To: Unicode Technical Committee  
From: Debbie Anderson, SEI, UC Berkeley  
Subject: Uppercase of U+0587 ARMENIAN SMALL LIGATURE ECH YIWN  
Date: 13 May 2020

Markus Scherer relayed a bug report about the uppercase of ARMENIAN SMALL LIGATURE ECH YIWN. The following summarizes expert feedback.

The question posed to experts was: What is the uppercase of the following letter?  
0587  ե  ARMENIAN SMALL LIGATURE ECH YIWN

Is it:

0535  Բ  ARMENIAN CAPITAL LETTER ECH +  
0552  Յ  ARMENIAN CAPITAL LETTER YIWN

or

0535  Բ  ARMENIAN CAPITAL LETTER ECH +  
054E  Ք  ARMENIAN CAPITAL LETTER VEW

(For comparison, lowercase forms are listed below)

0565  Ե  ARMENIAN SMALL LETTER ECH  
0582  Յ  ARMENIAN SMALL LETTER YIWN  
057E  Ք  ARMENIAN SMALL LETTER VEW

The general answer, based on feedback below, is:  
U+0587 uppercases to U+0535 + U+0552 in Western Armenia (and Eastern Armenian speakers in Iran)  
U+0587 uppercases to U+0535 + U+054E in Eastern Armenia (“Armenia” and those Armenians from former Soviet Union)

---------- Forwarded message ----------
From: Myrna Douzjian <douzjian@berkeley.edu>  
Date: Thu, Apr 30, 2020 at 11:23 PM

WESTERN ARMENIAN (and E ARMENIAN IN IRAN AND DIASPORA)

In Western Armenian and in Eastern Armenian as it is used in Iran and in institutions throughout the diaspora, the all caps form is ԵԻ (ECH+YIWN). As a side note, Western Armenian and Eastern Armenian outside Armenia¹ do not use the ligature as frequently as publications from Armenia; oftentimes, even in the lower case form, they opt for the two distinct letters եւ.²

¹ Luc Baronian notes that Russian Armenians, Georgian Armenians, and other Armenians from the former Soviet Union generally use the reformed spelling (i.e., “Eastern Armenian” defined on page 3). This also applies to recent immigrants in California from Armenia and Russia. Primarily it is the Iranian Armenians who are Eastern speakers but don’t use the reformed spelling.
² Luc Baronian agrees that the ligature is not used in Western Armenia as systematically as in Armenia (Eastern Armenia), though he thinks having the two letters spelled out in Western Armenian is rather rare.
1. For example, on the following dictionary page (p. 588), the fifth entry shows ԵԻ [ECH+ YIWN] in all caps:

http://nayiri.com/imagedDictionaryBrowser.jsp?dictionaryId=8&dt=HY_HY&query=%D4%B5%D6%82


The definitions of ԵԻ continue in the second column (below), where the second word on the first line is ԵԻ [ECH+ YIWN]. The dictionary doesn’t use the ligature in the lower case and opts for the distinct letters instead.

2. And here is another example, this time an image of the cover of a Western Armenian book:


ԵԻ [ECH+ YIWN] is in the middle of the all caps title.
EASTERN ARMENIAN (in Armenia)

In Eastern Armenian as it is used in Armenia, the all caps form is ԵՎ (ECH + VEW). This is because the Soviet orthographic reform eliminated the letter Ի (YIWN, upper case and lower case) from the alphabet. ³ (However, Eastern Armenian keyboards include Ի because the letter appears in the compound vowel ու in the reformed spelling. The compound vowel is treated as a single letter, similar to the ligature և.⁴)

3. For example, here is the same entry in a Soviet Armenian (Eastern Armenian) dictionary:

http://nayiri.com/imagedDictionaryBrowser.jsp?dictionaryId=29&query=%D5%A5%D5%BE

[HRACHYA ACHARYAN LANGUAGE INSTITUTE. PUBLISHING HOUSE OF THE ACADEMY OF SCIENCES OF THE ARMEAN SSR, YEREVAN, 1969]

The last entry in the left hand column (below) is ԵՎ.

If you scan the definition, you will notice frequent use of the ligature և (circled). You will notice that in the first three cases it stands alone. In the fourth case, it is one of the letters in a word.

Next, if you look at the italicized sentence in definition number 4 (below) for this entry, you will notice that the sentence begins with ԵՎ — the need for a capital letter at the beginning of the sentence makes it impossible to use the ligature. Instead, we have the capital ECH and lower case VEW.

4. And here is ԵՎ in all caps in the third line of the title on the cover of a book in Eastern Armenian: https://aragatsotn.reglib.am/category/nor-grqer/

³ Note that ECH + YIWN does appear in Eastern Armenian text before the 1940s (that is, before spelling reform).
⁴ Note: In the case of question words or other words requiring a question mark (for example Ո՞ւր, Ո՞ւր, Ինչո՞ւ), the question mark in the examples goes on the vowel ո.
5. Here another textbook lists (in section in red) ԵՎ և, which have been added in a red font

(https://www.imdproc.am/p/mayreni/2-dasaran/aybuben-hnchyun-tar-14841/-aybuben-taranunner-14844/re-1e4336a1-c830-44d6-ad60-b7cc05186bd1)

6. You might find footnote number 4 on this page useful too:

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**Footnote 4 (enlarged):**

4. There is an additional letter, the ligament կ which, although widely used in East Armenian, does not constitute an integral part of the alphabet (see pp. xix and 110). The ligament կ has no capital counterpart. It is pronounced: a) [yev] in initial position and after vowels (cf. կ [yev] and հախ [nayev] also). b) [ev] in medial and final position of words after consonants (cf. անիր [arev] sun) In initial position of words, it is replaced by բլ or բել: բելում [Yevropan] European. In word formation, this բ/Երազ may also appear in medial position of words: ճանաչեզրային [hamaevropakan] All-European, թարգմանչեզրային [Yevropakan] Indo-European, etc.
[The following response addresses the question of the uppercase of ARMENIAN SMALL LIGATURE ECH YIWN in Eastern Armenian]

I got more information from Hrach Martirosyan, who is a linguist trained both in Armenia and Europe.

He confirmed...officially in the reformed spelling ԵՎ [ECH+VEW] is systematically the uppercase version of և.

This is why the word for 'Europe' is now spelled Եվրոպա, because, or else, lowercase վ would have to occur next to uppercase Ե. The letter Ո/ո only appears next to Ո/ո in the reformed spelling. The "ligature" ԵՎ is considered a separate letter.

[Earlier emails from Luc Baronian]

I am attaching an old beer label where they use Երևան lowercase (middle), but ԵՐԵՎԱՆ uppercase (at the very top of the label), suggesting that ECH+VEW is their way to capitalize the ligature.

![Image of a beer label]

The beer label is a little dated, but the current Yerevan city arms use ECH+VEW in uppercase:

https://www.yerevan.am/am/symbols-of-yerevan/

The very beginning of the text on this webpage contains ECH+VEW in uppercase and the ligature in lowercase:

"ԵՐԵՎԱՆԻ ԶԻՆԱՆԸՆԸ
Երևանի խորհրդի 2004թ..."