SOUTH AUSTRALIAN

MICROPROCESSOR GROUP

P.O. BOX 113,
PLYMPTON, S.A. 5038
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INC.

Meetings held at
THEBARTON HIGH SCHOOL
ASHLEY ST., THEBARTON

NEWSLETTER

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EDITORS REMARKS

Well by now you should all be thoroughly rested from the easter holidays, or did you spend that time hacking away at your terminal trying to get all the bugs out of that program for our newsletter. As you will find on page (4) Tony Beresford has written a Basic program to calculate the date on which Easter Sunday falls, I must congratulate Tony on the use of common Basic statements to allow this program to run in most systems. Its a pity more programs are not written this way. Also included in this months issue is a list of proposed programs for the next 11 months. As mentioned some are tentative however July's visitor/lecturer will be a demonstration of spectrum analysis using microprocessors.

The February meeting covered the A.G.M. which went very smoothly and our secretary started accepting fees for the comming year. The special interest groups were also initiated and membership clip-ons should be available soon. My congratulations to Rick Matthews and Ian Fisk on their new appointments as Chairman and Secretary and I'm sure you will join me in wishing them well for the comming year.

Our March meeting was a lecture on Prime numbers and factors by John Stevens. It was quite evident that John has put a lot of work into the software and the 2650 seems to be very apt for the type of number crunching it is being used for. We also welcome John into our ranks as a new member and I'm sure the 2650 users will let themselves be known to him at comming meetings.

April

The April meeting will be a talk by Wal Kelly on the various software monitors for the Z80 C.P.U. This should interest quite a few of us as it seems to be a very versatile chip with stacks (excuse the pun) of software available for it. Even you disk owners should look out for a good monitor to back up the system when troubles occur.

May

Well here we are again our favourite meeting subject, B.Y.O.S. (bring your own system night). This time I would like to see all the members bring along their gear. I'm sure those that think its too much trouble will be well rewarded by the interest shown by those of us who are less fortunate and don't have a system. It's only with these nights that members can see whats available in the micro area and how different systems operate.

Eric Clarke. *** EDITOR ***

YOUR COMMITTEE FOR 1980:

CHAIRMAN: Rick Matthews.....79 3445
SECRETARY/TREASURER: Ian Fisk.....296 3350
EDITOR: Eric Clarke.....278 7288

COMMITTEE MEMBERS:
Tony Beresford
Bob Daniells
Bob Hourigan

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S.A.M.G. ENTERS THE 1980's.

The well attended February Annual General Meeting of the S.A. Microprocessor Group elected its committee for this year with two new faces and a few swaps among office-bearers as seen above. There was even a close fought election for the committee - a very healthy sign! For those who narrowly missed out it is hoped that they will not be discouraged from taking an interest in future.

Two of last year's committee who could not stand this year were Bob Stunell and Howard Harvey. The SAMG is very grateful for their several years' contribution to the committee. In Bob's case, for his Secretary/Treasurer job and arranging the Thebarton High School meeting venue (which, incidentally, he will continue to do) and to Howard for his great contribution to the VDU project over a period when he could little afford the time.

Three more of the many people assisting in last year's SAMG success were John Moffatt, Clive Pearson, and Eric Clarke.

John stood in for Bob Stunell during Bob's absence last year and handled most of the financial problems of the VDU project. John also ordered and took delivery of all of the many parts required to make up the VDU kits. This was a mammoth task involving many hours and many STD calls scouring the Nation for parts. All of those of us with the VDU kits are very much in debt to you John.

Clive, the founder of the SAMG, has been printing this very presentable Newsletter since it started up until the second to last issue. We should also recognize the considerable work that Clive and John did in arranging the Group's incorporation.

Our immediate past Chairman and Newsletter editor, Eric, will continue as editor of this excellent newsletter. Now that he has printing facilities of his own there will be less work in arranging the printing but it is still a lot of work so that he will be getting assistance from Richard Schipper in future. It is hoped members will keep contributing software and hardware articles for this Newsletter.

FIRST 1980 S.A.M.G. COMMITTEE MEETING.

The first meeting of the Committee for 1980 arranged the lecture/meeting program as shown elsewhere in this newsletter.

Other items handled were banking arrangements, auditing, and insurance.

The Committee has also taken steps to purchase Membership Badges and will invite the formation of Users' Groups at the March meeting in response to members suggestions at the AGM. Other suggestions are still under consideration.

Well, at least at this stage, it looks like we are headed for another successful year for the SAMG.

S.A.M.G. LECTURE PROGRAM FOR 1980/81.

At the first meeting of the newly elected S.A.M.G. Committee the following Lecture Program for this year was drawn up.

The meetings will continue to be held at 7.45pm on the second Friday of each month as indicated on the program below.

Those items marked "tentative" have not been confirmed at this stage and consequently may have their dates altered or may even be replaced by other items. It is hoped to be more specific in future Newsletters.

MARCH 14	Finding large prime numbers with the 2650. Lecturer: John Stevens
APRIL 11	Microprocessor System Monitors for the Z80. Lecturer: Wal Kelly
MAY 9	Bring your own equipment night.
JUNE 13	Hardwire Implimentation. Lecturer: Bob Hourigan
JULY 11	Invited Lecture from Adelaide University Microcomputer Club.(tentative)
AUGUST 8	The 6502 Microprocessor. Lecturer: Neville Diener.
SEPTEMBER 12	Visit to Angle Park Computer Centre. Arranged by Bob Stunell (tentative)
OCTOBER 10	to be arranged.
NOVEMBER 14	Visit to C.M.C. Computing Centre. Arranged by Bob Hourigan.
DECEMBER 12	Computer Games. Lecturer: Ian Fisk
JANUARY 9	Bring your own equipment night.
FEBRUARY 13	Annual General Meeting plus lecture to be arranged.

Article written by Tony Beresford

AMAZE YOUR FRIENDS

I am often asked in my capacity as Techinical Information Officer for the Astronomical Society of South Australia what date Easter falls in a given year.This is really a religious or legal question, not an Astronomical one as the approximate rule you should know for Easter(the Sunday following the Full Moon following the Northern Spring Equinox) does not refer actually to either the reall Full Moon or the Astronomical definition of equinox.

The following program is being published so you can amaze your friends by calculating the date of Easter for any year of the Gegorian calendar. If you use the program for historical research please remember that the Gregorian calendar was not adopted by the British Government till 1752.

The algorithm is taken from "Astronomical Formulae for Calculators" by Jean Meeus, and was originally published in Butcher's "Ecclestial Calendar" about 1876. It was also given in "General Astronomy" by H. Spencer Jones(pages 73,74 of 1922 edition).

The program has been tested with Microsoft Basic, Cbasic,and Basic-E, and found to work unaltered with all three. I deliberately wrote the code in as general a form of BASIC as possible so as to not cause problems with the various dialects of BASIC.

Some example dates to check the program are:-

1978	26 March
1979	15 April
1980	6 April
2000	18 April

```
10 REM to get date of Easter from Year Number
20REM in Gregorian calender.
30REM NB only works for years after 1582
40REM algorithm from "Astronomical Formulae for calculators"
50REM by Jean Meeus (1979)
60PRINT "Enter the Year for which you wish to know Easter as"
70PRINT " a Four figure number, E.G. 1979 "
80INPUT X
85 IF X <1583  THEN 400
90 A =X -INT(X/19)*19
100 B = INT(X/100)
110 C = X - B*100
120 D = INT(B/4)
130 E = B -D*4
140 F =INT( (B +8)/25)
150 G =INT( (B - F + 1)/ 3)
160 H = 19*A + B - D -G + 15 -INT((19*A +B - D -G + 15)/30)*30
170 I=INT( C/4)
180 K= C - I*4
190 L1 = 32 + 2*E + 2*I - H - K
200 L = L1 - INT(L1/7)*7
210 M =INT((A + 11*H + 22*L)/451)
220 N =INT( (H + L -7*M +114)/31)
230 P = H + L - 7*M + 114 - N*31
240 P = P + 1
250 PRINT "Easter for ";X;"  is ";P;
260 IF N = 3 THEN 290
270 PRINT "April     "
280 GOTO 300
290 PRINT "March    "
300 PRINT "Another Date?, answer Y(es) OR N(o)"
310 INPUT Q$
320 IF Q$ = "Y" OR Q$ = "y" THEN 60
330 STOP
400 PRINT "Year must be after 1582 "
410 GOTO 60
420 END
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LETTERS TO THE EDITOR

Dear sir,

MICRO-80 is a monthly magazine, published in Australia for Users of the Tandy TRS-80 microcomputer. I believe that many of your members could be interested in subscribing and have therefore enclosed a sample copy of the first issue and a number of order forms for subscriptions. I would be grateful if you would bring these to your members attention at your next meeting.

One of MICRO-80's objectives is to foster the interchange of information between micro computer users. To this end, we are prepared to publish club news, space permitting, up to 200 words per month per club. We would welcome the participation of your club. You will find full details concerning this in the magazine itself. We hope you will take advantage of this offer and look forward to hearing from your representative, soon.

Yours sincerely,

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(Ian D. Vagg)
EDITOR

AUSTRALIAN MICROCOMPUTER JOURNAL

I am pleased to announce the launching of our monthly publication, "Australian Microcomputer", devoted indiscriminately and entirely to microcomputers.

One aspect of the publication is to provide our readers with programming techniques and a selection of programs for home, entertainment, and business use. Naturally, we would prefer this software to originate in Australia and therefore are currently establishing a team of regular contributors. Suitable material will be restricted to programs written in BASIC or machine (or assembly) language; and further, they must be compatible with popular systems, such as TRS-80, Pet and Compucolor II.

Should any of your members be interested in contributing, please extend an invitation on our behalf to communicate with our Melbourne address,

Yours sincerely,

S Howard.

Sean Howard,
Editor.

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