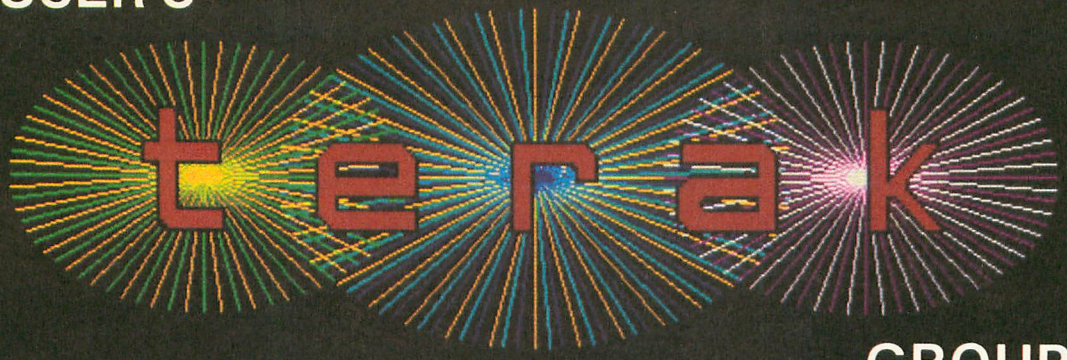
USER'S




MC GROUP

# NEWSLETTER

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## Birth of a Notion

After much struggle and a lot of support from the Terak Corporation, this newsletter signifies the inception of a Terak User's Group. Grand plans are being laid for this Group to be an answer to the much asked question "Where do I get information on and software for my Terak?"

The newsletter will be published as often as possible and is intended to be a forum for questions, answers, suggestions, and general discussions about the Terak Computer Graphics Systems. Articles from the user community are also solicited to let everyone know what Teraks are being used for.

Along with this newsletter are two items of great importance:

1) A catalog of currently available software and hardware known to work with the Terak Graphics Systems;
2) A User's Group Membership form.

The reason for number 1 is fairly obvious. The Terak User's Group Library will be listed in this catalog and new additions are gladly accepted. More information on how to order or submit software to the Library is written up in the front of the Terak User's Group Bulletin of Available Terak Software (TUGBOATS???). Forgive the name, but it seems everything needs an acronym these days.

Item number 2 - a User's Group Membership form - is to keep track of who really is interested in reading this thing. Part of the information requested on the Membership form is a list of interests and applications for each user. If the YES box is marked, then user names, addresses, phone numbers and interests will be published as they are received. This will allow people to find out that their neighbor has a Terak only 500 yards away and is using it for some pretty nifty stuff. It will also allow users to contact each other across the country and really get this User's Group moving. Photocopy the Membership form and give copies to anyone hanging around a Terak Graphics Computer.

## Requests for Software

The Software Support Group at Terak has been handling all requests through Terak for miscellaneous software available to the general user. This function is now being turned over to the Terak User's

Group. Though initially all requests will be handled through the Terak Corporation, as soon as the User's Group is on its feet, the service will be handled strictly by the User's Group. Though this service used to be free from Terak, the User's Group must charge a fee for postage, shipping and the cost of the disk media. All software will be shipped on single density diskettes. Shipments will be via the U.S. Mail or UPS, unless other specific arrangements are made.

Requests for available library software should be sent to

Terak User's Group
Software Request
14151 North 76th Street
Scottsdale, Arizona 85260

An attempt is being made to catagorize the software and try to keep it organized. For the present, none of the software will be tested except in actual use. NONE of the software from the User's Group Library is supported. For this reason, sources are requested with any submissions to the Library. A guideline for submitting software is included at the end of the User's Group Catalog. Software that is submitted must be in the public domain or must be original to the author. It is not nice to get slapped with a lawsuit.

## Software Catalog

The Terak User's Group Library Catalog is divided into five sections, one each describing software for the RT-11 and UCSD Pascal operating systems, commercial software, peripherals, and software standards. The RT-11 and UCSD sections are futher divided into sections for software that works on both the 8510/a and the 8600, or both. This means that software that is not graphic specific (i.e. the C compiler) is available for both the Black and White Graphics Computer (8510/a) and the Color Graphics Computer (8600). Otherwise, the software will fall into the 8510/a catagory or 8600 catagory. Commercial software is divided into operating systems, also.

The peripherals section is split up on the basis of type of device, i.e. disk, printer, or plotter. Anyone buying hardware is on their own to get it up and running. If you have any information about a particular piece of hardware, share it with the rest of the User's Group. Type and submit a description of the peripheral and how to use it to the Newsletter.

The catalog is intended to be a growing thing. Any pertinent information that new members of the User's Group might need will be included. This will help eliminate the need to get any back issues of the newsletter. Suggestions and any volunteer help is greatly appreciated.

The Catalog will be published again in three months and sent to all persons who have returned a Membership form. After that, the Catalog will be published every six months or sooner depending on the amount

of new software added to the Library.

## Things to Check in the Catalog

Do take a look at the software catalog. Of primary interest to almost everyone is the fact that ALIEN, that great graphics game, is now available for both the QX and QB 8510/a's. Don't wait -- order yours today!

And for those people that do not know about it yet, there is a screen editor that works under RT-11 and looks like a subset of the popular UCSD Screen Oriented Editor. A Screen Oriented Text Editor (ASOTE) is a very useable editor and is highly recommended for those people who switch between UCSD Pascal and RT-11. Professors will find this editor easier to teach than EDIT-11 also.

## Membership in the Terak User's Group

Membership in the Terak User's Group is open to anyone - it is not necessary to own a Terak Graphics Computer to belong. Naturally more benefits will be derived from being a member if a system is available for use.

At this time no dues are being assessed. At such time as the User's Group becomes an independent entity, it may be necessary to levy a membership charge. This topic is officially open for discussion.

## Organization of the User's Group

At this time, the User's Group will be managed out of a central location in Scottsdale. The Library and Newletter will all be managed here as well. This is not to discourage formation of local user's groups. As the people associated with DECUS, that well known DEC user group, know local user's groups create a lot of interest in computer hardware and software. If there is enough interest in forming a local user's group, send a letter to the main Terak User's Group and then start organizing. Be warned: this is no small task and requires hard work, dedication, and a bit of insanity.

Any comments or suggestions as to how the User's Group should (or might) be organized are welcome.

## Who is the Terak User's Group

Actually anyone is a potential Terak User. But as it stands, this is the official list for May, 1981.

Terak User's Group Slate of Officers
Newsletter Editor
Jerry Grady
Associate Editor
Marie Corbin
Newsletter Writers
Marie Corbin
Jerry Grady
Library Organizers
Jerry Grady
Sohail Hussain

These people may be contacted at the following address
Terak Software Support
14151 North 76th Street
Scottsdale, Arizona 85260
(602) 998-4800

An official membership list will be published in the next newletter. Any correspondence for the User's Group should be sent to

Terak User's Group
14151 North 76th Street
Scottsdale, Arizona 85260

Items, letters or articles for the Newsletter should be sent to

Terak User's Group
Newsletter
14151 North 76th Street
Scottsdale, Arizona 85260

## Terak And Its Commitment

As almost all Terak User's know, the Terak Corporation makes a damn good piece of hardware. Terak Support Services are eager to help and have a great deal of expertise in a lot of areas. It is a rare instance where a User has not been able to get help -- even if they do not own a Terak Graphics System!

Now comes the rub. As with all computer companies, there does not seem to be enough software to support a particular application. Especially yours. That is where the User's Group comes into play. Someone, somewhere has attempted, or accomplished, what you are trying to do. If nothing else, someone has at least thought about it. How do you contact or even find this mystical person? Hopefully through this newsletter and the User's Group.

The Terak Corporation has committed to helping put the User's Group on its feet. Funding for setting up the initial Library, and publishing the Catalog and Newletter for one year is all being generously provided through Terak. At the end of this year, the User's Group

should be standing on its own merits. Terak will evaluate the success or failure of this venture. If it can be shown to be worthwhile, then the Terak Corporation will continue to back the User's Group. If not, then it falls flat on its face.

Users need a User's Group. Let this be your platform to stand on while you pull yourself up by the bootstraps. All offers of support, assistance, comments and suggestions will be carefully considered. It takes a lot of work to get a User's Group going. But the end result can be well worth the effort.

## Terak Computer Systems and Psychology

By Marie Corbin

Conducting research in Psychology entails the accumulation and computation of large amounts of data. It also means trial after trial, experiment after experiment. This becomes quite a cumbersome task. More and more psychological researchers are beginning to discover that a computer can greatly facilitate their research efforts. The Terak Corporation has a large customer base among the universities. Many of these users are in Psychology departments.

Terak's Marketing Department recently conducted a survey to determine how the Terak computer systems are being used in the area of psychology. The response thus far has been informative, interesting and positive.

For the past two years, Dr. Michael Levy, Department of Psychology, University of Florida at Gainesville, has been conducting some research on an NSF-CAUSE grant. The majority of this work has been centered around the construction of models, simulations and other teaching materials using the special abilities of the Terak 8510/a. Dr. Levy has been actively involved in the use of computers in Psychology and a Terak user since 1978.

Dr. Robert E. Dustman, Ph.D., is Director of Neuropsychology Research at the Veterans Administration Medical Center in Salt Lake City, Utah. He is using a Terak 8510/a to study cortical evoked potential. The display system is used to present stimuli which elicit brain potentials related to meaningful stimuli (P300), pattern reversal, pattern appearance-disappearance, and to study relationships between brain potentials and reaction time.

Douglas K. Detterman, Department of Psychology at Case-Western Reserve University in Cleveland, Ohio is using the Terak 8510/a to test memory and perception. He is particularly interested in individual differences. The tasks he has set up are based on the same type of stimuli which are four by four matricies in which the boxes of the matrix are either filled or unfilled. This makes it possible to vary information load and other parameters of stimulus difficulty. The first task the subjects receive consists of a stimulus discrimination procedure in which one stimulus is presented and six others below it. One of the six matches the probe appearing above and the subject's task is to find the match as quickly as possible. Latency of response is the principle measure of discrimination ability. The purpose here is to determine if the stimuli are differentially discriminatable across ability levels. The next task consists of a tachistoscopic recognition task. The third program presents the subject with a probe task in which the subject is required to identify which position the probe occurred in. Dr. Detterman has tested all of these programs with subjects. He is also in the process of developing a self-paced probe task in which the subject paces himself through the probe task and a long-term memory task in which the subject learns a set of stimuli and is later required to recall them.

Dr. Peter Lang at the University of Wisconsin, Department of Psychology, is still in the process of developing his software. He is conducting research in the area of clinical psychophysiology and is writing a program which will permit flexible trial-oriented recording and display of heart rate and eight analog channels during a clinical assessment or therapy session.

Dr. James Anderson, Department of Psychology at Brown University, is conducting research in the field of 'neural modeling'. He is attempting to explain the organization of the nervous system by making mathematical models and is seeking to find qualitative and quantitative areas of agreement with data in psychology and physiology. Dr. Anderson reports that his Terak 8510/a is a big help to him in this research since his work makes extensive use of computation. He also uses his Terak extensively as a word processor. He finds that it greatly improves his productivity in terms of writing.

Dr. Roger Schvaneveldt, Psychology Department, New Mexico State University, uses the Terak 8510/a for presenting stimuli, collecting responses and measuring response times in his experiments. He is using the PSYCHLAB Programming System which has been adapted for use on the Terak 8510/a by himself and Kenneth Maxwell. This system is formally an interpreter which interprets programs written in LAB-TALK. The interpreter performs the detailed functions of each trial in an experiment. The occurence of the trials is controlled by the LAB-TALK program. Once a particular experimental paradigm has been presented in a customized version of the interpreter, many different experiments in that paradigm can be programmed by variations in the LAB-TALK program.

Dr. John Durrett, Department of Psychology, Southwest Texas State University, is involved in research on Human Information Processing. In his present research efforts, he is attempting to empirically justify the additional cost of color displays.

In a summary of the literature, Dr. Durrett and Catherine Zwiener report that when color is used selectively to direct attention to novel material, increased processing of that material will occur. Color has been found to have a negative influence on human information processing when used in extensive amounts. When color is presented in its richest form, the material is recalled more accurately than if the material were presented solely in black and white.

In looking at the positive and negative affects of color on learning and comprehension, Dr. Durrett found that the most powerful factor is the method of using color. One of the major influences of color may be simply to direct an individual's attention to materials to be learned. This causes the individual to spend more time with that stimulus - thus it is learned to a deeper level. The influence of color on attention can be positive or negative depending on the number of colors involved in a stimulus display. Color appears to serve as a redundant cue for relevant information to be remembered.

Dr. Durrett's research may prove to be of great value to those using

Computer Assisted Instruction.

(Editors note: If you have an application that you believe other Terak users would (or should) like to know about, submit a typewritten or machine readable copy of your article to the Terak User's Group Newsletter. All contributions are welcome and will be editted for use with a later publication of the Newsletter.)

## And Now a Word From Our Sponsers

### Terak Announces It's Not Color Blind

The Terak Corporation is very proud to announce that on February 28, 1981, the first shipments of the 8600 Color Graphics Computer System were made.

In July of 1980, Terak introduced its new 8600 Color Graphics System at SIGGRAPH in Seattle, Washington. The 8600 is a complete desk-top, stand-alone graphics computer system with two 16 bit processors - a DEC LSI-11/2 and and Intel 8086. 640 x 480 x 6 resolution is featured to allow a maximum of 64 colors to be displayed on the screen at one time. The 8600 color map is a soft map - the user can specify what the colors are to be and has a choice of 512 different colors, intensities, and hues. For more information, contact your local Terak District Manager or call Terak Marketing Department, (602) 998-4800.

### Versatec Plots On

At the present time Versatec, a Xerox company, is using Terak 8510/a's all over the country to demonstrate the capabilities of their V-80 electrostatic printer/plotter. The V-80 interfaces to the Terak Q-BUS through a parallel interface card available from Versatec. Versatec also supplies software to drive the V-80 as a printer, plotter, or both. Get a look at this amazing device if you can. (The U.S.S. Enterprise drawn by the V-80 is something that has to be seen.)

### T-Square Rounds Out T & W Systems

T & W Systems, Inc. has recently introduced the T-Square drafting/design package which incorporates the Terak 8510/a with a digitizer and a high quality 11" x 17" plotter. The T-Square package is designed to provide low cost computer aided drafting which increases the productivity of scarce designers and the quality of drawings at the same time. Available application software include computer-aided instruction, graphics package and software for preparation of piping isometrics. More information about T-Square may be had by contacting T & W Systems, Inc., 18437 Mt. Langley, Suite B, Fountain Valley, California.

## QX-QB Confusion?

In October, 1980, Terak Corporation switched to a new floppy disk controller board with a dual density option. This new board created some confusion.

Terak's new variable density floppy disk controllers are dual-wide boards as compared to the old quad-wide single density controller board. The new board fills a half-slot in the back-plane of the 8510 leaving a dual-wide slot open, which may be used for extra peripheral cards. The 8510/a's with the old controller were labeled QX, while the new QB system is labeled Single or Dual Density. The QB single density system has the same storage capacity as the old QX systems - 494 blocks under UCSD Pascal and 480 blocks under RT-11. A dual density disk has more than twice the storage space of a single density disk - 1140 blocks under the UCSD Pascal operating system and 1136 blocks under RT-11.

For users of 8510/a's, your system is field upgradeable to dual density. If your system was purchased prior to October 15, 1980 and you are using an 8512 or 8515, you must also upgrade these disk drives. If you acquired an 8510/a prior to October 15, 1980 and now wish to add an 8512 or 8515, you must purchase an intelligent disk system interface cable in order for the new 8512 or 8515 to be compatible with your old system.

With the new high performance hardware upgrade comes a parallel software upgrade which contains disks necessary to convert UCSD Pascal V1.5e, V2.0, and RT-11 V3B user disks to run on the QB system. Complete documentation is provided and the conversion procedure is quite simple.

# Terak User's Group
# Membership Form

Please enter me as a member of the Terak User's Group for the year ending June 30, 1982. At this time no dues are required.

(Please type. All submitted forms will be photocopied.)

Name _____

Organization _____

Address _____

_____

_____

City _____ State _____

Country _____ ZIP/Postal code _____

Phone (_____) _____-_____ ext. _____

Computer System

Terak 8510/a _____ Terak 8600 _____

8512 (number) _____ 8515 (number) _____

Printer (type) _____

Other Hardware _____

_____

Operating System

UCSD Pascal V1.5e _____ UCSD Pascal V2.0 _____

RT-11/85 V2C _____ RT-11/85 V3B _____

Other _____

Languages

UCSD Pascal _____ OMSI Pascal _____

SVS FORTRAN _____ FORTRAN IV _____

BASIC _____ C _____

Other _____

Terak User's Group Membership Form

Interests

_____

_____

_____

_____

_____

I hereby grant permission to the Terak User's Group to publish or otherwise make the above information available to other members of the Terak User's group.

Signature _____ Date _____

Mail to:

Terak User's Group
Membership
14151 North 76th Street
Scottsdale, Arizona 85260