astrocalc
British astrological software

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USER INSTRUCTIONS

CALCULATION PROGRAMS

for

Apple, Amstrad, BBC/Electron

Commodore, Dragon, Tandy Color, Oric

Sharp MZ80A/K/700, Tandy TRS80, Video Genie

Apricot, IBM and compatibles

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Because of lack of memory and other restrictions some things are not possible on some computers. However, we follow a policy of continuous improvement and reserve the right to alter the specification of the programs accordingly. This particularly applies to disc-based machines.

WHERE ADDITIONAL INSTRUCTIONS ARE ISSUED PLEASE READ THESE FIRST.

Different computers use different names for the key used to enter data. This may be CR, RETURN, ENTER or NEWLINE. In this booklet this key will normally be referred to by <RETURN>

CASSETTE LOADING

Astrocalc programs are recorded twice, once on either side of the tape. Where 2 speeds are possible, side 1 will be the fast side. Information should normally be entered in upper case.

AMSTRAD Enter run""<ENTER> (IMPORTANT enter ALL information in LOWER-CASE. The program will convert names to Upper)

BBC/Electron Use CHAIN""<RETURN> **Commodore 64/PET/VIC** LOAD<RETURN>

Atari,Dragon,Tandy Color,Tandy TRS80, ORIC CLOAD""<ENTER>

On the 32K Dragon and Tandy Color computers, for A8 or larger programs you should enter PCLEAR1:POKE25,6:CLEAR200,32255:NEW<ENTER> BEFORE CLOAD otherwise OUT OF MEMORY will occur.

SHARP MZ700/MZ80A/K LOAD<CR>

CASSETTE LOADING PROBLEMS

Certain computers can be very fussy about which tape recorders they will operate with. But provided your tape heads are properly aligned, most should work. Please observe the following points.

1) When loading disconnect the MIC lead (where appropriate).

2) Set the tone to maximum where possible and the volume to about HALF. The volume control on the Electron Acorn recorder DOES have some effect.

3) When loading keep the tape recorder as far away from the television as possible.

4) Store your tapes AWAY from the television and other magnetic fields.

5) Clean the tape heads regularly using cotton buds and tape-head cleaning fluid. Occasional use of a demagnetiser may also help.

6) If a tape suddenly refuses to load check that the volume level has not been accidentally altered and clean the tape heads.

7) Where possible make a backup copy of your tape as soon as you receive the program using the tape recorder you normally use for loading. Thereafter use the copy and keep the original in a safe place. Backup copies can be obtained from us. The cost is normally £5.

CASSETTE RECORDERS

Normally the cheaper the tape recorder the better it works with most computers. Where you have a phase button you may need to experiment to ascertain which position it should be in.

COMMODORE PRINTERS

The program will allow the choice of Commodore dot matrix and Epson-type dot matrix printers, and the Commodore printer/plotter. With the non-Commodore printers you must still have the appropriate interface (hardware or software). The output will be altered to ensure that any special Commodore characters are translated into sensible output.

BACKUP COPIES

BEFORE USING YOUR ASTROCALC PROGRAM MAKE A BACKUP COPY OF THE DISC. USE THIS FOR NORMAL OPERATION AND PUT THE ORIGINAL AWAY IN A SAFE PLACE. WHEN COPYING A DISC ALWAYS ENSURE THAT THE WRITE PROTECT TABS ARE PUSHED DOWN ON THE ORIGINAL DISC.

With the Amstrad 8256/8512 TO MAKE A BACKUP COPY it is necessary to have a blank disc ready and to use the COPY facility within the DISCKIT program on your CP/M system disk.

DISC LOADING

AMSTRAD 8256/8512 NORMAL OPERATION FROM WORKING COPY

Where you are using a keyboard which is not English, delete the EMS file from side A of the Astrocalc disc and copy the EMS file from your CP/M system disc on to it.

The programs will normally start automatically if you switch on the computer and insert side 1 in drive A. If the computer is already switched on then insert the disc and press the SHIFT/EXTRA/EXIT keys together. The program will now copy programs to the M disc. It MAY then beep at you and ask you to turn the disc over and the press the RETURN key. It will now load Mallard BASIC and run the Menu program. ***PLEASE NOTE THAT THE WRITE PROTECT TABS MUST BE ENABLED (ie pulled up).***

8256 USERS To maximise storage space on side 2 of your working disc you MAY need to delete files that are not used when calculating charts; eg the HARTUT.BAS, FILECR.BAS and SUMUPDAT.BAS programs(where present). This is also necessary where you encounter the DIRECTORY FULL message. To erase files first load your CP/M disc so that you get the A> prompt showing. Now insert your Astrocalc working copy disc side 2 and enter ERA SUMUPDAT.BAS to delete this file. Other programs can be deleted similarly.

Programs are always supplied formatted for the A drive disc. ***Amstrad 8512 USERS SHOULD ALWAYS TELL THE PROGRAM THAT THEY HAVE 2 DRIVES and use drive B for the chart storage and gazetteer files.***

To use a disc in drive B you should first format a blank disc in

drive B using the DISCKIT facility from your CP/M system disc. The initial blank chart files for drive b can then be created using the Client File Create option from the Astrocalc disc. The AUTOGAZ gaz files AGAZ.DAT to ZGAZ.DAT (where present) will be supplied on side B of our disc. To copy these to drive B first load your CP/M system disc and wait for the CP/M A> prompt. Now proceed as follows:-

Insert side A of the Astrocalc original disc in drive A and enter:-
PIP M:=PIP.COM<RETURN>
M:<RETURN>

Now turn over the disc, insert the newly formatted disc in drive B and enter:-
PIP B:=A:*.DAT<RETURN>

The system will now copy all the gaz and summertime files to drive B. This operation need only be done once for each B disc. Having copied the files to drive B you can delete them from the drive A disc if you wish, but this isn't normally necessary. When this is complete reset the computer with the copy of the Astrocalc disc side A in drive A.

The program sets the paper for continuous stationery. However, if the printer apparently refuses to work, check the status by pressing the PTR key - it may sometimes be necessary to reset the bail bar.

The STOP and F keys have been disabled to prevent you from accidentally interfering with the program. If you want to change this you should alter the first line of the PROFILE.SUB file.

WITH THE AMSTRAD 8256/8512 WHEN YOU ENTER A NUMBER OR LETTER AND THE CURSOR JUMPS TO THE NEXT LINE DO NOT PRESS THE RETURN KEY. IF YOU DO THE PROGRAM IS LIABLE TO JUMP PAST THE NEXT ENTRY.

AMSTRAD 664/6128 NORMAL OPERATION FROM WORKING COPY

To run the program simply enter RUN"MENU<ENTER>

Chart details can be stored on disc and to cater for the additional storage that is required, the files plus the summertime and gazetteer files will normally always be put on side B (or 2). You will be prompted by the program to insert the FILEDISC (which means turn over the disc) and to insert the PROGRAM DISC (which means turn it back over again) where necessary. Obviously if you make a backup copy, or have the file storage on another disc, that disc should be loaded. If you also have the Autogaz or Summertime update routines, then the .DAT files for these should also be on any other data discs. ***DO NOT put the client files on the same side of the disc as the program P2.BAS (contains the harmonics and solar and lunar return programs), otherwise the system will crash.***

With the Amstrad 664/6128 it is sometimes possible to lose or corrupt the main data file used to pass information between programs. If this file (DL.DAT) becomes lost or corrupted run the program option z (RECREATE DL.DAT).

MODE CHANGES ON THE 664/6128. This allows you to display and

print aspects in either 40 or 80 column mode. The input and display screens will normally be in 40 column mode irrespective of which mode you choose. *The 40 column option will be discontinued in version 7 of the program.*

IBM & compatibles NORMAL OPERATION FROM WORKING COPY

The program may be supplied as a self-booting disc so that you can simply switch on the computer and insert the drive A disc in drive A (or press CNTRL/ALT/DEL). When this is not the case, or when running from a hard disc you should be in the operating system (the A> or C> stage), and then simply enter M or AUTOEXEC.BAT and the program will then load the Graphics and display the main menu. *Hard disc users SHOULD NOT copy the AUTOEXEC.BAT file to their root directory. Always create a sub-directory and copy the programs to that.*

The program is supplied with a CONFIGURATION program which allows you to change the program to suit your needs - option F from the main menu. Please read through this to start with particularly for setting the printer and disc drive options. The configuration information is in a data file (CF.DAT) which you can alter according to the options contained within the program. However, changing options which you haven't got won't make any difference to the running of the program! In addition, some of the options are for future use.

With a dual disc drive system it is a good idea to create a system disc with the programs and the AUTOEXEC.BAT on drive A and all the .DAT files on drive B. *To install on hard disc copy the disc(s) to the appropriate sub-directory then RUN IT FROM THAT SUB-DIRECTORY with the copy of the original disc STILL in drive A. Now alter option 5 of the NATAL OPTIONS of the CONFIGURATION program telling the program that everything is on drive C.*

To use the CLOCK option enter CLOCK in the name then the time, date, etc., you want it to start from. The computer will then ask you for the display interval (minimum 5 secs) and the calculation interval (maximum 1 hr or 3600 secs). For technical reasons the display interval is only approximate and you may need to adjust the number you input.

BBC Press the SHIFT and BREAK keys together.

COMMODORE use LOAD"MENU",8<RETURN> then RUN<RETURN>

TANDY/GENIE, MBASIC, GWBASIC RUN"M<ENTER> or simply switch on the computer and input the disc where AUTOSTART is allowed or load the BASIC and RUN"M.

With some MBASIC and GWBASIC computers the programs will be supplied in ASCII format. Please refer to additional instructions.

LINKING TO OTHER PROGRAMS

Programs such as Synthesis, Chartmaster and Notepad may be supplied as standalone programs, in which case you simply run them from the disc or cassette by entering RUN, LOAD, or by selecting the number from the menu. But where these programs are supplied with an Astrocalc calculation program on disc, they will normally be linked directly to that calculation program. In these cases you should ALWAYS run the Astrocalc calculation program first in order to the calculate the chart details that are needed by the other programs. When these details have been calculated, select the options i, x or v from the list of options shown at the bottom of the screen. This will cause the calculation program to write a small file of information on disc and then to load the other program. You can then carry on with the new program. This is explained in more detail below.

SYNTHESIS Calculate the natal chart using the Astrocalc calculation program. Then select option x. The program writes a file called OWN.DAT or L and loads the Synthesis program. This program will include the option CALCULATED CHART. To bring the chart in that you have just calculated select this option.

CHARTMASTER Calculate the natal chart using the Astrocalc calculation program. Then select option v. The program MAY first ask you to load the Chartmaster disc. It will write a file called DATA and load the Chartmaster menu. To utilize this chart select option 2 - interpret a chart. DO NOT select option 1 - calculate a chart - since the program will then simply tell you to load the Astrocalc calculation program and you will for ever go round in circles.

NOTEPAD Calculate a natal chart using the Astrocalc calculation program. Then select option i. The program may then ask you to load the NOTEPAD data or files disc - this is the one with all your interpretation on - and will then print out or save to disc the interpretations according to the chart details you have just calculated.

FILE STORAGE

For most disc users there is a facility to store chart details. Before saving charts you need to set up the necessary blank files on disc. These will normally have been done for you on the disc supplied, but in cases where you have a dual drive system it is best to format another disc and create these on the second drive (1 or A). This is done by using the client file create program, or from within the file service program. Once having created these files, you can now store the chart details by pressing s at the appropriate stage.

The information stored is the name - up to 10 characters - GMT, date, latitude and longitude. Please note that when retrieving charts the program will recognise similar names which are the same length, or less than those you have stored, but NOT ones which are larger. Manipulation of the stored information is achieved using the data file service program.

For those of you who are unfamiliar with BASIC programs please note the following.

a) When you are confronted by the error message REDO FROM START this is not our program but the BASIC interpreter which is speaking to you. It means that you must try again with that particular entry NOT that you must start again from the beginning of the program. This message might, for instance, occur when you enter the latitude or longitude wrongly - eg a latitude of 51 degrees North entered as 51,N will give this error. It should be entered as 51,0,n or 51,0,N depending on machine. b) A common source of confusion is due to the layout of the keyboard. It is easy to confuse the O and the 0. Word processors and other text-based programs do not care which one you use but calculation routines such as ours do.

PLEASE NOTE THAT IN MANY CASES MOST OPTIONS WILL APPEAR TO BE PRESENT - eg W for Wheel, X for Synthesis, etc. HOWEVER, YOU WILL ONLY FIND THOSE OPTIONS PRESENT WHICH YOU ORDERED!

RUNNING THE PROGRAM

If the program does not auto-run enter RUN<RETURN>

CASSETTE:- With most computers the first thing you will be asked to do is to choose the house system which the program will use as the standard throughout. This does not mean that you cannot use the other house systems, just that the program will revert to the standard whenever calculating a new chart, or when you press N.

DISC:- You will normally be presented with a menu with various program options. The first of these will be labelled Astrocalc, or Astrocalc calculations and these user instructions are mainly concerned with this option. After pressing 1 you will, in some cases, be presented with a list of standards that can be changed as required. Where no change is required simply press E.

You will then be asked to enter the first natal chart. This will appear as RADIX, Radix, or NATAL CHART depending upon computer. Slight variations will occur in all the literals given because of variations between computers.

ENTERING THE DATA: With the name from 16 to 20 characters are normally allowed. If the UK summertime module is present you will be asked GB?. If you answer N you should enter GMT, FIRST adjusting for summertime AND zone (where applicable).

UK SUMMERTIME: With a birth which occurs on a day when summertime begins or ends, a warning message will be output and the computer will NOT make any correction. Please check the exact time with the client since the clocks may not have been altered. GMT may be entered directly by answering N to the GB? prompt. Similarly, if the change occurs from Summertime to double Summertime or vice versa, only 1 hour will have been added to, or subtracted from, the time. The program only corrects for the years from 1916 to the current year. ***Much as we would like, we cannot foresee future government legislation which may change the dates of summertime.***

For most disc users there is a program to update the summertime file each year.

GMT Use the 24 hour clock entering the hours first, then a comma, then the minutes followed by <RETURN>. Seconds of time, or latitude or longitude can be entered as a fraction of a minute.

DATE Enter day then comma, month then comma, then year <RETURN> (last 2 digits of year only if 20th century).

UK or Auto GAZETTEER Enter the name of the TOWN, or N (* with Commodore) if you want to enter your own details. If N or NOT FOUND, you will be asked for the LAT - enter the degrees, then comma, minutes then comma, compass bearing (N or S) <RETURN> For LONG - enter degrees comma, minutes comma, compass bearing (E or W) <RETURN>

If the Gazetteer and Summertime modules are not present you will always be asked for GMT, LAT and LONG.

EXAMPLE

```
John Smith.  Born 6 pm 20 Feb 1952 London.
Radix
Name            ? JOHN SMITH<RETURN>
From File (Y/N)? N
GMT   (h,m)     ? 18,0<RETURN>
Date  (d,m,y)   ? 20,2,52<RETURN>
Lat   (d,m,n/s)? 51,32,N<RETURN>
Long  (d,m,e/w)? 0,5,W<RETURN>
```

```
The program will now display the following details
    GMT 18  0   Date 20  2  1952  Lat 51 32 N Long 0 5 W
    OK? (Y/N/A)           (do check details first)
```

The option Y will calculate the chart, N will revert back to the Name, A will calculate a chart with aspects. Where responses are required - eg Yes or No - you only need press Y or N. It is NOT NECESSARY to press <RETURN> as well. The same is true of all chart options.

With Commodore and Apple the information is displayed on the screen as soon as it is calculated. With other computers the approximate time before the chart information appears will vary from about 1 to 65 secs depending upon computer. The options are then displayed at the bottom of the screen.

"VX" is the Vertex. Ignore it if you wish: it is the intersection of the ecliptic and the Prime Vertical, and is said to be related to "fated" events.

Quality and Element - the first letter is used in each case (eg. F F would be fixed fire).

With the sidereal time, the value shown is normally that of the LAST calculated chart.

The following abbreviations and conventions are used:-

So	Sun	Ar	Aries	C	Cardinal
Mo	Moon	Ta	Taurus	F	Fixed
Me	Mercury	Ge	Gemini	M	Mutable
Ve	Venus	Cn	Cancer	F	Fire
Ma	Mars	Le	Leo	E	Earth
Ju	Jupiter	Vi	Virgo	A	Air
Sa	Saturn	Li	Libra	W	Water
Ur	Uranus	Sc	Scorpio		
Ne	Neptune	Sg	Sagittarius		
Pl	Pluto	Cp	Capricorn		
NN	North Node	Aq	Aquarius		
AS	Ascendant	Pi	Pisces		
MC	Midheaven				
TN	True Node				
VX	Vertex				
PF	Part of Fortune				
ST	Sidereal Time				
EP	East Point				

Aspect symbols will vary slightly from computer to computer.

DEG	ASPECT	SYMBOLS			ORB
0	Conjunction	=	=	CNJ	8
180	Opposition	%		OPP	8
120	Trine	T		TRI	8
90	Square	S		SQU	8
60	Sextile	*	*	SXT	6
150	Inconjunct	I	I	QCX	2
45	Semisquare	<	<	SSQ	2
30	Semisextile	V	V	SSX	2
135	Sesquisquare	>	>	SES	2
72	Quintile	Q	q	QUI	2
144	Biquintile	B	BQ	BQU	2
0 Dec	Parallel	P	"	PAR	1
0 N/S	Counterparallel	#	#	CPL	1

CHART OPTIONS

A This will calculate the aspects using the symbols and standards previously described. The actual orb is shown after the aspect (to the nearest degree). Applying aspects between planets (NOT angles) are indicated by a + after the aspect's symbols. These are calculated for all natal and progressed charts, but not composite or harmonic. Please note that if carrying on AFTER any form of synastry the information regarding the natal applying aspects MAY be incorrect on some computers if these are recalculated.

C on the 64 and some others gives you the option of changing the colours. Otherwise it gives a circular, square or rectangular representation of the chart on the screen.

D gives the Declinations (also possibly latitudes, distance values, heliocentric positions, etc) - the program may temporarily

revert to Equal House for this.

E Exit to menu - usually with disc systems.

G for Autogaz (CBM) or Graphics printout (IBM).

H Pressing H will give you a menu of the house systems which are available. Choose the number of the one you require. There may be a few seconds delay while the new house cusps are calculated, then the chart will be redisplayed with the new house positions and cusps. With some computers it is now possible to obtain the progressed house cusps and still retain the natal house positions. To do this progress the chart in the normal way, then reselect the house system you are currently using. The program will now show the progressed house cusps, but will use the natal cusps for synastry, etc.

I Gives an interpretation according to details you have input via the NOTEPAD program (see page 7).

M This will give you the main options available to you. These might be as follows:-

1 RADIX
2 PROGRESSIONS
3 HARMONICS
4 SYNASTRY
5 TRANSITS
6 MIDPOINTS
7 LUNAR PHASES
8 MINOR PLANETS
9 SOLAR & LUNAR RETURNS
E EXIT

With some computers, eg Commodore, highlighted letters are used instead of numbers. Select the appropriate number or letter if you wish to do further processing. Alternatively press N or another letter appropriate to the module you have just used. Apart from 1 or R - which will give you a new natal chart and lose the chart you have just calculated - all other options apply to the current chart.

N Will cause the program to redisplay the natal chart. If you are in progressions or transits etc., you will lose the information displayed on the screen, so print or make a note of it, or you will have to recalculate.

O USER-DEFINED ORBS These can be altered either from the start of the program or configuration program or from the main menu. ***Once altered on disc (not cassette) they should remain that way until you next alter them.***

Vary Orb by
1 Aspects
2 Planet
3 Separating/Applying ratio
E Exit

Option 1 enables you to enter the orbs you require for each aspect - fractions are allowed. If you press <RETURN> (or E with Commodore) the orb remains unchanged.

Option 2 allows you to vary the orb according to planet. Thus a value of 25 entered for the Sun would increase the orbs for all Sun aspects by 25%. Thus if an 8 degree orb was set up for the conjunction aspect, then if the Sun were involved this would be increased to 10. Similarly -25% would decrease it to 6, and if the Moon were increased by 12.5% for the same aspect, then a Sun/Moon conjunction would have an orb of 11 degrees (8 + 2 + 1). If you do not want to vary the orb for any planet simply press <RETURN>. ***Please use this option with caution.*** It is intended for use where one group of planets is given an above average orb - eg Sun and Moon - some are taken as standard - eg Mercury to Saturn - whilst the rest can be reduced. However, you should be particularly careful when reducing the orbs since you can inadvertently eliminate aspects altogether. Thus if you put 50% against Jupiter and Saturn, no aspects between Jupiter and Saturn would be reported.

Option 3 alters the ratio of separating and applying aspects. If set at .75 this would mean that with an applying aspect orb of 8 degrees the separating orb would be 6 degrees.

P Pressing P will give you a print of what is on the screen - if you have a printer. With MBASIC and GWBASIC it may be necessary to use CNTRL P or some other variation to get a screen dump. Please refer to your computer user manual.

R Restarts so that a new chart can be entered, or restarts from within a menu (Amstrad 8256 harmonics).

S Saves the chart entry details on disc (see page 7).

U Gives access to some utility routines.

V This links the calculation program to the linked version of Chartmaster (see page 7).

W Allows you to print natal, progressions, harmonic, solar and lunar returns, solar arc directions and any of the composite and relationship charts as chart wheels. The progressed Ascendant is NOT shown in progressed charts. A small w may be used for the Plotter Wheel.

X or Y With disc systems this will cause the program to write a file of the natal information to disc then chain to the Synthesis program for further analysis and interpretation.

Z This gives you the positions in the sidereal zodiac or tropical zodiac, depending upon which mode you are in. ***You must first have selected the sidereal option at the name stage or as specified by the program.***

KLEINEN PLANETEN (MINOR PLANETS)

Natal and progressed positions can be calculated for the following:-

Chiron (CH), Ceres (CE), Juno (JO), Pallas (PA), and Vesta (VA).

No aspects are calculated and the accuracy of the positions given will normally be within a degree or so of longitude for the 20th century and most of the 19th. The hypothetical planets Isis/Transpluto and the various transneptunian planets may also be included here and NO claims can be made for their accuracy!

IMPORTANT *With some computers, eg Dragon and Commodore, if using the minor planets routine this must be done* ***IMMEDIATELY*** *after calculating the natal or progressed charts. The chart wheels and aspects for the other planets can still be calculated.*

For example, to calculate and print the natal chart giving the main planets, press K or 8 for Minor Planets then, after they are calculated press P to print them, or W for the Wheel for the main planets, or M for the Main menu: similarly with progressions. Minor planet positions and details are not stored and can usually only be calculated accurately in the manner just described. If you are uncertain about this try it out on your own chart to see what happens.

SIDEREAL ZODIAC

If this option is present it normally MUST be selected from the start by entering Z in the name or when asked for by the computer. You will be presented with a menu showing the Official Indian Government value for the difference between the Tropical and Sideral Zodiacs at 0hrs 1900 and the facility to enter your own value as degrees, minutes and seconds. When used at the name stage, after selecting or entering the value you will be prompted for the name again. If the Julian date option is also present and you want to operate in the Sidereal Zodiac, you should do the sidereal option first.

Subsequently, if you want to see what the values are in the tropical zodiac press Z at the menu stage. The program will redisplay the natal chart in the Tropical zodiac. To get back to the sidereal zodiac simply press Z again, and so on. All longitude values displayed are in the correct zodiac, including harmonics.

When going back and forth from Sidereal to Tropical it is important always to enter the same values for the Ayanamsa, otherwise the results will be wrong. Different values can be used only at the very beginning - ie when first calculating the natal chart.

JULIAN/GREGORIAN CALENDAR

Dates are normally input using the Gregorian calendar. For birth dates in Great Britain and the USA prior to September 3rd 1752, the Julian Calendar was used. To input these dates enter J in the name, or * in front of the name if Commodore or Dragon. The program will

now display Julian and ask you for the name again (not Commodore). The program will then continue to display the date you have input, but will adjust it internally in order to calculate the right planetary positions. All subsequent dates for that chart should also be input using the Julian Calendar, and any charts which you use to do Synastry with your original chart.

Please note that automatic correction of dates is not done for the following reasons:-

1 Historians sometimes convert dates before Sept 3rd 1752 into Gregorian format, and dates afterwards into Julian format!!

2 Prior to the introduction of the Gregorian calendar the new year was sometimes not regarded as starting until the Spring Equinox. Therefore a date we would write as Jan 25th 1749 might be written as Jan 25th 1748!!!

3 Other countries, or parts of a country adopted the Gregorian calendar at different times. Thus most Catholic countries adopted this calendar very soon after its institution by Pope Gregory XIII in 1582, but Protestant countries were somewhat slower. With some countries, such as Belgium, Bulgaria, the Netherlands and the Chinese sources, different authorities give different dates for the changeover. Egypt (1875), Japan (1873), Jugoslavia (1919), Rumania (April 1, 1919), Turkey (1927), USSR (Feb 1♦ 1914), Lithuania (1915), Esthonia (January 1918), Albania (December 1912), Bulgaria (1915-1916), China (1912 to 1928!), Denmark and Norway (Feb 19, 1700), Sweden and Finland (Feb 18, 1753), should be particularly noted. The Catholic parts of Switzerland and Germany seem to have changed over in the period 1583 to 1584 and the Protestant parts in 1700 and 1701.

4 When considering dates in the early Christian era, great care is needed in deciding what calendar is being used. The Julian Calendar was established in the Roman Empire by Julius Caesar in 46 BC. But it didn't reach its final form until AD 8. Thereafter its use was widely spread by the growth of the Empire. However, other calendars such as the Egyptian calendar were also in use during the first few centuries AD. It was preferred by astronomers and astrologers such as Ptolemy (except for his treatise on annual phenomena). And the conversion of dates in the Babylonian calendar to exact equivalent Julian dates 'is in general very difficult, and often uncertain or impossible'.

BECAUSE OF THESE FACTORS, IT IS VERY IMPORTANT THAT ASTROLOGERS TAKE GREAT CARE IN CHECKING HISTORICAL DATES BEFORE CALCULATING CHARTS.

It should also be noted that the Julian year 46 BC was 445 days long, and that there is no year 0. For this latter reason, the program will correct BC dates by adding on 1 year in order to get the correct calculations.

For dates prior to AD 100, it is necessary to SUBTRACT 1900 from the year. This is because of the facility for inputting 20th century charts without the need to put the first 2 digits (19). Thus a date

of 2/2/40 should be input as 2,2,-1860 and a date of Feb 2nd 10 BC should be input as 2,2,-1910.

Please note that attempts at great accuracy in timings for charts before the 17th century are largely a waste of time. The earth is NOT a regular time-keeper, and the difference between Ephemeris time then and the 'Greenwich Mean Time' is NOT KNOWN with any great certainty. Not to mention the fact that stop-watches were not available in those days, so that if you can be certain that you have a chart accurate to a quarter of an hour, that is indeed accurate! It's pretty good even by today's standards!

Accuracy for the inner planets is of the order of a minute or so of longitude back to the pre-Christian era (ie it is usually more accurate than the birth data!), and for the outer planets it will normally be well within a degree of longitude, except for Pluto where not even NASA can guarantee positions going back more than a few centuries.

PROGRESSIONS

After pressing 2 or P for Progressions, the screen will clear and you will (if you have more than one method of progressions) get a menu. Select the method as required.

DAY-FOR-A-YEAR This is the standard method and will appear as:-

Progressions (Name)
Age?
Enter the age as an integer (whole number).

The progressed chart will now be calculated in the same way as the natal chart, using the natal time and place N days on, where N is the age you entered. Natal house cusps are always used to calculate house positions. On the second line, after the time and date from which the progressions apply, the AGE of the person is shown followed by the progressed date.

Aspects can be calculated by pressing A. The program will use the Sun to Jupiter, Asc and MC positions in the progressed chart to calculate aspects to the progressed and natal charts using all chart factors except possibly the node. Only major aspects are used (conjunction to sextile), with an orb of 1.1 degrees, plus the parallels (orb 6').

Lunar Aspects are shown by month starting from the given date by adding the age in years to the natal date. Aspects to progressed planets are shown with a P. The month number which is shown after the aspect, shows when the aspect is most exact (2 months for conjunction and opposition). This month is always the absolute number in the year - ie 2 is always February, 10 is always October, irrespective of the birth month. Thus if the birth date is 5,6,65 and the progressions are for 1987, then the information will relate to the year from 5,6,87 to 4,6,88 and the progressed date shown will be 27,6,65. A lunar aspect showing with a month number of 10 will

relate to October 1987 whilst one with a month number of 2 will relate to February 1988. ie, any lunar aspect with the the month number equal to, or less than the birthday month refers to the FOLLOWING YEAR.

Please note that aspects for the first (birthday) month are shown under the first 2 headings.

Converse progressions can be obtained by putting in a negative number. In this case, the program will calculate the positions and aspects correctly, but the date displayed may be incorrect.

The House positions for other house systems can be obtained by pressing H and selecting the house system in the normal manner. With IBM, MBASIC and GWBASIC computers the progressed house cusps and positions will be calculated when you do this.

ONE DEGREE or ARC DIRECTIONS Enter the age as before. For One degree the program will then add the age - in degrees - to each of the planetary positions to give you the progressed chart. With Arc Directions the program will ask for the number of degrees before multiplying these by the age and adding to the natal positions. Progressed to natal aspects are then calculated in the same way as described above.

TRUE SOLAR ARC This time you will be asked for a date. This should be entered in the normal manner and the program will calculate your age. This is then used to progress the position of the Sun and the difference between the Sun's new and old positions is added to each of the other planets and points. Progressed to Natal aspects are then calculated in the normal manner.

RADIX Enter the age as a whole number. The planetary positions and points are then calculated by adding to each planet (except the Moon), the mean Solar Arc of about 59 deg 8 mins times the age in years. With the Moon the value used is about 12 deg 12 mins times the age.

DAILY PROGRESSED ANGLES (DPA) This is effectively Day-for-a-year progressions for a date with the angles progressed through approximately 361 degrees for every progressed year. Aspects are calculated in the same manner as Day-for-a-year.

PERPETUAL NOON/MIDNIGHT DATE This option is to enable you to check out manual calculations. Please note that the calculation of the noon or midnight date is only an approximation and most manual methods give an answer withing a day or so of that which the computer calculates.

PERP NOON/MID This option is as used by the Faculty of Astrological Studies and calculates the progressed chart in a similar manner to that used in Day-for-a-year progressions. However, it first calculates the perpetual noon or midnight date, then uses this to add on the solar arc in order to calculate the pressed positions.

Please note that many of these methods of progression give very

similar results. For those of you who use the sidereal time to manually calculate the progressed positions instead of the noon-date, the correct value to use is 3 mins 56.55536 secs not 3 mins 56 secs. The extra 1/2 second or so is not important for most astrological purposes, but will obviously give different answers for the angles when multiplied up, especially when signs of short ascension are rising.

Chart wheels can be obtained for any of these modules. The progressed Ascendant is not shown on any of these. In addition the heading for all of these will probably be PROGRESSIONS.

For Synastry the positions given by the LAST method of progressing the chart will be used when comparing charts.

HARMONICS

These are calculated by taking the natal positions, multiplying by the harmonic number, then reducing the results to values between 0 and 360 degrees. On entry to the harmonics module, the program will display 2 or more of the following.

1 SINGLE
2 LISTS
3 DECIMAL
4 PLANETARY
5 HARMONIC CHART ANALYSIS
6 PROG HARMONICS
E EXIT

With option 1 enter the particular number you require (e.g. 40 for the 40th harmonic). The program will now calculate and display this harmonic chart which can be printed in the normal way.

With Commodore and Apple the program will also ask you for the orb and calculate and display the aspects on the screen at the same time. With other computers to obtain the aspects press A. Where the information is not stored on disc, the program will ask, STANDARD Aspects? and display the symbols for conjunction, opposition, trine and square (this is bypassed where the configuration file is present). This is taken as the standard for aspects in the harmonic chart, with just the conjunction and opposition for aspects between the harmonic and natal chart. Answer Y or N. If you reply N, then the program will display each aspect in turn, asking you to select those you require. The first N will terminate this procedure.

Where the information is not stored on disc the program will then ask Standard Orbs? These are taken as half natal orbs for the harmonic chart and 1.1 degrees for the harmonic to natal aspects. If you reply N, then the program will display current orbs and ask for new ones.

With option 2 the program will ask for the Start and End harmonic numbers: enter whole numbers. The program will display the

harmonic positions starting with the first harmonic you chose in batches of 2, 3 or 4. It will then ask PRINT? Answer Y or N. The next set of harmonics will then be displayed, and so on, up to the number you put in.

3 DECIMAL OR DATED HARMONICS. Input the date in the normal way and the computer will calculate this as an 'exact' number of years since birth:- ie as say 25.75 instead of a whole number as on the birth day using the more normal method. The computer will then work out the harmonic positions and aspects in the usual way.

4 PLANETARY HARMONICS First choose a planet. The program will then divide the natal position of that planet into 360 and multiply the other planets by the result to get their new positions. Aspects are given for this new chart using natal orbs.

The New Harmonics Chart Analysis routine is the subject of a separate set of user instructions

IMPORTANT

Great care is needed before attaching significance to harmonic results because any errors in the natal chart will accumulate as a result of the multiplications involved. This is particularly true of the higher harmonics, where even a small error of 1' becomes 1 degree for the year 60. Thus a small error of 5 minutes of time in the birth-time can mean a 40 min error in the longitude of the natal Ascendant, becoming 40 degrees in the 60th harmonic!

SYNASTRY

The full synastry package contains 3 modules: direct chart comparison, composite and relationship charts. Progressions in any of these modules will only be available if you have the progressions module.

To use synastry, the first chart should be processed in the normal way - ie. natal, progressions, transits, harmonics, etc, though it is safest to do the progressions last. Then, to activate synastry press the number or letter shown in the main menu (normally 4 or S). The program will then ask for the natal chart details of the second person. This chart can be fully processed in the same way as the first, except with Commodore and Apple where you are limited to aspects and progressions. The 2 charts can then be compared by pressing the same number that gave you the first entry into the synastry chart. This second entry will give you a menu showing the options. The options must be selected in order, though you don't have to do every option.

DIRECT CHART COMPARISON

This has 2 or 3 options within it:-

1 ASPECTS
2 PLANETS IN HOUSES
3 CHANGE HOUSES (not on Commodore and Apple)
E EXIT

The first gives aspects between natal charts. For natal comparisons the standard orbs used are .4 times the natal orbs (an option may allow natal orbs). For prog to natal, and prog to prog it is 1.1 degrees.

If a NON-EQUAL house system is to be used, then it is important that the program is in that mode prior to entering the synastry module on EVERY occasion, otherwise erroneous results may be given (doesn't apply to Commodore' and Apple). ***Also, UNLESS you have calculated NON-EQUAL house cusps, and ensured that the program is in that mode prior to entering this module, changing houses will have NO EFFECT.***

COMPOSITE CHART

With Commodore and Apple you will always be asked for the Latitude of the relationship. With other computers, if the Robert Hand method of calculating the composite chart is to be used, then a quadrant house system must be used. In this case the program will request a latitude for where the relationship is deemed to be taking, or have taken place. From this a derived Ascendant is calculated and aspects shown for this and all the planets, with house positions and using normal natal orbs. The composite, or midpoint Ascendant (which can differ enormously from the derived Ascendant) can be obtained with aspects by pressing H. This causes the program to revert temporarily to Equal House mode. With Commodore and Apple, natal sets of angles are shown on the screen at the same time, but only the first (the Composite) is used in calculating aspects.

Those who use just the Equal House mode and the Midpoint Ascendant will get the chart directly without being asked for the latitude.

Progressions can be obtained, assuming that both charts have been progressed. Only mutual aspects are shown.

RELATIONSHIP CHART

This is a chart for the midpoints in time and space between the original charts. ie the program takes the time, date, latitude and longitude of both charts and calculates the respective midpoints for each. This information is calculated and normally displayed before the program goes ahead calculating the actual planetary positions. Aspects are shown in the normal way, and the progressed chart can also be obtained either directly with most computers or by entering the resultant chart as a natal chart and progressing it. This needs the average age of the 2 people for the year concerned. eg. if one is age 40 and the other 60, then the progressed relationship age is

50. (Please note that this option is not available on the Amstrad 8256/8512 due to memory restrictions. Instead enter the natal relationship details as a normal chart and progress this.)

With all the above modules, options H, P, C, etc, if present, allow the normal house system changes, screen print, chart screen display and printer chart wheel.

FIRST PERSON WITH ANOTHER CHART

The second chart can be discarded and replaced by another which can be fully processed and then compared with the first in the same way as the second chart.

EXIT TO SECOND CHART

With Commodore and Apple on exit the first chart details are restored, apart from applying and separating indicators. With other computers, on exit, the second natal chart details are restored (apart from retrograde indicators, applying and separating details - all restored with IBM, MBASIC and GWBASIC).

The restored chart can either be processed further, or compared with a third person (enter synastry module again).

TRANSITS

The standard method is Exact date. The full menu includes:-

1 EXACT
2 ONE DEGREE or WITH PRECESSION or blank
3 CHANGE ASPECTS/PLANETS
4 TRANSITS TO OTHER (where present)
5 PRINTER/SCREEN
E EXIT

The Exact and One degree routines are now being amalgamated into a single routine which shows the exact date followed by the period of influence in days. Thus 10,5 Ju sxt Ma 5 indicates an exact date transit on the 10th of May with a period of 1 degree influence extending from the 5th to the 15th.

Where the printer option is present you have the facility to send the transits direct to the printer for periods of up to 5 years (60 months) or 5 weeks (35 days). When entering the transits routine the program is always set to screen operation. To switch to printer press option 5 once only.

The time period allowed for transits varies from computer to computer. It is normally up to 12 or 24 months for monthly transits and 7 or 14 days for daily transits, except for the printer option mentioned above.

EXACT DATE TRANSITS Enter the date in the normal manner. This can be any date that you wish. The program will ask you whether you

want to monthly or daily transits. For monthly transits enter a number from 1 to 12 or 24. For daily transits enter a NEGATIVE number from -1 to -7 or -14.

Select the one you require (see below). If the month option is selected, the program will display as you for the Speed. This will be 1-2 or 1-3.

Speed 1 will give you the exact day when each transits is made in about 90% of cases. The rest will normally be 1 day out. At speed 2 the transits will take 5 times as long to calculate and will be accurate in 99% of cases. Speed 3 (where present) is about half-way between 1 and 2 (see below).

When more aspects are calculated than can be displayed on the screen, you will either get an overflow condition or you can print the aspects then continue on the next screen.

MONTHLY TRANSITS Enter a whole number. This will cause the program to calculate aspects for Mars (conjunction and opposition), and Jupiter to Pluto (major aspects) to all natal planets and angles.

DAILY TRANSITS Enter a NEGATIVE number: eg. -4 will give you 4 days of transits from your start date (including it). All planets are used, major aspects only. Accuracy is near enough to 100%.

Where option 3 is present and you wish to vary the start and end planets or change the last aspect, press 3 before you press 1 or 2.

If you have chosen option 3 then the changes that you want to make will be asked for AFTER you have chosen the date and speed. You will be shown the aspects possible, each one of which is numbered. Choose the LAST one that you want to apply. Similarly, with the planets, you will be shown the planets plus a number. Choose the FIRST and LAST planets that you want to apply. Please note that when using option 3 the program will reverse the order of the Sun and Moon so that Lunar aspects, which are always very plentiful, can effectively be eliminated.

Thus, if you wanted One degree monthly transits for 1 month, Mercury to Pluto, with Inconjunct aspects included, then you would proceed as follows:-

Press 3, then 2; enter start date, enter 1 for month, choose speed. The program will now display the possible aspects. Press 6 for the Inconjunct. The possible Start Planets will then be displayed. Press 3 for Mercury then enter 10 for Pluto when the End Planets are shown. The program will then calculate aspects for 1 month using these new parameters.

With option 3 another feature will be the addition of search speed 3. This is roughly midway between that of 1 and 2 and is intended for additional accuracy with Mercury, Venus and Mars aspects. DO NOT try monthly aspects with the MOON - the results will be meaningless.

The difference between Exact and One degree transits is that the first will give you the exact date when a transit is made, whereas One degree transits will give you the 2 dates when the transit becomes exactly 1 degree from the exact aspect. ONE DEG will also be displayed at the top right hand screen.

TRANSITS TO OTHER CHARTS This will operate in a similar manner to transits to natal planets and should be selected IMMEDIATELY after calculating the harmonic or progressed chart, etc.

Please note that the program will not report on the condition whereby a planet makes a station close to an aspect with the natal planet. In addition with monthly transits (except Commodore and Apple computers) each month is treated as being 30 days long: thus 6 months = 180 days. This does NOT affect the accuracy of the dates shown, but should be borne in mind when doing several years transits. Start the 'following' year 6 days earlier each time to avoid missing any transits.

MIDPOINTS

(The Midpoint Trees program - disc and dot matrix printer only - will be the subject of a separate set of user instructions.)

Midpoints are calculated by adding together natal planets or points concerned, dividing by 2 and reducing the result to within the range 0 to 360 degrees: eg Sun at TA 20, Moon at CN 20, midpoint is GE 20. SA 20 is also a possible midpoint, but the program always ensures that the midpoint given represents the shortest distance between the planets.

On entry to the module you may be given the choice of accepting the system standard of 45 degrees, or there will be a delay whilst the program sets up the midpoints using this system standard. If you want to change it then see option D or 6 DIAL CHANGE.

The program will now display the Midpoints Menu.

Please note that with Commodore and Apple all aspects will be denoted by the = (conjunction symbol). With other computers the actual aspects are given.

1 SOLAR ARC DIRECTIONS This will calculate the planetary positions, adjusted for the date that you input. Aspects are then calculated to the natal chart planets and to the natal midpoints according to the specified orb and dial(see options 5 and 6).

2 TRANSITS TO MIDPOINTS This option allows you to calculate transits for all planets for a specified time of day or, for Mars to Pluto only at 3 p.m. Any planet and midpoints within the specified orbs will register.

After inputting the time, or specifying Mars to Pluto, there will be a slight delay before the positions of the planets are displayed.

3 LIST ALL MIDPOINTS. There are 3 choices within this option:

1 Planetary Order
2 Zodiacal Order 360 Dial
3 Zodiacal Order 45 Dial (or the dial specified by option 6)

The second and third options are sorted as they are displayed.

L LIST MIDPOINTS (Commodore and Apple). Please remember which dial is set and for true zodiacal positions change the dial option to 360.

4 MIDPOINT ASPECTS IN THE RADIX CHART This will calculate aspects between natal planets and natal midpoints according to whatever dial and orb you have selected. For Commodore and Apple enter the date of birth from within the solar arc option.

5 ORB CHANGE This option allows you to change the orbs used for planet to planet aspects (system standard .5 degree), and for planet to midpoints (standard .25 degree).

6 DIAL CHANGE With Commodore and Apple computers any dial can be set. For other computers you can change the dial to 30, 45, 60, 90 or 180 degrees. The new dial will be used and displayed throughout until you exit from the Midpoint module.

LUNAR PHASES

This module will calculate the date, time and longitude of the New and Full Moons for a period of from 1 to 12 months. The accuracy is to the nearest minute of longitude and ephemeris time. Eclipses will be detected in most cases. Where there is a doubt, then a ? will appear next to the E. Please note that these eclipses are given assuming that the position of the observer is at the centre of the earth.

Any relevant start date can be used - you don't have to pick a New or Full Moon. This should be entered in the normal manner.

After the lunar positions have been calculated, the program will allow you to calculate New Moon aspects to the natal and progressed charts (if you have progressed the chart). Full Moon aspects can be obtained in the same way.

An orb of 2 degrees is used, major aspects only. Aspects to the progressed Moon are NOT shown. Care should also be taken with the progressed year to ensure that the lunar dates and positions calculated actually correspond with each other. Thus if you have progressed a chart for which the planetary positions have been calculated for the equivalent of 27,2,82, then calculate the lunar phases for 12 months starting from 1,1,83, the aspects to the progressed charts may have an effective orb of greater than 2 degrees.

SOLAR AND LUNAR RETURNS

There are 4 options within this module. These are:-

1 WITH PRECESSION (or WITH/WITHOUT PRECESSION)
2 SOLAR RETURN
3 LUNAR RETURN
4 RELOCATED (or WITH/WITHOUT RELOCATION)

Thus Solar and Lunar returns can be obtained with or without precession, and with relocation if desired. If a Solar or Lunar return is required without options 1 or 4, simply press 2 or 3. If precession is needed, press 1 **BEFORE** selecting 2 or 3. Similarly with relocation, where you will be requested to input the new latitude and longitude (in the same way as for a natal chart).

With **SOLAR RETURNS** you will be asked for the age. Enter this as a whole number and the program will then search for the solar return.

When the correct value has been found, the chart for that moment will be displayed as if it were a natal chart. This can be printed, displayed as a screen chart, and printed as a chart wheel where appropriate and aspects calculated.

With **LUNAR RETURNS** you will be asked for a date. The program will then give you the NEAREST lunar return before or after that date. Since that date may be before or after the input date, it may be necessary to repeat the exercise in order to get the lunar return you want. Having got that date, further returns can easily be obtained by incrementing the input date by 1 month.

Where precession and/or relocation is used, this detail is displayed on the screen (top right hand corner). But this information is not displayed on the screen chart or chart wheel. Aspects can be obtained within the return charts using natal orbs. In addition, with IBM and MBASIC computers aspects to the natal chart will be shown.

With Commodore and Apple the precession and relocation options remain set until you exit to the main program. With IBM and compatibles it always reverts to the standards set by the configuration file. ***With other computers you should set these options for each chart.***

When exitting from this routine to the natal chart, keep an eye on the house cusps. In rare instances on computers like the Amstrad 8256/8512/6128, it is possible for these to be corrupted.

AUTOGAZ

1) **COMMODORE 64/PET** When you run the Astrocalc program you will be asked for TOWN instead of LAT and you will see an * immediately after it. If you don't want to use the Gazetteer you should simply press <RETURN> and the program will ask you to supply the latitude and longitude of the town. If you enter a Town, then program will search for the details. If NOT FOUND you will be asked to supply the details. This time it will update the gazetteer.

There is an option which can be entered from the main menu which allows you to input any number of town details. This time an * is used to end the input and if you attempt to input a town that is already there it will simply ignore your request except when the town is the last one that you have just entered into any one of the 9 files. So be careful in entering information.

To delete towns use the program called GAZDELETE. This can be run as required.

2) **OTHER COMPUTERS** Enter the town name or N if you don't want to use it. On the Amstrads and IBM's you may enter any combination of upper and lower case for the names since the program always converts to upper case. If NOT FOUND it will ask for the Latitude and longitude and update the gazetteer. If you make a mistake at this stage re-enter the chart details and use the N options to input the correct details. Make a note to correct the gazetteer using the Autogaz program.

The facility to create new gazetteer files, sort files, merge files, list, add or delete towns is contained within the AUTOGAZ program. Lists of town names can be sent to screen or printer thereby enabling you to create your own gazetteer. The initial files will contain from about 250 to 1800 mainly UK towns. Please remember that it is not unusual for different atlases to give different coordinates for the same towns and that most people are not born at the centre of these towns! It is a good idea to print out a list of all the town coordinates and check them BEFORE you use them. If there are any that you don't like you can delete and reenter them.

The $ option shown is for sorting or printing all files (there are 26, one for each letter of the alphabet). It will NOT work for screen only operation - indeed the program will probably error. Sorting all the files may take quite a time on some computers.

SUMMERTIME UPDATE

For disc users there is the facility to update the GB summertime data each year. Select the program and follow the instructions. If legislation should change so that summertime becomes continuous, enter 1st Jan and 31st Dec for the start and end dates.

Table of British Summer Times (changing at 1 or 2am, G.M.T.)

Year	S.T. begins	S.T. ends	Year	S.T. begins	S.T. ends
1916	May 21	Oct 1	1951	Apr 15	Oct 21
1917	Apr 8	Sep 17	1952	Apr 20	Oct 26
1918	Mar 24	Sep 30	1953	Apr 19	Oct 4
1919	Mar 30	Sep 29	1954	Apr 11	Oct 3
1920	Mar 28	Oct 25	1955	Apr 17	Oct 2
1921	Apr 3	Oct 3	1956	Apr 22	Oct 7
1922	Mar 26	Oct 8	1957	Apr 14	Oct 6
1923	Apr 22	Sep 16	1958	Apr 20	Oct 5
1924	Apr 13	Sep 21	1959	Apr 19	Oct 4
1925	Apr 19	Oct 4	1960	Apr 10	Oct 2
1926	Apr 18	Oct 3	1961	Mar 26	Oct 29
1927	Apr 10	Oct 2	1962	Mar 25	Oct 28
1928	Apr 22	Oct 7	1963	Mar 31	Oct 27
1929	Apr 21	Oct 6	1964	Mar 22	Oct 25
1930	Apr 13	Oct 5	1965	Mar 21	Oct 24
1931	Apr 19	Oct 4	1966	Mar 20	Oct 23
1932	Apr 17	Oct 2	1967	Mar 19	Oct 29
1933	Apr 9	Oct 8	1968	Feb 18	Dec 31
1934	Apr 22	Oct 7	1969	Jan 1	Dec 31
1935	Apr 14	Oct 6	1970	Jan 1	Dec 31
1936	Apr 19	Oct 4	1971	Jan 1	Oct 31
1937	Apr 18	Oct 3	1972	Mar 19	Oct 29
1938	Apr 10	Oct 2	1973	Mar 18	Oct 28
1939	Apr 16	Nov 19	1974	Mar 17	Oct 27
1940	Feb 25	Dec 31	1975	Mar 16	Oct 26
1941*	Jan 1	Dec 31	1976	Mar 21	Oct 24
1942*	Jan 1	Dec 31	1977	Mar 20	Oct 23
1943*	Jan 1	Dec 31	1978	Mar 19	Oct 22
1944*	Jan 1	Dec 31	1979	Mar 18	Oct 28
1945*	Jan 1	Oct 7	1980	Mar 16	Oct 26
1946	Apr 14	Oct 6	+1981	Mar 29	Oct 25
1947*	Mar 16	Nov 2	+1982	Mar 28	Oct 24
1948	Mar 14	Oct 31	1983	Mar 27	Oct 23
1949	Apr 3	Oct 30	1984	Mar 25	Oct 28
1950	Apr 16	Oct 22	1985	Mar 31	Oct 27
1987	Mar 29	Oct 25	1986	Mar 30	Oct 26

* Double Summer Time (-2hrs)

1941	May 4	Oct 10	1942	Apr 5	Aug 9
1943	Apr 4	Aug 15	1944	Apr 2	Sep 17
1945	Apr 1	Jul 15	1946	No double summertime	
1947	Apr 13	Aug 10			

+ The time of change-over for 1981/82 should be 1 am, not 2 am, but many people are unaware of this - so take care!

ERRORS AND OMISSIONS

Few (if any) computer programs are perfect, though we like to think that ours are not very far off. But please note the following:

1) Accuracy for versions 4 to 6 is normally within 1 minute of longitude for the 20th century with the standard routine (average c .3 min) except for the so-called True Node, which may be a little further out. The same accuracy applies for the 19th century for the inner planets, but the outer planets will be a little less accurate (usually within a few minutes). Before 1800 and after 2000 the outer planets rapidly become inaccurate - unless using the Julian routine. Version 7 should give accuracy of 1 minute for the planets and Mean Node over a period from approximately 2500 BC to 2500 AD.

With regard to accuracy, please don't be surprised if some results differ from those you get by previous methods: the computer is more likely to be correct than you are, particularly with the angles and the Moon. There are a number of reasons for this:-

a) The normal method of interpolation between 2 ephemeris positions 24 hrs apart assumes that the planets move at a constant speed during those 24 hrs. This is seldom true, although the difference in most cases is negligible. But in the case of the Moon it can be several minutes. Your Astrocalc program does not use an ephemeris with interpolation; it calculates the actual positions of the planets at the exact birthtime, using the laws of planetary motion. The only fair comparison with a published ephemeris would be for a noon or midnight birthtime. However, care is needed since some ephemerides are calculated in Ephemeris time rather than GMT. Your Astrocalc program contains correction factors for the 20th century so that planetary positions are calculated in GMT (for most computers). In addition some Ephemerides calculate apparent rather than true positions. With the Sun this results in a difference of about 20 secs of longitude.

b) The Ascendant and Midheaven may differ from those you have calculated using Raphael's Tables of Houses. The main reason for this is probably that manual calculations use 10 secs per hour as the Acceleration on the interval. The true value, which the computer uses, is 9.8333 secs. This can mean a difference of 4 seconds in 24 hours, sufficient (with a sign like Aries) to introduce a difference of over 1 minute of longitude. A similar difference is introduced into the calculation of the progressed Ascendant using the Sidereal time difference.

2) If you find a date with the day given as 0, this should be read as the LAST day of the previous month. The accuracy of the calculations is not affected by this.

3) If you find any errors in the program itself, please contact us stating in writing exactly what you input to the program, what was displayed, and what you think should have been displayed.

Colin Miles, B Sc, DMS Astrol, 67 Peascroft Road, Hemel Hempstead, Herts HP3 8ER tel: 0442 51809.

When writing for details to us or anyone else mentioned on this page, please enclosed a stamped addressed envelope.

ASTROLOGICAL BOOKSHOPS/CLUBS

David Jones, Emergence Mail Order Service
5 North Parade
FROME, Somerset
Tel:- 0373 73069

L.N. Fowler (Sales) Ltd., 1201 High Road
Chadwell Heath
Romford
Essex

The Mayo School Book Service, Alvana Gardens, Tregavethan, Truro, Cornwall TR4 9EN

ASTROLOGICAL SCHOOLS

The Mayo School of Astrology
8 Stoggy Lane
Plympton
Plymouth
Devon PL7 3DL

The Faculty of Astrological Studies
29A Sussex Road
Haywards Heath
West Sussex
RH16 4DZ
tel: (0444) 453504

To join the Astrological Association, or receive details of local groups, please write to the Membership Secretary:-

Angela Cornish, DMS Astrol
2 Waltham Close,
Abbey Park,
West Bridgeford
NOTTINGHAM NG2 6LE

ENQUIRIES TO US

We are always pleased to help with advice on both astrology and computers. When writing please be as BRIEF and SPECIFIC as possible and do allow AT LEAST 3 weeks for a reply. We have an increasing number of enquiries and this does mean that we cannot always reply as quickly as we would wish.