

Inuktitut Tex / ᐃᓄᐅᐅᐅᐅ ᓄᐅ

April 12, 2026

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၂၄၁

siqinirjuarli sunauvvali unaa.

Now to my great surprise there was the huge sun.

“The Song of Saittuq”¹

Abstract

The purpose of this package is to present a complete package for typesetting Inuktitut syllabics using the power of XeTeX and XeLaTeX (the Unicode versions of of TeX and LaTeX).² Direct input is done via a macro file which covers the entire range of syllabics used in the various dialects, including the AIPAI syllabics (ᐃᐅᐃ) used in Nunavik. In essence, in order to obtain ᐃ one types \pi, for ᐃᐅ one types \pii and for ᐃᐅᐃ one types \pai. The TeX engines take care of the rest (formatting, spacing adjustments etc). Producing boldface and italic syllabics at any desired point size is also straight-forward. The simplicity of this method should be compared to the digital gymnastics involved in using shift, shift+alt and alt, not to mention remembering where everything is located (if indeed the keyboard has the required syllabic) when using an Inuktitut keyboard,

Detailed explanations and images are also provided concerning the use of the National Research Council of Canada (NRC) transcoder to provide the syllabic equivalent of a roman text and conversely. Easily modified forms, with inputs to various macro files, fonts and font sizes, are provided for use with both XeTeX and XeLaTeX. To simplify matters for users not familiar with XeLaTeX the form contains the main commands -- commented out so that they do not appear in the text -- just above the point where the actual text starts. The package includes a sample LaTeX file and the resulting PDF file, which illustrate a wide range of features. Links to sources for fonts and linguistic (IPA symbols, etc) packages are also provided

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1. The three basic methods of typesetting Inuktitut, together with examples, are discussed below.

Inuktitut-tex

2. Syllabic Charts, Fonts, Typsetting, etc. [SYLLABICS]

The Unicode chart for Inuktitut syllabics.

The T_EX shortcut commands for typing the syllabics.

Syllabic font sources and comparisons.

Shortcuts to simplify font declarations.

3. The NRC Transcoder. [TRANSCODER]

A detailed explanation regarding the use of the NRC transcoder. In addition to transcoding both ways between the roman version and the syllabic version, it can take into account the AIPi syllabics and the qq versus qr variants.

4. The XeLaT_EX version. [XELATEX_VERSION]

A Form, macro files etc.

References to assist in using LaT_EX.

5. The XeT_EX version. [XETEX_VERSION]

A Form, macro files etc.

6. Linguistic Packages for LaT_EX. [LINGUISTICS]

IPA symbols, vowel charts, etc.

1. The Three Basic Methods of Typesetting Syllabics

i. Typing the roman codes for the syllabics: [[syllabic_tex-codes.pdf](#)]

The XeT_EX command for each syllabic is simply a backslash (\) followed by the phonetic value/roman orthography of the syllabic. Thus to obtain the syllabic ◀ for the vowel a, one types \a; to obtain the syllabic ◀ for the syllable pa, one types \pa; and to obtain its geminate version ◀ one types \paa. Since the raised “finals” are also used at end of syllables in the middle of a word one has the choice of two commands. Thus to obtain the syllabic ◀ one can type either \p or \pf.

ii. Typing the text in an Inuktitut roman orthography and then using a transcoder to convert to Syllabics. [[transcoder.pdf](#)]

iii. Copying an on-line Inuktitut text.

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Examples

The roman font family used in this text and in the XeLaTeX example [event_words.pdf] is the open-source Libertine family. The syllabic font family used is the Ilisarniq family: [sources-fonts-unicode.html]. These can be changed as desired.

To facilitate typesetting, and in particular changing the font family and point size, I have created the macro file [inuktitut_font_shortcuts.mac]. Thus one has only to write: \R, \RA, \RAA ...; \I, \IA \IAA... \B, \BA, \BAA etc. to obtain regular syllabics, italic syllabics, boldface syllabics at 12.5pt, 13pt, 14pt respectively.

The macro file [Inuktitut_latex_format.mac] contains various formatting commands will create a uniform outcome. Thus `\voc`, a macro designed to automatize typesetting a world in both syllabics, roman with the accompanying definition or comment in italics (this can be changed to regular). The format is (note the obligatory curly braces, { }):

\voc {syllabics }{roman}{definition/ comment}

As an example consider the word *aggaak*. One writes:

$\backslash \mathbf{voc}\{\backslash \mathbf{a}\backslash \mathbf{gf}\backslash \mathbf{gaa}\backslash \mathbf{kf}\}\{\mathbf{aggaak}\}\{\mathbf{a\ pair\ of\ gloves}\}.$

The result is:

ᐱᐳᐳᐳ -- aggaak: *a pair of gloves.*

The next example illustrates the nested used of fonts: `\BA ...` and `\IA ...` to emphasize parts of a word. Use is also made of the command `\|` which produces a large-sized dot between the parts of the word.

Δ^cɔ.ɾ ɾσ^c.>%ʌ? -- illu•**mi** sinip•punga?: *Can I sleep **in** the house?*

Γ -- mi: in

ʀσ^b -- sinik: to sleep, intransitive verb root. The final **b** has changed to **◀** in order to match the **➤**.

$\Delta^c \supset$ -- Illu: house [Nunavut; $\Delta^c \supset^{cb}$, Nunavik]

>%>L -- punga: 1,S,Q

For long texts, either in roman or syllabics, including those on a web page using the NRC transcoder will make life easier and help avoid errors. The latter point is especially true for AIPAI texts from Nunavik. That was the method used for the opening quotation. [[transcoder.pdf](#)].

2. The Roman Inputs for Obtaining Syllabics

The coding list below ([also on a separate sheet](#)) covers all the syllabics presented by the departments of education of Nunavik (ᐃᐃᐃᐃ) (their AIPAI series appears in the first column) and Nunavut (ᐃᐃᐃᐃᐃ).

In addition it covers various syllabics not included in their basic charts. Note in particular the following:

- i. The same syllabic ᐃ represents the **h** series in western inuktitut and the **s** series in eastern inuktitut. However, since Nunavik has its own syllabic for the **h** series only the \si, etc codes for ᐃ are given. The Nunavik **h** (ᐃᐃ) series is listed separately at the end of the table.
- ii. Some communities in the western part of Nunavut use **b** as a final before **l** (voiced). Since there is no special syllabic for **b** either ᐃ (voiced) or ᐃ (voiceless) is used. In the table \bv is used for the former and \bp for the latter.
- iii. The Unicode syllabics list does not have a glyph to represent the **double q** as in ᐃᐃᐃᐃᐃᐃ? -- sulaaqqit? Nor do any of the Inuktitut keyboards that I have seen. Because of this situation I have used the T_EX kerning command to create this syllabic and it is called via \qqi, \qqu, \qqa.
- iv. Different fonts may produce different versions of the syllabics, e.g. *ngi* as it appears in the Ilisarniq font (ᐃᐃᐃ) and Pigiarniq font (ᐃᐃᐃ). [The syllabics for nngi are identical.]

▽ ai -	Δ i Δ ii	▷ u ▷ uu	◁ a ◁ aa	- -
∇ pai -	Λ pi Λ pii	> pu > puu	< pa < paa	< p,pf -
U tai -	∩ ti ∩ tii	∪ tu ∪ tuu	⊂ ta ⊂ taa	⊃ t,tf -
q kai -	ρ ki ρ kii	d ku d kuu	b ka b kaa	ᵇ k,kf -

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ᑎ gai -	ᑎ gi ᑎ gii	ᑭ gu ᑭ guu	ᑭ ga ᑭ gaa	ᑭ g,gf -
ᑭ mai -	ᑭ mi ᑭ mii	ᑭ mu ᑭ muu	ᑭ ma ᑭ maa	ᑭ m,mf -
ᑎ nai -	ᑎ ni ᑎ nii	ᑎ nu ᑎ nuu	ᑎ na ᑎ naa	ᑎ n -
ᑭ sai -	ᑭ si ᑭ sii	ᑭ su ᑭ suu	ᑭ sa ᑭ saa	ᑭ s,sf -
ᑭ lai -	ᑭ li ᑭ lii	ᑭ lu ᑭ luu	ᑭ la ᑭ laa	ᑭ l,lf -
final b	-	ᑭ, bv	ᑭ, bp	
ᑭ jai -	ᑭ ji ᑭ jii	ᑭ ju ᑭ juu	ᑭ ja ᑭ jaa	ᑭ j,jf -
ᑭ vai -	ᑭ vi ᑭ vii	ᑭ vu ᑭ vuu	ᑭ va ᑭ vaa	ᑭ v,vf -
ᑭ rai -	ᑭ ri ᑭ rii	ᑭ ru ᑭ ruu	ᑭ ra ᑭ raa	ᑭ r,rf -
ᑭ qai -	ᑭ qi ᑭ qii	ᑭ qu ᑭ quu	ᑭ qa ᑭ qaa	ᑭ q,qf -

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ᑭ	ᑭᑭ qqi	ᑭᑭ qqu	ᑭᑭ qqa	-
ᑭᑭ ngai	ᑭᑭ ngi	ᑭᑭ ngu	ᑭᑭ nga	ᑭᑭ ng,ngf
-	ᑭᑭ ngii	ᑭᑭ nguu	ᑭᑭ ngaa	-
(d)	ᑭᑭ nngi	ᑭᑭ nngu	ᑭᑭ nnga	-
-	ᑭᑭ lhi	ᑭᑭ lhu	ᑭᑭ lha	ᑭᑭ lh,lhf
-	ᑭᑭ lhii	ᑭᑭ lhuu	ᑭᑭ lhaa	-
ᑭᑭ hai	ᑭᑭ hi	ᑭᑭ hu	ᑭᑭ ha	ᑭᑭ h,hf
-	ᑭᑭ hii	ᑭᑭ huu	ᑭᑭ haa	-

Notes

1. Bernard Saladin d'Anglure. 2018. *Inuit Stories of Being and Rebirth/Gender Shamanism and the Third Sex*, Winnipeg: University of Manitoba Press, p. 10.
2. Older methods available at CTAN (Comprehensive T_EX Archive Network) are Oinuit (2002) which uses Lambda/Omega and Casyl (2008?) which is limited to the special font casy1110 and does not allow for germinate syllabics (ᑭᑭ -- naa, etc.)
3. The expression “syllabic” is used here for both the symbol and the syllable that it represents.