Feedback on Extra Aspect Symbols for Astrology (second revision)

L2/17-020R2

Source: Michel Suignard

Reference: L2/16-174 and L2/16-174R

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1 Summary

This document analyses the new Aspect symbols for Astrology that were accepted at the UTC #149 (November 1-4 2016) based on document L2/16-174, and later amended as L2/16-174R. Based on its findings it proposes new code positions and names for the characters.

2 Issue statements

The UTC accepted some of the characters proposed by L2/16-174 as follows:

₩ U+2BF0 QUINTILE

★ U+2BF1 TREDECILE

▼ U+2BF2 NOVILE

X U+2BF4 CENTILE

只 U+2BF5 VIGINTILE

These are based on practice observed on mostly Russian Astrological text concerning Astrological text.

It is important to define some basis, like what is an aspect in astrological context? An aspect is an angular distance in the zodiac between two planets that is considered meaningful in astrology (ref http://astrolog.offline.ee/astrolog/texts/lesson.asp).

As such, aspects divide the 360 degree in coordinate terms based on fractional values from 1/2 to 1/20. Consequently, their names are close to the ones attributed to statistical quantiles. The following tables show the statistical terms (ref: https://en.wikipedia.org/wiki/Quantile) and their equivalent Astrological versions:

Table 1: Correspondence between statistical quantiles and astrological aspects

Ratio	Statistical quantiles	Astrological aspects		
1/2	Median	Opposition		
1/3	Tercile	Trine, trinovile		
1/4	Quartile	Square		
1/5	Quintile	Quintile		
1/6	Sextile	Sextile		
1/7	Septile	Septile		
1/8	Octile	Semisquare		
1/9		Nonile, Novile		
1/10	Decile	Decile		
1//11		Undecile		
1/12	Duodecile	Semisextile		
1/15		Quindecile		
1/16	Hexadecile			
1/18		Seminovile		
1/20	Vigintile (ventile)	Vigintile, semidecile		
1/24		Untion		
1/100	Percentile (centile)			

While the astrological terms differ for some fractions, or have terms for case when Statistics have no created names (like 1/9, 1/11, 1/15, 1/18 or 1/24), the two sets are reasonably synchronized.

In addition, aspects have derived many more terms using new fractions:

Table 2: Additional aspects

Ratio	Astrological aspects		
2/9	Binovile, binonile		
2/7	Biseptile		
3/10	Tridecile, tredecile		
3/8	Sesquiquadrate, Trioctile		
2/5	Biquintile		
5/12	Quincunx		
3/7	Triseptile		
5/9	Sentagon		
4/9	Quadranovile, quadranonile		

(Other fractions exist based on 1/11, 1/15, 1/18, or 1/24, but they tend to be rarely mentioned).

It should also be noted that aspects are typically classified in three groups:

- Majors (Conjunction, Sextile, Square, Trine, and Opposition) based on 1/2, 1/3, 1/4, and 1/6
 ratios,
- Minors (Semisextile, Semisquare, Sesquiquadrate, and Quincux) based on 1/8 and 1/12 ratios,
- Others (all remaining aspects) based on 1/5, 1/7, 1/9, and 1/11 ratios or beyond 1/12.

The 2 first groups have commonly accepted names and representative glyphs while the third group have many variations.

This is reflected in the Unicode encoding, as all major and minor aspects are already encoded in the Unicode Standard. Some that have shapes common with geometric shapes have been unified (square, trine and semisquare). The rest of these aspects have their specific code points, and their names reflect the Astrological names.

The problem arises with the last group (Others). The names and graphic representations vary enormously. However, in most cases, the names are derivations of the base quantiles, and the common graphic representation are Latin character abbreviation of their names. It should also be noted that astrological aspects are typically referenced by their full names, not by their abbreviation or symbols, except in tables.

The proposal as made in L2/16-174R is associating names with graphic representation that are specific to Russian usage of these aspects and do not represent most prevalent usages.

The following table shows all the aspect values in increasing order.

Table 3: Astrological aspects with common and other glyphs, existing Unicode code position, name and annotation.

Aspect value (deg)	Common glyph	Others	Name	Alternate	UCS	Unicode name	Annotation, (P if proposed)
0	d		Conjunction		260C	CONJUNCTION	
18 (360/20)	V	只 SD	Vigintile	Semidecile			
30 (360/12)	V		Semisextile	Dodecile	26BA	SEMISEXTILE	
33 (360/11)	U		Undecile				
36 (360/10)	D		Decile		22A5	UP TACK	
40 (360/9)	N	X	Novile	Nonile			
45 (360/8)	_		Semisquare	Octile	2220	ANGLE	= semisquare (P)
51 (360/7)	S		Septile				
60 (360/6)	*		Sextile		26B9	SEXTILE	
72 (360/5)	Q	XX	Quintile				
80 (360*2/9)	N ²	田	Binovile	Binonile			
90 (360/4)			Square		25A1	WHITE SQUARE	= square (P)
100 (360*5/18)		Χ	Sentagon				
103 (360*2/7)	S ²		Biseptile				

Aspect value (deg)	Common glyph	Others	Name	Alternate	UCS	Unicode name	Annotation, (P if proposed)
108 (360*3/10)	D ³	 	Tredecile	Tridecile			
120 (360/3)	Δ		Trine	Trinovile	25B3	WHITE UP-POINTING TRIANGLE	= trine
135 (360*3/8)	Đ		Sesquiquadrate	Trioctile	26BC	SESQUIQUADRATE	
144 (360*2/5)	Q ²	± bQ	Biquintile				
150 (360*5/12)	\boldsymbol{T}		Quincux	Inconjunct	26BB	QUINCUX	
154 (360*3/7)	S ³		Triseptile				
160 (360*4/9)	N ⁴		Quadranovile	Quadnovile Quadranonile			
180 (360/2)	oo		Opposition		260D	OPPOSITION	

One value: the sentagon, is proposed for the value 100 degree by L2/16-174R and called 'centile' in the proposal (though the original Cyrillic name in the documentation mentioned in L2/16-174R is a transliteration of 'sentagon'). Using the term 'centile' is not optimal because the term is another name for 'percentile' which is 1%, therefore different from 360*5/9 which is the fractional value of the proposed 'Russian' aspect. The term 'Sentagon', although rare, is found in Astrological aspect discussion for that aspect value (combination of novile and sextile). Therefore, that term should be used instead of 'centile' in the name for that symbol. The author could not find a common Latin abbreviation of the Sentagon (it cannot be S which is already used for the Septile). Because the symbol proposed by L2/16-174R is specific to Russian context, it should not just be called 'Sentagon'.

3 Proposed solution

Preferably the newly proposed names should be modified to show that they are an alternate form of the more common form, and the confusing use of centile should be avoided for the corresponding aspect value.

Finally, the code points need to be slightly adjusted to reflect the latest Amendment 1 ballot which is already allocating U+2BF0..U+2BF2. The following list is proposed (they are in order of increasing degree values). It could be also useful to provide a summary of the Astrological aspect values in the core documentation of the Unicode standard, as doing so in the name list is probably too verbose. The table 3 could be a good foundation to create that documentation. Nevertheless inserting some annotation in the block U+2600..U+26FF where many of the major and minor aspects are encoded could be valuable.

-- in block U+2600..U+26FF name list

Create a new block sub-header in front of U+26B9 SEXTILE

Astrological aspects

Constitute a set as follows: 260C, 26BA, 2220, 26B9, 25A1, 25B3, 26BC, 26BB, and 260D, representing the values 0, 30, 45, 60, 90, 120, 135, 150, and 180 in degree.

-in block U+2B00..U+2BFF

Russian Astrological aspects

- 2BF3 RUSSIAN ASTROLOGICAL SYMBOL VIGINTILE
 - the vigintile aspect is usually represented by the letter V
- 2BF4 X RUSSIAN ASTROLOGICAL SYMBOL NOVILE
 - the novile aspect is usually represented by the letter N
- 2BF5 X RUSSIAN ASTROLOGICAL SYMBOL QUINTILE
 - the quintile aspect is usually represented by the letter Q
- 2BF6 PRUSSIAN ASTROLOGICAL SYMBOL BINOVILE
 - the binovile aspect is usually represented by the letters N²
- 2BF7 X RUSSIAN ASTROLOGICAL SYMBOL SENTAGON
 - represents a 100-degree aspect
- - the tredecile aspect is usually represented by the letters D³

I do not ask for a documentation of the common 'other' Astrological aspects in the code charts, because most of them use Latin abbreviation which should be documented elsewhere.
