Assamese Design Guide

Introduction

This document provides general information about the Assamese language and some conventions of its usage in Assam. The information presented in this document is intended to assist in understanding the nature and problems of Assamese implementation in current and future products. It contains the generic description of Assamese.

Assam

Assam is a land of myths and mystery. "The land of red rivers and blue hills", as it is described, is located in the northeastern part of the country and has an area of 30,285 square miles (78,438 square kilometers). It is bounded on the northern side by the kingdom of Bhutan and the state of Arunachal Pradesh ; to the east by the states of Nagaland and Manipur; to the south lies Mizoram and Tripura; and to the west by the state of Meghalaya and West Bengal and the republic Bangladesh .

The Brahmaputra River Valley is the dominant physical feature of Assam. The river enters Assam near Sadiya in the extreme northeast and runs westward across the length of Assam for nearly 450 miles before turning south to enter the plains of Bangladesh. The river valley, around 50 miles wide, is studded with numerous low, isolated hills and ridges that abruptly rise from the plains. The valley, surrounded on all sides, except the west, by mountains is intersected by many streams and rivulets that flow from the neighbouring hills and empty into the Brahmaputra.

The average temperature is moderate and is about 84 degrees F (29 degrees C) in the hottest month of August. The average valley temperature in January is 61 degree F (16 degree C). In this season, the climate of the valley is marked by heavy fog and a little rain.

Assam does not have the normal Indian hot, dry season. Some rain occurs from March onwards, but the real force of the monsoon winds is faced from June onwards. Rainfall in Assam ranks among the highest in the world; its annual rainfall varies from 70 inches in the west to 120 inches per year in the east. Largely concentrated during the months from June to September, it often results in widespread destructive floods. Much of the state is covered with dense tropical forests. Rich in wildlife, the common animals found in Assam include elephants, tigers, leopards and one-horned rhinos.

The capital of Assam is Dispur in Guwahati.

Languages

Names of the Languages

Assamese is the principal language of Assam. Besides Assamese, other recognized Indian languages spoken in the State are Bengali and Hindi. The major indigenous languages other than Assamese are Bodo, Karbi, Mishing and Rabha.

Description of the Assamese language

Assamese has derived its phonetic character set and its behaviour from Sanskrit. It is written using the Assamese script. Assamese is written from left to right and top to bottom, in the same manner as English. A large number of ligatures are possible since potentially all the consonants can combine with one another. Vowels can either be independent or dependent upon a consonant or a consonant cluster.

History of the Assamese Language

Assamese is the easternmost New Indo–Aryan language spoken in the Assam valley districts ranging from Lakhimpur in the extreme east to Goalpara in the extreme west. Bengali is also spoken in the west. In addition many languages belonging to altogether different families (mainly Tibeto – Burman and khasi of the Mon– Khmer family) are also spoken.

The history of the Assamese language may be broadly divided into three periods:

(1) **Early Assamese** (14th to 16th century AD):

This period may again be split into (a) Pre–Vaishnavite and (b) Vaishnative sub- periods.

The earliest known Assamese writer is Hema Saraswati, who wrote a small poem "*Prahrāda Charita*". In the time of the king Indranarayana of Kamatapur, the son of Durlabhanarayana, the two poets Harihara Vipra and Kaviratna Saraswati composed Asvamedha Parva and Jayadratha Vadha respectively. Another poet named Rudra Kandali translated '*Drona Parva*' into Assamese. But the most well-known poet of the Pre-Vaishnavite sub period is Madhava Kandali, who rendered the entire Ramayana into Assamese verse under the patronage of Mahamanikya, a *kachari* king of Jayantapura.

Sankara Deva, the great Vaishnavite reformer in Assam, born in 1449 AD composed religious songs and drama. In his compositions there is a large admixture of what is popularly known as *Braja-Bali* idioms.

(2) **Middle Assamese** (17th to 19th Century AD):

This is a period of the prose chronicles of the Ahom court. The Ahoms had brought with them an instinct for historical writings. In the Ahom court, historical chronicles were at first composed in their original Tibeto-Chinese language, but when the Ahom rulers adopted Assamese as the court language, historical chronicles began to be written in Assamese. From the beginning of the seventeenth century

onwards, court chronicles were written in large numbers. These chronicles or *buranjis*, as they were called by the Ahoms, broke away from the style of the religious writers. The language is essentially modern except for slight alterations in grammar and spelling.

(3) **Modern Assamese**:

The modern Assamese period began with the publication of the Bible in Assamese prose by the American Baptist Missionaries in 1819 AD. The currently prevalent Standard Asamiya has its roots in the Sibsagar dialect of Eastern Assam. As mentioned in Bani Kanta Kakati's "***Assamese, its Formation and Development***" (1941, Published by Sree Khagendra Narayan Dutta Baruah, LBS Publications, G.N. Bordoloi Road, Gauhati-1, Assam, India) – " The Missionaries made Sibsagar in Eastern Assam the centre of their activities and used the dialect of Sibsagar for their literary purposes". The American Baptist Missionaries were the first to use this dialect in translating the Bible in 1813 AD. These Missionaries established the first printing press in Sibsagar in 1836 AD and started using the local Asamiya dialect for writing purposes. In 1846 AD, they started a monthly periodical called *Arunodaya*, and in 1848 AD, N. Brown published the first book on Assamese Grammar. The Missionaries published the first *Assamese-English Dictionary* compiled by M. Bronson in 1867 AD. The Sibsagar Asamiya dialect came to be formally recognized as the Standard Asamiya dialect when it was made the official language of the state by the Britishers . It was introduced in the schools, courts and Government offices in 1872. This Standard was accepted by all other Asamiya dialects as the standard norm, and was used for all formal occasions– in writing, in the classroom, in meetings, in the courts and offices and for inter–dialect communication also.

The word Assamese is an English one, built on the same principle as Cingalese, Canarese, etc. It is based on the English word Assam by which the tract consisting of the Brahmaputra valley is known. But the people themselves call their state / ɔxɔm / Asam and their language / ɔxɔmia /, Asamiya.

Population using the Assamese Language

According to the 1991 census the population of the Assamese speakers is stated at,

1, 29, 38, 088 persons.

Technical Characteristics

Assamese Alphabet Characteristics

The Assamese alphabets have consonant letters, independent vowel letters, dependent vowel signs (matras), punctuation and numerals.

Consonant letters

The Assamese alphabet is almost identical with the Bengali alphabet.

ক (ka)   খ (kha)   গ (ga)

ঘ (gha)   ঙ (nga)   চ (pratham ca)

ছ (ditiya ca)   জ (bargiya ja)   ঝ (jha)

ঞ (nia)   ট (mudhoinnya ta)

ঠ (mudhoinnya tha) ড (mudhoinnya da)

ঢ (mudhoinnya dha)   ণ (mudhoinnya na)

ত (dantiya ta)   থ (dantiya tha)

দ (dantiya da)   ধ (dantiya dha)

ন (dantiya na)   প (pa)

ফ (pha)   ব (ba)

ভ (bha)   ম (ma)

য (antastha za)   ৰ (ra)

ল (la)   ৱ (wa)

শ (taaloibbya sa) ষ (mudhoinnya sa)

স (dantiya sa)   হ (ha)

ক্ষ (khya)   ড় (dare ra)

ঢ় (dhare ra)   য় (antastha ya)

ৎ (khanda ta)   ◌ং (anuswar)

◌ঃ (bisarga)   ◌ঁ (sandra bindu)

There are thirty three pure consonant letters in Assamese alphabet and each letter represents a single sound with an inherent vowel, the short vowel /a /.

The first twenty-five consonants letters are called 'sparsha barna'. These 'sparsha barnas' are again divided into five 'bargs'. Therefore these twenty-five letters are also called ' bargia barna'.

The letters   " শ (taaloibbya sa) ষ(mudhoinnya sa) স (dantiya sa)

হ (ha) " are called " usma barna".

The letters " য(za) ৰ(ra) ল(la) ৱ(wa) " are called " antastha barn".

The letters ড় (dare ra) and ঢ়(dhare ra) are phonetically similar to /ra /.

The letter য (antastha za) is articulated like "antastha ya" in the word medial and final position. To denote the "antastha ya" the letter য়(antastha ya) is used in Assamese.

ৎ (khanda ta) means the consonant letter ত (dantiya ta) without the inherent vowel.

Independent Vowel letters

There are eleven independent vowel letters in Assamese. These are

অ (a)   আ (aa)

ই (hraswa i)   ঈ (dirgha ii)

উ (hraswa u)   ঊ (dirgha uu)

ঋ (ri)   এ (e)

ঐ (oi)   ও (o)

ঔ (ou)

Vowels are of two types:

Short (হ্ৰস্ব – hraswa)

অ (a), ই (hraswa i), উ (hraswa u),

ঋ(ri)

Long (দীৰ্ঘ – dirgha)

আ(aa) , ঈ (dirgha ii), ঊ (dirgha uu),

এ (e), ঐ(oi), ও (o), ঔ (ou)

The vowel letter ঋ (ri) is the combination of /r / and / i /

Dependent vowel signs (Matras)

There are equivalent matras for all the vowels. These matras can exist above, below, to the right or to the left of the consonant to which it is applied.

আ	া	(aakaar)
ই	ি	(hraswa i kaar)
ঈ	ী	(dirgha i kaar)
উ	ু	(hraswa u kaar)
ঊ	ূ	(dirgha u kaar)
ঋ	ৃ	(rikaar)
এ	ে	(e kaar)
ঐ	ৈ	(oikaar)
ও	ো	(okaar)
ঔ	ৌ	(oukaar)

Halant

To write a consonant without the inherent vowel the halant sign is used below the base glyph. In Assamese this sign is called ' hasanta'.

Consonant Conjuncts

In Assamese, the combination of three consonants is possible without their intervening vowels. In Assamese there are about 122 conjunct letters. Examples are--

ন্ধ (andha), ঞ্চ(ancha), ন্দ(anda), ন্থ (antha), ম্ভ (ambha), দ্ধ (addha) ,

স্থ(astha), স্ক(aska), ক্ৰ(kra) ,

ঙ্গ(aungga), ষ্ট (ashta), স্ব (swa),

ত্ম(tma), ভ্ৰ (bhra), স্ফ (aaspha),

ন্ম(anma) , ক্ত (akta) , প্ৰ (pra) , স্ত্ৰ (stra),ন্দ্ৰ (andra), স্ভ (ambhra)

Nukta

Does not exist.

Anuswar

Anuswar (ং) indicates a nasal consonant sound (velar). When an anuswara comes before a consonant belonging to any of the 5 bargas, it represents the nasal consonant belonging to that barga.

Chandra Bindu

Chandra Bindu (ঁ) denotes nasalization of the vowel that is attached to it .

Visarg

Visarg (ঃ) (bisarga in Assamese) represents a sound similar to /h /.

Avagraha

Does not exist.

Numerals

The Assamese script has its own numerals.

০ (suinya), ১(ek), ২(dui), ৩(tini), ৪ (saari), ৫ (paas), ৬ (sai), ৭(saat) , ৮(aath)

৯ (nau), ১০ (dah)

Punctuation Marks

Full stop   দাৰি (।) (daari)

Comma   কমা (,) (kamaa)

Semi colon   চেমিক'লন (;)
(semi kalan)

Colon   ক'লন (:) (kalan)

Question mark   প্রশ্নবোধক চিন (?)
(prasnabudhak sin)

Exclamatory sign ভাৱবোধক চিন (!)
(bhaababudhak sin)

Inverted commas উৰ্দ্ধ কমা ("") /(' ')
(urddha kamaa)

Hyphen   হাইফেন (-)
(hyphen)

Parenthesis   চন্দ্ৰ বন্ধনী ( )
(sandra bandhani)

Braces   কুটী লব বন্ধনী {}
(kutil bandhani)

Brackets   বৰ বন্ধনী []
(bar bandhani)

Ancient signs

There are three obsolete letters in Assamese.
They are   (rii),   (li),

Character Set Consideration

Assamese Characteristics

Phonological features

(1)   A unique feature of the Assamese language is a total absence of any retroflex sounds. Instead the language has a whole series of alveolar sounds, which include oral and nasal stops, fricatives, laterals, approximants, flaps and trills, unlike other Indo-Aryan and Dravidian languages.

(2)   Another striking phonological feature of the Assamese language is the extensive use of velar nasal / ŋ/. In other New Indo Aryan languages this / ŋ/ is always attached to a homorganic sound like /g/. In contrast it is always used singly in Assamese.

(3) The voiceless velar fricative / x / is a distinct characteristic of Assamese language which is not to be found in any language in the entire country. It is similar to the velar sound in German of Europe. It may be an Indo-European feature, which has been preserved by Asamiya. It is an important phoneme in the language.

Grammatical features

(1) The use of personal markers in regard to the use of various kinship terms in reference to the age and rank of both the speaker and listener is a unique feature of the Assamese language. For instance
In Assamese- tumar dɛutara (your father) Here, ra is the personal deictics or markers.

(2) The process of negation of verbs in Assamese is another feature which clearly demarcates it from the rest of the sister new Indo- Aryan languages and other Dravidian languages. In Assamese /n/ is attached to the verb followed by a vowel which is the exact copy of the vowel of the first syllable of the verb, as in
/ nalage/ ' do not want' (1st, 2nd, 3rd person)
/ nilikhu / ' will not write' (1st person)
The various negative markers in Assamese are
/na/ , /ni/ , /nu/ , /nɛ/ and /nɔ/

(3) The use of the plural suffixes is another feature of Assamese language. In Assamese, for instance, all the bound forms such as

/ hɔt/ , /bur/ , /bilak/ , / mokha/ , /zak/, /xɔkɔl/ etc denote plurality and are suffixed to a noun or a pronoun.

(4) The extensive use of classifiers is another feature of the Assamese language. For almost everything or every shape the language uses a different classifiers. For example -
/zɔn/ , /zɔni/ , /gɔraki/ , /tu/ , / ta/, /ti/, /khɔn/ etc.

(5) The classifiers are also combined with all types of nouns and numerals occurring in the language resulting in the combinations of the following type of grammatical constructions.
ɛ + zon + manuh(numeral + classifier + noun)
manuh + ɛ + zon (noun + numeral + classifier)

Usage Frequencies

Input Sequence Validity

Fonts

Character Cell Size
Almost the same as Bengali except

for the alphabets ৰ /ra / and ৱ /wa/

Glyphs to be supported in Assamese Fonts

Keyboard   ISCII

Presentation and Storage Considerations

Character Composition
    Same as Bengali

Data Entry
    Same as Bengali

Printing Displaying
    Same as Bengali

Text Space Requirement
    Same as Bengali

Assamese Composing
    Same as Bengali

Formats of Units
Calendar
    কেলেণ্ডাৰ   (kelendaar)

Week
    সপ্তাহ (saptaah)

Date
    তাৰিখ (taarikh)

Time
    পল (pala)

    দণ্ড (danda)

    প্ৰহৰ (prahar)

Number
    সংখ্যা (saingkhyaa)

Currency

Rs	টকা (tokaa)	
Paise	পইচা (paicaa)	

10 paise	দহ পইচা (dah paicaa)	
20 paise	বি শ পইচা (bica paicaa)	
25 paise	পঁচিশ পইচা (pacica paicaa) or চাৰি অনা (caari anaa)	
50 paise	পঞ্চাশ পইচা (pancaaca paicaa) or আঠ অনা (aath anaa)	
One rupee	এটকা (etakaa)	
Two rupees	দুটকা (dutakaa)	
Five rupees	পাঁচ টকা (paas tokaa)	
Ten rupees	দহ টকা (dah tokaa)	
Twenty rupees	বি শ টকা (bis tokaa)	
Fifty rupees	পঞ্চাশ টকা (pancaasa tokaa)	
Hundred rupee	এশ টকা (esa tokaa)	
Five hundred rupees	পাঁচশ টকা (paacasa tokaa)	
Thousand rupees	এহেজাৰ (ehezaar)	

Localization Data

Abbreviated Language Name
Asamiya   To be decided

Abbreviated Country Name

India   ভাৰত (bhaarot)

AM/PM Markers

AM   পূৰ্বাহ্ণ (purbaahna)

PM   অপৰাহ্ণ (aparaahna)

Eras   যুগ (zug)

In Indian mythology , there are four

eras (যুগ) given as

সত্যযুগ (satyzug)

ত্ৰেতাযুগ (tretaazug)

দ্ৰাপৰযুগ (draaparzug)

কলিযুগ (kalizug)

Calendars

Optional (in Asamiya)   শকাব্দ
                                        (sakaabda)
Gregorian (in Asamiya)   খ্ৰীষ্টাব্দ
                                        (khristaabda)

Month Names (Asamiya)

ব’হাগ (bahaag)

জেঠ (zeth)

আহাৰ (aahaar)

শাওণ (saaon)

ভাদ   (bhaada)

আহিন (aahin)

কাতি   (kaati)

আঘোণ (aaghun)

পুহ   (puh)

মাঘ   (maagh)

ফাগুণ (phaagun)

চ'ত   (sot)

Weekday Names

Sunday   দেওবাৰ (deubaar)

Monday   সোমবাৰ (sumbaar)

Tuesday   মঙ্গলবাৰ (mangalbaar)

Wednesday   বুধবাৰ (budhbaar)

Thursday   বৃহস্পতিবাৰ
                        (brihaspatibaar)

Friday   শুক্রবাৰ (hukrabaar)

Saturday   শনিবাৰ (sanibaar)

TimeZone

Today   আজি (aazi)

Yesterday   কালি   (kaali)

Tomorrow   কালিলৈ (kaaliloi)

Day   দিন (din)

Day after tomorrow and day before yesterday	পৰহি (porohi)	5 *kathas* of land	বি ঘা (bighaa)
Week	সপ্তাহ (saptaaha)	Four *bighas* of land	পূৰা (puraa)

Week	সপ্তাহ (saptaaha)
Fortnight	পক্ষ (pakkhy)
Month	মাহ (maah)
Quarterly	তিনিমহী য়া (tinimahiyaa)
Half-yearly	ছমহী য়া (samahiiyaa)
Year	ব ছৰ (bacara)
Decade	দশক (dasaka)
Century	শতাব্দ ী (sataabdi)
Millennium	সহস্র াব্দ (sahasraabda)

Measuring System used

Metre	মিটাৰ (mitaar)
Kilometre	কিলোমিটাৰ (kilomitaar)
The yard measurement of length	গজ (gaz)
A measure of land four yards square	লোচা (losaa)
Twenty *lasas* (of land)	কঠা (kothaa)

Number Elements

Zero	শূণ্য (suinya)
One	এক (ek)
Two	দুই (dui)
Three	তিনি (tini)
Four	চাৰি (saari)
Five	পাঁচ (paas)
Six	ছয় (sai)
Seven	সাত (saat)
Eight	আঠ (aath)
Nine	ন (nau)

Native International Currency Symbol

Rs	টকা (tokaa)

Collating Sequence and Sorting

Sequences of consonants that are consonant clusters are available in Assamese, and the maximum number of consonants in a sequence in a word is three.

Out of a total of one hundred and twenty two types of consonant clusters, one hundred and thirteen types of two consonant clusters and only nine types of three consonant clusters are available.

Initial clusters are very few and they are confined to the tatsama words only, where / r/ plays a dominant role as a second member and has yielded thirteen types out of a total of twenty-three types.

The maximum number of consonant clusters that occur word medially, only / gl / / dh r /, / gh r / and /n r / donot occur.

Final clusters are very limited and only three such clusters / rz /, / rh / and / n dh / has been located.

Sorting as per unicode chart.

Character, Word, Line and Sentence Break Rules

Comma   কমা (,) (kamaa)

Semicolon চেমিক'লন (;) (semikalan)

Colon   ক'লন (:) (kalan)

Exclamatory sign ভাৱবোধক চিন (!)
                  (bhaababudhak sin)

 Hyphen   হাইফেন （-）(hyphen)

Weights and measurements

Gram	গ্ৰাম (graam)
Kilogram	কিলোগ্ৰাম (kilograam)
Litre	লিটাৰ (litaar)
Quintal	কুইণ্টল (quintal)