

Like them or not, these are our times -2

At the Crossroads

It is always a challenging time for DKF-K Astrology students when they realise that mastering manual chart construction, the unwelcome task which awaits them in their final year, is not an eccentric English foible after all, but a practical requirement of serious Astrology, because, by then, they have seen for themselves that using Astrology software does not guarantee accurate results. Yet they will struggle with the idea of having to go back to pen, paper and arithmetic, American students especially. It is perceived as an act of regression which should not be required of them in the digital age! They have the option to leave the course with the certificates acquired from achievements in other area of the syllabus, but they will never again feel the same about Astrology as they did at the beginning because the innocent expectation that software would make the mysterious world of Astrology readily available has been lost. Where now? There is a decision to be made. The crossroads are an uncomfortable and generally unproductive place to arrive at.

We must go to Astrology; it does not come to us.

For Accreditation or a Degree, Manual chart construction is non-negotiable: DKF-K students are required to learn manual chart construction and will be examined on it, because it is important and because effort and integrity are the currency in which we pay the dues required from each person who, through Astrology, aspires to turn one of the 10 keys to the Entrance Door to the Mysteries.

Collectively, Astrology software is full of errors; individually, as with any consumer product, some software does a job better than others and some does it very well indeed, but all systems that go into software, regardless of subject area, will have some errors. This is not to disrespect the designers, the programmers, or their product. It is the way things are. Once a system is in use, the errors can be picked up by a result not matching expectation. Central to Astrological software's accuracy issue is the fact most users do not know what the correct result should be, because they do not understand the chart construction process or how to deal with time zones, which are the cause of most software errors. Thus, they are not able to recognize inaccuracies, and those responsible for putting the product into the market do not expect to be called upon to fix them. Astrology software is a consumer product in an unregulated market sector. Crude in the early days of home computers, the quality of much Astrology software now is both high and ambitious, but it remains a consumer product, sold as is. Who checks quality, and, in truth, who really cares? Not the computer-reliant professionals obviously. For them it is more practical to impress their clients with the graphics and remain unaware of errors, ignorance being bliss, so we are told.

Assuredly, there are advantages to working in an unregulated sector but why it remains unregulated does not flatter us: Astrology is not taken seriously enough by those whose business it is to uphold professional and consumer standards. The principle of *caveat emptor* – buyer beware – is adequate for us, at least in the UK and USA.

In effect, unless the Astrologer is involved in prediction, Western natal chart interpretation is generalized, not individualised: it focuses upon planets in Zodiacal signs and is often constructed from a birth time that is not accurate, This means that the presence of software errors is unlikely to be seriously misleading, Whether the reading itself is any real value and is worth the fee charged is for the client to decide.

Accuracy is far more important when dealing with Esoteric Astrology. Then, a reading from an accurate birth time and focusing the purpose of a life, should impact upon the individual like a heat-seeking missile. I will not take on, as a personal student, anyone who is not equipped to check that the chart their software has produced is correct, because if it is not, the result could be damaging.

If anyone doubts what I am saying here about accuracy I recommend that you ask 5 people, each with different Astrology software packages, to type in the same information. I recommend that you use dates in March and April, or October and November, the times of the year when daylight savings are added or removed, and locations in 3 different continents, making sure to include Australia. Then compare results. I will need to say no more.

Time zones have always been a challenge in modern age Astrology, and Astrologers have had to be able deal with them. In the pre-software years, we learned to do so by working manually through a recognised procedure. For sure, we can make calculation slips when working manually but, at least, we are able to check things over for ourselves. When the calculation is done by a computer, who knows what procedures have been followed to accommodate changes occurring in the world's civil time zones?

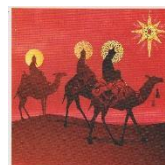
The last updated editions of Shanks's *American Atlas* and *International Atlas*, the bibles of world time changes were published in 2005 with the data collected over approximately 2 years prior to this, So, although we **may have bought our software only yesterday, the data it is drawing on is likely to be over 20 years old**. How many times changes have been involved since then? This should occasion at least a moment's sobering thought.

Wikipedia is doing a heroic job in filling the gap. Its data not as comprehensive as *The Atlases* and the data must be collected, year by year and country by country, a virtually impossible task for a programmer, but not for an Astrologer searching for details of a single birth time, Moreover, the data it is available online which the expensive Atlases were not, and it is a very helpful resource for serious Astrologers recognizing the importance of checking for time change.

Please think about contributing to Wikipedia if you use this resource. Twenty years ago, each of the Atlases cost over £30 and are now selling second hand for many times that amount. Wikipedia is offering its data freely.

Complicated? It always has been, and software, a consumer product in any unregulated sector offers no final resolution to the problem. For those who accept that the Astrologer, not the programmer, is responsible for the information they pass on to others, we offer below a template designed to simplify the task of checking software created charts + 3 worked examples. In time, with practice, we may be able to see where the problems occur and, if they are due to time changes, we may be able to override them.

True Astrology is not at any crossroads; it is where it has always been, with the few who are prepared to give it what it requires, pay their dues, and distance themselves from the marketplace. We go to them; they do not come to us.



The Seven Steps of Natal Chart Calculation .

The full process is laid out in its 7 steps in the examples given on Work sheets 1-3

Step 1 Preparation

- i) Collect and study the birth data to find out the civic time zone in which the birth took place.
- ii) Calculate the true time difference from the given longitude. This is done by multiplying by 4.

Step 2 Establishing the birth time in GMT by adding or removing civil time zone.

Step 3 Adding Acceleration to begin converting clock time to Sidereal time (Use Table of Acceleration)

Step 4 Finding Sidereal time at midnight in day of birth in the Ephemeris

Step 5 Calculating the Sidereal Equivalent of the GMT birth time + acceleration by adding them to Sidereal time at Midnight

Step 6 Applying the true time difference to the Sidereal Equivalent to find Local Sidereal time.

Step 7 Applying the Local Sidereal Times to House Tables, removing 24 hours from LST if the total number of hours resulting from the Stage 6 calculation requires this.

Notes:

1. Time

The discipline of Astrology includes a range of different times frames but there are only two principal time systems with which students of Astrology need to be able to use with confidence as they get to grips with the language of Astrology:

Civil or clock time which is a standardized measure of the Earth's progress around the Sun in a calendar year. The Gregorian calendar which commences in January and comprises (365 days with 366 in a leap year) This provides the date and time of birth and the planets' positions.

Sidereal, otherwise known as star or natural, time measured by the revolution of the Earth through and back to the first point of Aries, which provides the house frame and the hyleg points: Ascendant, Descendant, MC and IC. The sidereal day is 4 minutes shorter than the civil day because it moves at the faster at a rate of 10 seconds an hour.

The two time systems have to be brought together by the Astrologer, in a process hidden from view in a software programme but which to a serious Astrologers represents the start point for construction of a natal chart.

2. Time Zones

The majority of errors occurring in Astrology software are in the conversion of clock time to sidereal time. They may be due to a simple human error slip on the part of the programmer, or the formula used may be inaccurate, but the most likely reason it is that the wrong civil time zone has been

selected, because the **civil time zones**, unlike the 24 **standard time zones of the world** which have been set according to longitude, are not fixed. Governments are empowered to decide which civil time zone to which to belong. Spain is an interesting case in point. All of mainland Spain is on CET in line with Continental Europe, Norway and Sweden, all of which have easterly longitudes, but much of Spain, including the capital Madrid, is in westerly longitudes, with parts of the Iberian Peninsula being more westerly than neighbouring Portugal which is on GMT (Greenwich Meantime) also called UT (Universal Time), which is the measure against which all other time zones are created.

3. Daylight Savings

Also to be taken into consideration is the matter of daylight savings and the dates on which countries, states and regions move into and out of them. This, again, is a Government matter, and changes are not un common. For example, through the latter years of the 20th Century, North Carolina observed daylight savings between early April and early November. More recently daylight savings have been introduced in the first half of March. Has software picked up on this? The only way users are likely to know is through checking the time zone or setting the time zone for themselves if the software allows this. country, and some come with a certain amount of history.

But when using on-line sources, be aware of the dangers of using civil clock time differences on the world clock apps because UK, Eire and Portugal, although in UT (or GMT) in the winter could have daylight savings in force for some of the year. UK, for example, although it has no standard time zone, goes into BST + 1 hour at the end of March each year. And at the close of the 1960s early 70s it was in BST all year round. This means that for civic purposes the time difference between UK in BST and those States of the USA on EDT, for example, is 5 hours, but for chart construction it is the difference between EDT and UT or GMT which is required and this is 4 hours.

4. *The International Atlas and American Atlas of Time Changes*

The bibles of world time changes are *The American Atlas* and *The International Atlas* compiled by Thomas Shanks and published by ACS. Between 1978 and 2005, these publications brought all the data together from all over the USA and all over the world, respectively. However, the last editions of the *Atlases* were the 6th, published in 2005, and we understand that they will not be updated because, we understand, the estimated cost of the operation was greater than any of the tendering organisations were prepared to take on. The last editions, the 6th, published in 2005, are now changing hands through secondhand dealers for over 50 times their original selling price, So, as indicated above, although we **may have bought our software only yesterday, the data it is drawing on is likely to be over 20 years old.**

In some respects, then, the Astrologers' task of checking is more difficult than it was, in others it is assisted by the Internet. *The Atlases* were not made widely available on-line; whereas there are a number of on-line sources recording time changes, individual country by individual

All serious Astrologers should have access to an Ephemeris of the 20th and 21st centuries , Table of Houses, a Table of Acceleration, and a chart of the 24 Standard Times Zones In all cases we recommend the versions created by Michelsen revised by Ricque Pottinger and published by ACS.



Worksheets for the calculation of local sidereal time (LST) - Template

Step 1 Preparation Name and Birth data:	
Date of birth	
Time of birth	
Latitude of place of birth	
Longitude of place of birth	
Longitude distance x4 to establish true time difference	
Time Zone	
Step 2 Add or deduct time zone to/from time of birth (+if West /- if East). Deal with daylight savings through time zone; <i>Do not remove them from the given birth time.</i> <i>This action may change the date to that of the previous (if East) or the following day (if West).</i> Step 2 gives us the birthtime in GMT*	
Step 3 Add correction for acceleration on this result (10 secs for each hour),	
Step 4 Take Sidereal Time at Midnight from Ephemeris	
Step 5 Add to GMT birth time + acceleration. Step 5 gives us the Sidereal Equivalent of the birth time.	
Step 6 Add to or subtract from the Sidereal Equivalent (if West /+ if East) the true time difference. Step 6 gives us the Local Sideral Time of birth	
Step 7 Deduct 24 hours if necessary. This does not change the date because we are no longer in standardized clock time. Step 7 gives us a time we can apply to House Tables	

Use Local Sidereal Time of birth (LST) with Latitude to find the Ascendant, MC and the cusps of the houses	
---	--

*You will need to refer to GMT/UT later in order to calculate the position of the planets Take this opportunity to engrave on your heart the following rule: **Cusps of the Houses at LST, planets' positions at GMT/UT**

Worksheets for the calculation of local sidereal time (LST) - *Worked example 1 Bilbao, Spain*

Step 1 Preparation Name and Birth data:	Bilbao birth
Date of birth	3rd December 2000
Time of birth	23:03
Latitude of place of birth	43N15
Longitude of place of birth	02W58
Longitude x4 to express true time difference	00 hours 11mins 52secs
Time Zone	CET (= 1 hour in advance of UT)
Step 2 Add or deduct time zone to/from time of birth if West + /if East -) Deal with daylight savings through time zone; Do <i>not remove them from the given birth time.</i> <i>This action may change the date to that of the previous (if East) or (if West) the following day.</i> Step 2 gives us the birthtime in GMT*.	23 03- 01 00= 22 03
Step 3 Add correction for acceleration (10 secs for each hour) to UT.	22 03 00 + 00 03 37 = 22 06 37
Step 4 Take Sidereal Time at Midnight from Ephemeris	4 48 30
Step 5 Add to GMT birth time + acceleration. Step 4 gives us the Sidereal Equivalent of the birth time.	04 48 30 + 22 06 37 = 26 55 07
Step 6 Add to or subtract from the Sidereal Equivalent (the true time difference) Step 5 gives us the Local Sidereal Time of birth	26 55 07 - 00 11 52= 26 43 15
Step 7 Deduct 24 hours if necessary. This does not change the date because we are no longer in standardized clock time.	26 43 15 - 24 00 00 02 43 15

Step 7 gives us a time we can apply to House Tables	
Use Local Sidereal Time of birth (LST) with Latitude to find the Ascendant, MC and cusps of the houses	02 43 15

*You will need to refer to GMT/UT later in order to calculate the position of the planets Take this opportunity to engrave on your heart the following rule: **Cusps of the houses at local time; planets positions at GMT/UT**

Worksheets for the calculation of local sidereal time (LST) - *Worked example 2: Pheonix, Arizona, USA*

Step 1 - Preparation	
Name and Birth data:	<i>Phoenix Arizona birth</i>
Date of birth	April 4 2000
Time of birth	03:47
Latitude of place of birth	33N27'
Longitude of place of birth	112W04
x4 longitude to express true time difference	7 hours 28 mins 16 secs
Time Zone	MST = 7 hours behind UT (No day light savings in Arizona in 2000)
Step 2 Add or deduct time zone to/from time of birth (+if West /- if East) the true time Deal with daylight savings through time zone; Do <i>not</i> remove them from the given birth time. This action may change the date to that of the previous (if East) or the following day (if West) Step 2 gives us the birthtime in GMT*	03 47 00+ 07 00 00 = 10:47 00
Step 3 Add correction for acceleration (10 secs for each hour) on this result,	10 47 00 + 00 01 46 = 10 48 46
Step 4 Take Sidereal Time at Midnight from Ephemeris	12 50 27 (April 4 th)

Step 5 Add to GMT birth time + acceleration. Step 5 gives us the Sidereal Equivalent of the birth time.	12 50 27+ 10 48 46 = 23 39 13
Step 6 Add to or subtract from the Sidereal Equivalent (if West- /if East+) the true time difference. Step 6 gives us the Local Sideral Time of birth.	23 39 13 - 07 28 16` = 16 10 57
Step 7 Deduct 24 hours if necessary. This does not change the date because we are no longer in standardized clock time. Step 7 gives us a time we can apply to House Tables.	no
Use Local Sidereal Time of birth (LST) with Latitude to find Ascendant, MC and cusps of houses	16 10 57

*You will need to refer to GMT/UT later in order to calculate the position of the planets Take this opportunity to engrave on your heart the following rule: **Cusps of the Houses at LST, planets' positions at GMT/UT**

Worksheets for the calculation of local sidereal time (LST) - *Worked example:3 Darwin, Australia*

Step 1 Preparation	Darwin, Australia
Name and birth data:	
Date of birth	3rd December 2000
Time of birth	02:12
Latitude of place of birth	12S28
Longitude of place of birth	130E50
Longitude x4 to express true time difference	8 hours 43mins 20 secs
Time Zone	ACST Australian Central Standard Time = 9:30 hours in advance of UT. No daylight savings
Step 2 Add or deduct time zone to/from time of birth Deal with daylight savings through time	02:12: 00- 09:30: 00= 16:42 (2nd Dec 2000)

<p>zone; Do not remove them from the given birth time. This action may change the date to that of the previous (if East) or the following day (if West).</p> <p>Step 2 gives us the birthtime in GMT</p>	
<p>Step 3 Add correction for acceleration (10 secs for each hour) to GMT *</p>	<p>16 42 00 + 00 02 45 = 16 44 45</p>
<p>Step 4 Take Sidereal Time at Midnight from Ephemeris</p>	<p>4 44 34 (2nd December)</p>
<p>Step 5 Add to GMT birth time + acceleration. Step 5 gives us the Sidereal Equivalent of the birth time.</p>	<p>04 44 34 + 16 44 45 = 21 29 19</p>
<p>Step 6 Add to or subtract from the sidereal equivalent (if West /+ if East) the true time difference. Step 6 gives us the Local Sidereal Time of birth.</p>	<p>21 29 19+ 08 43 20 = 30 12 39</p>
<p>Step 7 Deduct 24 hours if necessary. This does not change the date as we are no longer in standardised clock time. Step 7 gives us a time we can apply to House Tables</p>	<p>30 12 39- 24 00 00= 06 12 39</p>
<p>Use Local Sidereal Time of birth (LST) with Latitude of birth to find the Ascendant, the MC, and the cusps of houses</p>	<p>06 12 39</p>

*You will need to refer to GMT /UT later in order to calculate the position of the planets Take this opportunity to engrave on your heart the following rule: **Cusps of the houses at local time; planets positions at GMT/ UT**