

# ITRANS Encoding

All languages and all fonts supported by ITRANS

**itrans**

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## ITRANS Encoding Tables

The tables in this document display all the basic vowels and consonants and extensions accepted by ITRANS for various languages and various fonts.

### Table Legend

In the following tables, each row represents one Indic character, and each column represents one font of a language that ITRANS supports. Each column heading is abbreviated, and here's what those abbreviations mean:

*name* is the generally accepted name of the character.

*itrans* is the ITRANS encoding of the character. Note that ITRANS accepts multiple encodings for a few characters, refer to the respective ITRANS font/language manual to get a complete picture of the ITRANS encoding for that language.

*dev-1* refers to ITRANS output using Fran Velthuis's Devnag font, complete documentation is available in **dvng.itx**. Sandeep Sibal's Xdvng font is based on Devnag, and Xdvng is also documented in **dvng.itx**.

*dev-2* refers to ITRANS output using Avinash Chopde's Devnac font, complete documentation is available in **dvnc.itx**.

*ben-1* refers to ITRANS output using Shrikrishna Patil's ItxBeng font, complete documentation is available in **beng.itx**.

*ben-2* refers to ITRANS output using Abhijit Das's bwti font (ITRANS support added by Jaijeet Roychowdhury), complete documentation is available in **beng.itx**.

*guj* refers to ITRANS output using Shrikrishna Patil's ItxGuj font complete documentation is available in **gujdoc.itx**.

*kan* refers to ITRANS output using the Kannada font from the KanTeX package (ITRANS support added by Raghunath K. Rao), complete documentation is available in **kantex.itx**.

*tel* refers to ITRANS output using the Telugu font from the TeluguTeX package, complete documentation is available in **tlgutx.itx**.

*gur* refers to ITRANS output using Hardip Singh Pannu's Punjabi font (ITRANS support added by Anshuman Pandey), complete documentation is available in **pundoc.itx**.

*tam* refers to ITRANS output using The Washington Tamil font, complete documentation is available in **tamil.itx**.

*rom* refers to ITRANS output using John Smith's NCS-CSX font, complete documentation is available in **romancsx.itx**. ITRANS also accepts CS/CSX as input, so this column can be used for both ITRANS output and for ITRANS input. The ITRANS input using CS/CSX is explained in **icsx.itx**.

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## TeX, PostScript, and HTML Output

The TeX mode of ITRANS supports all the languages and the fonts shown.

The Direct PostScript mode of ITRANS is supported by *dev-2*, *guj*, *ben-2*, *guj*, and *rom* fonts only.

The Direct HTML output mode of ITRANS is supported by *dev-1* (*Xdvng*), *ben-2*, *guj*, and *rom* fonts only.

## Undefined characters

Not all languages (or fonts) have all the possible characters. Where a particular character (vowel, consonant, or extension) is not present, the en-dash (–) indicates the absence of the character. Some of the undefined characters may actually be easy to construct based on other glyphs present in the particular font, in which case, it would be trivial to add such a definition to the IFM file and thus provide a definition for that character. This is work-to-be-done, and I’m hoping interested readers will take the initiative to send me e-mail with possible ways of defining the currently undefined spaces in the tables.

Table 1: ITRANS Encoding, Vowels.

name	itrans	dev-1	dev-2	ben-1	ben-2	guj	kan	tel	gur	tam	rom
A	a	अ	अ		अ	अ	ಅ	అ	ਅ	அ	a
AA	aa	आ	आ	।	आ	अ.।	ಆ	ఆ	ਆ	ஆ	ā
I	i	इ	इ	इ	इ	ઇ	ಇ	ఇ	ਇ	இ	i
II	ii	ई	ई	ई	ई	ઈ	ಈ	ఈ	ਈ	ஈ	ī
U	u	उ	उ	उ	उ	ઉ	ಉ	ఉ	ਉ	உ	u
UU	uu	ऊ	ऊ	उ	उ	ઊ	ಊ	ఊ	ਊ	ஊ	ū
V. R	RRi	ऋ	ऋ	ॠ	ॠ	ઋ	ಋ	ఋ	—	ᱠ	r̥
V. RR	RRI	ॠ	—	—	ॠ	—	ಋ	ఋ	—	—	r̄
V. L	LLi	ऌ	—	—	—	—	ಲೃ	ఱ	—	—	l̥
V. LL	LLI	ॡ	—	—	—	—	ಲೄ	ఱ	—	—	l̄
E	e	ए	ए	ए	ए	એ	ಎ	ఎ	ਏ	எ	e
EE	E	—	—	—	—	—	ಎ	ఏ	—	ஏ	E
AI	ai	ऐ	ऐ	ऐ	ऐ	ઐ	ಐ	ఐ	ਐ	ஐ	ai
O	o	ओ	ओ	उ	उ	ઓ	ಒ	ఒ	ਓ	ஓ	o
OO	O	—	—	—	—	—	ಒ	ఒ	—	ஓ	O
AU	au	औ	औ	उ	उ	ઑ	ಔ	ఔ	ਔ	ஔ	au
VISARGA	aH	:	:	:	:	:	:	:	:	ஃ	ḥ

Table 2: ITRANS Encoding, Consonants (part 1).

name	itrans	dev-1	dev-2	ben-1	ben-2	guj	kan	tel	gur	tam	rom
KA	ka	क	क	ক	ক	ક	ಕ	క	ਕ	க	ka
KHA	kha	ख	ख	খ	খ	ખ	ಖ	ఖ	ਖ	க	kha
GA	ga	ग	ग	গ	গ	ગ	ಗ	గ	ਗ	க	ga
GHA	gha	घ	घ	ঘ	ঘ	ઘ	ಘ	ఘ	ਘ	க	gha
NGA	~Na	ङ	ङ	ঙ	ঙ	ડ	ಙ	ఙ	ਙ	ங	na
CA	cha	च	च	চ	চ	ચ	ಚ	చ	ਚ	ச	ca
CHA	chha	छ	छ	ছ	ছ	છ	ಛ	ఛ	ਛ	ச	cha
JA	ja	ज	ज	জ	জ	જ	ಜ	జ	ਜ	ஐ	ja
JHA	jha	झ	झ	ঝ	ঝ	ઝ	ಝ	ఝ	ਝ	ஐ	jha
NYA	~na	ञ	ञ	ঞ	ঞ	–	–	ఞ	ਞ	ஐ	ña
TTA	Ta	ट	ट	ট	ট	ટ	ಟ	త	ਟ	ட	ṭa
TTHA	Tha	ठ	ठ	ঠ	ঠ	ઠ	ಠ	థ	ਠ	ட	ṭha
DDA	Da	ड	ड	ড	ড	ડ	ಢ	ద	ਡ	ட	ḍa
DDHA	Dha	ढ	ढ	ঢ	ঢ	ઢ	ಢ	డ	ਢ	ட	ḍha
NNA	Na	ण	ण	ণ	ণ	ણ	ಣ	ణ	ਣ	ண	ṇa
TA	ta	त	त	ত	ত	ત	ತ	త	ਤ	த	ta
THA	tha	थ	थ	থ	থ	થ	ಠ	థ	ਥ	த	tha
DA	da	द	द	দ	দ	દ	ದ	ద	ਦ	த	da
DHA	dha	ध	ध	ধ	ধ	ધ	ಢ	ధ	ਧ	த	dha
NA	na	न	न	ন	ন	ન	ನ	న	ਨ	ந	na
PA	pa	प	प	প	প	પ	ಪ	ప	ਪ	ப	pa
PHA	pha	फ	फ	ফ	ফ	ફ	ಫ	ఫ	ਫ	ப	pha
BA	ba	ब	ब	ব	ব	બ	ಬ	బ	ਬ	ப	ba
BHA	bha	भ	भ	ভ	ভ	ભ	ಭ	భ	ਭ	–	bha
MA	ma	म	म	ম	ম	મ	ಮ	మ	ਮ	ம	ma

Table 3: ITRANS Encoding, Consonants (part 2).

name	itrans	dev-1	dev-2	ben-1	ben-2	guj	kan	tel	gur	tam	rom
YA	<i>ya</i>	य	य	য	য	ય	ಯ	య	ਯ	ய	ya
RA	<i>ra</i>	र	र	র	র	ર	ರ	ర	ਰ	ர	ra
LA	<i>la</i>	ल	ल	ল	ল	લ	ಲ	ల	ਲ	ல	la
LLA	<i>La</i>	ळ	ळ	–	–	ળ	ಳ	ళ	ਜ	ள	lda
VA	<i>va</i>	व	व	ব	ব	વ	ವ	వ	ਵ	வ	va
SHA	<i>sha</i>	श	श	শ	শ	શ	ಶ	శ	ਸ	ശ	śa
SSA	<i>Sha</i>	ष	ष	ষ	ষ	ષ	ಷ	ష	–	ഷി	ṣa
SA	<i>sa</i>	स	स	স	স	સ	ಸ	స	ਸ	ஸ	sa
HA	<i>ha</i>	ह	ह	হ	হ	હ	ಹ	హ	ਹ	ஹ	ha

Table 4: ITRANS Encoding, Extensions.

name	itrans	dev-1	dev-2	ben-1	ben-2	guj	kan	tel	gur	tam	rom
QA	<i>qa</i>	क	क	–	–	ક	–	–	–	ஃஃ	qa
KHHA	<i>Ka</i>	ख	ख	–	এ	ખ	–	–	ਖ	–	Ka
GHHA	<i>Ga</i>	ग	ग	–	–	ગ	–	–	ਗ	–	Ga
ZA	<i>Ja</i>	ज	ज	য	য	જ	–	–	ਜ	ஜ	za
DDDHA	<i>.Da</i>	ड	ड	ড়	ড়	ડ	–	–	ੜ	–	.Da
FA	<i>fa</i>	फ	फ	–	–	–	–	–	ਫ	–	fa
YYA	<i>Ya</i>	–	य	য়	য়	–	–	–	–	–	–
KA-SHHA	<i>xa</i>	क्ष	क्ष	ক্ষ	ক্ষ	ખ	ಶ್	క్ష	–	க்ஷ	kṣa
JA-NYA	<i>GYa</i>	ज्ञ	ज्ञ	জ্ঞ	জ্ঞ	જ્ઞ	ಜ್ಞ	–	–	ஜ்ஞ	jña
	<i>Ra</i>	र	र	ড়	ড়	ર	–	ఱ	–	ற	Ra
ANUSVARA	<i>k.n</i>	कं	कं	কং	কং	કં	ಕಂ	కం	ਕੰ	க்	kaṁ
	<i>k.h</i>	क़	क़	ক্	ক্	ક્	ಕ	క	ਕ	க்	k
CANDRA E	<i>k.c</i>	कँ	कँ	–	–	કં	–	–	ਕ	–	ka.c
C. BINDU	<i>k.N</i>	कँ	कँ	কঁ	কঁ	કં	–	–	ਕ	–	ka.N
AVAGRAHA	<i>.a</i>	ऽ	ऽ	–	–	ઽ	ઽ	ఽ	–	–	.a

Table 5: ITRANS Encoding, Digits.

name	itrans	dev-1	dev-2	ben-1	ben-2	guj	kan	tel	gur	tam	rom
0	0	౦	౦	౦	0	0	౦	౦	౦	–	0
1	1	౧	౧	౧	౧	౧	౧	౧	౧	–	1
2	2	౨	౨	౨	౨	౨	౨	౨	౨	–	2
3	3	౩	౩	౩	౩	౩	౩	౩	౩	–	3
4	4	౪	౪	౪	౪	౪	౪	౪	౪	–	4
5	5	౫	౫	౫	౫	౫	౫	౫	౫	–	5
6	6	౬	౬	౬	౬	౬	౬	౬	౬	–	6
7	7	౭	౭	౭	౭	౭	౭	౭	౭	–	7
8	8	౮	౮	౮	౮	౮	౮	౮	౮	–	8
9	9	౯	౯	౯	౯	౯	౯	౯	౯	–	9