have tried on a limited basis to amass such programs.

ZX-81/TS1000 Tips: Instead of PAUSE 200 try PAUSE CODE "COS" to save memory. When making a copy of your program on tape (without data) redimension arrays, by for ex-ample DIM A$(0,0) to save memory and loading/saving time, then on program execution, redimension them properly to restart the program. A good place to place the DIM statement (or GOSUB to more than one DIM statement) to redimension the arrays properly is line 0. In line zero, a RUN statement will redimension the array and clear it (the RUN would clear it anyway) but a GOTO 1(used to restart without clearing array data) won't call the redimensioning (which would clear the data).

Published-Program Survey of Newsletters: Dominoes-ZX-81 m/c,BASIC line trace ZX-81,Vector Screen Calculator ZX-81 BASIC all in Dec.89-Vancouver TSUG N/L...... ...octal/decimal conversion ZX-81 m/c, Sincus, Johnson City,NY N/L.(Nov-Dec,89).. ....m/c utilities to break any program caught in a loop, to ignore BREAK command, invert screen attributes, scroll the screen line to left and wrap it around to next line, to flip the screen (horiz. or vert.) TS2068 m/c -Boston Comp. Soc., Sept-Oct n/1 (note: the TSUG there has recently broken off from Boston Comp. Soc.) ...USA Medicare Income Tax TS2068 BASIC, in Harrisburg TSUG n/1 Sept.89....TS2068 State Lotto program, Aug & Sept,89 SMUG n/1, Milwaulkee....cryto demo TS2068,BASIC and Chaos Demo, Oct.89 Vancouver TSUG N/L..... Cube-It (TS2068 game),LasVegas,n/1 Jan.,1990...

An excellent series of assembly language articles with sample routines is being run these days in the Vancouver TSUG N/L. The articles, by V. Lee, are on Z-80 assembly language programming with the ZX-81/TS1000, but should also be a help to TS2068 users. Note that back issues of this newsletter also have articles by Wilf Rigter on m/c routines to speed up the ZX-81/TS1000 by modifying the display routines. Apparently using these techniques, the ZX-81/TS1000 can be made to run faster than by merely putting it into FAST mode. Seems like a much better way than brute force acceleration which only boosts execution 15% when you step up the ZX-81/TS1000 clock to 4MHz (from 3½MHz) and avoids the technical complications (like setting fire to your tv!). And of course good m/c or assembly language programming speeds up programs too. So can the rewriting of BASIC routines. An 8 sec. loop was cut down to about 1½ sec. in one of my programs by ingenious rewriting of it to avoid going through the loop as many times and replacing looping with straight through BASIC code (within a loop that then required fewer times through the looping).

N/L Hardware articles continue to appear although the Z-88 cable articles (as in HATS) and the increasing attention given to QL modifications, are starting to replace ZX-81/TS1000/TS2068 modifications. The writer hopes to print a lot of tips for hardware modifications of the ZX-81/TS1000 in the next pages of the 'Tips, Tricks and Techniques from the User Group Masters for the ZX-81/TS1000' booklet. This should become an excellent source of info and references for both the old and new ZX-81/TS1000 user. (Yes, new users are coming to the user groups looking for ZX-81/TS1000 lore. They are mainly young students seeking a low cost computer to practice the things they are being taught in school about computers since the hands-on practice sessions at school are often not quite long enough for them.) The writer thinks that not only is the ZX-81/TS1000 a good platform for controller projects like burglar alarm monitors but also a natural as the intelligent part of eprom or other programmable chip programmers. One user has made a short ZX-81/TS1000 board, with only the ROM, RAM and eprom (no ULA, keyboard or video) so that programs debugged and developed on the full ZX-81/TS1000 can be used on the short board, run from an eprom, rather than a full ZX-8,/TS1000.It's been it is said by Donald Lambert of the CRAGIST, used to take pictures from a kite. So there is lots of potential left for hardware hackers in the old ZX-81/TS1000.Tip from Donald Lambert for TS2068 LOAD problems caused by heat: take off all unnecessary accessories off the bus/expansion.Also mentioned is an audio xformer tip passed on from Dave Solly, Ottawa,for this cassette load problem. (Sincus n/1,Dec.89) Aerco TS2068 disk system users may be interested in the LKDOS Cartridge i/f for that system. With an FD-68 it gives Larken DOS & Extended BASIC commands incl. MERGE. You can switch between the Aerco & LKDOS so you can still use RP/M.It uses the Aerco RAM to give you a 48K RAM disk. Cartridge is also available for Oliger system & Ramex. US$68 from Larken Electronics, RR#2,Navan, Ont.,Canada K4B 1H9

Nazir Pashtoon of SMUG reports Cambridge North Am. in Chapt.11-but Sharps has Z-88 still and will now be only importer on the bankruptcy of Cambridge.(Milwaukee WI)

A software interface for the video digitizer for the TS2068 and the Okimate 20 dmp sold through TOYS-R-US for $99, has been produced by John McMichael,1710 Palmer Dr., Laramie, WY,USA 82070 for US$20-requires IBM parallel Plug 'n Print cartridge The product name is VideoCopy plus VideoTex.VideoTex alone avail. separately US$10. This software uses the digitizer i/f board to capture VCR/videocamera images that has been reviewed in past issues of SMUG Bytes.5052N.91st St.Milwaulkee,WI in amateur publication of TS Bulletin, Bill Harmer,97 Ruskin,Ottawa,Ont.Can.K1Y 4B3

American Micro Systems, 2175 Aborn Rd., Suite 262, San Jose, Calif.,USA 95121 has
a catalogue of QL (and Z-88) items, hardware and software, printed in TimeLinez.
Included are QL:ROM upgrades, Trump Card disk i/f ($312), IBM software emulator
($172), modem adapter ($69), Front Page desktop pub ($34), CP/M emulator (Success),
($69) Forth ($57), Fortran 77($184), Pascal($57),C Language ($69),Superbasic to
C converter (needs C compiler)($80), Spellchecker (30,000 word)($68, needs extra
RAM), DiscOver (disk file format converter)($46),Flight Sim.($34), Astrol.($35+)
the QL computer itself ($129),Lightning (acce lerator software)($46),Serv.Man.($29)
30 meg. hard drive coming soon, JSU ROM ($19),membrane keybord($25) all in US$ plus
Z-88 products, the Z-88 $450, PCtoZ-88 link-up($70),QLtoZ-88($46),Mac to Z-88($111)
zterm($90),zBASE($120),Superchip($200),Modem,1200($130),32Keprom($40) plus plus ++
their phone no. is (408)270-9730 (voice, ans. mach.)

Maxcom TS2068 BBS system for LKDOS disk users:""Maxcom is everything and more that
it's chalked up to be...I've got to tell you, if you haven't gotten it as yet,
chase those moths out of your wallet..Maxcom will truly make your day." from a
column in the Las Vegas TSUG newsletter by Ralph Hammer.Also mentioned is the
deluxe move utility in Maxcomm that allows transfer of files between disks, etc.
simply and effectively. RMG handles this system in the USA. Nice to hear such
good comments. Larry Kenny of Larken is also working on a desktop publisher with
spelling checker at the moment (Jan.,1990) and is marketing a plotter,engraver,
light duty plastic-router/miller that will run from an IBM PC and is also working
on Z-80 controller version of it. The software to run it has been written in
Hi-Soft Pascal on the TS2068. It will work on a 2'x2' board to a depth of 4+". At
an Ottawa-Hull TSUG user group several years ago, a TS2068 user demo'd a system
in which a plotter applied etch-resist directly on a copper pcb for one-of-a-kind
CAD/CAM production of pc boards, automatically. There is obviously lots that can
still be done with the old Timex-Sinclair's. When the writer moves his old ZX-81
out of the computer den it will be going to the basement, electronics workshop for
use in eprom blasting/controller experiments. These old models serve on, and on...

Fix for Timemachine BASIC compiler, change POKEs in line 106 from 32880 to 33880,
by HL Schaaf printed in Aug.89, CATS & Dec.,1989 Timelinez....

TDM Magazine, Vol.5,No.2 issued finally. contact TDM BBS at 503-244-2658 (8/1/n)

Jack Dohany has upgraded MScript to version 5.5 according to D.Lambert,CRAGIST

TS1000's still available-contact Gary Young,586 9th Ave.,Marion,IA,USA 52302-cheap
   working ones or bad keyboard ones avail., ram packs (16K) and progs. can be incl.

Article on using an audio transformer as a cassette load aid (TS1000/TS2068), in
Aug-Dec.,1989 issue of Cragist,D. Lambert,3310 Clover Dr.S.W.,Cedar Rapids,IA 52404

Source code for TreeFORTH (a romable, TS1000, slightly non-standard FORTH) has been
released for non-commercial use by author Bob Alsum. A TS1500 with Tree FORTH in
ROM has turned up on the surplus market, D. Lambert,CRAGIST, reports.

Disk Library, TS2068 disk utilities program (search,list,delete, update,sort etc.)
has been created by RA Hilsman,POB 45, Menomonee Falls, WI,USA 53051 and is avail.
on cassette for US$5 (or possibly slightly more mailed to Canada/for.).It is for
the TS2068 Oliger system but probably can be adpated for other disk systems by the
programmer/hacker. -----Mentioned in Sincus n/l Jan.90 & SMUG n/l Apr.,1988

Sincus N/L from 1229 Rhodes Rd.,Johnson City,NY,USA 13790 continues to run lists
of TS2068 ROM routines listed different ways, sorted and compared with Spectrum.

Don Lamen of Sincus continues to submit articles on TS1000 programming, mainly m/c
to Sincus n/l and it is nice to see the TS1000 still receiving support like that.

Computer Shopper has discontinued articles on Commodore 64, Sinclair,TI, Atari 8-bit
much to our disappointment. Latter Sinclair articles were really good. Not much
reason for me to buy it anymore except for hardware adverts re PC clones. User Gp.
listings continue however & Sinclair Gps. will pop up listed there.

Published as an amateur venture by Bill Harmer, 97 Ruskin St., Ottawa, Ont.,Canada
K1Y 4B3. Don't hack,promise, send money or buy without checking info in this n/l
with a second, independently qualified source. You may photocopy freely for friends.