

ஆதிநாதர் தம் பெண்களுக்கு எண்ணெழுத்திரண்டையும் உபதேசித்தல்
(*பூநீபுராணம் - ஆதிபார்வத்தில் இருந்து...*)

[...] “அன்னைமீர்! நீங்கள் பாலைகளாகவிருக்கின்றீர்களெனினும். சீலவிநயங்களால் பரிணதைகளாகவிருக்கின்றீர்கள்; ஈத்ரஸமாகிய ரூபயௌவனாவஸ்தா சீலாசாரங்கள் வித்தையால் அலங்கிருதமாகில் அன்றோ ஸ்ரேஷ்டமாகும்; ஜன்மபலமாவது வித்தையே; எஸஸ்ஸினையும், ஸ்ரேயஸ்ஸினையும் தருவது வித்தையே; கருதியவற்றைத்தரும் சிந்தாமணியாவதும் வித்தையே; தர்மார்த்தகாமங்களுள் சம்பத்பரம்பரையைத் தருவதும் வித்தையே; பந்துவாவதும். மித்திரராவதும், சர்வார்த்தங்களையும் சாதிக்கும் தேவதையாவதும் வித்தையே; ஆகையால், நீங்கள் வித்தையினைக் கைக் கொள்வீர்களாக” என்பனவே.

பகவான் இவ்வாறு சொல்லி அவர்களை ஆசிர்வாதவசனங்களால் வாழ்த்தித் தமது ஹிருதயகமலத்தெழுந்தருளியிருந்த ஸ்ருததேவியினை ஸ்வர்ணபட்டகத்தின் மிசை பூஜாபுரஸ்ஸரம் அதிவசிப்பித்து, பூநீஹஸ்தமிரண்டினுலும் ஒரு முறையிலேயே எழுத்தினையும் எண்ணையும் அவர்கட்குக் காட்டியருளினார்.

அங்ஙனம் காட்டி அவருள் பிராம்மியென்னும் பெண்ணிற்கு தக்ஷிண ஹஸ்தத்தால், ‘சித்தந்நம:’ என்றெடுத்துக் கொள்ளப்பட்ட மங்களத்தையும், அகராதி ஹகாராந்தமாகிய ஸ்வரம் வியஞ்சனமென்னும் இரண்டு பேதத்தினை உடைத்தாகியதும், அயோகவாகங்கள் இரண்டாகவுடையதுமாகிய அக்ஷரமாலையினையும், சம்யோகாக்ஷரங்களது பிறப்பினையும் உபதேசித்தனர்.

சுந்தரியென்னும் பெண்ணிற்கு வாம ஹஸ்தத்தினால் ஒன்று, பத்து, நூறு, ஆயிரமுதலாக ஒன்றிற்கொன்று பதின்மடங்காகிய கணிதஸ்தானங்களையும். பெருக்குதல், ஈதல் முதலாகிய ஷோடசபரிகர்மங்களையுமுபதேசித்தருளினார். இங்ஙனம் ஸ்வாமி தமது தக்ஷிண ஹஸ்தத்தினால் எழுத்துக்களை உபதேசித்ததால் எழுத்துக்கள் வலமாக வளர்ந்தன. [...]

In this way, it is the traditional belief of the Jaina-s that letters were all invented by *ṛṣabha tīrthaṅkara*, who then taught it to his daughter *Brahmi*. And therefore these original letters came to be known as “*Brahmi*” through his daughter.

The majority of the Tamil-Brahmi cave inscriptions is Jaina in nature, and usually is the records of the offerings made by the laity to the monks. It is speculated that the Tamil-Brahmi was adopted from Brahmi in the Jaina monasteries circa 3rd Centure BCE.

Introduction

Epigraphs have long been preserved as physical estampages, which are bound to deteriorate over time. However, in the recent years, estampages are being increasingly digitized and stored as digital images. These digital archives of the epigraphs do have definite advantage considering the better storage and retrieval capacities of the estampages.

However, operations such as searching, sorting and other textual functions cannot be applied upon these images. Therefore, additionally the plain text archival of the epigraphs is necessary to perform textual operations on the content of the archived epigraphs.

Adinatha Tamil Brahmi is a Unicode font designed to represent the Tamil-Brahmi script as plain text. As a Unicode font, *Adinatha Tamil Brahmi* allows the unambiguous representation of the Tamil-Brahmi letters in all potential Unicode-enabled computer applications.

Tamil-Brahmi being the earliest regional variant of the pan-Indic Brahmi, it is one of the most important epigraphic scripts of India. Therefore, it was essential to create a font that enables the digital representation of Tamil-Brahmi and thereby support the usage of Tamil-Brahmi across various computer applications.

It is very much necessary to reproduce the text as-is for the “actual reading” and then present the text for the “intended reading”. It is always not viable to use in-line images to represent the original text. With *Adinatha Tamil Brahmi*, it is now possible to typeset the ancient Tamil-Brahmi epigraphs in its original form. Publications can use the font to represent the original text in its original script in-line without resorting to images.

We sincerely hope the font allows the accurate representation of the various epigraphs and hence help in textual operations and analysis of the epigraphic corpus. As an additional use, it is also now possible to typeset the ancient corpus of the Tamil literature in its possibly original script of the scribes.

Adinatha Tamil Brahmi is the first member Tamil-Brahmi series of fonts to be released. We plan to release few more font variants for Tamil-Brahmi to facilitate the representation the script of the ancient inscriptions even more accurately.

Adinatha Tamil Brahmi has been released under Open Font License (OFL). The font is free to be used, studied, modified, improved and redistributed within the permission and conditions of the OFL.

Tamil-Brahmi

Tamil-Brahmi is the earliest script used to write Old Tamil. Tamil language has since then been written in wide range of continuum of scripts. Tamil-Brahmi is in principle an adaptation of the Brahmi script with several additional features being added to cater the idiosyncrasies of the Tamil language.

The earliest inscriptional evidences for Old Tamil occur in Tamil-Brahmi. The conventional consensus for the upper bound dating for Tamil-Brahmi is 3rd Century BCE. Though there have been recent contending evidences for pushing the dates further back as far as 5th Century BCE, they do not have mainstream acceptance. Tamil-Brahmi had been in vogue for several centuries since its adaptation until it morphed itself into the more cursive Vaṭṭeḷuttu around 5th Century CE.

The present Tamil script is not a descendant of Tamil-Brahmi. The precursor to the present Tamil script originated around 7th century CE as a derivative of Pallava Grantha with hybrid elements of Vaṭṭeḷuttu. Vaṭṭeḷuttu itself was in vogue in Tamil Nadu until 11th century CE, until it was completely usurped by the then more prevalent Pallava-derived Tamil script.

Features of Tamil-Brahmi

Characteristic Tamil Consonants

Tamil-Brahmi was in most part visually identical with Brahmi with minor differences (such as the shape of /ma/), but suitably adapted to represent Old Tamil. Tamil-Brahmi retained the voiceless unaspirated plosives, but had done away with the other plosives which were voiced, aspirated or both except for /dha/. /dha/ was retained on religious grounds to correctly spell the Jaina Prakrit word *dhamma* (< *dharmā*). Tamil-Brahmi also used the letters for the fricatives /sa/, /śa/, /ha/ which occur in various inscriptions.

The most important feature of the Tamil-Brahmi script was the presence of the characteristic Tamil consonants – ழ /ḷa/ ள /ḷa/ ற /ra/ ள /ṇa/. They were all systematically derived from the other consonants of the nearest phonetic value - /ḷa/ was derived from /ḍa/, /ḷa/ from /la/, /ra/ from /ṛa/ and /ṇa/ from /na/.

Vowel Notation System

The other important differentiating feature was the vowel notation systems used to represent the vowel-less consonants. Unlike the Prakrit languages which had no word-final consonants, most of the Tamil words had them. Hence it was necessary to come with a vowel notation system to denote word final consonants and which could also avoid the cumbersome and complex conjunct formations.

As a result Tamil-Brahmi had evolved three different types of notation systems.

Consider the word – ஸாலகன் *sālakan*

Tamil Brahmi I

𑌕𑌕𑌕𑌕 ஸாலாகான */sā/lā/kā/ṇa/*

The consonant didn't have the inherent /a/. /ā/ vowel sign also denoted /a/. The ambiguity rested in reading the vowel sign either as /a/ or /ā/. The absence of any vowel sign denoted the pure consonant.

Tamil Brahmi II

𑌕𑌕𑌕𑌕 ஸாலகன */sā/la/ka/ṇa/*

The consonant assumed the inherent vowel /a/. However the absence of it was unmarked and had to be deduced through context. Vowel sign /ā/ was unambiguous.

Tamil Brahmi III

𑌕𑌕𑌕𑌕· ஸாலகன் */sā/la/ka/ṇ/*

The absence of inherent vowel was clearly marked using a dot, which later on became the distinguishing character for Tamil (at least theoretically). Once the dot Virāma was developed it went on to be used to represent short /e/ and short /o/.

Variants of Tamil-Brahmi

Tamil-Brahmi has two distinct phases of development:

Early Tamil-Brahmi

This lasted from 3rd Century BCE to 1st Century CE. Two different vowel notational systems TB I and TB II were in use.

Late Tamil-Brahmi

The phase from 2nd Century CE to 4th Century CE is Late Tamil-Brahmi. The shapes of the characters progressively became more cursive giving rise to the early Vaṭṭeḷuttu characters. The systems TB II and TB III were in use.

Apart from the above there are other peculiarities which are discussed in detail in the “*Orthography*” & “*Paleography*” chapters by Iravatham Mahadevan in his “*Early Tamil Epigraphy*”.

Normalization of Tamil-Brahmi

In general, epigraphic scripts possess a wide range of variations. The forms of the characters differ considerably for each inscription and are quite inconsistent. Thus a character can take several possible variant shapes. However, for practical purposes it is necessary to come with a normalized version of the script which is consistent in appearance and which can represent all other variants as well.

The font has been developed for the normalized form of the script. Hence, the font attempts to be representational of all the variants. In the process of standardization there have been several reconstructions made as well which will be described shortly.

The font is to be used as a generic representation of Tamil-Brahmi in plain text and also as an approximate natural representation of the epigraph. If the epigraph needs to be accurately expressed using the forms of the characters specific to the epigraph, then the generic font such as this cannot be employed. It may be necessary to create specific fonts for those characters to reflect the style of that specific inscription.

We have largely adapted the normalized glyphs from Mahadevan's chart (p. 217), however differing in some aspects. They are mostly representative of the early Tamil-Brahmi forms. The font can very well be used to encode late Tamil-Brahmi, but the deviation in the shapes of the characters from the normalized forms must be noted. **However, it is necessary to create a separate font for the more cursive late Tamil Brahmi later on.**

Puḷḷi

Puḷḷi (Dot Virāma) doesn't at all appear in early stages of Tamil-Brahmi. It is a late innovation appearing after the vowel notational system had been standardized with the inherent /a/ circa 2nd Century CE. Puḷḷi was used as an explicit Virāma to cancel the inherent vowel and denote the pure consonants. As an extension it was also used to reduce the long vowels /ē/ and /ō/ and represent the corresponding short vowels

It has been included in the normalized form [along with the reconstructed short /e/ and /o/].

Mahadevan had not included Puḷḷi in his chart.

Placement of Vowel Signs

Tamil-Brahmi shows two distinct variants in the placement of Vowel Signs.

/kā/		
/ku/		

In the former variant, the vowel signs are placed at the edge of the stem of the character forming a contiguous shape. In the latter variant, they are placed several units above or below, and thereby leaving a portion of the stem to extrude.

In some cases both the variants are seen within the same inscription.

Mahadevan had normalized some vowel signs along the edge and others above/beneath the edge. (Perhaps, it was based upon on the relative frequency of the positions)

However, it was decided to create two separate fonts for each of those two variants.

Adinatha places the vowel signs along the edge.

The other position for the vowel signs will be released as a separate font variant.

Vowel sign /ō/

The vowel sign for /o/ is composite consisting of /ē/ and /a/. There are three possible ways of forming a syllable with /ō/ depending on the relative position of the two vowel signs.

/kō/			
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The first variant with /ē/ sign below the /a/ sign was chosen to be the standard. Because, it was more imitative of the current ொ sign. [Cognitively, the current ொ is analyzed as ூ + ொ + ூ]. Mahadevan chose the second variant. The third variant occurs mostly in late Tamil-Brahmi.

We are considering the possibility of enabling tuned fonts such as in SIL, where the font features can be tuned and selected based on the user's needs. So that the user may choose the necessary orientation of /ō/ based on his needs.

Consonant /ṙa/

The consonant /ṙa/ has two different forms in the epigraphs.

The early form of /ṙa/ is a direct derivation from /ṭa/ with a hook added beneath and is easily confusable with ṭū . Mahadevan had this as the normalized glyph.

It later became cursive and somewhat distinctive from /ṭa/, assuming the shape similar to a /ṭa/ and /ta/ conjunct. This has been adopted as the normal form for /ṙa/ in the font for its distinctive shape.



Reconstructions

As expected, the entire *varṇamāla* a.k.a *neḍuṅkaṇakku* of the Tamil alphabet is not attested in the epigraphs. Several letters do not make an appearance in the epigraphs. In order to round off the support to all the letters and subsequently support the transliteration of modern Tamil Script to Tamil-Brahmi script, we have made the following reconstructions.

எ /e/ and ஒ /o/

Among the short vowels, எ /e/ & ஒ /o/ deserve special mention. Of all the vowels, these two inherited the concept of *Puḷḷi* (Dot Virāma) akin to the consonants. The use of distinct letters for எ /e/ ஏ /ē/ & ஒ /o/ ஓ /ō/ and their dependant vowel signs ெ ே & ெோ is fairly a recent innovation just three centuries old. Before this, they were to be just differentiated using the *Puḷḷi*. [Though grammatically mandated, the de facto practice was not to differentiate at all and realize the length through context]

எ் எ	ஒ் ஒ
ெக கெ	ெகா கா

This behavior is actually inherited from Tamil-Brahmi (via Vaṭṭeluttu). Brahmi was originally intended for the Prakrit languages, which phonemically lacked short /e/ and short /o/. When the Brahmi letters were adapted for Old Tamil, it didn't have any of these letters in its character repository.

So, to represent these short vowels which had phonemic quality in Tamil, the *Puḷḷi* was adapted as an ad-hoc reducer with the corresponding long vowels. The short vowels went being actually derived from the long vowels rather than vice versa.

Among the Tamil-Brahmi inscriptions /e/ and /o/ is attested only in late Tamil-Brahmi (after *Puḷḷi* was adapted) with two inscriptions currently available.

The Independent letter short /e/ is attested in Arachalur inscription [*Mahadevan's Corpus Inscription: 85*] and also in a coin legend. The corresponding vowel sign is unattested.

In a similar way, only the dependent vowel sign for short /o/ is attested in Kudimiyamalai inscription [*Corpus Inscription: 77*]. The *Puḷḷi* is placed to the left in line with the /ē/ component of the composite /ō/ sign. However, the corresponding independent vowel sign is unattested.

Based on the placement of Pulli in Kudimiyamalai, we have reconstructed the dependant vowel sign /e/ and the Independent vowel sign /o/ as below:

ke	o

There are several other reconstructions possible, if we are to back-trace the early Vaṭṭeḷuttu forms to Tamil-Brahmi. They are planned to be released as different font variants in the near future.

ஐ ai

The Independent vowel sign /ai/ is not attested in Tamil-Brahmi at all. The earliest attestation of the independent vowel appears in early Vaṭṭeḷuttu at Thirunatharkunru [*Corpus Inscription: 116*], shaped like a Trident. However /ai/ as a dependent vowel sign does appear in Tamil-Brahmi inscriptions in syllables such as *kai, tai* etc.

This letter has been reconstructed from the corresponding Mauryan Brahmi character.



ஔ au

/au/ is attested neither in the independent form nor as a dependant vowel sign.

As with /ai/, the forms have been reconstructed from Mauryan Brahmi as well.

au	kau

◌̄̅ Āytam

Āytam is unattested in epigraphic inscriptions until as late as 8th century CE. The earliest attestation is from an inscription by Nandivarman circa 753 CE. The sign (an apparent derivation from the Visarga sign) is represented as an upwards curve with a dot above and below.

Āytam again appears in the Vaṭṭeluttu inscription of Varaguna II circa 874 CE. The character is shaped like a modern division sign ÷.

The form from Varaguna's inscription has been used to reconstruct the Āytam [by virtue of Vaṭṭeluttu being a direct descendant of Tamil-Brahmi]. Though it is entirely anachronistic to borrow a character which is attested eight centuries later in an all together different script (albeit a descendant), it was necessary to represent this character to transliterate modern Tamil to Tamil-Brahmi.



It is to be noted that Siromoney (1970) also adapted the same character during the reconstruction of *Tirukkural* in Tamil-Brahmi.

Consonant-Vowels

Expectedly, all of the stereotypical 12 x 18 possible combinations are not attested in the inscriptions. The entire exotic 𑌩 /ṅa/ and 𑌪 /ñā/ series is missing and there are several lacunas in the other commonly used consonant series as well. They have been reconstructed by studying the general placement pattern for the vowel signs and also the vowel sign placement for the same characters in Mauryan Brahmi.

For Instance, for /ṅa/ and /ṭa/ the attested vowel signs are positioned at the center due to their shape. Based on this, the vowel signs for /ṅa/ have also been reconstructed by placing them at the center.

ṭā

ṅā

ṅā

See: Table 7.2 of *Early Tamil Epigraphy* for the distribution of the consonant-vowels in early Tamil inscriptions.

Addendum Consonants

Among the Tamil addendum consonants list, the voiced aspirated dental plosive த⁴ /dha/ and the fricatives ஹ /ha/, ஶ /śa/, ஸ /sa/ occur in Tamil-Brahmi inscriptions.

The other characters ஜ /j/, ஷ /ṣ/ though not attested have been reconstructed to complete the set. As like earlier, they have been directly adapted from Mauryan Brahmi.

ja

ṣa

Normalized Glyph Set

Vowels

<i>a</i>	<i>ā</i>	<i>l</i>	<i>ī</i>	<i>u</i>	<i>ū</i>
𐌆	𐌇	· ·	· ·	𐌊	𐌋
<i>e</i>	<i>ē</i>	<i>ai</i>	<i>o</i>	<i>ō</i>	<i>au</i>
𐌄	𐌅	𐌆	· 𐌊	𐌊	𐌊 𐌋

Consonants

<i>ka</i>	<i>ña</i>	<i>ca</i>	<i>ñā</i>	<i>ṭa</i>	<i>ṇa</i>
𐌑	𐌒	𐌓	𐌔	𐌕	𐌖
<i>ta</i>	<i>na</i>	<i>pa</i>	<i>ma</i>	<i>ya</i>	<i>ra</i>
𐌗	𐌘	𐌙	𐌚	𐌛	𐌜
<i>la</i>	<i>va</i>	<i>ḷa</i>	<i>ḷā</i>	<i>ṛa</i>	<i>ṛā</i>
𐌝	𐌞	𐌟	𐌠	𐌡	𐌢
<i>ja</i>	<i>śa</i>	<i>ṣa</i>	<i>sa</i>	<i>ha</i>	<i>dha</i>
𐌣	𐌤	𐌥	𐌦	𐌧	𐌨

Consonant-Vowels

<i>k</i>	<i>kā</i>	<i>ki</i>	<i>kī</i>	<i>ku</i>	<i>kū</i>
𐌵	𐌶	𐌷	𐌸	𐌹	𐌺
<i>ke</i>	<i>kē</i>	<i>kai</i>	<i>ko</i>	<i>kō</i>	<i>kau</i>
𐌵	𐌶	𐌷	𐌸	𐌹	𐌺

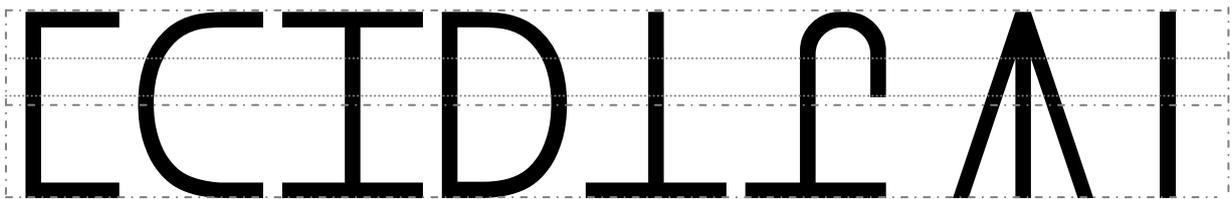
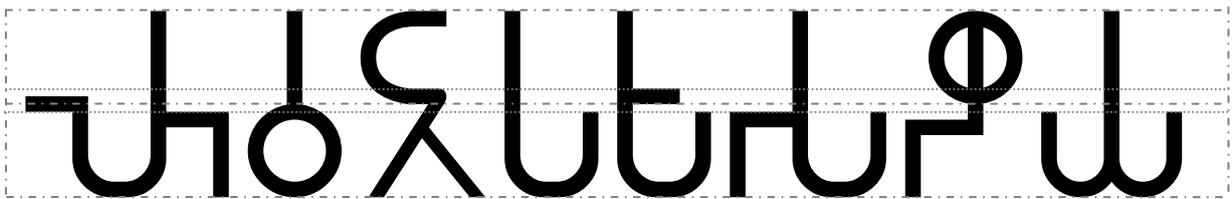
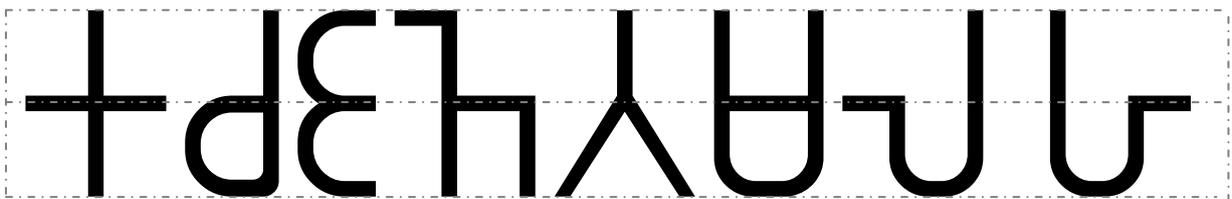
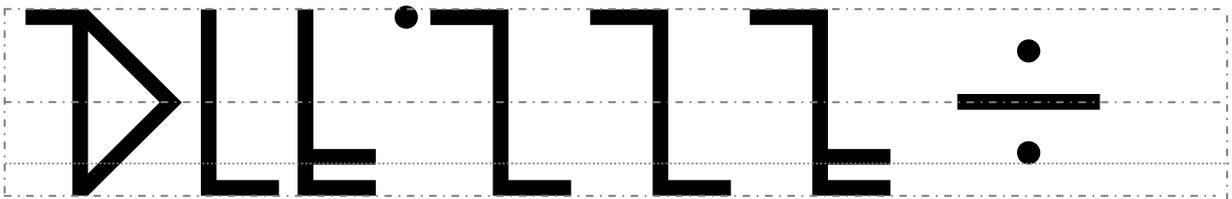
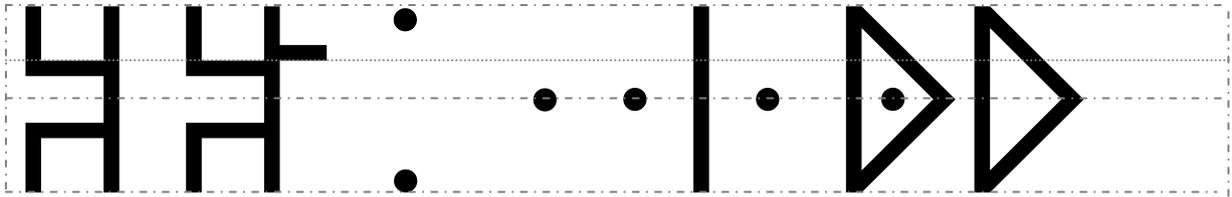
<i>p</i>	<i>pā</i>	<i>pi</i>	<i>pī</i>	<i>pu</i>	<i>pū</i>
𐌴	𐌵	𐌶	𐌷	𐌸	𐌹
<i>pe</i>	<i>pē</i>	<i>pai</i>	<i>po</i>	<i>pō</i>	<i>pau</i>
𐌴	𐌵	𐌶	𐌷	𐌸	𐌹

Aytam

k

𐌵

Glyph Proportions



Handwriting practice row 1: A series of seven connected, rounded, bowl-like shapes, followed by a circle with a dot in the center.

Handwriting practice row 2: A series of seven connected, stepped, cross-like shapes. The second shape has a dot above it, and the sixth shape has a dot above it.

Handwriting practice row 3: A series of seven connected, stepped, cross-like shapes, followed by two connected, rounded, bowl-like shapes.

Handwriting practice row 4: A series of seven connected, stepped, cross-like shapes. The second shape has a dot above it, and the sixth shape has a dot above it.

ந	நா	நி	நீ	நு	நூ	நெ	நே	நை	நொ	நோ	நௌ	ந்
ப	பா	பி	பீ	பு	பூ	பெ	பே	பை	பொ	போ	பௌ	ப்
ச	சா	சி	சீ	சு	சூ	செ	சே	சை	சொ	சோ	சௌ	ச்
ம	மா	மி	மீ	மு	மூ	மெ	மே	மை	மொ	மோ	மௌ	ம்
ய	யா	யி	யீ	யு	யூ	யெ	யே	யை	யொ	யோ	யௌ	ய்
ர	ரா	ரி	ரீ	ரு	ரூ	ரெ	ரே	ரை	ரொ	ரோ	ரௌ	ர்
ல	லா	லி	லீ	லு	லூ	லெ	லே	லை	லொ	லோ	லௌ	ல்
வ	வா	வி	வீ	வு	வூ	வெ	வே	வை	வொ	வோ	வௌ	வ்
ஓ	ஓா	ஓி	ஓீ	ஓு	ஓூ	ஓெ	ஓே	ஓை	ஓொ	ஓோ	ஓௌ	ஓ்
ஔ	ஔா	ஔி	ஔீ	ஔு	ஔூ	ஔெ	ஔே	ஔை	ஔொ	ஔோ	ஔௌ	ஔ்
ள	ளா	ளி	ளீ	ளு	ளூ	ளெ	ளே	ளை	ளொ	ளோ	ளௌ	ள்
ற	றா	றி	றீ	று	றூ	றெ	றே	றை	றொ	றோ	றௌ	ற்
ௌ	ௌா	ௌி	ௌீ	ௌு	ௌூ	ௌெ	ௌே	ௌை	ௌொ	ௌோ	ௌௌ	ௌ்

ன	னா	னி	னீ	னு	னூ	னெ	னே	னை	னொ	னோ	னௌ	ன்
ஈ	ஈா	ஈி	ஈீ	ஈு	ஈூ	ஈெ	ஈே	ஈை	ஈொ	ஈோ	ஈௌ	ஈ்
ஐ	ஐா	ஐி	ஐீ	ஐு	ஐூ	ஐெ	ஐே	ஐை	ஐொ	ஐோ	ஐௌ	ஐ்
ஓ	ஓா	ஓி	ஓீ	ஓு	ஓூ	ஓெ	ஓே	ஓை	ஓொ	ஓோ	ஓௌ	ஓ்
ஸ	ஸா	ஸி	ஸீ	ஸு	ஸூ	ஸெ	ஸே	ஸை	ஸொ	ஸோ	ஸௌ	ஸ்
ஷ	ஷா	ஷி	ஷீ	ஷு	ஷூ	ஷெ	ஷே	ஷை	ஷொ	ஷோ	ஷௌ	ஷ்
ஶ	ஶா	ஶி	ஶீ	ஶு	ஶூ	ஶெ	ஶே	ஶை	ஶொ	ஶோ	ஶௌ	ஶ்
ஸ	ஸா	ஸி	ஸீ	ஸு	ஸூ	ஸெ	ஸே	ஸை	ஸொ	ஸோ	ஸௌ	ஸ்
ஶ	ஶா	ஶி	ஶீ	ஶு	ஶூ	ஶெ	ஶே	ஶை	ஶொ	ஶோ	ஶௌ	ஶ்
ஹ	ஹா	ஹி	ஹீ	ஹு	ஹூ	ஹெ	ஹே	ஹை	ஹொ	ஹோ	ஹௌ	ஹ்
ஶ	ஶா	ஶி	ஶீ	ஶு	ஶூ	ஶெ	ஶே	ஶை	ஶொ	ஶோ	ஶௌ	ஶ்
த ⁴	தா ⁴	தி ⁴	தீ ⁴	து ⁴	தூ ⁴	தெ ⁴	தே ⁴	தை ⁴	தொ ⁴	தோ ⁴	தௌ ⁴	த் ⁴
D	Dா	Dி	Dீ	Dு	Dூ	Dெ	Dே	Dை	Dொ	Dோ	Dௌ	D்

Brahmi Unicode

Brahmi has been added to the Unicode standard since version 6.0. Codepoints for Brahmi Block is allocated in the Supplementary Multilingual Plane (SMP) from U+11000 to U+1107F.

Unicode has decided to unify all the various variants of Indian Brahmi under a single encoding. All varieties of Brahmi such as Tamil-Brahmi, Ashokan Brahmi, and Post Mauryan Brahmi are to be encoded using this single Brahmi encoding.

Apart from the common Indic stock, characters peculiar to Tamil-Brahmi and Bhattiprolu have been allocated separate code points. The following characters have been added for specifically for Old Tamil.

U+11035 BRAHMI LETTER OLD TAMIL LLLA

U+11036 BRAHMI LETTER OLD TAMIL RRA

U+11037 BRAHMI LETTER OLD TAMIL NNNA

The Tamil-Brahmi short vowels /e/ and /o/ and its dependent vowel signs are to written as composite code points employing the Brahmi sign Virāma.

U+1100F U+11046 BRAHMI LETTER, E BRAHMI VIRAMA TB Vowel Short /e/

U+11011 U+11046 BRAHMI LETTER O, BRAHMI VIRAMA TB Vowel Short /o/

U+11042 U+11046 BRAHMI VOWEL SIGN E, BRAHMI VIRAMA TB Vowel Sign Short /e/

U+11044 U+11046 BRAHMI VOWEL SIGN, O BRAHMI VIRAMA TB Vowel Sign Short /o/

The reconstructed Āytam has been allocated to U+11002 BRAHMI SIGN VISARGA, following the convention of the present Tamil block.

Adinatha Tamil Brahmi - Code Points

Code Point	Character	Name
U+11002	÷	BRAHMI SIGN VISARGA
U+11005	𑌀	BRAHMI LETTER A
U+11006	𑌁	BRAHMI LETTER AA
U+11007	𑌂	BRAHMI LETTER I
U+11008	𑌃	BRAHMI LETTER II
U+11009	𑌄	BRAHMI LETTER U
U+1100A	𑌅	BRAHMI LETTER UU
U+1100F	𑌆	BRAHMI LETTER E
U+11010	𑌇	BRAHMI LETTER AI
U+11011	𑌈	BRAHMI LETTER O
U+11012	𑌉	BRAHMI LETTER AU
U+11013	𑌊	BRAHMI LETTER KA
U+11017	𑌋	BRAHMI LETTER NGA
U+11018	𑌌	BRAHMI LETTER CA
U+1101A	𑌍	BRAHMI LETTER JA
U+1101C	𑌎	BRAHMI LETTER NYA
U+1101D	𑌏	BRAHMI LETTER TTA
U+11021	𑌐	BRAHMI LETTER NNA
U+11022	𑌑	BRAHMI LETTER TA
U+11025	𑌒	BRAHMI LETTER DHA
U+11026	𑌓	BRAHMI LETTER NA
U+11027	𑌔	BRAHMI LETTER PA
U+1102B	𑌕	BRAHMI LETTER MA
U+1102C	𑌖	BRAHMI LETTER YA
U+1102D	𑌗	BRAHMI LETTER RA

U+1102E	𑌒	BRAHMI LETTER LA
U+1102F	𑌓	BRAHMI LETTER VA
U+11030	𑌔	BRAHMI LETTER SHA
U+11031	𑌕	BRAHMI LETTER SSA
U+11032	𑌖	BRAHMI LETTER SA
U+11033	𑌗	BRAHMI LETTER HA
U+11034	𑌘	BRAHMI LETTER LLA
U+11035	𑌙	BRAHMI LETTER OLD TAMIL LLLA
U+11036	𑌚	BRAHMI LETTER OLD TAMIL RRA
U+11037	𑌛	BRAHMI LETTER OLD TAMIL NNNA
U+11038	𑌜	BRAHMI VOWEL SIGN AA
U+1103A	𑌝	BRAHMI VOWEL SIGN I
U+1103B	𑌞	BRAHMI VOWEL SIGN II
U+1103C	𑌟	BRAHMI VOWEL SIGN U
U+1103D	𑌠	BRAHMI VOWEL SIGN UU
U+11042	𑌡	BRAHMI VOWEL SIGN E
U+11043	𑌢	BRAHMI VOWEL SIGN AI
U+11044	𑌣	BRAHMI VOWEL SIGN O
U+11045	𑌤	BRAHMI VOWEL SIGN AU
U+11046	𑌥	BRAHMI VIRAMA

U+1100F U+11046	𑌦	Tamil-Brahmi Short /e/
U+11011 U+11046	𑌧	Tamil-Brahmi Short /o/
U+11042 U+11046	𑌨	Tamil-Brahmi Vowel Sign Short /e/
U+11044 U+110466	𑌩	Tamil-Brahmi Vowel Sign Short /o/

Font Rendering

As with all Indic blocks, the Brahmi requires complex rendering support for proper display of all the consonant-vowel combinations.

Graphite

Graphite is a rendering system developed by SIL International, specifically aimed at minority scripts. All the rendering rules are defined using Graphite Description Language (GDL) which is then compiled and added to the font as Graphite tables. Graphite doesn't require any additional script-level support from the rendering engine.

Graphite is supported in Libre Office and SIL international's own text editor "WorldPad". Graphite support must be manually enabled in Firefox.

See: <http://graphite.sil.org/>

OpenType

OpenType (OT) is the most commonly used rendering system. OpenType is the default rendering system supported in Microsoft Windows. Unlike, Graphite where the entire script behavior is embedded inside the font's Graphite tables; OT requires script-specific support from the rendering engine.

Some features like conjunct formation etc must be present in the font, where as others like vowel sign re-ordering is performed by the rendering engine. Hence, any OT implementation of a script requires support by the rendering engine,

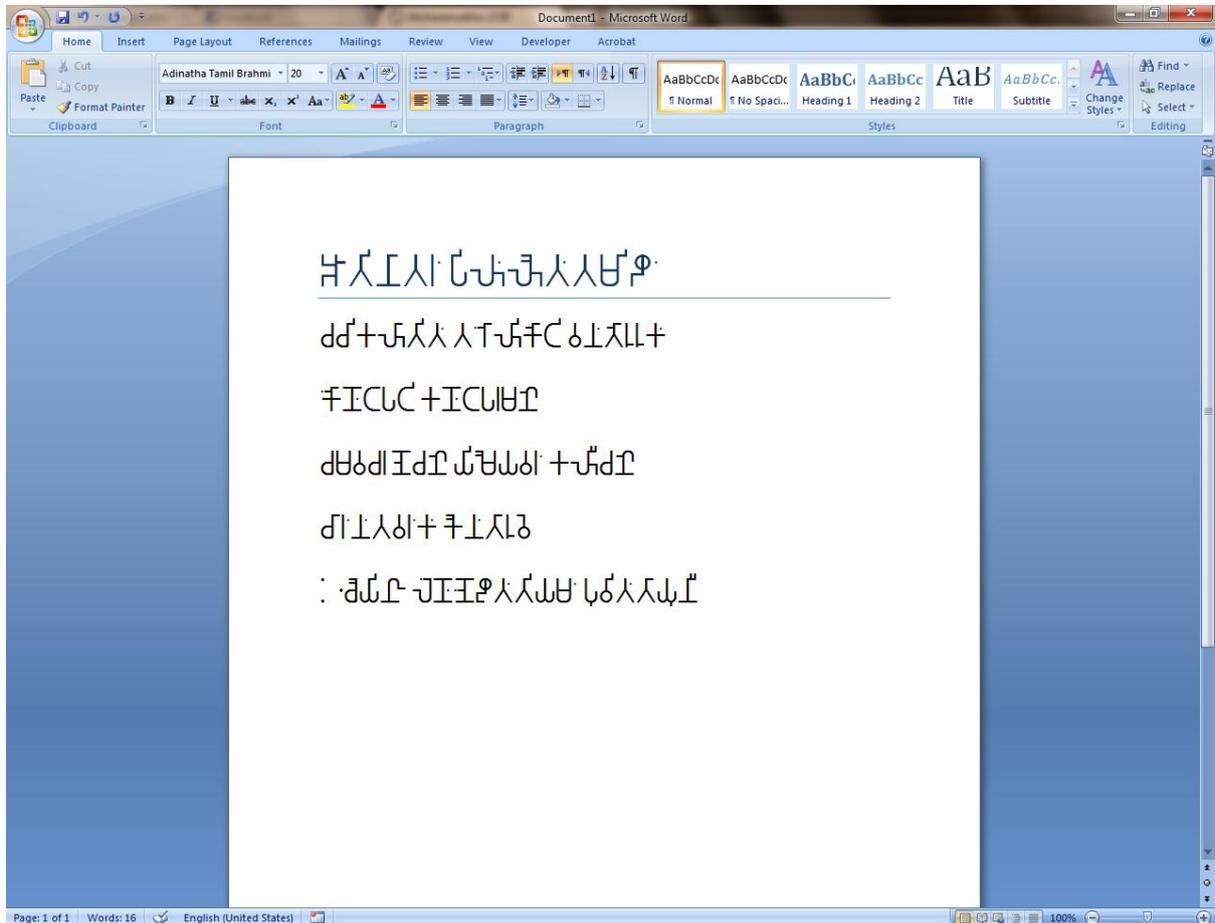
Unscribe is the rendering engine for OpenType in Microsoft Windows.

Adinatha Font

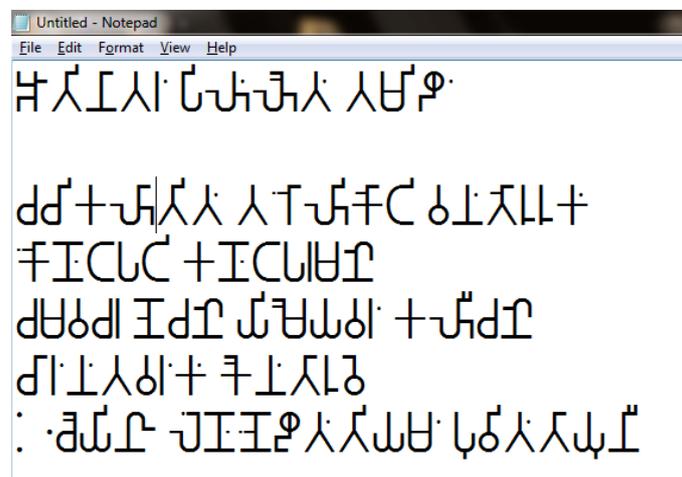
Adinatha font includes both OT Tables & Graphite Tables. In case there are any issues with the OT support, the font can be safely rendered in Graphite supported applications such as Libre Office.

Screenshots

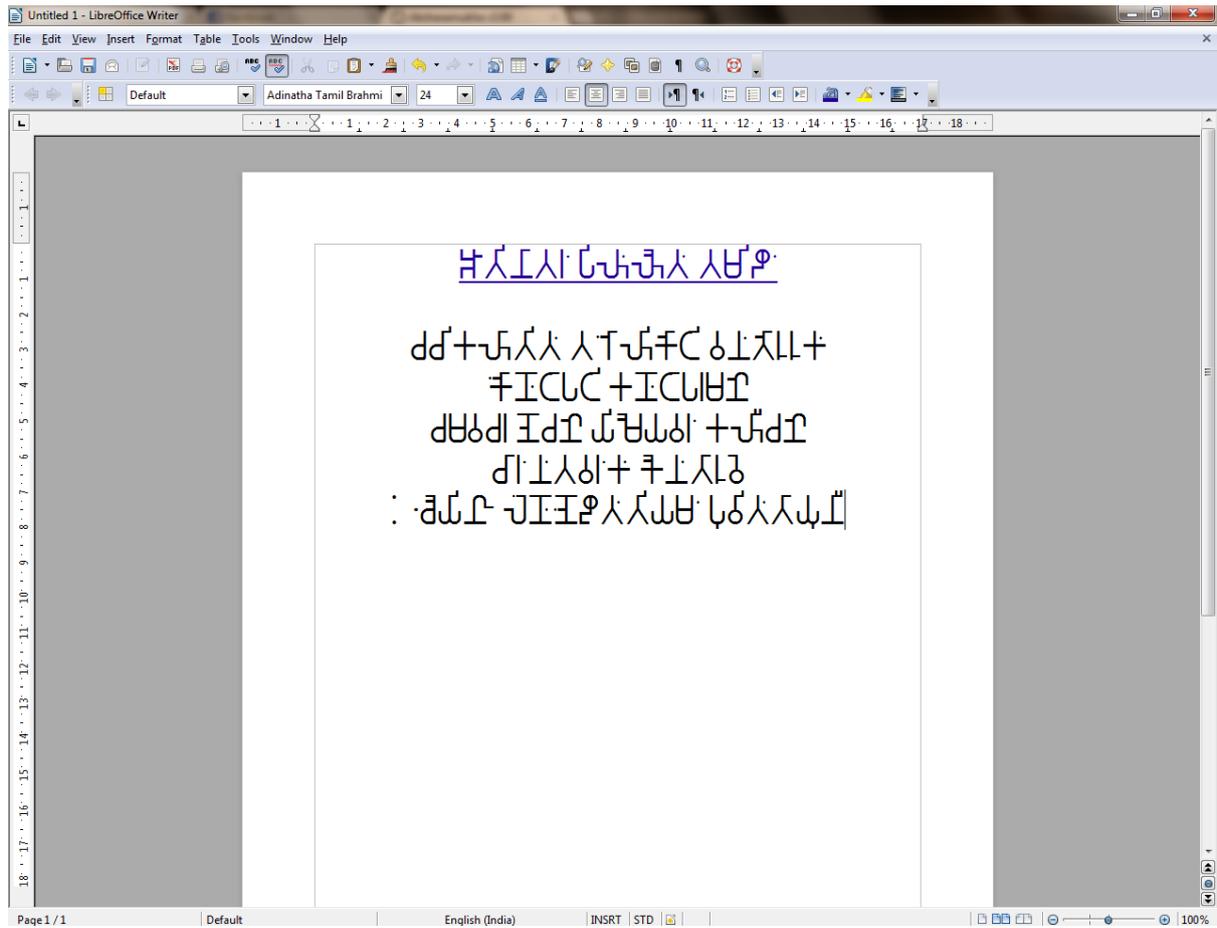
MS Word 2007



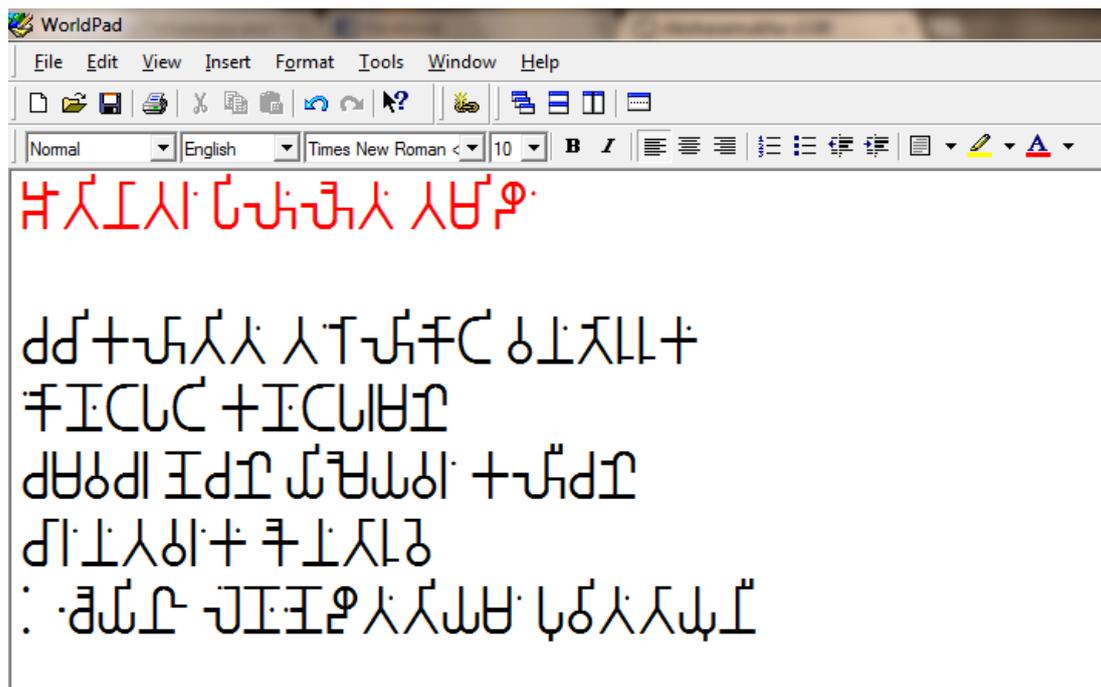
MS Notepad



Libre Office



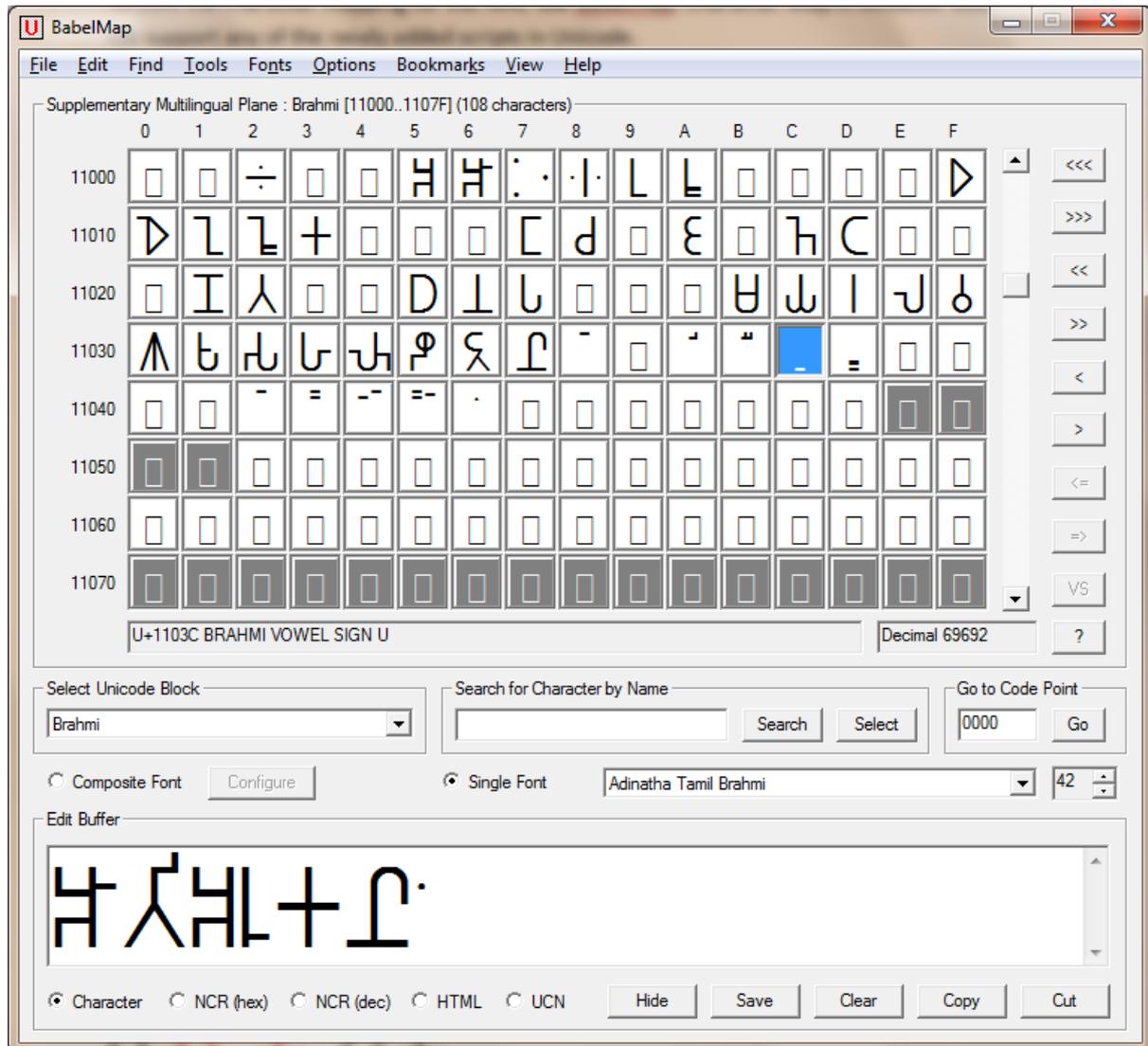
Worldpad



Character Mapping & Input

To view the character mapping for the font, use BabelMap. Character Map in windows does not support any of the newly added scripts in Unicode.

<http://www.babelstone.co.uk/software/babelmap.html>



This application can be used to input the Brahmi characters directly using the code chart.

Issues with OpenType

Adinatha works in all Graphite enabled applications. However, there may be some issues that could arise with OT enabled applications such as Microsoft Office, and other applications running in Windows. In case of incorrect rendering, the vowel signs do not fuse with the base consonant, and are displayed stand alone.

Correct Rendering:



Faulty Rendering:



Minimum Requirements

- Microsoft Windows 7
- Microsoft Office 2010

MS Office 2007

MS Office 2007 under Windows 7 requires the replacement of the USP10.dll.

Please follow the below instructions:

- 1) Go to Windows/System32 and copy the USP10.dll file.
- 2) Go to Microsoft Office/Office12 and paste the USP10.dll replacing the file already present in the folder. Please take a back of the file being replaced beforehand.

Now, Tamil-Brahmi must be rendered without any issues.

Older Versions of Windows

Uniscribe version 1.626.7601.17514, which is the default version of Windows 7 SP1 is required for proper rendering of Unicode Brahmi. These older versions of Uniscribe do not seem to support SMP code points.

Therefore, it's necessary to replace the old version of Uniscribe (USP10.dll) with the latest version. USP10.dll for Windows application resides in Windows\System32. Replace the DLL file at this folder with the new updated version., after taking a backup.

Applications like Microsoft Office have their own version of USP10.dll (see above) which they use for font rendering. In that case the USP10.dll specific to that application must also be replaced.

In case the issues with OT could not be resolved, it is advised to use Graphite supported applications such Libre Office to render the Tamil-Brahmi text.

Jambai Inscription No.: 59

Actual Reading

ஸத்யபுதோ அதியந்நேடுமாந் அஞ்சிஈத்தபாளி

ஸத்யபுதோ அதியந்நேடுமாந் அஞ்சிஈத்தபாளி^[1]

satiyaputōatiyananēṭumānañciītatapāḷi

(Tamil Brahmi II - Notation)

Intended Reading

ஸத்யபுதோ-அதியந்-நெடுமாந்-அஞ்சி-ஈத்த-ப(ள்)ளி

satiyaputō-atiyan-neṭumān-añci-ītta-pa(!)ḷi

[1] This is an archaic TB I type spelling for the word *paḷi*

ጸሐፊዎች ጽሑፍ

ጽሑፍ ጽሑፍ ጽሑፍ ጽሑፍ

ጽሑፍ ጽሑፍ ጽሑፍ ጽሑፍ
 ጽሑፍ ጽሑፍ ጽሑፍ ጽሑፍ
 ጽሑፍ ጽሑፍ ጽሑፍ ጽሑፍ
 ጽሑፍ ጽሑፍ ጽሑፍ ጽሑፍ 5
 ጽሑፍ ጽሑፍ ጽሑፍ ጽሑፍ
 ጽሑፍ ጽሑፍ ጽሑፍ ጽሑፍ
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 ጽሑፍ ጽሑፍ ጽሑፍ ጽሑፍ 15

ጌቶ፡ ጸገዳኔ	
ገቢ ሰጠ ስላሳጠጠ ለሰጠ ስላሳሰጠ	8
ገቢ ገቢ ገቢ ገቢ ገቢ ገቢ	
ገቢ ገቢ ገቢ ገቢ ገቢ ገቢ	9
ገቢ ገቢ ገቢ ገቢ ገቢ ገቢ	10
ገቢ ገቢ ገቢ ገቢ ገቢ ገቢ	11
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ገቢ ገቢ ገቢ ገቢ ገቢ ገቢ	
ገቢ ገቢ ገቢ ገቢ ገቢ ገቢ	13
ገቢ ገቢ ገቢ ገቢ ገቢ ገቢ	14
ገቢ ገቢ ገቢ ገቢ ገቢ ገቢ	15
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ገቢ ገቢ ገቢ ገቢ ገቢ ገቢ	18
ገቢ ገቢ ገቢ ገቢ ገቢ ገቢ	19
ገቢ ገቢ ገቢ ገቢ ገቢ ገቢ	20
ገቢ ገቢ ገቢ ገቢ ገቢ ገቢ	21
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ገቢ ገቢ ገቢ ገቢ ገቢ ገቢ	
ገቢ ገቢ ገቢ ገቢ ገቢ ገቢ	23

ዘፅጺሩኝ፣	
ታህታይ፡፡ ማህረኛ ሰጠኝ ልሳን ልሳን፡፡	24
ገሰገሰ ማህረኛ ሰጠኝ ልሳን ልሳን፡፡	
ለሁለት ፡ ማህረኛ ሰጠኝ ልሳን ልሳን፡፡	25
ዘፅጺሩኝ፣	
ገሰገሰ ማህረኛ ሰጠኝ ልሳን ልሳን፡፡	
ተሰጠኝ ማህረኛ ሰጠኝ ልሳን ልሳን፡፡	26
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ሰጠኝ ማህረኛ ሰጠኝ ልሳን ልሳን፡፡	27
ማህረኛ ሰጠኝ ልሳን ልሳን፡፡	28
ሰጠኝ ማህረኛ ሰጠኝ ልሳን ልሳን፡፡	
ማህረኛ ሰጠኝ ልሳን ልሳን፡፡	29
ማህረኛ ሰጠኝ ልሳን ልሳን፡፡	
ለሁለት ማህረኛ ሰጠኝ ልሳን ልሳን፡፡	30
ዘ፡ ለማህረኛ ሰጠኝ ልሳን ልሳን፡፡	31
ዘ፡ ለማህረኛ ሰጠኝ ልሳን ልሳን፡፡	32
ዘ፡ ለማህረኛ ሰጠኝ ልሳን ልሳን፡፡	
ለሁለት ማህረኛ ሰጠኝ ልሳን ልሳን፡፡	
ለሁለት ማህረኛ ሰጠኝ ልሳን ልሳን፡፡	33

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Feedback

The font presented here is just the initial version. We would be grateful to receive feedback and suggestions to improve about the font. Please do reach out to us for any kind of feedback regarding the font. We would be more than glad to incorporate the feedback, and release a updated version of the font.

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Version 1.1 - 26 February 2007

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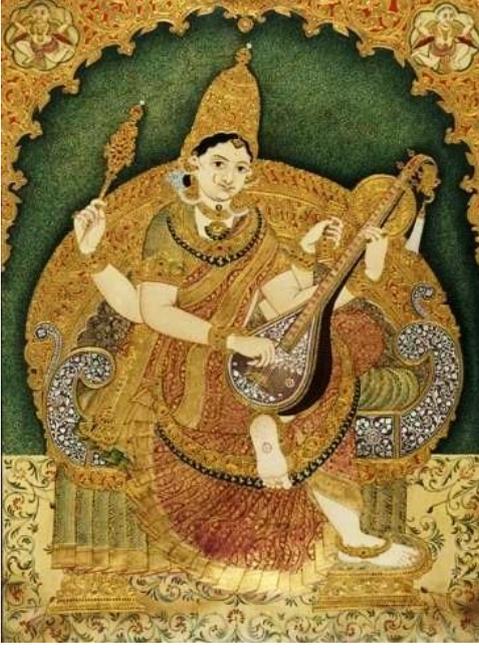
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varṇatano'mṛtavarṇe niyatam
 anirvarṇite'pi yogīndraiḥ |
 nirṇītikaraṇadūre varṇayituṃ
 devi dehi sāmāthyam ||

(Oh Vagishvari), whose form is composed of
 letters, who is imperishable, who is ever
 unfathomable even by the greatest Yogi-s;
 Who is beyond definition!
 Give me the capacity to describe.

-- *Vāgīśvarī Stōtra*

he'haṃ devi namaste
 sā me prayacchatu guṇa augham ||
 sarve sattvā viśiṣṭasiddhiṃ
 pradadātu sarvakāryā |
 nityaṃ ca rakṣatu mām
 sarvānsattvāṃśca śatrumadhye ||

I bow down to this goddess [Sarasvati]
 May she grant me an exalted heap of virtue;
 May she grant success in every venture
 May she always protect me
 In the midst of my enemies;



-- *Suvarṇaprabhāsa Sūtra*