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**Subject:** Proposal to encode some Hamza Quranic marks

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This proposal suggests some Hamza Quranic marks to be encoded. It is based on [10], proposed since 2010 and frozen in order to be completed, then on [5,6,7], proposed recently and at discussion on [1,2,3,4,20,23].

## 1. Hamza Marks

Many are the types of Hamza marks that exist in Arabic. Its pronunciation varies in the Quran, following the Narration (Riwayah), as well as its notation.

The basic principle of Hamza is the realization. This is the case of Realized (Tahqiq) Hamza. The realization is the pronunciation of Hamza from its own outlet, which is the bottom of throat, and following there qualities, which are Manifest (Majhura), Intense (Shadida), Down (Mustafila), Consistent (Musmata), and Open (Munfatiha). Some Arabs have softened Hamza (Takhfif) to the facility, replacement, transport or omission. There are cases of Facilitate (Tashiil) Hamza, Replace (Ebdaal) Hamza, Transport (Naql) Hamza or Omission (Hadf) Hamza respectively.

Currently, following Riwayah(s), the different signs used to mark Hamza are:

- ✓ Realized Hamza is marked by a *Hamza* ٔ.
- ✓ Hamza Wasl is marked by a *Wasla* ٓ or by a *small dot* ٕ, ٖ (or a *small ring* ٗ) and ٘ (or a *small ring* ٙ), in addition to a *small stroke* ٚ, ٛ and ٜ.
- ✓ Facilitate Hamza is marked by a *big dot* only ٝ, ٞ, ٟ and the sign ٠.
- ✓ Replace Hamza is marked by a *big dot* ١, ٢, ٣ and ٤, in addition to a *big stroke* ٥, ٦ and ٧.
- ✓ Transport Hamza is marked by a *big stroke* only ٨, ٩ (or ٩, ٨) and the sign ٠.
- ✓ Omission Hamza is marked by nothing.

### 1.1. Hamza Wasl

Hamza Wasl is not pronounced if it is in middle of reading. However, it is pronounced if we begin with it in reading.

#### 1.1.1. Hafs Riwayah

In Hafs Riwayah, in some Quranic printed Mushaf(s) [11] [17], at some cases, a high Wasla ٓ is combined to Alef indicating the Hamza Wasl (See Figures 1 and 2).

In Unicode, the following character already exists:

U+0671 ﺀ ARABIC LETTER ALEF WASLA;

as well as the other variants U+FB50 ﺀ and U+FB51 ﺀ.

However, we need to encode separately Alef with eventually Wasla. Mainly, we use the Alef character U+0627, combined with Wasla, or Hamza, or other signs (See following sections), according to each situation. Moreover, we could need to use Wasla alone, to explain its use for example.

For Quranic text, it will be safer to use the decomposed ﺀ and ﺀ, instead of ﺀ.

► We propose to encode the combined mark ﺀ for this purpose.

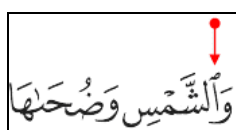


Figure 1 – Arabic high Wasla  
(Sourat Ashams : Ayat 1) [11, pp. 595]



Figure 2 – Arabic high Wasla  
(Sourat Ashams : Ayat 2) [11, pp. 595]

### 1.1.2. Warsh and Qaloon Riwayah(s)

In some Quranic Riwayah(s) - such as: Warsh and Qaloon, Hamza Wasl is marked by a *small dot*. The position of this small dot indicates the Hamza's vowel used when the Hamza is pronounced at starting (See Figures 3).

The three cases of Hamza's vowel are:

- + The Fatha: the small dot is over Alef ﺀ (See Figure 4).
- + The Damma: the small dot is in middle left of Alef •ﻻ (See Figures 5, 6.a.b.c.d, 7 and 8).
- + The Kasra: the small dot is under Alef ﺀ (See Figures 9 and 10.a).

► We propose to encode the combined marks ﺀ, •ﻻ and ﺀ for these purposes.

However, in some printed Quran, for Quranic Riwayah Qaloon, Hamza Wasl is marked by a *small dot* or a *small ring*. The position of this small dot or small ring indicates the Hamza's vowel used when the Hamza is pronounced at starting.

The three cases of Hamza's vowel are:

- + The Fatha: the small dot is over Alef ﺀ.
- + The Damma: the small ring is in middle left of Alef °ﻻ (See Figure 6.e).
- + The Kasra: the small ring is under Alef ﺀ (See Figure 10.b).

### Remark:

Semantically, there is no difference between the two combined marks °◌ and •◌; nor between the two combined marks ◌◌ and ◌◌.

According to the name chosen for this annotation sign, we can propose to encode or not the combined marks °◌ and ◌◌ for these purposes.

If we will choose a semantic name for °◌ and •◌ (similarly for ◌◌ and ◌◌), it will not be necessary to propose two marks, the used font will be sufficient when they are displayed.

However, if we will choose a descriptive name for °◌ and •◌ (similarly for ◌◌ and ◌◌), it will be necessary to propose two marks, the used font will not be sufficient when they are displayed.

► Since we will choose this last case, we propose to encode also the combined marks °◌ and ◌◌ for these purposes.

In addition, the Hamza Wasl is also marked by a *small stroke*. The position of this small stroke indicates the *preceded letter's vowel* (See Figure 3.a).

The three cases of preceded letter's vowel are:

- + The Fatha: the small stroke is over Alef ◌◌ (See Figures 4, 5 and 9.a.c.d).
- + The Damma: the small stroke is in middle right of Alef ◌◌ (See Figures 6 and 8).
- + The Kasra: the small stroke is under Alef ◌◌ (See Figures 7, 9.b and 10).

In case of the Sukun, the *preceded letter's vowel* is transformed to Fatha, or Damma (See Figures 8), or Kasra.

This small stroke is not a vowel.

► We propose to encode the combined marks ◌◌, ◌◌ and ◌◌ for these purposes.

إِنَّ الصَّلَةَ تَابِعَةٌ لِلْحَرَكَةِ الَّتِي قَبْلَ أَلِفِ الْوَصْلِ (هَمْزَةُ الْوَصْلِ) سَوَاءً أَكَانَتِ الْحَرَكَةُ لَازِمَةً أَمْ عَارِضَةً ، (وَأَلِفُ الْوَصْلِ هِيَ الَّتِي تَسْقُطُ وَضَلًا وَتَثْبُتُ ابْتِدَاءً) فَإِنْ كَانَتِ الْحَرَكَةُ فَتْحَةً جُعِلَتْ جَزْءُ الصَّلَةِ فَوْقَ الْأَلِفِ نَحْوُ: (هُوَ اللَّهُ) وَإِنْ كَانَتْ كَسْرَةً جُعِلَتْ تَحْتَهَا نَحْوُ: (إِنِّي بِصَطْبَيْتِكَ) وَإِنْ كَانَتْ ضَمَّةً جُعِلَتْ فِي وَسْطِهَا نَحْوُ: (أَنْ شُكِرَ) .  
وَالنُّقْطَةُ الْمُسْتَدِيرَةُ الشَّكْلِ الْمَطْمُوسَةُ الْوَسْطُ تَدُلُّ عَلَى كَيْفِيَةِ الْإِبْتِدَاءِ بِأَلِفِ الْوَصْلِ فَإِنْ وُضِعَتْ فَوْقَ الْأَلِفِ ابْتِدَاءً بِهَا مَفْتُوحَةً ، وَإِنْ وُضِعَتْ تَحْتَهَا ابْتِدَاءً بِهَا مَكْسُورَةً وَإِنْ وُضِعَتْ فِي وَسْطِهَا ابْتِدَاءً بِهَا مَضْمُومَةً كَمَا رَأَيْنَا فِي الْأَمْثِلَةِ الثَّلَاثَةِ السَّابِقَةِ .

Figure 3.a – Hamza Wasl rules [12, pp. w]

بَعْضُ الْمَصَالِحَاتِ فِي الصَّبْحِ		
العلامة	دلالتها	أمثلتها
أ	النفخة إن وضعت فوق ألف الوصل يتبدأ بها مفتومة	النَّبِيَّ الْعَظِيمِ
إ	وإن وضعت تحت الألف ابتداءً بها مكسورة	أَفْرَأ - إِهْدِنَا
ا	وإن وضعت في وسط الألف ابتداءً بها مضمومة	أَمْكُرُوا - اْمْخُلُوهَا

Figure 3.b – Hamza Wasl rules [16, pp. 29]

فُلْ هُوَ اللَّهُ أَحَدٌ

Figure 4.a – Starting Hamza Wasl with Fatha after a letter with Fatha (Sourat Al-Ikhlāas : Ayat 1) [12, pp. 559]

قُلْ هُوَ اللَّهُ أَحَدٌ

Figure 4.b – Starting Hamza Wasl with Fatha after a letter with Fatha (Sourat Al-Ikhlāas : Ayat 1) [13, pp. 559]

فُلْ هُوَ اللَّهُ أَحَدٌ

Figure 4.c – Starting Hamza Wasl with Fatha after a letter with Fatha (Sourat Al-Ikhlāas : Ayat 1) [14, pp. 690]

فُلْ هُوَ اللَّهُ أَحَدٌ

Figure 4.d – Starting Hamza Wasl with Fatha after a letter with Fatha (Sourat Al-Ikhlāas : Ayat 1) [15, pp. 520]

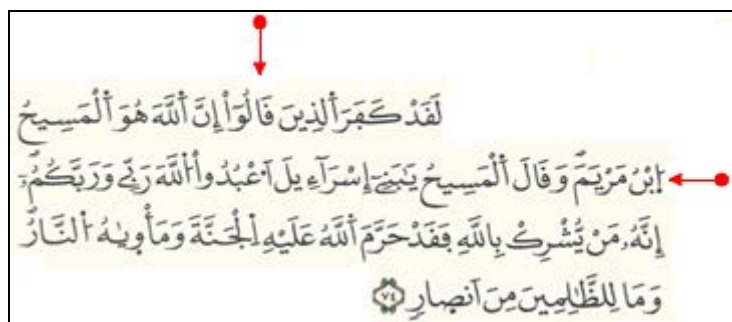


Figure 5.a – Starting Hamza Wasl with Damma after a letter with Fatha (Sourat Al-Mâ'idah : Ayat 74) [12, pp. 104]

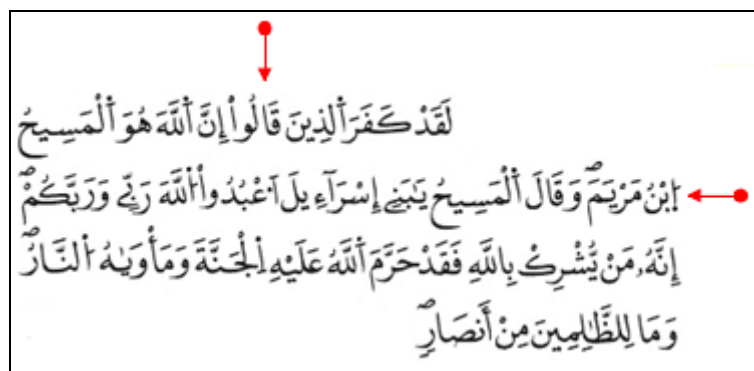


Figure 5.b – Starting Hamza Wasl with Damma after a letter with Fatha (Sourat Al-Mâ'idah : Ayat 74) [13, pp. 104]

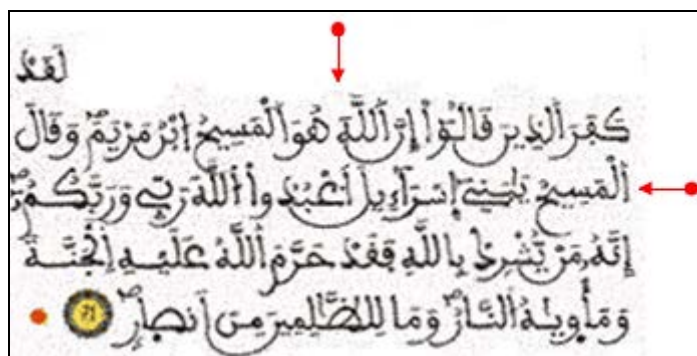


Figure 5.c – Starting Hamza Wasl with Damma after a letter with Fatha (Sourat Al-Mâ'idah : Ayat 72) [14, pp. 127]

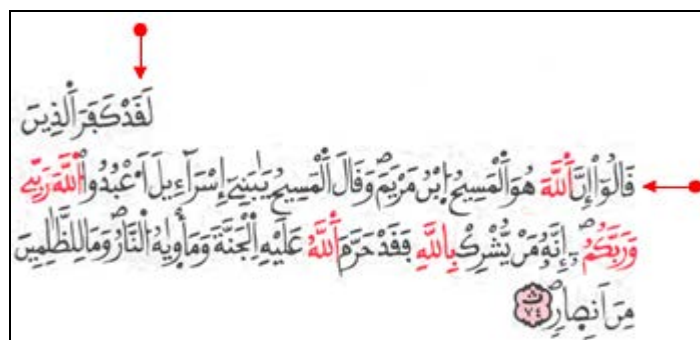


Figure 5.d – Starting Hamza Wasl with Damma after a letter with Fatha (Sourat Al-Mâ'idah : Ayat 74) [15, pp. 88]

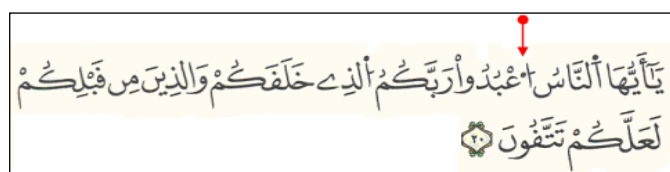


Figure 6.a – Starting Hamza Wasl with Damma after a letter with Damma (Sourat Al-Baqara : Ayat 20) [12, pp. 4]

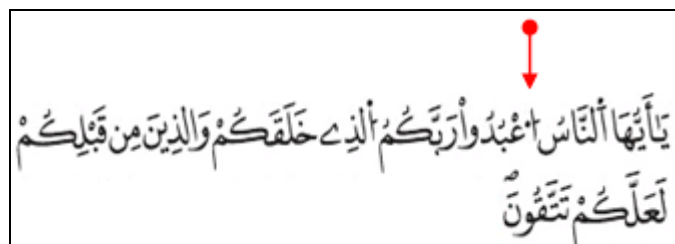


Figure 6.b – Starting Hamza Wasl with Damma after a letter with Damma (Sourat Al-Baqara : Ayat 20) [13, pp. 4]



Figure 6.c – Starting Hamza Wasl with Damma after a letter with Damma (Sourat Al-Baqara : Ayat 21) [14, pp. 5]



Figure 6.d – Starting Hamza Wasl with Damma after a letter with Damma (Sourat Al-Baqara : Ayat 20) [15, pp. 5]

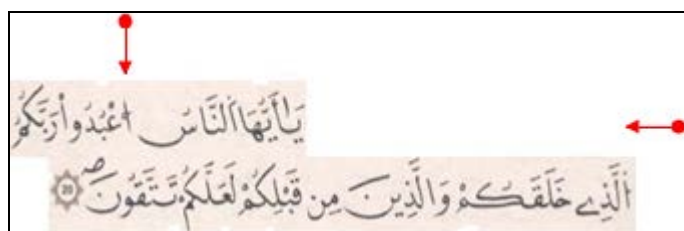


Figure 6.e – Starting Hamza Wasl with Damma after a letter with Damma (Sourat Al-Baqara : Ayat 20) [6]



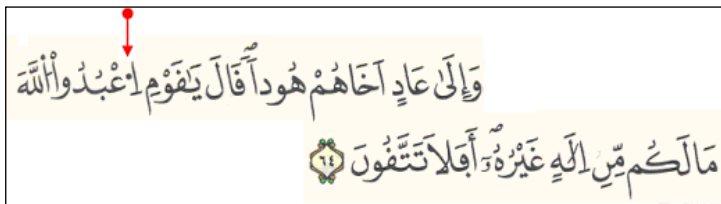


Figure 7.a – Starting Starting Hamza Wasl with Damma after a letter with Kasra (Sourat Al-A'râf : Ayat 64) [12, pp. 138]

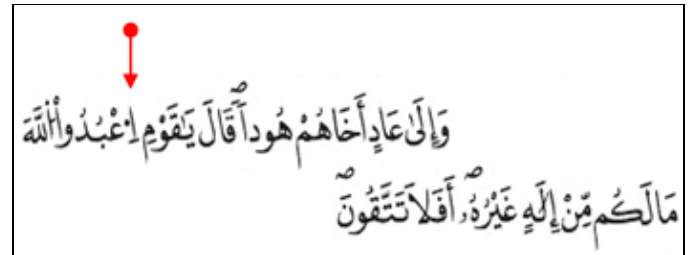


Figure 7.b – Starting Hamza Wasl with Damma after a letter with Kasra (Sourat Al-A'râf : Ayat 64) [13, pp. 138]

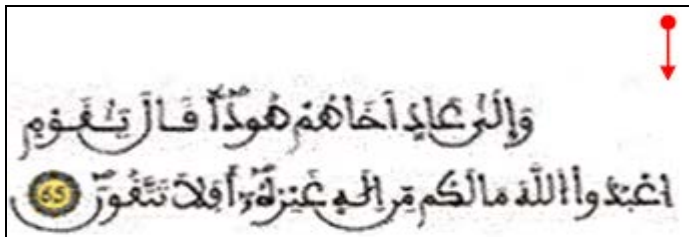


Figure 7.c – Starting Hamza Wasl with Damma after a letter with Kasra (Sourat Al-A'râf : Ayat 65) [14, pp. 168-169]

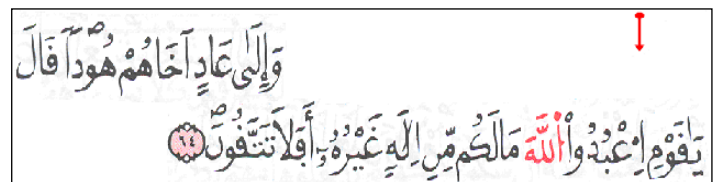


Figure 7.d – Starting Hamza Wasl with Damma after a letter with Kasra (Sourat Al-A'râf : Ayat 64) [15, pp. 122]

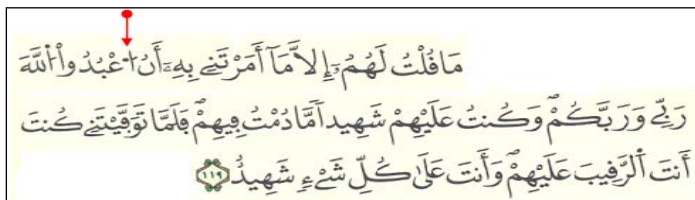


Figure 8.a – Starting Hamza Wasl with Damma after a letter with Sukun transformed to Damma (Sourat Al-Mâ'idah : Ayat 119) [12, pp. 110-111]

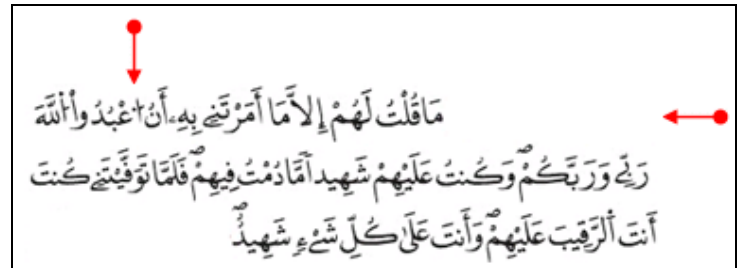


Figure 8.b – Starting Hamza Wasl with Damma after a letter with Sukun transformed to Damma (Sourat Al-Mâ'idah : Ayat 119) [13, pp. 110-111]

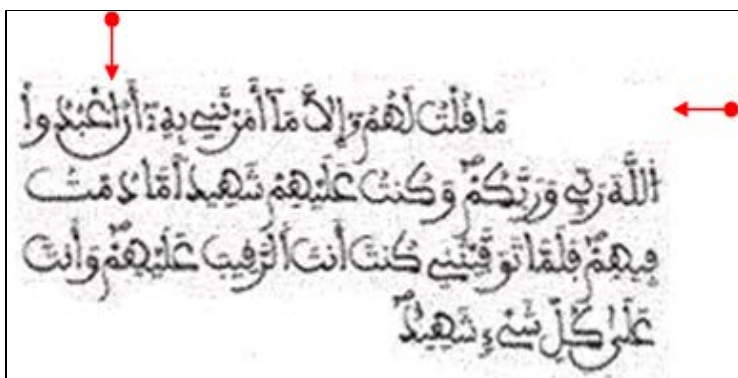


Figure 8.c – Starting Hamza Wasl with Damma after a letter with Sukun transformed to Damma (Sourat Al-Mâ'idah : Ayat 117) [14, pp. 135]

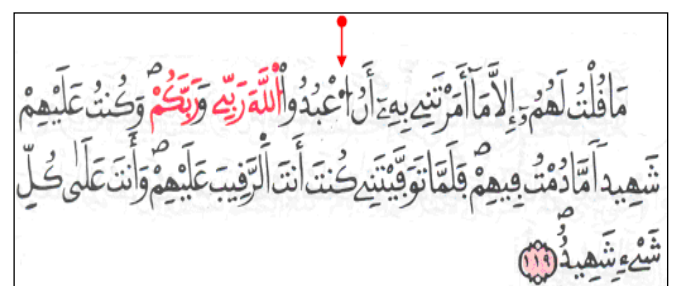
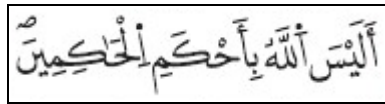


Figure 8.d – Starting Hamza Wasl with Damma after a letter with Sukun transformed to Damma (Sourat Al-Mâ'idah : Ayat 119) [15, pp. 93]



(Sourat Atin : Ayat 8) [12, pp. 551]

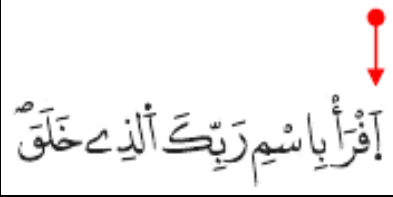
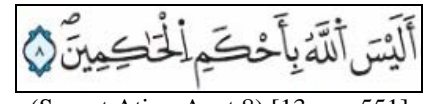
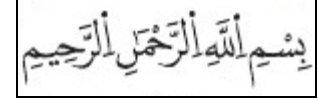


Figure 9.a – Starting Hamza Wasl with Kasra after a letter with Fatha (Sourat Al-`alaq : Ayat 1) [12, pp. 552]



(Sourat Atin : Ayat 8) [13, pp. 551]



(Al-Basmalah)

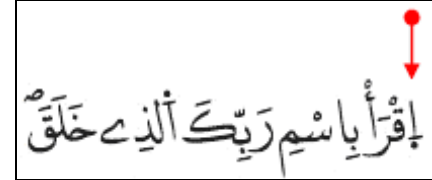


Figure 9.b – Starting Hamza Wasl with Kasra after a letter with Kasra (Sourat Al-`alaq : Ayat 1) [13, pp. 552]

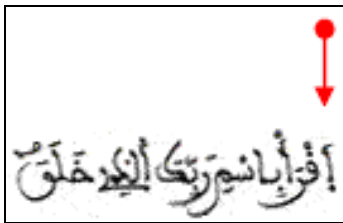


Figure 9.c – Starting Hamza Wasl with Kasra after a letter with Fatha (Sourat Al-`alaq : Ayat 1) [14, pp. 682]



Figure 9.d – Starting Hamza Wasl with Kasra after a letter with Fatha (Sourat Al-`alaq : Ayat 1) [15, pp. 513]

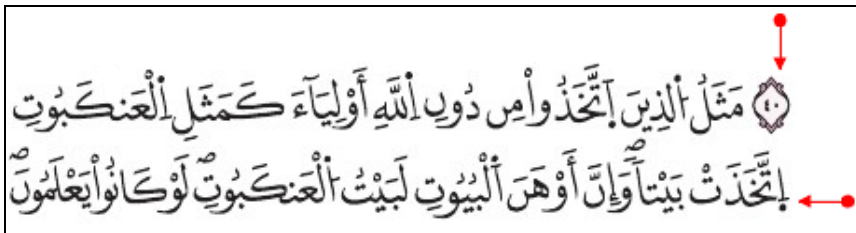


Figure 10.a – Starting Hamza Wasl with Kasra after a letter with Kasra (Sourat Al-eankabut : Ayat 41) [12, pp. 361]

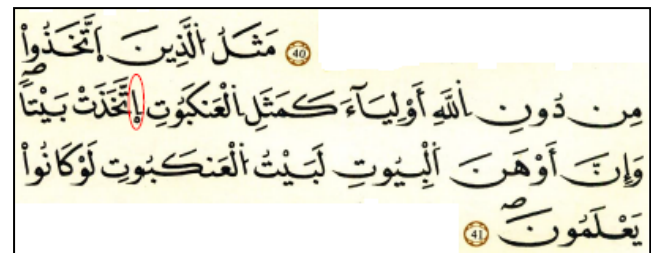


Figure 10.b – Starting Hamza Wasl with Kasra after a letter with Kasra (Sourat Al-eankabut : Ayat 41) [6]

### Remark:

There is a variation about the stroke position on Figure 9.b compared to Figure 9.a. Indeed, two cases could take place:

- + The reader begins recitation by Al-Basmalah (where there is a Kasra in the end of it) before the first Ayat of a Sourat: the small stroke is below Alef (See Figure 9.b);
- + The reader doesn't recite Al-Basmalah. He follows the last Ayat of preceding Sourat (where there is a Fatha in the end of it) by the first Ayat of the following Sourat: the small stroke is above Alef (See Figure 9.a).

## 1.2. Facilitate (Tashiil) Hamza

In some cases, two Hamza(s) could be gathered in the beginning of a word or between two words.

In some Quranic Riwayah(s) - such as: Warsh and Qaloon -, the second Hamza is a *Facilitate (Tashiil) Hamza*. Facilitate Hamza is the pronunciation of a Hamza between its outlet and the long vocalization letter congener its diacritical vocalization. It is not a Realized Hamza, pronounced from its way, nor it is switched to a carrier letter: Alef or Waw or Yeh.

In order to distinguish between Realized Hamza and Facilitate Hamza, a big dot sign is used instead of Hamza.

The three cases of second Hamza's vowel are:

- + The Fatha: the second Hamza with Fatha is pronounced between Hamza and Alef.
  - It is noted by a big dot over Alef  $\overset{\bullet}{\circ}$  (See Figure 11), in the case of one word.
  - It is noted by a big dot on line  $\bullet$  (See Figures 12), in the case of two words.
- + The Damma: the second Hamza with Damma is pronounced between Hamza and Waw.
  - It is noted by a big dot in middle left of Alef  $\bullet\circ$  (See Figures 13.a.b.c), in the case of two words.
  - It is noted by a big dot on line  $\bullet$  (See Figures 14), in the case of one word.
- + The Kasra: the second Hamza with Kasra is pronounced between Hamza and Yeh.
  - It is noted by a big dot under Alef  $\underset{\bullet}{\circ}$  (See Figure 15), in the case of two words.
  - It is noted by a big dot on line  $\bullet$  (See Figure 16), in the case of one word.

► We propose to encode the combined marks  $\overset{\bullet}{\circ}$ ,  $\bullet\circ$ ,  $\underset{\bullet}{\circ}$  and the sign  $\bullet$  for these purposes.

However, in some printed Quran, for Quranic Riwayah Qaloon, the case of second Hamza's vowel Damma, it is noted by a big dot in middle right of Alef  $\circ\bullet$  (See Figures 13.d), in the case of two words.

Semantically, there is no difference between the two combined marks  $\circ\bullet$  and  $\bullet\circ$ .

► Since we will choose a descriptive name, we propose to encode also the combined mark  $\circ\bullet$  for this purpose.

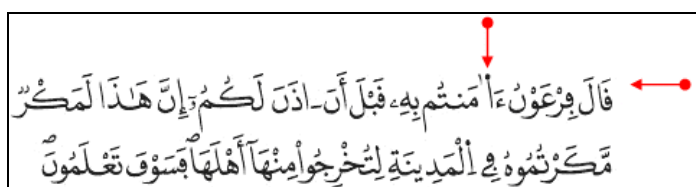


Figure 11 – Facilitate second Hamza with Fatha  
(Sourat Al-Aeraf : Ayat 122) [12, pp. 144]



Figure 12.a – Facilitate second Hamza and Replace third Hamza to Alef (Sourat Al-Qamar : Ayat 41) [12, pp. 483]



Figure 12.b – Facilitate second Hamza and Replace third



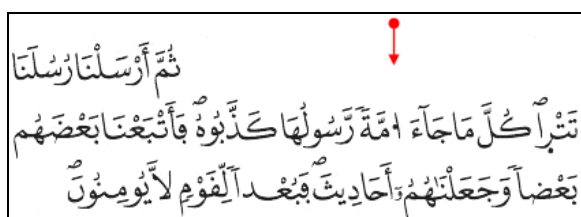


Figure 13.a – Facilitate second Hamza with Damma  
(Sourat Al-Muaminun : Ayat 44) [12, pp. 307]

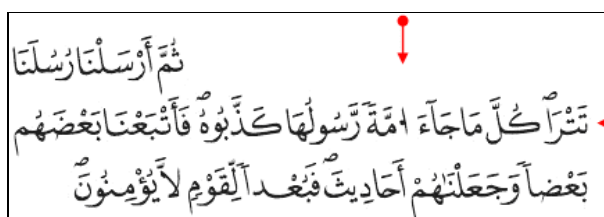


Figure 13.b – Facilitate second Hamza with Damma  
(Sourat Al-Muaminun : Ayat 44) [13, pp. 307]

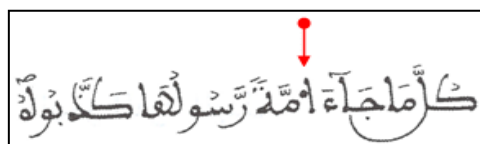


Figure 13.c – Facilitate second Hamza with Damma  
(Sourat Al-Muaminun : Ayat 44)

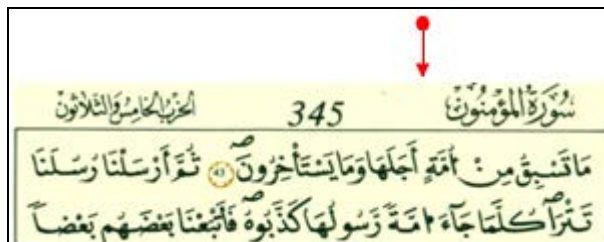


Figure 13.d – Facilitate second Hamza with Damma  
(Sourat Al-Muaminun : Ayat 44) [6]

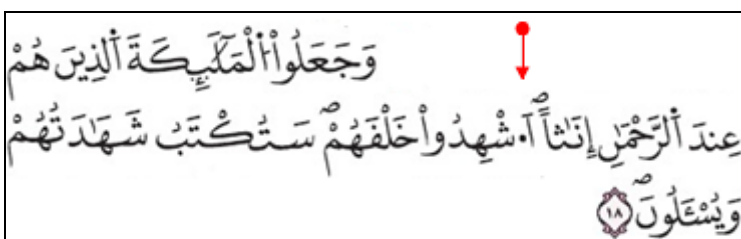


Figure 14.a – Facilitate second Hamza with Damma  
(Sourat Azukhruf : Ayat 18) [12, pp. 443]

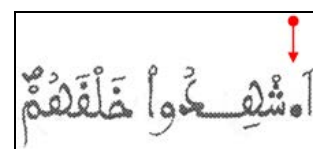


Figure 14.b – Facilitate second Hamza with Damma  
(Sourat Azukhruf : Ayat 18)

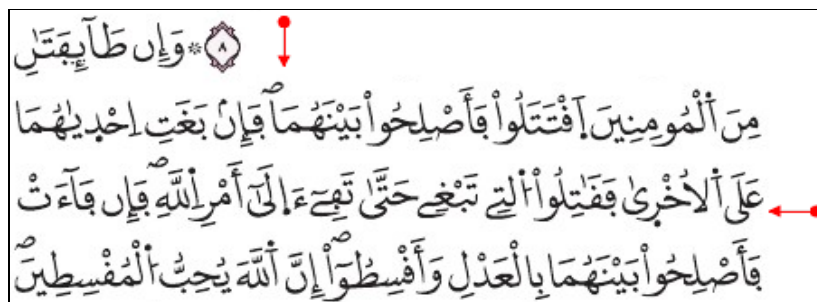


Figure 15.a – Facilitate second Hamza with Kasra  
(Sourat Al-Hujurat : Ayat 9) [12, pp. 469]

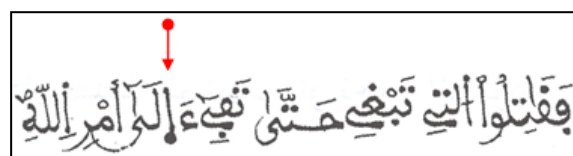


Figure 15.b – Facilitate second Hamza with Kasra  
(Sourat Al-Hujurat : Ayat 9)

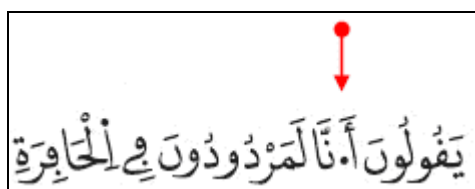


Figure 16 – Facilitate second Hamza with Kasra  
(Sourat Nazi`at : Ayat 10) [12, pp. 537]

### 1.3. Replace (Ebdaal) Hamza

In some cases, two Hamza(s) could be gathered in the beginning of a word or between two words.

### 1.3.1. Two Hamza(s)

In some Quranic Riwayah(s) - such as: Warsh and Qaloon -, the second Hamza is a *Replace (Ebdaal) Hamza*. Replace Hamza is the replacement of the second Hamza by the letter Alef or Waw or Yeh, following the *first Hamza's vowel* when reciting. The letter Alef or Waw or Yeh preserve the second Hamza's vowel.

The three cases of the first Hamza's vowel are:

- + The Fatha: the second Hamza is replaced by Alef.
  - It is noted by nothing (See Figure 17.a), when the second Hamza's vowel is also Fatha, in the case of one word.
- + The Damma: the second Hamza is replaced by Waw.
  - It is noted by nothing (See Figures 18), when the second Hamza's vowel is also Damma, in the case of two words.
  - It is noted by a big dot ◌ with a big stroke ◌ (See Figure 19), when the second Hamza's vowel is Fatha, in the case of two words.
  - It is noted by a big dot ◌ with a big stroke ◌ (See Figure 20), when the second Hamza's vowel is Kasra, in the case of two words.
- + The Kasra: the second Hamza is replaced by Yeh.
  - It is noted by a big dot on line • with a big stroke ◌ (See Figure 21), when the second Hamza's vowel is Fatha with Madda, in the case of two words.
  - It is noted by a big dot ◌ with a big stroke ◌ (See Figures 22), when the second Hamza's vowel is Fatha, in the case of two words.

#### Remark:

There is a variation about the Hamza rule on Hafs Riwayah (See Figure 17.b) compared to Warsh Riwayah (See Figure 17.a) and to Qaloon Riwayah (See Figure 17.c).

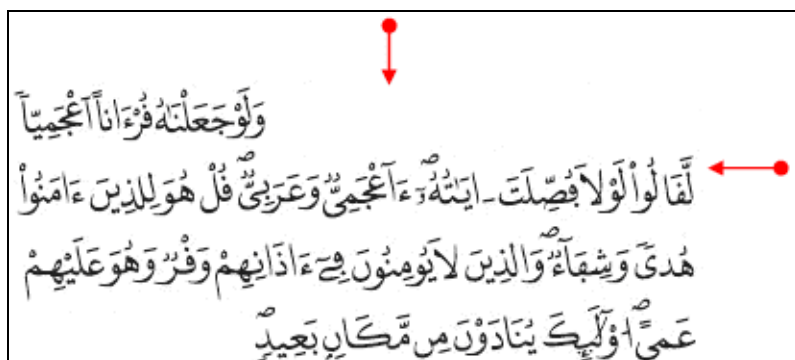


Figure 17.a. – Replace second Hamza to Alef Maddia  
(Sourat Fusilat : Ayat 43) [12, pp. 435]

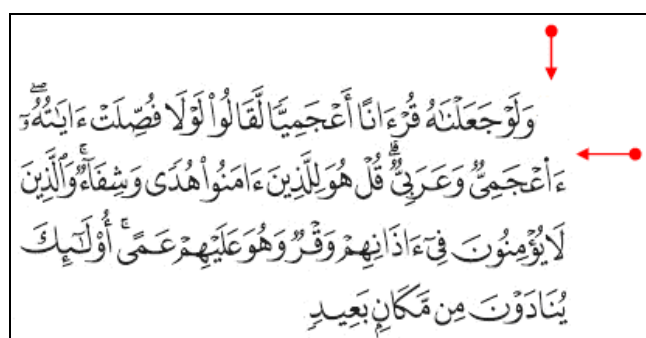


Figure 17.b – Facilitate second Hamza with Fatha  
(Sourat Fusilat : Ayat 44) [11, pp. 144]

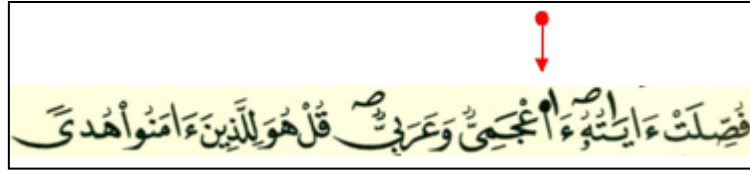


Figure 17.c – Facilitate second Hamza with Fatha  
(Sourat Fusilat : Ayat 44) [6]

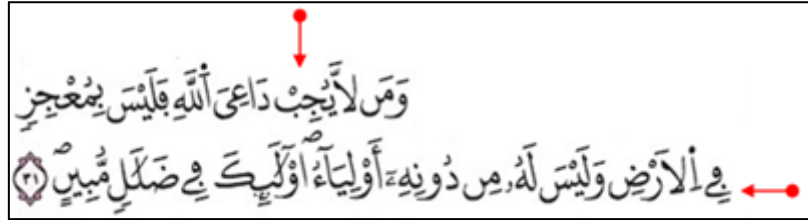


Figure 18.a – Replace second Hamza to Waw Maddia  
(Sourat Al-Ahqaf : Ayat 31) [12, pp. 459]

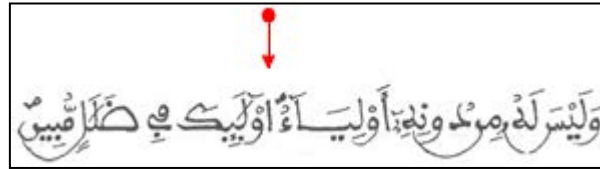


Figure 18.b – Replace second Hamza to Waw Maddia  
(Sourat Al-Ahqaf : Ayat 31)

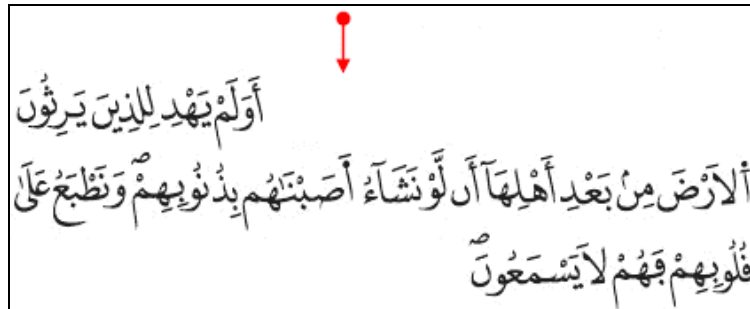


Figure 19 – Replace second Hamza to Waw with Fatha  
(Sourat Al-A'raf : Ayat 122) [12, pp. 142]

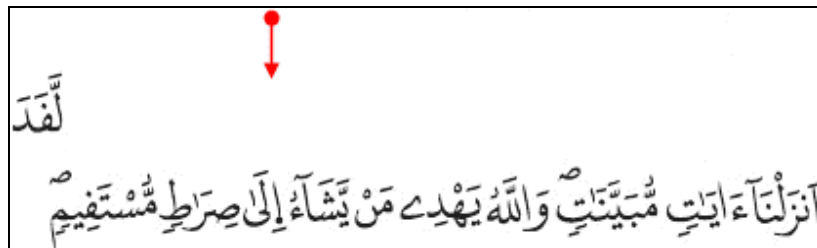


Figure 20 – Replace second Hamza to Waw with Kasra  
(Sourat Nour : Ayat 44) [12, pp. 318]

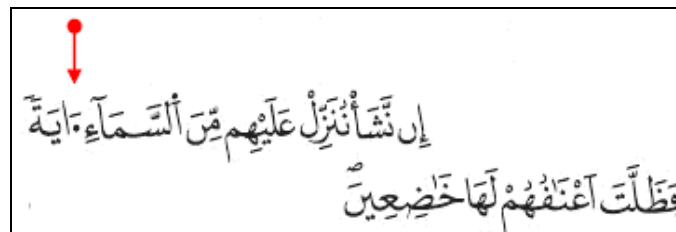


Figure 21 – Replace second Hamza to Yeh with Fatha

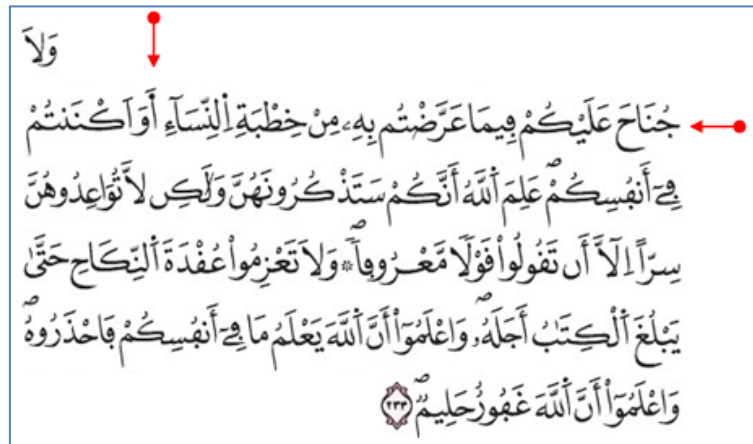


Figure 22.a – Replace second Hamza to Yeh with Fatha  
(Sourat Al-Baqara : Ayat 233) [12, pp. 34]

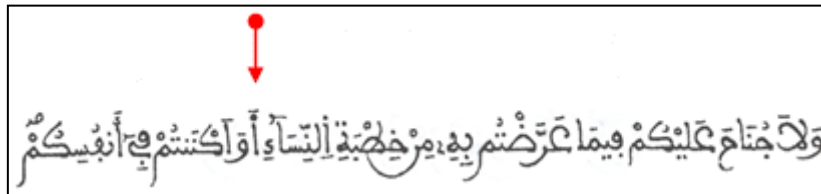


Figure 22.b – Replace second Hamza to Yeh with Fatha  
(Sourat Al-Baqara : Ayat 232)

### 1.3.2. One Hamza

In some cases of one Hamza, this Hamza is a *Replace (Ebdaal) Hamza*. Replace Hamza is the replacement of it to the letter Alef or Waw or Yeh.

The three cases of the preceding letter's vowel are:

- + The Fatha: the Hamza is replaced by Alef.
  - It is noted by a big dot ◌ with a big stroke ◌ (See Figures 23 Two Hamza(s) at the origin), when the Hamza's vowel is Kasra.
- + The Damma: the Hamza is replaced by Waw.
  - It is noted by a big dot ◌ with a big stroke ◌ (See Figures 24), when the Hamza's vowel is Fatha.
  - It is noted by a big dot ◌ with a big stroke ◌ (See Figure 25 Two Hamza(s) at the origin), when the Hamza's vowel is Kasra.
- + The Kasra: the Hamza is replaced by Yeh.

- It is noted by a big dot ◌ with a big stroke ◌ (See Figures 26 Two Hamza(s) at the origin), when the Hamza's vowel is Kasra.
- It is noted by ◌ with a big stroke ◌ (See Figures 27), when the Hamza's vowel is Fatha.
- It is noted by a big dot ◌ with a big stroke ◌ (See Figures 28), when the Hamza's vowel is Fatha.

► We propose to encode the combined mark ◌ for this purpose.

The combined marks ◌, ◌, ◌ are already proposed to be encoded for Facilitate Hamza.

The combined marks ◌, ◌ and ◌ will be proposed to be encoded for Transport Hamza.

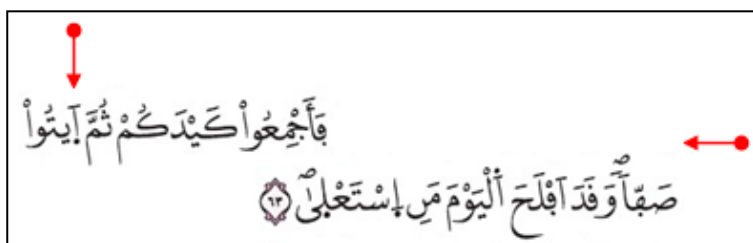


Figure 23.a – Replace Hamza to Alef with Fatha  
(Sourat Taha : Ayat 63) [12, pp. 280]



Figure 23.b – Replace Hamza to Alef with Fatha  
(Sourat Taha : Ayat 63)

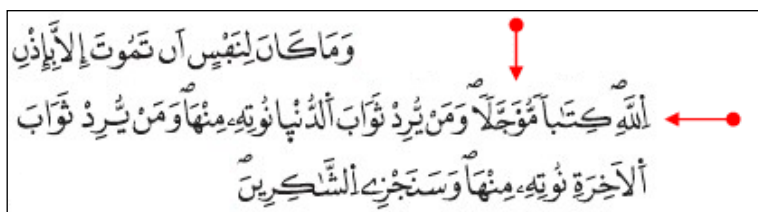


Figure 24.a – Replace Hamza to Waw with Fatha  
(Sourat Al-Emran : Ayat 145) [12, pp. 59]



Figure 24.b – Replace Hamza to Waw with Fatha  
(Sourat Al-Emran : Ayat 145) [14, pp. 71-72]



Figure 25.a – Replace Hamza to waw with Damma  
(Sourat Yousef : Ayat 54) [12, pp. 211]



Figure 25.b – Replace Hamza to waw with Damma  
(Sourat Yousef : Ayat 54)



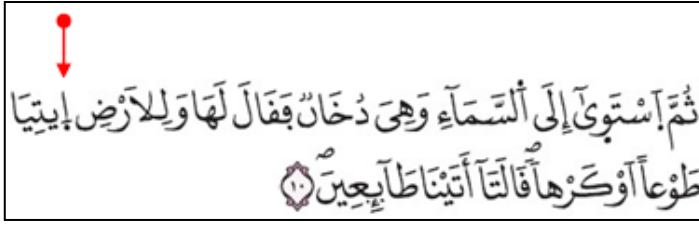


Figure 26.a – Replace Hamza to Yeh with Kasra  
(Sourat Fuzlat : Ayat 11) [12, pp. 432]

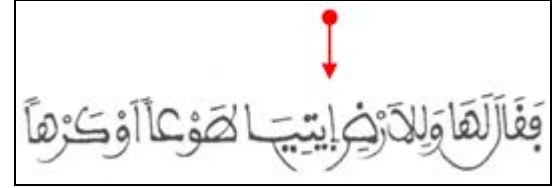


Figure 26.b – Replace Hamza to Yeh with Kasra  
(Sourat Fuzlat : Ayat 11)

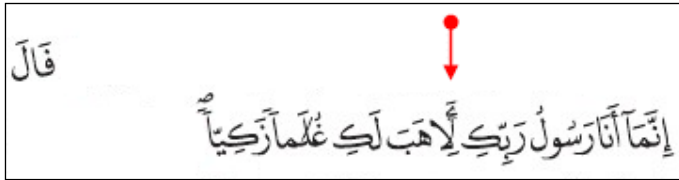


Figure 27.a – Replace Hamza to Yeh with Fatha  
(Sourat Maryem : Ayat 18) [12, pp. 270]

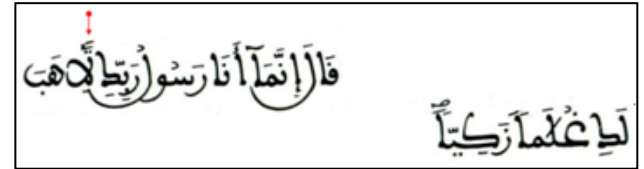


Figure 27.b – Replace Hamza to Yeh with Fatha  
(Sourat Maryem : Ayat 19) [14, pp. 325]

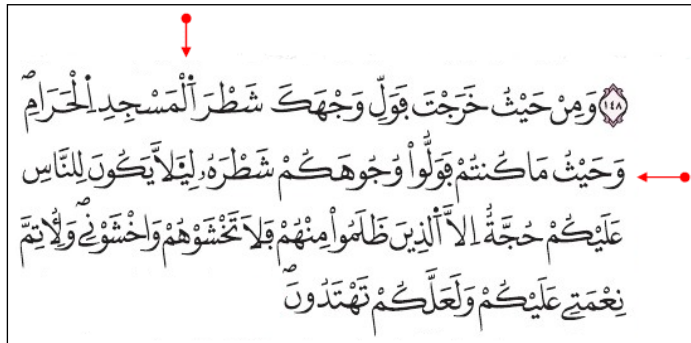


Figure 28.a – Replace Hamza to Yeh with Fatha  
(Sourat Al-Baqara : Ayat 149) [12, pp. 21]



Figure 28.b – Replace Hamza to Yeh with Fatha  
(Sourat Al-Baqara : Ayat 150) [14, pp. 24]

#### 1.4. Transport (Naql) Hamza

In some Quranic printed Mushaf(s) in Warsh Riwayah, following a precise situation, the Hamza is transported displacing its vowel to preceding letter - of preceding word - and eliminating it. The Hamza sign is replaced by a big stroke at the same Hamza's place. The four cases of Hamza's vowel are:

- + The Fatha: the big stroke is on Alef (◌َ) (See Figure 29.a).
- + The Damma: the big stroke is in middle left of Alef (◌ِ) (See Figures 30.a and 31.a).
- + The Kasra: the big stroke is under Alef (◌ِ) (See Figure 32.a).
- + The prolonged Fatha: the stroke is inline – (See Figures 33.a.c.d).

The stroke is not a vowel.

► We propose to encode the combined marks ◌َ, ◌ِ, ◌ِ and the sign – for these purposes.

However, in some printed Quran, for Quranic Riwayah Qaloon, the case of Hamza's vowel Damma, it is noted by a big stroke in middle right of Alef (See Figures 31.c).

Semantically, there is no difference between the two combined marks and .

► Since we will choose a descriptive name, we propose to encode also the combined mark for this purpose.

#### Remark:

For Qaloon Riwayah, there is no Transport Hamza (See Figures 29.b, 30.b, 32.b and 33.b).



Figure 29.a – Transport Hamza with Fatha after Sukun  
(Sourat Sad: Ayat 84) [12, pp. 414]



Figure 29.b – No Transport Hamza  
(Sourat Sad: Ayat 84) [13, pp. 414]

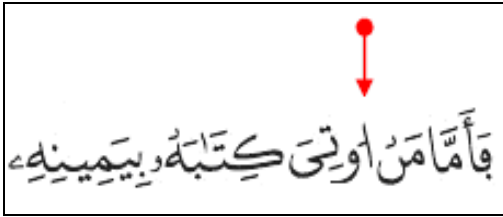


Figure 30.a – Transport Hamza with Damma after Sukun  
(Sourat Al-Inchiq: Ayat 7) [12, pp. 546]

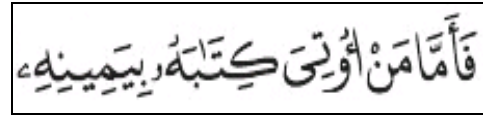


Figure 30.b – No Transport Hamza  
(Sourat Al-Inchiq: Ayat 7) [13, pp. 546]



Figure 31.a – Transport Hamza with Damma after Shadda  
(Sourat Al-Jin : Ayat 7) [12, pp. 546]



Figure 31.c – Transport Hamza with Damma after Shadda  
(Sourat Al-Jin : Ayat 7)

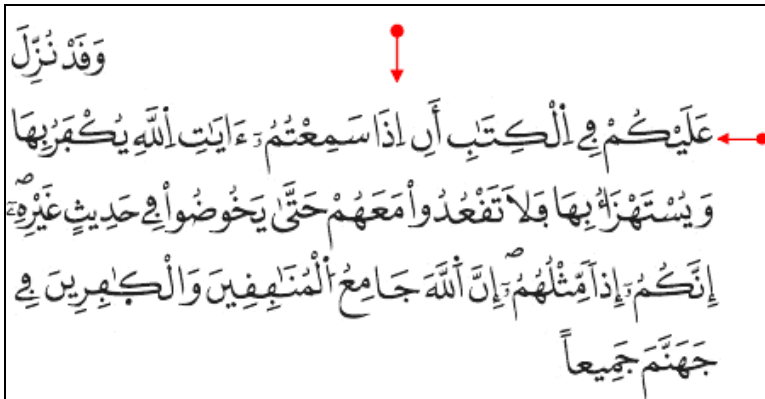


Figure 32.a – Transport Hamza with Kasra after Sukun

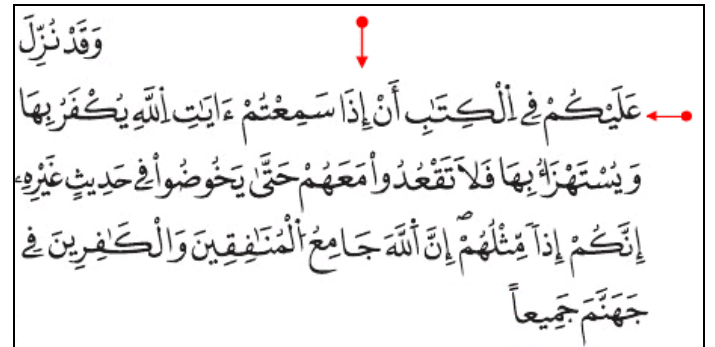


Figure 32.b – No Transport Hamza  
(Sourat A-Nissaa : Ayat 139) [13, pp. 87]

(Sourat A-Nissaa : Ayat 139) [12, pp. 87]

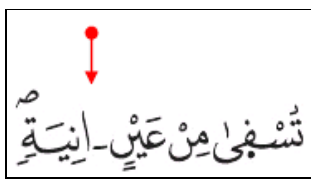


Figure 33.a – Transport Hamza with prolonged Fatha after Tanween (Sourat Al-Ghashia : Ayat 5) [12, pp. 546]

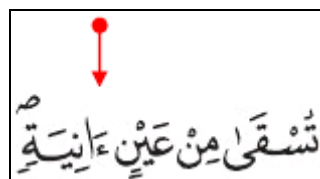


Figure 33.b – No Transport Hamza (Sourat Al-Ghashia : Ayat 5) [13, pp. 546]



Figure 33.c – Transport Hamza with prolonged Fatha after Tanween (Sourat Al-Ghashia : Ayat 5) [14, pp. 676]

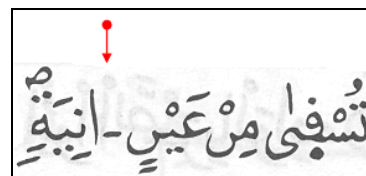


Figure 33.d – Transport Hamza with prolonged Fatha after Tanween (Sourat Al-Ghashia : Ayat 5) [15, pp. 507]

### 1.5. Omission (Hadf) Hamza

In some Quranic printed Mushaf(s) in Warsh and Qaloon Riwayah(s), following a precise situation, the Hamza is omitted completely. The Hamza sign and its vowel are omitted also (See Figures 34).

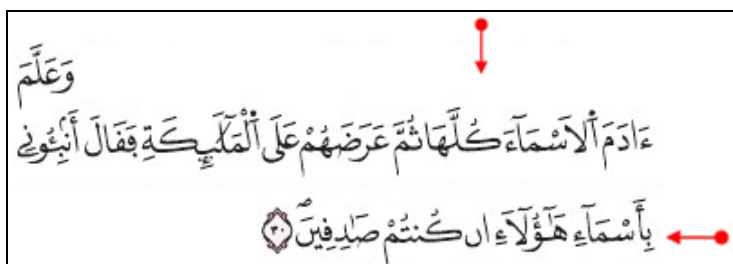


Figure 34.a – Omission Hamza (Sourat Al-Baqara : Ayat 30) [12, pp. 5-6]

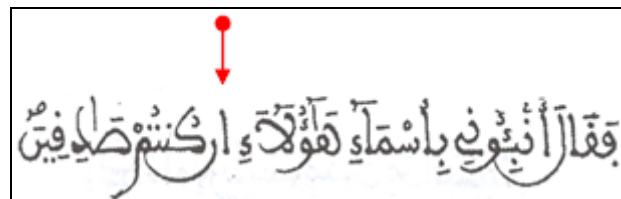


Figure 34.b – Omission Hamza (Sourat Al-Baqara : Ayat 30)

## 2. Shape

### 2.1. Shape of dot



According the Arabic calligraphy, the shape of the dot (full circle) in these signs differs from dot, “Nuqta” (full inclined lozenge), used in Al-Iejam letters.

### 2.2. Existing characters

At Unicode, the following marks are already encoded:



+ Fatha:

- U+064E  ARABIC FATHA








- U+0618  ARABIC SMALL FATHA (• should not be confused with U+064E  FATHA)

+ Damma:

- U+064F  ARABIC DAMMA



- U+0619  ARABIC SMALL DAMMA (• should not be confused with U+064F  DAMMA)

+ Kasra:



- U+0650  ARABIC KASRA
- U+061A  ARABIC SMALL KASRA (• should not be confused with U+0650  KASRA)
- + Signs:
  - U+065C  ARABIC VOWEL SIGN DOT BELOW (• African languages)
  - U+06EA  ARABIC EMPTY CENTRE LOW STOP
  - U+06EB  ARABIC EMPTY CENTRE HIGH STOP
  - U+06EC  ARABIC ROUNDED HIGH STOP WITH FILLED CENTRE

**Remark:**

For the existing marks:

- + The Unicode character U+065C  is also used for Al-Imala purpose (See Figures 35.a.b.c and 36.a).
- + The Unicode character U+06EC  is also used for Al-Ishmam purpose (See Figures 37).

In some Quranic Riwayah(s) - such as: Dury -, there are two kinds of Imala:

- + Small Imala: where U+065C  is used (See Figure 35.c).
- + Big Imala: where  is used (See Figure 36.b).

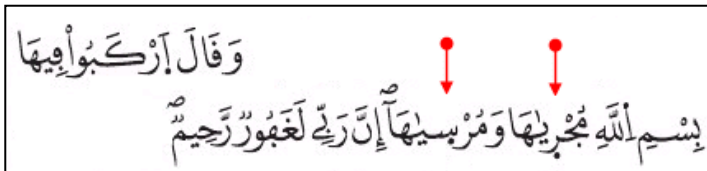


Figure 35.a – Al-Imala (Sourat Hud : Ayat 41) [12, pp. 197]

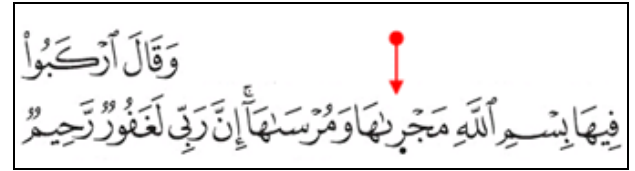


Figure 35.b – Al-Imala (Sourat Hud : Ayat 41) [11, pp. 226]

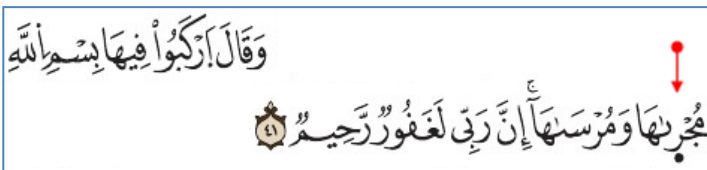


Figure 35.c – Al-Imala (Sourat Hud : Ayat 41) [21, pp. 184]



Figure 35.d – Al-Imala (Sourat Hud : Ayat 41) [18, pp. 197]



Figure 36.a – Al-Imala (Sourat Al-Baqara : Ayat 66) [12, pp. 9-10]



Figure 36.b – Al-Imala (Sourat Al-Baqara : Ayat 66) [21, pp. 10]

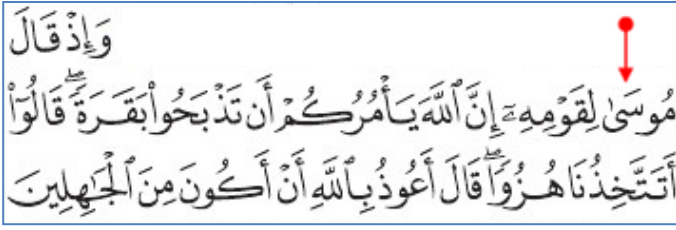


Figure 36.c – Al-Imala (Sourat Al-Baqara : Ayat 67) [11, pp. 10]

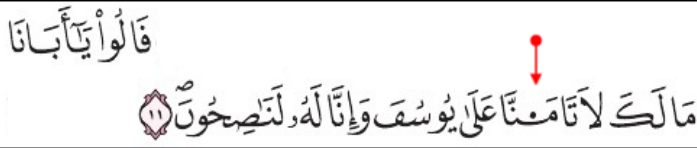


Figure 37.a – Al-Ishmam (Sourat Yussuf : Ayat 11) [11, pp.206]

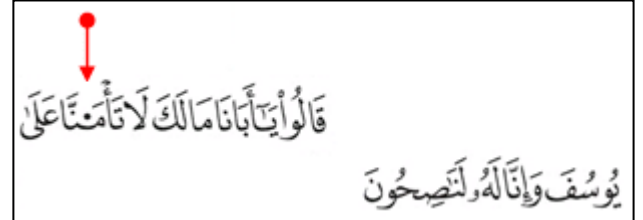


Figure 37.b – Al-Ishmam (Sourat Yussuf : Ayat 11) [10, pp.236]

### 2.3. Size of dot

In order to distinguish between the dot of Facilitate or Replace Hamza and Hamza Wasl, their sizes differ (See Figure 38).

There are four sizes of dot mark in descending order as follows:

- + The largest (proposed big dot) dot used for Facilitate Hamza and Transport Hamza, because they serve as letter.
- + Next size (existed dot) dot used for Al-Imala and Al-Ikhtilas and Al-Ishmam, because they serve as vowel.
- + Next size (proposed small dot) dot used for starting Hamza Wasl, because it is used only in starting reader.
- + The smallest (character points) dots used in Al\_Iejam letters, because they are part of those letters.

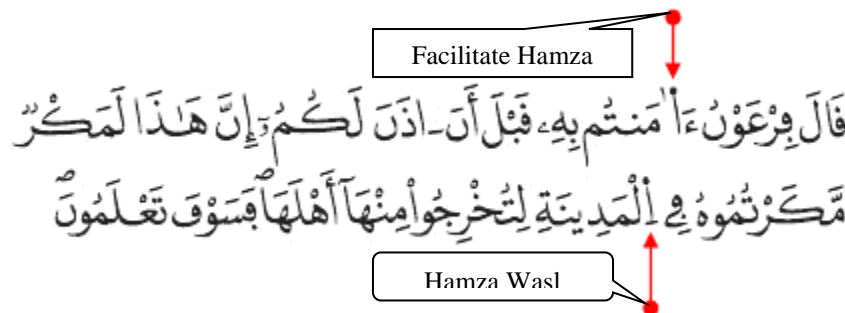


Figure 38 – Comparison between the dot of Facilitate Hamza and starting Hamza Wasl (Sourat Al-Aeraf : Ayat 122) [12, pp. 144]

### 2.4. Size of stroke

In order to distinguish between the stroke and the vowels Fatha and Kasra; and between the two kinds of stroke, their sizes differ (See Figure 39).

There are three sizes of stroke mark in descending order as follows:

- + The largest (proposed big stroke) stroke used for Transport Hamza, because it indicates the position of Hamza before transported. And stroke used for Replace Hamza, because it indicates the vowel of Hamza.
- + Next size (existed stroke) vowels used for vowelizing letter for Fatha and Kasra.



- + The smallest (proposed small stroke) stroke used for starting Hamza Wasl, because it indicates vowel of preceding letter.

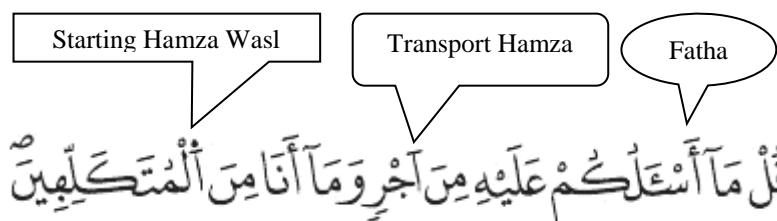


Figure 39 – Comparison between stokes and vowels (Sourat Sad: Ayat 84) [12, pp. 414]

### Remark:

According Arabic calligraphic rules, Fatha and Fathattan could be stretched in some situations (See Figures 40), without any pronunciation variations. For same reason, some letters could be stretched for justification.

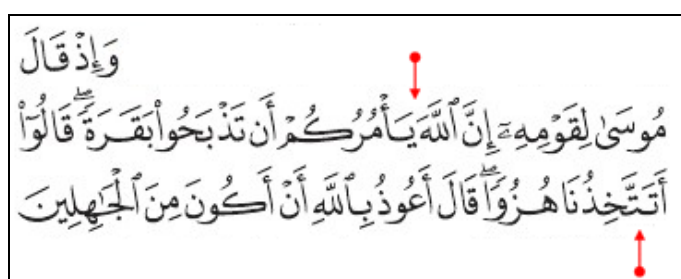


Figure 40.a – Stretched calligraphic Fatha (Sourat Al-Baqara : Ayat 67) [11, pp. 10]

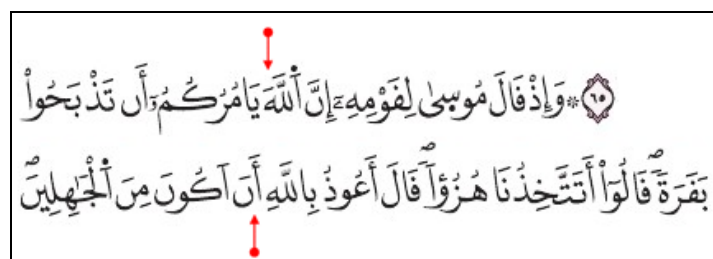


Figure 40.b – Stretched calligraphic Fatha (Sourat Al-Baqara : Ayat 67) [12, pp. 9-10]

## 2.5. Position of marks

For the combined marks  $\overset{\circ}{\text{A}}$ ,  $\overset{\circ}{\text{B}}$  and  $\overset{\circ}{\text{C}}$ , the small stroke of Hamza Wasl is attached to the Alef. There is no space between them.

For the combined marks  $\overset{\bullet}{\text{A}}$ ,  $\overset{\bullet}{\text{B}}$ ,  $\overset{\bullet}{\text{C}}$  and  $\overset{\bullet}{\text{D}}$ , the big dot of Facilitate Hamza is attached to the Alef. There is no space between them.

For the combined marks  $\overset{\circ}{\text{A}}$ ,  $\overset{\circ}{\text{B}}$  and  $\overset{\circ}{\text{C}}$ , the big stroke of Replace Hamza is attached to the Alef. There is no space between them.

For the combined marks  $\overset{\circ}{\text{A}}$ ,  $\overset{\circ}{\text{B}}$ ,  $\overset{\circ}{\text{C}}$  and  $\overset{\circ}{\text{D}}$ , the big stroke of Transport Hamza is attached to the Alef. There is no space between them.

For Hamza Wasl,

- + In case of Fatha, when the dot and the stroke are together over Alef, the dot is over the stroke (See Figures 4).
- + In case of Kasra, when the dot and the stroke are together under Alef, the dot is under the stroke (See Figures 9.b and 10).

However, for Replace Hamza,






















- + In case of Fatha, when the dot and the stroke are together over Alef, the dot is under the stroke (See Figures 19 and 22).

- + In case of Kasra, when the dot and the stroke are together under Alef, the dot is over the stroke (See Figure 20).

### 3. Names and Notes

We suggest the following codes, names and annotations for the proposed characters:

N°	Code	Glyph	Name and Annotations	Comments
1	08C0		ARABIC HIGH WASLA → U+0671  Arabic letter Alef Wasla	Wasla above Alef without be attached with it (See Figures 1 and 2)
2	08C1		ARABIC SMALL DOT ABOVE • Starting Hamza Wasl with Fatha → U+06EC  Arabic rounded high stop with filled center → 0307  Combining dot above → 082D  Samaritan mark nequdaa → 0A02  Gurmukhi sign bindi → 11081  Kaithi sign anusvara	Small dot above Alef without be attached with it (See Al-Basmalah in Figure 9.b)  Small dot above small stroke which is over Alef (See Figures 4)
3	08C2		ARABIC SMALL DOT LEFT • Starting Hamza Wasl with Damma → 302E  Hangul single dot tone mark	Small dot at left of Alef without be attached with it (See Figures 5, 6.a.b.c.d, 7 and 8)
4	08C3		ARABIC SMALL DOT BELOW • Starting Hamza Wasl with Kasra → U+065C  Arabic vowel sign dot below → 0323  Combining dot below → 0A3C  Gurmukhi sign nukta → 110BA  Kaithi sign nukta	Small dot below Alef without be attached with it (See Figures 9.a.c.d)  Small dot below small stroke which is below Alef (See Figures 9.b,10.a)
5	08C4		ARABIC SMALL RING LEFT • Starting Hamza Wasl with Damma used at some Mushaf Qaloon → 08C2  ARABIC SMALL DOT LEFT	Small ring at left of Alef without be attached with it (See Figure 6.e)
6	08C5		ARABIC SMALL RING BELOW • Starting Hamza Wasl with Kasra used at some Mushaf Qaloon → 08C3  ARABIC SMALL DOT BELOW	Small ring below Alef without be attached with it  Small ring below small stroke which is below Alef (See Figure 10.b)
7	08C6		ARABIC SMALL STROKE ABOVE • Used for Hamza Wasl after a letter with Fatha	Horizontal small stroke above Alef attached with it

			→ U+0618  Arabic small Fatha → U+064E  Arabic Fatha	(See Figures 4, 5 and 9.a.c.d)
8	08C7		<b>ARABIC SMALL STROKE RIGHT</b> • Used for Hamza Wasl after a letter with Damma	Horizontal small stroke at right of Alef attached with it (See Figures 6 and 8)
9	08C8		<b>ARABIC SMALL STROKE BELOW</b> • Used for Hamza Wasl after a letter with Kasra → U+061A  Arabic small Kasra → U+0650  Arabic Kasra	Horizontal small stroke below Alef attached with it (See Figures 7, 9.b and 10)
10	08C9		<b>ARABIC BIG DOT ABOVE</b> • Facilitate Hamza with Fatha • Used for Replace Hamza with Fatha → U+06EC  Arabic rounded high stop with filled center → 0307  Combining dot above → 082D  Samaritan mark nequdaa → 0A02  Gurmukhi sign bindi → 11081  Kaithi sign anusvara	Big dot above Alef attached with it (See Figure 11)
				Big dot above Alef attached with it (See Figure 19)
				Big dot above Waw without be attached with it (See Figures 24)
11	08CA		<b>ARABIC BIG DOT LEFT</b> • Facilitate Hamza with Damma → 302E  Hangul single dot tone mark	Big dot at left of Alef attached with it (See Figures 13.a.b.c)
12	08CB		<b>ARABIC BIG DOT RIGHT</b> • Facilitate Hamza with Damma used at some Mushaf(s) Qaloon → 08CA  ARABIC BIG DOT LEFT	Big dot at right of Alef attached with it (See Figure 13.d)
13	08CC		<b>ARABIC BIG DOT BELOW</b> • Facilitate Hamza with Kasra • Used also for Replace Hamza with Kasra → U+065C  Arabic vowel sign dot below → 0323  Combining dot below → 0A3C  Gurmukhi sign nukta → 110BA  Kaithi sign nukta	Big dot below Alef attached with it (See Figures 15)
				Big dot below Alef attached with it (See Figure 20)

14	08CD	•	<b>ARABIC BIG DOT INLINE</b> • Facilitate Hamza without base • Used also for Replace Hamza with Kasra	Big dot inline alone (See Figure 21)
				Big dot inline alone (See Figures 12, 14 and 16)
15	08CE	◌َ	<b>ARABIC YEH ABOVE</b> • Replace Hamza with Fatha → 06E7 ◌َ ARABIC SMALL HIGH YEH	Small Yeh with dots above LamAlef without be attached with it (See Figures 27)
16	08CF	◌ْ	<b>ARABIC BIG STROKE ABOVE</b> • Transport Hamza with origin Fatha • Used also for Replace Hamza with Fatha → U+0618 ◌ْ Arabic small Fatha → U+064E ◌ْ Arabic Fatha	Horizontal big stroke above Alef without be attached with it (See Figure 29.a)
				Horizontal big stroke above Alef without be attached with it (See Figure 23)  Horizontal big stroke above big dot which is above Alef (See Figure 19 and 22)  Horizontal big stroke above big dot which is above Waw (See Figures 24)  Horizontal big stroke above big dot which is above Yeh (See Figures 28)  Horizontal big stroke above big dot which is inline alone (See Figure 21)
17	08D0	◌ِ	<b>ARABIC BIG STROKE LEFT</b> • Transport Hamza with origin Damma • Used also for Replace Hamza with Damma	Horizontal big stroke at left of Alef without be attached to it (See Figures 25)
				Horizontal big stroke at left of Alef without be attached to it (See Figures 30.a and 31.a)
18	08D1	◌ِ	<b>ARABIC BIG STROKE RIGHT</b> • Transport Hamza with origin Damma in some printed Mushaf(s)	Horizontal big stroke at right of Alef without be attached to it (See Figure 31.c)
19	08D2	◌ِ	<b>ARABIC BIG STROKE BELOW</b> • Transport Hamza with origin Kasra • Used also for Replace Hamza with Kasra → U+061A ◌ِ Arabic small Kasra → U+0650 ◌ِ Arabic Kasra	Horizontal big stroke below Alef without be attached to it (See Figures 32.a)
				Horizontal big stroke below big dot which is below Alef (See Figures 26)

20	08D3	-	ARABIC BIG STROKE INLINE • Transport Hamza with origin prolonged Fatha	Horizontal big stroke inline alone (See Figure 33.a.c.d)
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The character "HANGUL SINGLE DOT TONE MARK", already encoding in CJK Symbols and Punctuation Block as a Nonspacing mark, has the same shape as Arabic starting Hamza Wasl with Damma. However, the actual technologies font and rendering don't allow using characters from a script in another.

For some characters, as are diacritical signs, which could be combined with an Arabic letter, especially Alef, we could propose to add the term "combining" in its name. However, we could propose to not add the term "Arabic" in its name in order to not be confused with Arabic diacritical mark dot, which is used for another purpose and have another shape. In that case, it could be used for other purpose.

The chosen names are descriptive not functional.

The chosen names are in order to be consistence with names of existing diacritical marks and Arabic characters in ISO/IEC10646, and to help making the Unicode Standard easier to use.

#### 4. Range

The proposed diacritical marks could be encoded in preference at:

- + The Arabic block, at 0600-06FF range;
- + The Arabic Extended-A block, at 08A0..08FF range;
- + The Arabic Presentation Forms-B block, at FE70- FEFF range;
- + The Arabic Presentation Forms-A block, at FB50- FDFF range.

We have proposed for each character the current free encoding point in preceding section.

#### 5. Proprieties

The data for UnicodeData.txt file is as follows:

```
nnnn;ARABIC HIGH WASLA;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC SMALL DOT ABOVE;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC SMALL DOT LEFT;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC SMALL DOT BELOW;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC SMALL RING LEFT;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC SMALL RING BELOW;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC SMALL STROKE ABOVE;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC SMALL STROKE RIGHT;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC SMALL STROKE BELOW;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC BIG DOT ABOVE;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC BIG DOT LEFT;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC BIG DOT RIGHT;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC BIG DOT BELOW;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC BIG DOT INLINE;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC YEH ABOVE;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC BIG STROKE ABOVE;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC BIG STROKE LEFT;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC BIG STROKE RIGHT;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC BIG STROKE BELOW;Sk;0;AL;;;;N;;;;;
nnnn;ARABIC BIG STROKE INLINE;Sk;0;AL;;;;N;;;;;
```



## 6. Font

A specific font in TrueType containing glyphs of the proposed diacritical marks has been designed and used.

## 7. Reference

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- [2] L2/16-153 Types of Quran scripts – Mussa Abudena, 4 May 2016
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- [5] L2/16-056 Proposal to encode Al-Dani Quranic marks used in Quran published in Libya – Lateef Sagar Shaikh, 16-Feb-2016
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- [8] King Fahd Glorious Quran Printing Complex, Azzeddine Lazrek, *Proposal to change some combining Arabic characters for Quranic representation*, The Unicode Consortium, N3816, 2010 (<http://std.dkuug.dk/jtc1/sc2/wg2/docs/n3816.pdf>) L2/10-094 (<http://www.unicode.org/L2/L2010/10094-quran-mark.pdf>)
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- [10] King Fahd Glorious Quran Printing Complex, Azzeddine Lazrek, *Proposal to encode some combining Arabic character for Quranic representation*, The Unicode Consortium, N3933, 2010 (<http://std.dkuug.dk/jtc1/sc2/wg2/docs/n3933.pdf>) L2/10-381 (<http://www.unicode.org/L2/L2010/10381-quran-mark.pdf>) ([http://scripts.source.org/cms/scripts/page.php?item\\_id=source\\_detail&uid=ekyegsmh2d](http://scripts.source.org/cms/scripts/page.php?item_id=source_detail&uid=ekyegsmh2d)) (<http://www.unicode.org/consortium/utc-minutes/UTC-125-201011.html>)
- [11] Mushaf AlMadinah Anabawiyat, Riwayah Hafs, King Fahd Glorious Quran Printing Complex, 2005. (<http://publications-img.qurancomplex.gov.sa/?p=24>)
- [12] Mushaf AlMadinah Anabawiyat, Riwayah Warsh, King Fahd Glorious Quran Printing Complex, 2005. (<http://publications-img.qurancomplex.gov.sa/?p=90>)
- [13] Mushaf AlMadinah Anabawiyat, Riwayah Qaloon, King Fahd Glorious Quran Printing Complex, 2005. (<http://publications-img.qurancomplex.gov.sa/?p=161>) (Site no longer exists)
- [14] Mushaf Hassani, Fdalat Printer, Mohamadiah, 2009. (<http://quranhq.com/mushaf-hassani/>) ([https://upload.wikimedia.org/wikisource/ar/d/d7/المسبع\\_الحسني\\_المصحف.pdf](https://upload.wikimedia.org/wikisource/ar/d/d7/المسبع_الحسني_المصحف.pdf))
- [15] Mushaf Warsh, Dar AlMushaf, Beirut.
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**PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS  
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646<sup>1</sup>**

**Please fill all the sections A, B and C below.**

Please read Principles and Procedures Document (P & P) from <http://www.dkuug.dk/JTC1/SC2/WG2/docs/principles.html> for guidelines and details before filling this form.

Please ensure you are using the latest Form from <http://www.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html>.

See also <http://www.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html> for latest Roadmaps.

**A. Administrative**

1. Title:	<i>Proposal to encode some Hamza Quranic Marks</i>		
2. Requester's name:	<i>Azzeddine Lazrek - King Fahd Glorious Quran Printing Complex</i>		
3. Requester type (Member body/Liaison/Individual contribution):	<i>Individual contribution</i>		
4. Submission date:	<i>2017-07-25</i>		
5. Requester's reference (if applicable):	<i>/</i>		
6. Choose one of the following:			
This is a complete proposal:			<i>Yes</i>
(or) More information will be provided later:			

**B. Technical – General**

1. Choose one of the following:			
a. This proposal is for a new script (set of characters):			<i>No</i>
Proposed name of script:			
b. The proposal is for addition of character(s) to an existing block:			<i>Yes</i>
Name of the existing block:	<i>Arabic Extended-A</i>		
2. Number of characters in proposal:			<i>22</i>
3. Proposed category (select one from below - see section 2.2 of P&P document):			
A-Contemporary	<input type="checkbox"/>	B.1-Specialized (small collection)	<input checked="" type="checkbox"/>
C-Major extinct	<input type="checkbox"/>	D-Attested extinct	<input type="checkbox"/>
F-Archaic Hieroglyphic or Ideographic	<input type="checkbox"/>	E-Minor extinct	<input type="checkbox"/>
G-Obscure or questionable usage symbols	<input type="checkbox"/>		
4. Is a repertoire including character names provided?			<i>Yes</i>
a. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?			<i>Yes</i>
b. Are the character shapes attached in a legible form suitable for review?			<i>Yes</i>
5. Fonts related:			
a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?	<i>King Fahd Glorious Quran Printing Complex</i>		
b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):	<i>King Fahd Glorious Quran Printing Complex</i> <i>http://fonts.qurancomplex.gov.sa/</i> <i>it-dep@qurancomplex.gov.sa</i>		
6. References:			
a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?			<i>Yes (See above)</i>
b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?			<i>Yes (See above)</i> <i>http://publications-img.qurancomplex.gov.sa/</i>
7. Special encoding issues:			
Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?			<i>Yes</i>

**8. Additional Information:**

Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at <http://www.unicode.org> for such information on other scripts. Also see <http://www.unicode.org/Public/UNIDATA/UCD.html> and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

<sup>1</sup> Form number: N3702-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05, 2009-11)

### C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before?	Yes
If YES explain	
2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?	Yes
If YES, with whom?	
Professor Azzeddine LAZREK lazrek@uca.ac.ma	
If YES, available relevant documents:	
http://alhabl.uca.ma	
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?	Yes
Reference:	
All Muslims (about 1.5 milliard in the Word) reciting correctly the Holy Quran	
4. The context of use for the proposed characters (type of use; common or rare)	Common
Reference:	
5. Are the proposed characters in current use by the user community?	Yes
If YES, where? Reference:	
Some printed Mushaf(s)	
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?	Yes
If YES, is a rationale provided?	
If YES, reference:	
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?	Yes
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
11. Does the proposal include use of combining characters and/or use of composite sequences?	Yes combining
If YES, is a rationale for such use provided?	
Yes	
If YES, reference:	
See above	
Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?	No
If YES, reference:	
12. Does the proposal contain characters with any special properties such as control function or similar semantics?	No
If YES, describe in detail (include attachment if necessary)	
13. Does the proposal contain any Ideographic compatibility character(s)?	No
If YES, is the equivalent corresponding unified ideographic character(s) identified?	
If YES, reference:	