Nunavut Utilities

Technical Guide

Prepared by
Multilingual E-Data Solutions
For the
Nunavut Department of Culture, Language, Elders and Youth

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1. Introduction

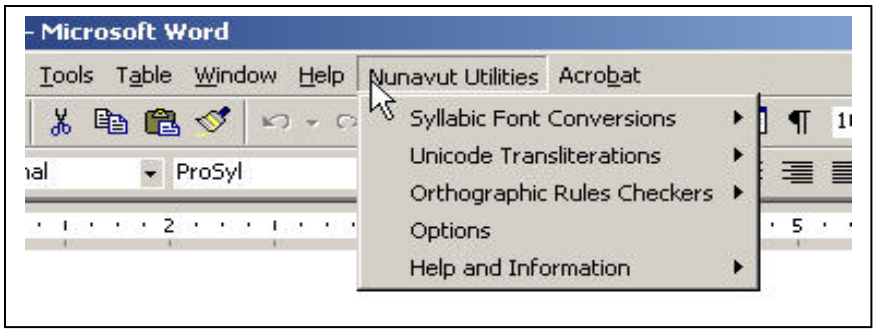
The “Nunavut Utilities”, formerly called “Inuktitut Utilities”, are a software package designed to assist those who write Inuktitut and Inuinnaqtun using computers. The current release, version 3.3, has been commissioned by the Department of Culture, Language, Elders and Youth (CLEY) of the Government of Nunavut. The software is distributed as a file called “NunavutUtilities.dot”, which should be put in the Microsoft Word or Office “Startup” folder. Once it is properly installed (see Section 5 for installation instructions), the Utilities will appear as a menu item in the Microsoft Word Tool Bar (between “Window” and “Help”).

This “Technical Guide” to the Nunavut Utilities explains how the software can help users of Inuktitut and Inuinnaqtun in their day-to-day work on computers.

At present, the utilities work only on PCs; a version for Macintosh has not yet been commissioned.

The Nunavut Utilities package takes data in the Microsoft Word environment and performs various operations on it. During these operations, the formatting of the data remains intact. The operations can be reversed using the “Undo” command under “Edit” in the menu or by clicking on the icon (turning left arrow) in the icon toolbar. Since, depending on the size of the selection, there may have been many operations performed, you may have to click “undo” a number of times to return the data to its original state.

In order to run the Nunavut Utilities properly, the software expects you to have a Unicode font on your computer. If you are operating on a Nunavut Government computer the standard government Unicode font (Pigiarniq) is already installed. If you are working on your own computer, you can download the Pigiarniq font from the Government of Nunavut site for CLEY (http://www.gov.nu.ca/cley/english/inuktituttools.htm); if you have difficulties contact the Nunavut Help Desk or, for those outside the Government of Nunavut, contact the builder of the utilities: Multilingual E-Data Solutions (http://www.multedata.ca).



2. Syllabic Font Conversions

One of the primary uses of the Nunavut Utilities is to convert among different syllabic Inuktitut fonts. Unlike English fonts such as “Arial” or “Times New Roman”, older Inuktitut fonts are incompatible with each other and are also incompatible with newer Unicode fonts, so a converter is necessary to move data from one font to another. Data cannot be just highlighted and switched to the new font the way we do between say

Arial and Times New Roman; if data is moved by highlighting and switching the font in the font window, errors in syllabic characters will be introduced into the document.

2.1 Using Unicode as a Pivot Font

Unicode is a new worldwide computer standard that supports virtually all languages and writing systems commonly used in the world today. The previous widespread standard, called ASCII,[1] could only reliably support English. (Fonts such as ProSyl are based on ASCII, which is why Microsoft software will think they are English.) Using Unicode makes writing syllabics as reliable and trouble-free as using English. It is for this reason that the government of Nunavut has decided to move towards the implementation of Unicode as a standard.

Because Unicode is a world standard, the Nunavut Utilities use Unicode as a "pivot font"; this means that conversion is provided in and out of Unicode and not between older fonts directly.

The current default Unicode font for syllabics is Pigiarniq. This is the font that the Nunavut Utilities will convert to by default.

No conversion is required to switch from one Unicode font to another since they all follow the same standard. Files created in one of these fonts can be switched to any other of these fonts by just selecting the data and changing the font in the font menu. But not all Unicode fonts include syllabics: Here is a list of those that do as of March 2005:

Pigiarniq (The current Nunavut standard; developed by Tiro Typesetting and available from: (http://www.gov.nu.ca/cley/english/inuktituttools.htm)

Uqammaq (Developed for NTI by Tiro Typesetting; http://www.tiro.com)

Euphemia (This font has been developed also by Tiro Typesetting. It includes all Canadian Aboriginal Syllabics not just those used for Inuktitut. It will be distributed in the future as part of Windows and Mac OS X operating systems.)

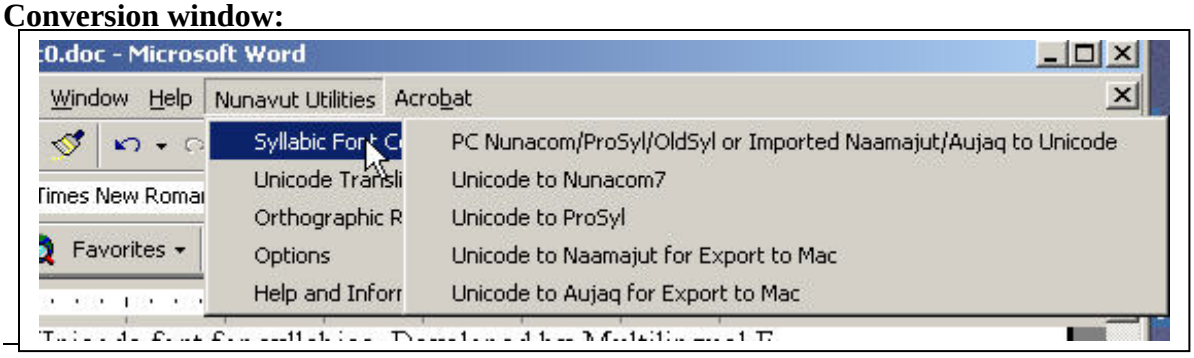
AiPaiNutaaq (This font was developed for Nunavik. More information is to be found at http://www.aipainunavik.com. It includes the aipaitai column of the syllabary which is being brought back into use in Nunavik but is not accepted by the Government of Nunavut.)

Andale Mono (A full Unicode font developed by the company Agfa Monotype)

Ballymun RO (A Unicode font containing all Canadian Aboriginal Syllabics. Developed by Ron Ogawa of Brock University, St. Catherines, Ontario http://www.multedata.ca)

NunacomU (The first Unicode font for syllabics. Developed by Multilingual E-Data Solutions. Available for download from http://www.multedata.ca)

Conversion window:



[1] ASCII = American Standard Code for Information Interchange

2.2 Conversions to Unicode

The Nunavut Utilities allow conversion to Unicode from the following older syllabic fonts:

PC fonts: OldSyl, ProSyl, (also Tunngavik—an NTI variant of ProSyl), Nunacom (from Nortext Ltd.)

Macintosh fonts: Nunacom (from Nortext), Naamajut, Aujaq

Notes on the above fonts:

OldSyl is copyrighted in 1992 by Datarctic Information Systems. This font is now not much used and users are encouraged to switch to a Unicode font. For this reason we are not providing a conversion back from Unicode to OldSyl.

ProSyl exists in two versions, prosyl.ttf and prosylb.ttf. The "b" version has syllabic characters in which the dot for the long vowel is combined with the syllabic symbol. It is copyrighted in 1997 by Saali Peter.

The **Nunacom** font from Nortext Ltd. is a "cross-platform" font which means it uses only the lower ASCII range for its encoding and it has the same encoding in both Mac and PC versions. This means data can be moved between PC and Mac without conversion and without losing or corrupting any data. There are different versions of the font for installation on either Mac or on PC. These can be downloaded from http://www.nunavut.com/technology/english/download.html. Sometimes we refer to this font as "Nunacom7" since it is a seven bit font and also to distinguish it from the Unicode version of this font, created by Multilingual E-Data Solutions and called "NunacomU".

The Naamajut font for Macintosh is the most common Inuktitut font for Macintosh. Aujaq is another Macintosh font used in the creation of the Northwestel annual telephone directory in Quark. These two fonts generally exist only in Macintosh font versions but Multilingual E-Data Solutions has created PC versions of them so that data can be moved from the Macintosh environment and viewed on a PC.

2.3 Conversions back to "Legacy" fonts

As seen in the font conversion window above, conversion back from Unicode to older fonts is provided for all but OldSyl. Users of OldSyl are encouraged to move to Unicode.

2.4 Special Processing Routines

2.4.1 Placement of Long vowel markers

A "feature" of fonts such as ProSyl and Nunacom is that they have more than one separate dot character for placing above syllabics to show the long vowel. The reason for having more than one is so that some can be placed high, some low and some in the middle depending on which syllabic character they are placed above.

When these older fonts are converted to Unicode they are converted to combined characters with the dot already placed in the right position. If the Unicode font is then

converted back to ProSyl or Nunacom **all long vowel markers are positioned correctly by the software**. Converting to Unicode and back again is therefore a trick to correct the positioning of all long vowel markers in ProSyl or Nunacom fonts.

2.4.2 Extra Long vowel markers

When typing in ProSyl or Nunacom where the long vowel marker is a separate character is it possible to type a dot where one does not belong. For example, if a long vowel marker is put in front of a final or an already dotted character, when the conversion to Unicode takes place the extra dot will be discarded.

2.4.3 Typing variations and collapsing characters

Sometimes typists will type an ‘r’ final in front of a ‘k’ syllable to make a ‘q’ syllable. If the Nunavut Utilities encounter this combination they will automatically convert such a combination to the correct ‘q’ syllabic.

Why bother? Although the two may look very similar, it is important to make this correction for the future. If this correction is not made then someone searching for a piece of data may be prevented from finding it. The search software will not be able to tell that r+k is the same as q. This is true also of the following case as well as the extra long vowel markers in the case before this one.

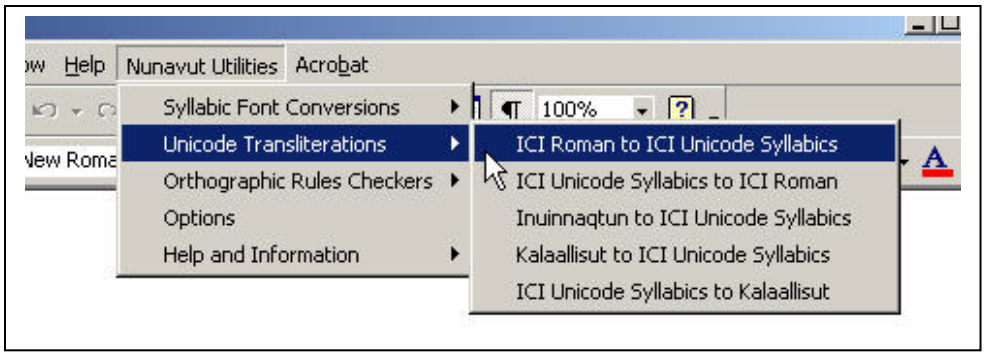
The same type of processing is also done for ‘n’ plus ‘ng’; such a combination will be converted to a double angma character. If someone has typed ‘n’ plus ‘n’ plus ‘g’ for double angma this will also be converted to a double angma in going to the Unicode font. (Note: since ProSyl doesn’t have the double angma character it has to be typed as ‘n’ plus ‘ng’; Nunacom does have the double angma however.

3. Roman/Syllabic Transliteration Conversions

3.1 Introduction

Some people know how to type using Roman (English) letters much better and faster than using a syllabics keyboard. Such users can type their document in Roman letters first and then use the transliteration function of the Nunavut Utilities to automatically convert them to syllabics.

Transliteration window in the Nunavut Utilities:



3.2 Inuit Cultural Institute (ICI) Writing System

The conversion from Roman letters to syllabics follows the ICI writing system which is now required for all Government of Nunavut documents in Inuktitut. Here is the basic chart:

ICI Roman/Syllabic Chart

	I	U	A	
	ᐃ	ᐅ	ᐊ	Naniit Finals
P	ᐱ	ᐳ	ᐸ	ᑉ
T	ᑎ	ᑐ	ᑕ	ᑦ
K	ᑭ	ᑯ	ᑲ	ᒃ
G	ᒋ	ᒍ	ᒐ	ᒡ
M	ᒥ	ᒧ	ᒪ	ᒻ
N	ᓂ	ᓄ	ᓇ	ᓐ
L	ᓕ	ᓗ	ᓚ	ᓪ
S/H	ᓯ	ᓱ	ᓴ	ᓴ
J	ᔨ	ᔪ	ᔭ	ᔭ
R	ᕆ	ᕇ	ᕋ	ᕋ
V	ᕕ	ᕗ	ᕙ	ᕙ
Q	ᕿ	ᖁ	ᖃ	ᖃ
NG	ᖓ	ᖔ	ᖕ	ᖕ
Ł	ᖅ	ᖆ	ᖇ	ᖇ
NNG	ᖕᒋ	ᖕᒍ	ᖕᒐ	ᖕᒡ

Special processing: "b" and "d" usage

If these two letters are found in Inuktitut text, the Nunavut Utilities will automatically convert them to "p" and "t" respectively when converting to syllabics. This addition to the standard spelling improves the conversion since "b" and "d" are commonly found in Inuktitut spellings even though they are not part of the standard orthography.

Warning: when converting back from syllabics to Roman, the Nunavut Utilities will not replace the "b" and "d" and will use only "p" and "t".

Foreign Words:

If the Nunavut Utilities encounter letters that are not used in Inuktitut, it is assumed that such a word is a foreign word and it is just left in Roman. (Note: this means that 'Kit' will get converted and 'Jack' will not.) Here is the list of Roman letters considered valid in the ICI Standardized Writing System for Inuktitut:
Vowels: a i u
Consonants: g h j k l ł m n ng p q r s t v

Barred el

Certain dialects use the following syllabics:
ᓚ ᓗ ᓘ ᓪ
This syllabic is normally typed as ł in roman orthography. It is occassionally written as '&' but this use is discouraged in Government of Nunavut documents. When using & (ampersand), the Nunavut Utilities software checks that the & appears in the middle of a word with letters on either side; this way it won't convert a & used to represent the English word "and" to this syllabic. When Nunavut Utilities converts data from syllabics to Roman, the barred el (ł) is used.

Default on Eastern or Western Inuktitut

One of the differences that distinguishes eastern and western dialects of Inuktitut is the use of [s] versus [h]. As an example, the Inuktitut word ᓯᑯ (***ice*** in English) is pronounced ***siku*** in eastern dialects and ***hiku*** in western dialects. This difference in pronunciation is only visible in roman orthography, in syllabics all speakers tend to use the characters ᓯ ᓱ ᓴ. In eastern dialects the [h] sound is only used in borrowed words so in written Inuktitut, HΔ Hᐅ Hᐊ is awkwardly used to indicate this sound, e.g. Hᐊᒻᓛᑦ for the English word "Hamlet".

In the options panel of the Nunavut Utilities menus there is an option to choose an "Eastern Inuktitut" or a "Western Inuktitut" option when converting from Roman to Syllabics. (There is no option when converting back.) Here is the result of the choices:

Option choosing 'Eastern Inuktitut'

Converts "hi hu ha h" to HΔ Hᐅ Hᐊ H
And "si su sa s to ᓯ ᓱ ᓴ ᓵ

Option choosing 'Western Inuktitut': (current default)

Converts hi hu ha h and si su sa s to ᓯ ᓱ ᓴ ᓵ

Values missing in a font

When converting from one font to another, it can happen that a character in one font may be missing from the font you are converting to. In that case a warning is issued as follows:

Unicode to Nunacom Conversion
The text you selected has been converted, but 7 characters have been set to Arial font, and highlighted in green, as there are no valid equivalents in the 7-bit Nunacom font!
OK

3.3 Standardized Inuinnaqtun

> **WARNING**:
> When converting Inuinnaqtun text to Syllabics, avoid selecting English (or non-Inuinnaqtun) words that may be embedded in the text. If the Utilities do not recognize the word as English they will automatically convert E to I and O to U.

When converting Inuinnqtun data to syllabics there are some extra rules – beyond those used for Inuktitut – that are used in order to make the conversion as complete as possible.

Extra rules:

Letters ‘e’ and ‘o’ are converted to ᐃ and ᐅ.

Letter y is converted to: ᔨ, ᔪ, or ᔭ depending on which vowel follows y.

Letters ‘dj’ or ‘tj’ are converted to ᔾᔨ, ᔾᔪ, or ᔾᔭ.

Single letter ‘f’ is converted to ᐱ, ᐳ, or ᐸ.

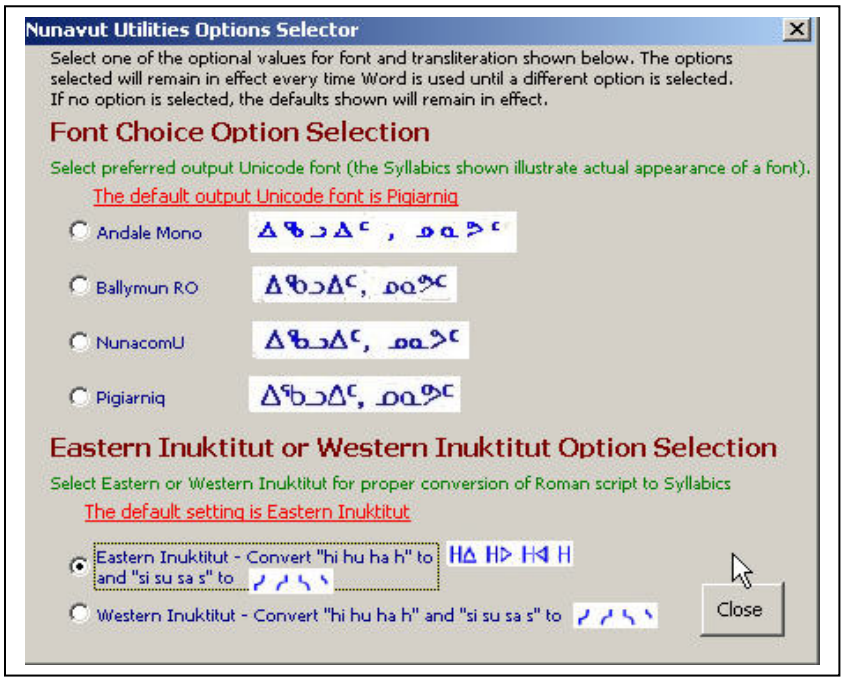
Double ‘f’ (ff) is converted to ᐸᓯ, ᐸᓱ, or ᐸᓴ.

Bli, blu, bla is converted to ᐸᓕ, ᐸᓗ, ᐸᓚ.

hi, hu, ha is converted to ᓯ,ᓱ,ᓴ

Option Switch

There is an Eastern Inuktitut vs. Western Inuktitut option switch in the Nunavut Utilities under “Options”. When converting Inuinnaqtun to syllabics it is important to set this switch to ”Western Inuktitut”; this will mean that ‘h’ in Inuinnaqtun text will get converted to ᓯ ᓱ ᓴ syllabics and not to Hᐃ Hᐅ Hᐊ. In the conversion back, setting the switch to “Western Inuktitut” will convert ᓯ to hi, etc.



3.4 Kalaallisut (Greenlandic)

3.4.1 Roman Kalaallisut to ICI Syllabics

The following special rules are added to the regular conversion rules for Roman to syllabics found in 3.2 above.

- Convert "e" to ᐃ
- Convert "o" to ᐅ
- Convert "f" to ᕕ, ᕗ, ᕙ, ᕚ
- rpi, rpu, rpa convert to ᖅᐱ, etc.
- rtu, rti, rta convert to ᖅᑐ, etc.
- rsa, rsu, rsi convert to ᖅᓴ, etc.

3.4.2 Syllabics to Kalaallisut -

Extra rules:

- Convert "i" before "r" and "q" to "e"
- Convert "u" before "r" and "q" to "o"
- Convert "ii" before "r" and "q" to "ee"
- Convert "uu" before "r" and "q" to "oo"
- Convert “vv” to “ff” and convert “rv” to “rf” (these are the only cases of the use of ‘f’ in Greenlandic)
- Convert barred el to a regular el
- Convert syllabic s to s in Greenlandic and syllabic H to regular h
- Leave glottal stop as is.
- ᖅᐱ converts to rpi, etc.
- ᖅᑐ converts to rtu, etc.
- ᖅᓴ converts to rsa, etc.

4. Orthographic Rules Checkers

4.1 Introduction

These rules are intended to provide some basic assistance to those working with Inuktitut documents. These rules do not really provide a "spell-checker" since a full spell-checker would require very elaborate software capable of morphological analysis due to the highly agglutinative nature of the Inuktitut language. They can however provide assistance based on the following orthographic rules of the language.

The Nunavut Utilities will highlight any data where these rules are not followed. The user can then decide to leave the data unchanged or to make the necessary changes. Not all highlighted data may be mistakes but the users attention is drawn to it for review. The user then decides either to make a change or just remove the highlighting and colored printing. When doing this removing, it is best to select the data and remove the colour printing first and the highlighting second since in this way the selection is retained for step two.

Please also note that after running the Rules Checker, there may still be other mistakes in the document – mistakes that the Rules Checker was not able to find. So do proofread the document once more to catch all mistakes!

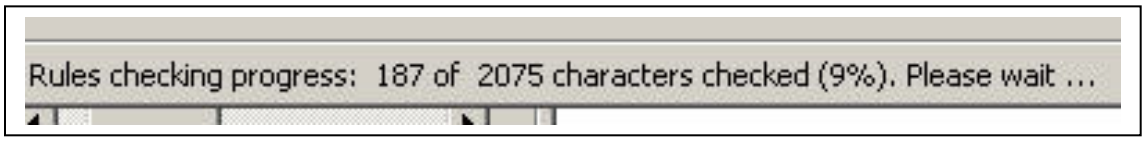
Warning: Please note that the Rules Checker works by adding coloured print and highlighting to your document which then needs to be removed manually. If your document already uses colour print and highlighting you might find this gives you too much work. A solution to this would be to run the rules checker on a copy of the document so you don't mess up your original document with it.

If no rules violations were detected a message to this effect is displayed.

4.2 Syllabic Rules Checker

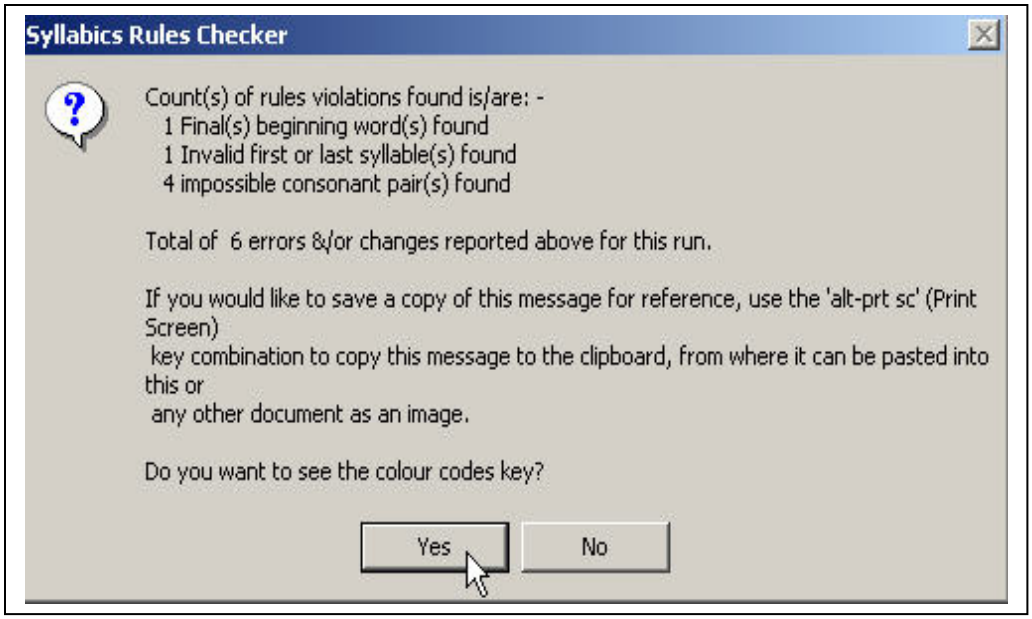
4.2.1 Percent done

While the Rules Checker is running, there is a counter that appears at the bottom of the document to report on the progress of the run that is taking place. You can check this to see how close to being done it is. Here is what it looks like:



4.2.2 Report:

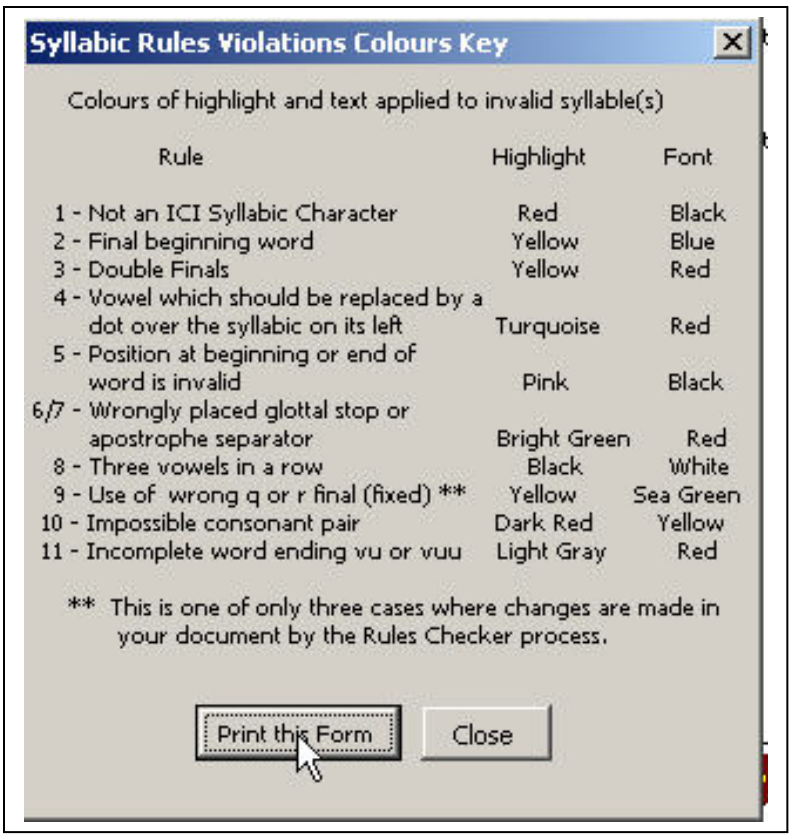
After the spelling rules checker is run, a report appears in a pop-up window giving the results.



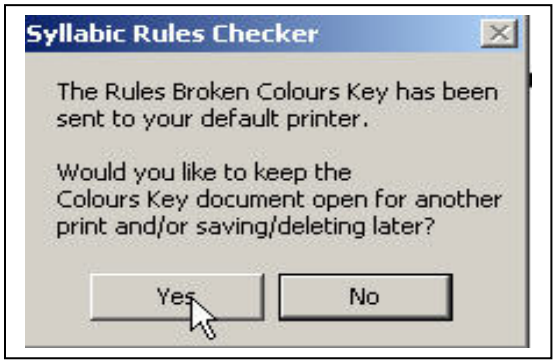
By answering “Yes” you will go on to the screens that follow. By answering “No” you will exit immediately and be returned to the document you were working on.

4.2.3 Explanation of Colours Used

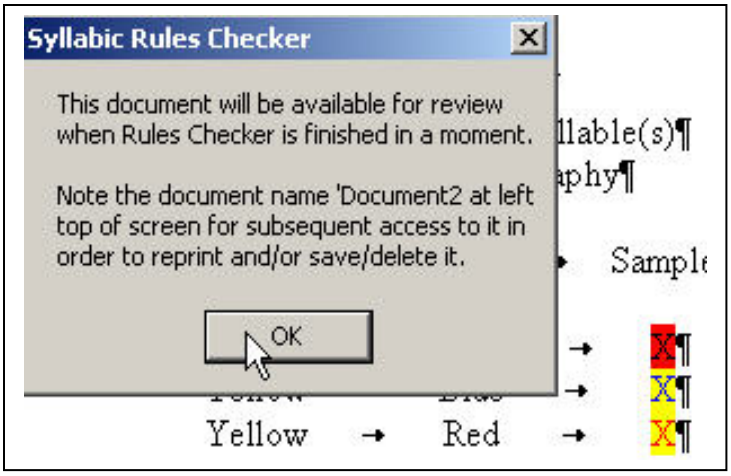
An explanation of the colours used for print and highlight that result from running the Rules Checker are given in a separte pop-up window when you answer “Yes” on the previous screen. This explanation can be printed for future reference.



If you ask to print the form in the above box then it is sent to the default printer and the following message is displayed:



If you ask to keep the document for saving later, then the following appears:



When printed, the form appears with colours as follows:

Multilingual E-Data Solutions Syllabics Rules Checker
Colour Key for colours of highlight and text applied to invalid syllable(s)
The rules applied are for Nunavut ICI Standard Syllabic Orthography

Rule	Highlight	Font	Sample
1 - Not an ICI syllabic character	Red	Black	X
2 - Final beginning word	Yellow	Blue	X
3 - Double Finals	Yellow	Red	X
4 - Vowel which should be replaced by a dot over the syllable on its left	Turquoise	Red	X
5 - Position at beginning or end of word is invalid	Pink	Black	X
6/7 - Wrongly placed glottal stop or apostrophe separator	Bright Green	Red	X
8 - Three vowels in a row	Black	White	X
9 - Use of wrong q or r final (fixed) **	Yellow	Sea Green	X
10 - Impossible consonant pair	Dark Red	Yellow	X
11 - Invalid word ending vu or vuu	Light Gray	Black	X

** This is the only case where changes are made in your document by the Rules Checker process.

4.2.4 Syllabic Inuktitut Rules

Cascading check: when the Nunavut Utilities begin to check a document, the software examines the data, syllable by syllable, for each of the rules below one by one. If it finds a syllable which has a rule broken, then it does no further checking on that syllable—only first wrong thing gets reported.

Rule 1: **Not a valid syllabic.**

Highlights any word that contains syllabic characters that are not part of the Inuit Cultural Institute's (ICI) Standardized Orthography. Only words that pass rule 1 are subjected to the other rules. The software carries out this check within the range of Canadian Aboriginal Syllabics in Unicode (1401-1676); this means that it will highlight characters which are syllabic characters but which are not part of the ICI writing system. It will also highlight non-syllabic data such as Russian or Chinese.

ICI Syllabic orthographic repertoire:

Vowels alone: ᐃ ᐄ ᐅ ᐆ ᐊ ᐋ

Consonants(consonant+vowel or final consonants)**:** ᐱ ᐳ ᐸ ᐹ ᑎ ᑐ ᑕ ᑦ ᑭ ᑯ ᑲ ᒃ ᒋ ᒍ ᒐ ᒑ ᒥ ᒧ ᒪ ᒫ ᓂ ᓄ ᓇ ᓐ ᓯ ᓱ ᓴ ᓵ ᓕ ᓗ ᓚ ᓛ ᔨ ᔪ ᔭ ᔮ ᕕ ᕗ ᕙ ᕚ ᕆ ᕈ ᕋ ᕌ ᕐᑭ ᕐᑯ ᕐᑲ ᕐᒃ ᖅᑎ ᖅᒍ ᖅᒐ ᖅ ᓕ ᓗ ᓚ ᓪ

Message in report: ## Non-ICI syllabic character(s) found.

Action required: This rule is to highlight characters that may not be part of the standard ICI writing system so that they can be checked to see if they are what was wanted. For example, the aipaitai column is outside the ICI syllabary so if they are included they will be highlighted.

Rule 2: Finals cannot be initial.

Here is a list of all finals:

ᐸ ᑕ ᑲ ᒐ ᒪ ᓇ ᓴ ᓕ ᔭ ᕙ ᕋ ᕐᑲ ᖅ ᓪ

Message in report: ## Final(s) beginning word(s) found.

Action required: Finals are used to end syllables so of course they cannot begins words. Check for a mistyping or a misspelling and make a correction as required. In the case of this rule it's almost certain that there has to be something wrong that needs correcting.

Rule 3: Finals cannot be doubled

Although two or more finals do appear together in certain non-Inuktitut words (especially personal names borrowed from English), the Nunavut Utilities highlight when this occurs in a document so the user can decide if a typing mistake has been made.

Message in report: ## Doubled final(s) found.

Action required: Check for a typing mistake. If the word is Inuktitut finals cannot be doubled and there must be a mistake; but if it is a non-Inuktitut name it may be OK to leave it unchanged.

Rule 4: Doubled vowel instead dotted vowel

ᐃᐃ should be ᐄ, ᐅᐅ should be ᐆ, ᐊᐊ should be ᐋ
ᐱᐃ should be ᐲ, ᐳᐅ should be ᐴ, ᐸᐊ should be ᐹ
ᑎᐃ should be ᑏ, ᑐᐅ should be ᑑ, ᑕᐊ should be ᑖ
ᑭᐃ should be ᑮ, ᑯᐅ should be ᑰ, ᑲᐊ should be ᑳ
ᒋᐃ should be ᒌ, ᒍᐅ should be ᒎ, ᒐᐊ should be ᒑ
ᒥᐃ should be ᒦ, ᒧᐅ should be ᒨ, ᒪᐊ should be ᒫ
ᓂᐃ should be ᓃ, ᓄᐅ should be ᓅ, ᓇᐊ should be ᓈ
ᓯᐃ should be ᓱ, ᓱᐅ should be ᓲ, ᓴᐊ should be ᓵ
ᓕᐃ should be ᓖ, ᓗᐅ should be ᓘ, ᓚᐊ should be ᓛ
ᔨᐃ should be ᔩ, ᔪᐅ should be ᔫ, ᔭᐊ should be ᔮ
ᕕᐃ should be ᕖ, ᕗᐅ should be ᕘ, ᕙᐊ should be ᕚ
ᕆᐃ should be ᕇ, ᕈᐅ should be ᕉ, ᕋᐊ should be ᕌ
ᕐᑭᐃ should be ᕐᑮ, ᕐᑯᐅ should be ᕐᑰ, ᕐᑲᐊ should be ᕐᑳ
ᖏᑎᐃ should be ᖏᑏ, ᖏᑐᐅ should be ᖏᑑ, ᖏᑕᐊ should be ᖏᑖ
ᖕᑎᐃ should be ᖕᑏ, ᖕᑐᐅ should be ᖕᑑ, ᖕᑕᐊ should be ᖕᑖ
ᓕᐃ should be ᓖ, ᓗᐅ should be ᓘ, ᓚᐊ should be ᓛ

Message in report: ## vowels to be replaced with dotted syllable on the left found.

Action required: Instead of having one of the double character combinations above, the data needs to be corrected to use instead a dotted syllabic character.

Rule 5: Position in the word

This software checks the following conditions looking for characters in a wrong position. Logically this means that it is looking to see if something is at the beginning or end of a word when it shouldn't be in that position.

i) Must be Medial (syllabic character never appears at the beginning or at the end of a word.):

Syllabics: ᓕ, ᓖ, ᓗ, ᓘ, ᓚ, ᓛ

ii) Always can be word final: ᐸ ᑕ ᑲ ᕐᑲ

iii) Never can be word final: ᒐ ᒪ ᓇ ᓴ ᔭ ᓪ ᕐ ᕙ ᕐ ᖓ ᖕᖓ H

(**Note**: this last condition means that a word ends, for example, in ᕐ instead of ᕐᑲ, it will be flagged by the Rules Checker.)

Message in report: ## Invalid first or last syllable(s) found

Action required: Check data for a spelling mistake. If there are words present that are borrowed from other languages (e.g. personal names), then the data may not need correcting.

ᐅᕐᑲᐅᔾᔨᑎᓪᓗᒍ ,ᓪᓗ.ᓄᓇᕐᓯᐊᕐᒥ
Note in this example how misplaced punctuation can be found through the Rules Checker!

Rule 6: Glottal Stop Rules

(Same symbol in either Roman or Syllabics)
(**Note**: Rules 6 and 7 are reported together in one message)

Possible Unicode symbols:

1. ASCII apostrophe: 0027 (most common)
2. Right single quotation mark: 2019
3. Modifier letter apostrophe: 02BC (the most 'correct' but probably never used)
4. Syllabic glottal stop: 141E (unlikely)
5. IPA Glottal stop: 0294(unlikely)
6. Modifier letter glottal stop: 02C0 (unlikely)

Position: Cannot be initial.
Must occur between consonants – wrong if a vowel on either side of it. Must occur before one of the following consonants: g, j, r, v

Message in report: ## Wrongly placed glottal stop(s) or apostrophe(s) found

Action required: Look for apostrophes in positions that are not correct for a glottal stop and make corrections if required.

Rule 7: Apostrophe Separator Rule

Except for its use in rule 6 to stand for the glottal stop, the only other place an apostrophe can be used inside an Inuktitut word is in one of the following combinations ᓇᐟᖓᑎ (n'ngi); ᓇᐟᖓᒍ (n'ngu) or ᓇᐟᖓᒐ (n'nga). In these cases the apostrophe is showing that the first 'n' is pronounced separately and is not part of a "double angma" sequence (two "ng" sounds together).

Message in report: ## Wrongly placed glottal stop(s) or apostrophe(s) found

Action required: Look for a glottal stop in a wrong position and make a correction as required.

Rule 8: Three or more vowels:

Rule: If two vowels follow each other, then a warning should be issued if these two are followed by a third vowel.
Note: A dotted syllabic character represents two vowels.
Exception: allow the sequence: ᐅᐊᐃ whether or not it is preceded by a consonant.

Message in report: ## case(s) of three vowels in a row found.

Action required: Check the highlighted data to make sure it is OK to have three vowels in a row; usually it is not correct so there may be a mistake present.

Rule 9: Rules on q and r:

The following syllables, when preceded by a final, that final must be a q final (ᖅ):
ᐱ, ᐳ, ᐸ, ᑎ, ᑐ, ᑕ, ᓯ, ᓱ, ᓴ, ᖅᑭ, ᖅᑯ, ᖅᑲ, ᓕ, ᓗ, ᓘ

The following syllables, when preceded by a final, that final must be an r final (ᖁ):
ᒥ, ᒧ, ᒪ, ᓂ, ᓄ, ᓇ, ᕕ, ᕗ, ᕙ, ᓕ, ᓗ, ᓚ, ᔨ, ᔪ, ᔭ, ᓇ, ᕈ, ᕋ, ᖏ, ᖑ, ᖓ

Message in report: ## Incorrect use of 'R' or 'Q' finals fixed

Action required: In this case just review what the program has done. It has made the correction already for you based on the standard spelling rules used in Nunavut that are described here at the beginning of this rule. (Note that in rule 5 the program has already checked to make sure that an R final does not end a word.)

Rule 10: Valid consonant clusters:

Only certain combinations of consonants occur in the Inuktitut language. The program will check each combination of consonants to see if they are on the list of valid consonants. If a combination is found that is not on the list of valid consonants it is highlighted for review.

Valid consonant clusters
gg, gj, gl, gv
hh
jj
kh, kk, kp, ks, kt, k&
lg, ll, lr,lv
&&
mm, mn, mng, mr
nng, n'ng, nm, nn, nng, nr
ngm, ngn,

qh, qp, qq, qs, qt, q&
pk, pp, pq, pt
rj, rl, rm, rn, rng, rr, rv
ss
tj, tk, tp, tq, tt
vv

Invalid clusters
(This list is provided as examples of non-valid cluster but the program only checks the first list of valid clusters. If the combination found is not on the first list it is presumed to be not valid.)
gh, gk, g&, gm, gn, gng, gp, gq, gr, gs, gt
jg, jh, jk, jl, j&, jm, jn, jng, jp, jq, jr, js, jt,jv
kg, kj, kl, km, kn, kng, kq, kr, kv
lg, lh, lj, lk, l&, lm, ln, lng, lp, lq, lr, ls, lt, lv
&g, &h, &j, &k, &l, &m, &n, &ng, &p, &q, &r, &s, &t, &v
mg, mh, mj, mk, ml, m&, mn, mng, mp, mq, ms, mt, mv
Note: no "n" before "g" in syllabics
nh, nj, nk, nl, n&, nm, np, nq, ns, nt, nv
ngg, ngh, ngj, ngk, ngl, ng&, ngp, ngq, ngr, ngs, ngt, ngv
qg, qh, qj, qk, ql, qm, qn, qng, qv
rg, rh, rk, r&, rp, rs, rt
sg, sh, sj, sk, sl, s&, sm, sn, sng, sp, sq, sr, st, sv
hg, hj, hk, hl, h&, hm, hn, hng, hp, hq, hr, hs, ht, hv
tg, th, tk, tl, t&, tm, tn, tng, tp, tq, tr, tv
vg, vh, vj, vk, vl, v&, vm, vn, vng, vp, vq, vr, vs, vt

Message in report: ## Impossible consonant pair(s) found.

Action required: Check the highlighted data for a possible mistake. Unless the data is a foreign name you should find two consonants that cannot appear together. Make the necessary correction.

Rule 11: Word Ending in "ᕐ"

In writing Inuktitut it is not possible to have a word ending in "vu". It is likely that there is a final missing.

Message in report: invalid word ending(s) 'vu' and/or 'vuu' found

Action required: Find the missing final and add it to the end of the word.

4.3 Inuinnaqtun Rules Checker

4.3.1 Introduction

These rules are intended to provide some rudimentary assistance to those working with Inuinnaqtun documents. They do not really provide a "spell-checker" since a full spell-checker would require very elaborate (and expensive) software due to the highly agglutinative nature of the language. They can however provide assistance based on the natural rules of the language.

> **Warning**: When running the Inuinnaqtun Rules Checker **avoid selecting** English words. The program cannot always tell that they are English words and may change 'e' to 'i' and 'o' to 'u' in them or switch 'r' and 'q' for example.

4.3.2 Source of standards used

These rules are based on the Inuit Cultural Institute's (ICI) standardized writing system for roman orthography. These rules were adapted at the Hivumuarut Workshop in Qurluqtuq (Kugluktuk) in 2004 to include aspects of standardized Inuvialuktun as used in the community of Holman. These adaptations to the ICI writing system are in wide use among Inuinnaqtun speakers.

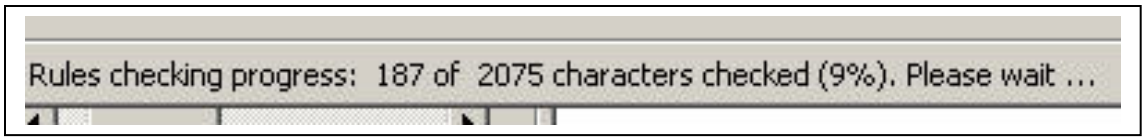
4.3.3 Procedure

The Nunavut Utilities highlight any data where the rules are not followed. The user can then decide to leave the data unchanged or to make any necessary changes. The rules then are just warnings—sometimes they will represent real mistakes and sometimes they will not. It has to be this way since non-Inuinnaqtun data (for example English names or words) can be found imbeded in the Inuinnaqtun text and such data does not follow the same linguistic rules as Inuinnaqtun.

Cascading check: when the Nunavut Utilities begin to check a document, they examine the data, syllable by syllable, for each of the rules below one by one. If they find a syllable which has a rule broken, then they do no further checking on that syllable—only first wrong thing gets reported.

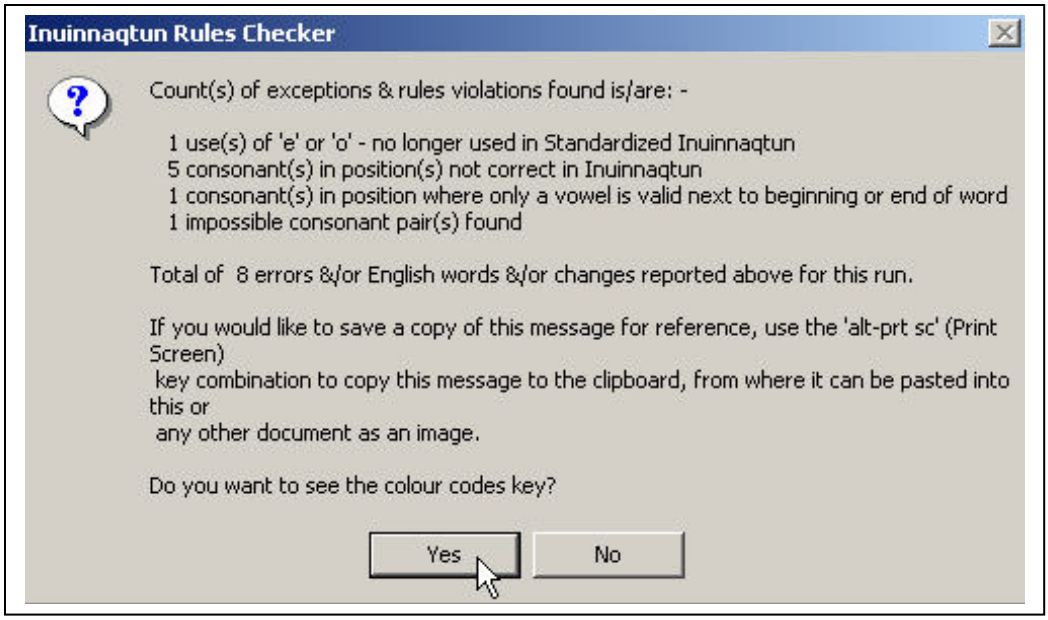
4.3.4 Percent done

While the Rules Checker is running, there is a counter that appears at the bottom of the document to report on the progress of the run that is taking place. You can check this to see how close to being done it is. Here is what it looks like:



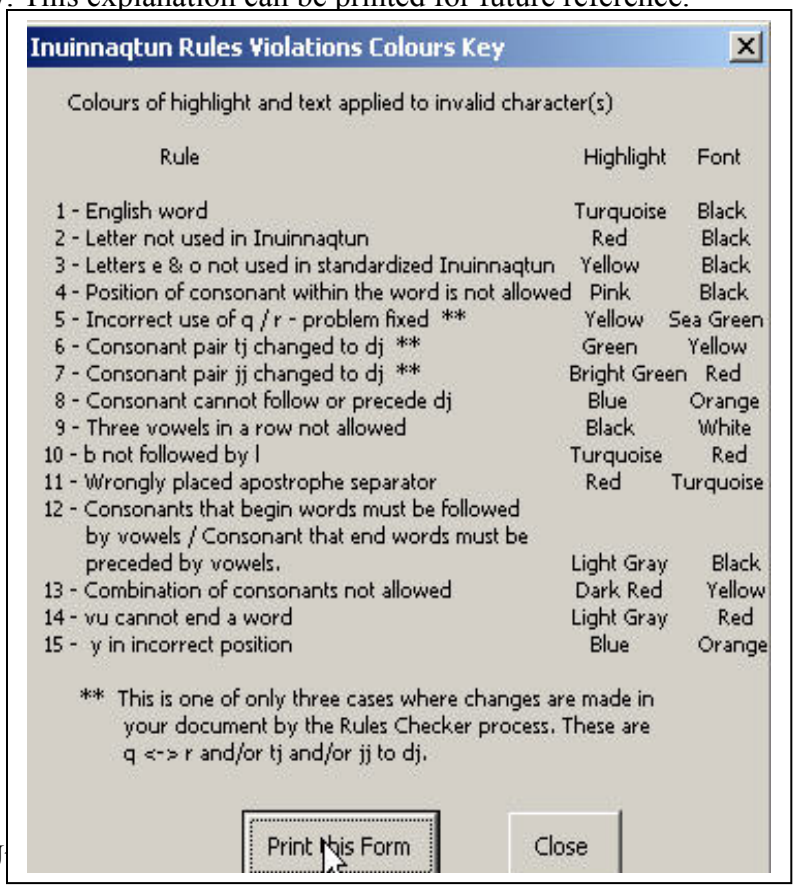
4.3.5 Report:

After the spelling rules checker is run, a report appears in a pop-up window giving the results.

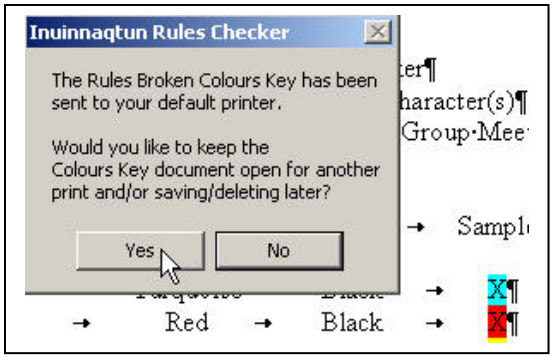


4.3.6 Explanation of Colours Used

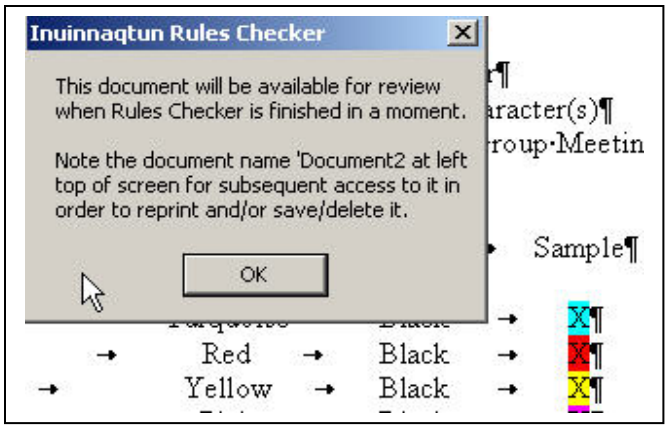
When you answer 'Yes' in the window above, an explanation of the colours used for print and highlight that result from running the Rules Checker are given in a separte pop-up window. This explanation can be printed for future reference.



If you ask to print the form in the above box then it is sent to the default printer and the following message is displayed:



If you ask to keep the document for saving later, then the following appears:



When printed, the form appears with colours as follows:

Multilingual E-Data Solutions Inuinnaqtun Rules Checker
Colour Key for colours of highlight and text applied to invalid character(s)
The rules include orthography decisions made by the Hivmuarut Focus Group Meeting in Kugluktuk Aug. 11-13, 2004

Rule	Highlight	Font	Sample
1 - English word	Turquoise	Black	X
2 - Letter not used in Inuinnaqtun	Red	Black	X
3 - Letters e & o not used in standardized Inuinnaqtun	Yellow	Black	X
4 - Position of consonant within the word is not allowed	Pink	Black	X
5 - Incorrect use of q / r - problem fixed **	Yellow	Sea Green	X
6 - Consonant pair tj changed to dj **	Green	Yellow	X
7 - Consonant pair jj changed to dj **	Bright Green	Red	X
8 - Consonant cannot follow or precede dj	Blue	Orange	X
9 - Three vowels in a row not allowed	Black	White	X
10 - b not followed by l	Turquoise	Red	X
11 - Wrongly placed apostrophe separator	Red	Turquoise	X
12 - Consonants that begin words must be followed by vowels / Consonants that begin words must be preceded by vowels.	Light Gray	Black	X
13 - Combination of consonants not allowed	Dark Red	Yellow	X
14 - vu cannot end a word	Light Gray	Red	X
15 - y in incorrect position	Blue	Orange	X

** This is one of only three cases where changes are made in

4.3.7 Inuinnaqtun Rules

Cascading check: when the Nunavut Utilities begin to check a document, they examine the data, syllable by syllable, for each of the rules below one by one. If they find a syllable which has a rule broken, then they do no further checking on that syllable—only first wrong thing gets reported.

Rule 1: English words

Sometimes English words are imbedded in an Inuinnaqtun text. The software attempts to discover these words by checking each word against your computer's English dictionary in MS Word. Each English word is highlighted and is not subjected to further examination by the rules checker.

Warning: If you have added Inuktitut words to your English dictionary in MS Word (e.g. Nunavut, Nunavummiut, Inuinnaqtun, Qaujimajatuqangit), the Utilities will highlight these words as English, even though they are borrowed from Inuktitut.

Message used in report: "##" word(s) passing English Spell Check found.
(In the actual report, ## is replaced by the number of occurrences found.)
Action required: The words that have been highlighted as English need to be checked to see if any Inuktitut words have been included by mistake. If they have, then these words may need to be reviewed manually since the rules checker will not have examined them.

Rule 2: Invalid characters

Not all English letters are used in standardized Inuinnaqtun. When a letter is found that is not used in standardized Inuinnaqtun, that letter is highlighted.
List of letters used:
Vowels: a i u
Consonants: b dj f g h k j l m n ng p q r s t v y

Message used in report: "## invalid character(s) found"
Action required: Check the highlighted letters to see if an Inuinnqtun word has been misspelled.

Rule 3: Letters "e" and "o".

The letters "e" and "o" were widely used to write Inuinnaqtun before the introduction of the ICI standardized writing system in the mid-1970s. These letters were eliminated under the standardized writing system in order to encourage more consistant spelling.

> **Warning**: When running the Inuinnaqtun Rules Checker **avoid selecting** English words. The program cannot always tell that they are English words and may change 'e' to 'i' and 'o' to 'u' in them or switch 'r' and 'q' for example.

Message used in report: ## case(s) of ‘e’ or ‘o’ – no longer used in Standardized Inuinnaqtun.
Action required: The letter “e” should be replaced with the letter “i” and the letter “o” replaced with the letter “u”. This rule does not apply to borrowed words, e.g. “French”.

Rule 4: Position of consonants in a word.

In writing Inuinnaqtun some consonants can appear only in certain positions as follows:
Can appear at the beginning of a word: g h k m n p q t
Cannot appear at the beginning of a word: b dj l ng r v y
Can appear at the end of a word: k m n ng p q t
Cannot appear at the end of a word: b dj f g h j l r s v y
Must appear in the middle of the word only: b dj f ng y

Message used in report: ## consonant(s) in position where only a vowel is valid next to beginning or end of word
Action required: The highlighted consonants indicate probable misspellings in Inuinnaqtun words. If the words are not Inuit words they may be fine and can be left as is.

Rule 5: Letters 'r' and 'q'

There are special rules on when to use 'r' before another consonant and when to use 'q' instead. These are:
Use q before: h p q t
Use r before: l m n ng r v y.
The software checks that these rules are followed. The software goes ahead and makes a change to the right letter and then highlights what it has done.

Message used in report: ## incorrect consonant combination(s) of 'Q' or 'R' found AND FIXED
Action required: In this case the Rules Checker has already made the change so there is nothing to correct but you might want to check and make sure that you agree with the change. For example the rules checker may not have realized that the word is not an Inuinnaqtun word but is an English, French or other language word or perhaps a name of a person or place.

Rules 6 & 7: Letters 'tj' and 'jj'

At the Hivumuarut Workshop it was decided to adopt the Inuvialuktun use of 'dj' to replace ‘jj’ (from ICI roman orthography) and 'tj' which is used by some speakers. If the software finds “jj” or “tj”, it will automatically switch them to “dj”.

Messages used in report: ## case(s) of 'tj' found AND CONVERTED TO 'dj'
case(s) of 'jj' found AND CONVERTED TO 'dj'"
Action required: In this case the Rules Checker has also already made the change so there is nothing to correct but you might want to check and make sure that you agree with the change.

Rules 8: The letters 'dj' should be alone

A general rule in Inuktitut and Inuinnaqtun is that only two consonants can appear in a row. (Note that ng is the only exception since it is considered to be a single consonant). For this reason, “dj” must appear between two vowels.

Message used in report: ## case(s) of a consonant preceeding or following 'dj' found

Action required: Check for an extra consonant that doesn’t need to be there. Since the use of ‘dj’ (instead of the ‘jj’ used in the east) is a recent decision, there may be other spellings of this double consonant found. For example, in the past ‘tdj’ was sometime used. So in order to conform to the current spelling standard ‘dj’ needs to be used with no other consonants.

Rule 9: Three vowels in a row

Rule: A general rule in Inuktitut and Inuinnaqtun is that only two vowels can appear in a row. The Utilities will flag any combination of more than two vowels.
Exception: allow the sequence: uai whether or not it is preceded by a consonant.

Message used in report: ## case(s) of 3 vowels in a row
Action required: Check to make sure that no misspelling is present and correct as needed.

Rule 10: The letter 'b'

This letter is used in Inuinnaqtun writing but it must always be followed by the letter 'l'. Cases where it is not are flagged by the software.

Message used in report: ## case(s) of ‘b’ not followed by ‘l’ found
Action required: If ‘b’ is followed by some other letter instead of ‘l’ then there is likely a misspelling present. Check and correct as required.

Rule 11: The apostrophe

The apostrophe can be used inside a word only with the combination n’ng. This is to distinguish the N+NG combination from a double NG. If an apostrophe is found inside a word in any other position it is flagged. Note: this does not apply to apostrophe or quote mark at the beginning or end of a word.

Message used in report: ## wrongly placed apostrophe(s) found
Action required: Check for mis-placed apostrophes and correct as required.

Rule 12: Single consonants

In writing Inuinnaqtun it is possible only to have single consonants at the beginning and end of words. This means that a single consonant at the beginning of a word must be followed by a vowel and a single consonant at the end of a word must be preceded by a vowel.

Message used in report: ## consonant(s) in positions not correct for Inuinnaqtun

Action required: Check to make sure that no misspelling is present and correct as needed.

Rule 13: Consonants combinations

There are rules in writing Inuinnaqtun which determine which consonants can be combined with which other consonants. Here is a list of valid and invalid combinations:

Valid consonant clusters

bl
dj
ff
gg, gy, gl, gv
kh, kk, kp, ks, kt
lg, ll, lr, lv
mm, mn, mng, mr
ngm, ngn,
nm, nn, nng, n'ng, nr
qh, qp, qq, qs, qt
ph, pk, pp, pq, pt,
rl, rm, rn, rng, rr, rv, ry
tp, tq, tt
vv, vy

Impossible consonant clusters

bdj, bf, bg, bh, bj, bk, bm, bn, bp, bq, br, bs, bt, bv, by
fb fdj, fb, fg, fh, fj, fm, fn, fp, fq, fr, fs, ft, fv, fy
gb, gdj, gf, gh, gj, gk, gm, gn, gng, gp, gq, gr, gs, gt
j is valid only after d; it is invalid in any other combination with another consonant or on its own between vowels
kg, kj, kl, km, kn, kng, kq, kr, kv
lh, lj, lk, lm, ln, lng, lp, lq, ls, lt,
mg, mh, mj, mk, ml, mng, mp, mq, ms, mt, mv
nh, nj, nk, nl, np, nq, ns, nt, nv
ngg, ngh, ngj, ngk, ngl, ngp, ngq, ngr, ngs, ngt, ngv
pb pdj pf pg pj pl pm pn png pr ps pv py
qg, qj, qk, ql, qm, qn, qng, qv
rg, rh, rj, rk, rp, rs, rt
sg, sh, sj, sk, sl, sm, sn, sng, sp, sq, sr, st, sv
hg, hj, hk, hl, hm, hn, hng, hp, hq, hr, hs, ht, hv
tg, th, tj, tk, tl, tm, tn, tng, tr, tv
vh, vj, vk, vm, vn, vng, vp, vq, vs, vt

Message used in report: ## impossible consonant pair(s) found
Action required: Check to make sure that no misspelling is present and correct as needed.

Some explanatory notes on these combinations:

1. General
Note that Inuinnaqtun is considered more conservative than eastern dialects of Inuktitut so that more consonant combinations are possible than in the eastern dialects. This applies to combinations such as lv, lg, tq, nm, mn, vg, pq, bl.
2. Angma
Note that Inuinnaqtun has both the double angma (nng) plus a single angma preceded by n (n'ng).
3. kg and r. The combination kg is not allowed; it may be that this is done to approximate "r" ("qangikgumaplugu ilihakgujutikni" should be "Qaangirumablugu Iliharutingni"; "atauhikmik" should be "atauhirmik"; "ilihakvighanik" should be "iliharvikhanik".)
4. Changing consonants
Care needs to be taken to replace consonants when adding suffixes. "Nunavunmi" not "Nunavutmi" (nasalization); "inulramirnit" not "inulgamiitnit".
5. g and q
In some fonts these two letters look the same so mistakes can be hard to spot. (In fact if they are underlined they may appear exactly the same!)
Examples: "kappianaqhiyut" not "kapianaghiyut"; "akhuuqhimayuk" not "aghuukhimayuk".
6. k and q
Watch for cases of k that should be q. For example: "tutquumavianik" not "tutkumavianik".

Rule 14: Word Ending in "VU"

In writing Inuinnaqtun it is not possible to have a word ending in "vu". It means there must be a final consonant missing.
Message used in report: ## incomplete word ending(s) 'vu'
Action required: Find the missing final and add it to the end of the word.

Rule 15: Position of the consonant 'y'

Special rule for y: y must be between two vowels or after g, r, or v. This means the following combinations are not valid: yb ydj yf yg yh yj yk yl ym yn yng yp yq yr ys yt yv yy
Message used in report: ## cases of consonant y in position(s) not correct in Inuinnaqtun
Action required: Check for a misspelling around the consonant 'y'.

5. Help and Troubleshooting

5.1 Installing the Nunavut Utilities

If you are working in a Nunavut government office, the central computer Help Desk will do the installation for you.
If you are installing at home or on a computer not maintained by the Nunavut Government, the utilities file needs to appear in the right directory on your computer.
Filename: The file is called "NunavutUtilities.dot". It appears just like a regular MS Word document. (In versions before version 3.3 (2005), the file was called "InuktitutUtilities.doc".)
Downloading: The current version of the file can be downloaded from www.gov.nu.ca/cley. You can download the file "NunavutUtilities.dot" to any location on your own computer and then move or copy it to the right location.
Location: So that the utilities will appear each time you open MS Word, the file "NunavutUtilities.dot" needs to be present in the "MS Word Startup" folder on your computer. Within an open MS Word Document if you go to: Tools/Options/File Locations you will be able to see where this startup file is now on your computer. Once you know where the startup file is located you simply move a copy of the file to that location. Once this is done successfully, "NunavutUtilities" will appear as a menu item at the top of each MS Word document—the menu strip that begins: File/Edit/View/Insert etc. The following is a typical location under most Windows Operating Systems.

c:/Documents and Settings/User Name or Administrator/Application Data/Microsoft/Word/Startup

5.2 Installing Unicode fonts and their keyboard

- **Install Font.** Using the regular control panel function for fonts, make sure you have a Unicode Syllabic font installed. (Such as Pigiarniq, Euphemia, NunacomU, Ballymun or Andale Mono from Monotype.) Pigiarniq is downloadable from (http://www.gov.nu.ca/cley/english/inuktituttools.htm)

- **Run kbdiu.exe.** This exe file prepares your computer to be able to install the keyboard, which is then done using the regular control panel function. (This file can be downloaded from: http://www.gov.nu.ca/cley) This file can be run directly on Windows NT and 2000. When running on Windows XP, you need to right click on this file and select Properties/Compatibility. Choose "Run this program in compatibility mode for Windows 2000". Say OK.
- **Add new keyboard**
    - Open the Keyboard control panel (Start/Settings/Control Panel)
    - Go to the "Input locales tab"
    - Click "Add"...
    - Pick a keyboard language - English (Canadian) is fine

[Indonesian is also good and has the advantage that the two char form is "IN".]
Be sure to clear the checkbox marked "Use default properties for this input locale"

- Click OK

In the dialog that pops up, choose the "Inuktitut Nunacom" keyboard layout.
(if this does not appear, you may need to reboot, then come back to this point)

- OK your way out of the control panel.

In the task bar icon tray at the bottom right you should now have an indicator with "EN" [or "IN" if you choose Indonesian] on it.

Click this icon and it should pop up indicating your current keyboard as well as one with the Inuktitut Nunacom layout. Choose the Nunacom layout.

Enabling Inuktitut

Push CAPS LOCK to enable the Inuktitut layouts. Would be useful to provide a Unicode keyboard layout here if you have one ready.

Windows XP Installation Trick

There is a bit of a compatibility trick when installing the keyboard on Windows XP. Right-click on the setup module ‘kbdiu.exe’. Select “Properties / Compatibility”. Then check the box “Run this program in compatibility mode”. Then select “Windows 2000” from the drop-down box. After this is done you can run the ‘kbdiu.exe’, and following approximately the same procedure as on Windows 2000 – on Windows XP keyboards are added in the control panels under “Regional and Language Options/Text Services and Input Languages/Settings/Add”.

5.3 Limitations when running the Nunavut Utilities

Tables

It is not possible to run the Nunavut Utilities on data in tables in MS Word. In order to get around this limitation, it is necessary to select the entire table and convert it to text (this command is found under "Tools"). Once the Nunavut Utilities have run the data can be converted back to a table using the opposite command under the Tools menu.

Formatting

Generally, most formatting will be preserved, but often justification or embedded non-Inuktitut text will be incorrectly handled. In such cases, do not select non-Inuktitut data, but take multiple steps to do surrounding text. (e.g. a postal code in Times New Roman embedded in an otherwise syllabic Inuktitut address)

Final Paragraph Mark

Word stores much of its formatting code in the final paragraph mark of a section of text. To avoid losing this information, turn on "Show/Hide" with the "¶" button, and do not include final paragraph marks so displayed in your selection for conversion.

Capitalization of Words

When transliterating Syllabics to Roman text, no attempt is made to capitalize any words. No rules for such a process have been made available to the development team at this time. Once transliteration has been done, corrections to words requiring capitalization must be done by the user.

Truncated Conversion

If conversion does not take place on some or all of the text selected:

Try changing the selection to include a space or a paragraph mark at the end of the selected text.

Just One Word Does Not Convert:

Sometimes invisible control codes can be at the end of a word; this can prevent conversion from happening. Select all spaces at the end of the word and replace with a single space to make sure it/they really are spaces.

5.4 Nunavut Utilities error messages

5.4.1 General Messages

Message: No Selection

It you try to run the Utilities before you select some data you will be warned by the program as follows:

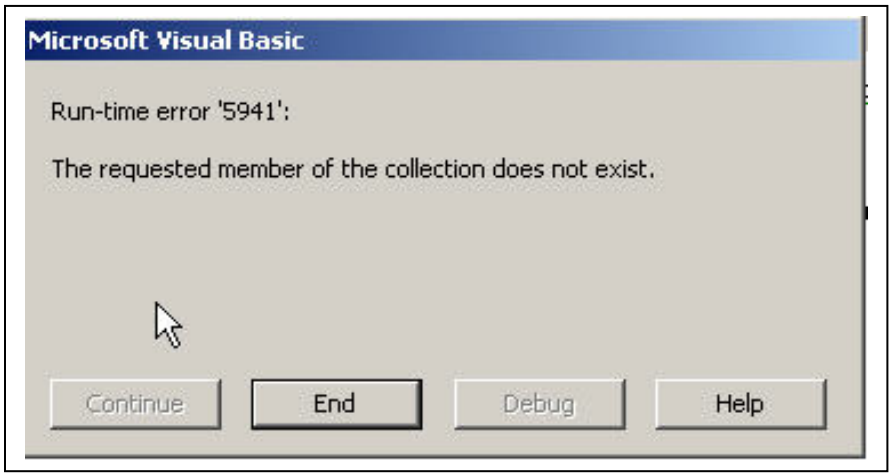
The same message can occur with any of the routines – only the header will vary.
Action required: Just select some data and run the routine again.

Message: Overflow (Document is too big)

It can happen that the document you are trying to convert is too big. This depends on how much memory you have on your computer

Action required: Select a smaller part of the document and try again. You will have to convert the document in chunks.

Message: Run-time error '5941'
This error message is produced if a bug in the program is encountered.



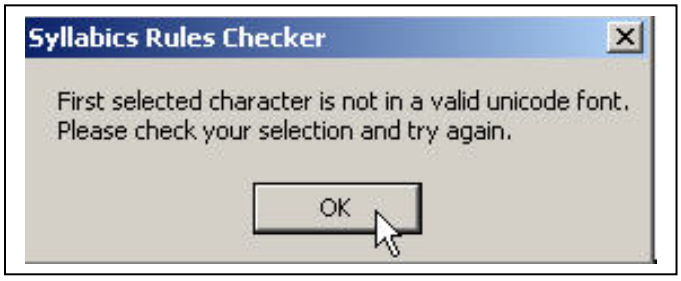
Action required: This message may be an irrelevant message. If you have the result you expected, you can ignore this message. If you find that something is not working correctly in your result report this message with a description of the problem to Nunavut Government Help Desk or to Multedata.

5.4.2 Font messages

In order to run the Nunavut Utilities, the software expects you to have a Unicode font on your computer. It warns you about this if it can't find one after you've asked it to perform a font conversion or a transliteration or a rules check.

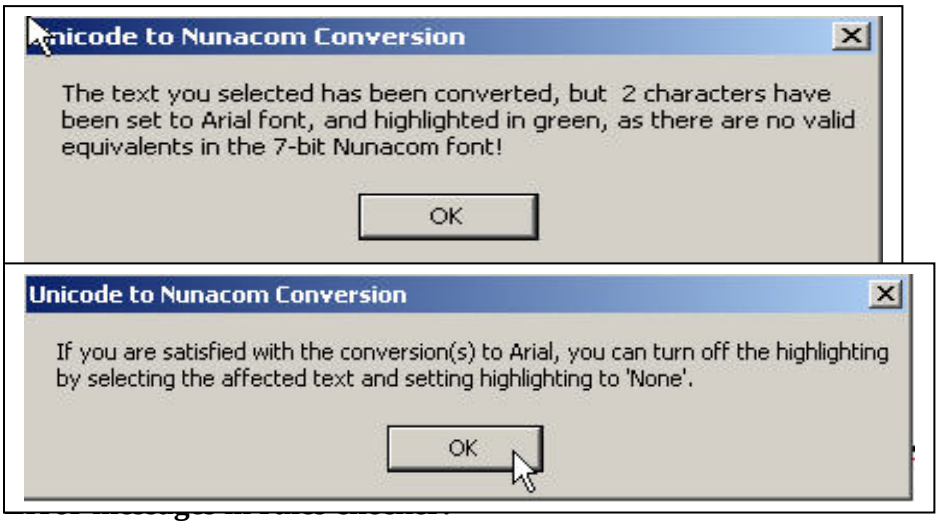
Message: No Unicode Font
Header: Unicode Font Warning
In order to run the Utilities properly you need to have on your computer one of the Unicode fonts recognized by the Utilities as including Inuktitut syllabics (Pigiarniq, NunacomU, Ballymun or Andale Mono). If you do not, you will receive a warning to say this. It will still be possible to run the Utilities but the Unicode data that is created will show up as empty rectangles on your computer.
Action required: Please obtain a Unicode font before proceeding to use the Nunavut Utilities by contacting the Nunavut Help Desk or via the Government of Nunavut website: www.gov.nu.ca

Message: First Selected Character



Action Required:
Check your selection and make sure that you have selected Unicode Syllabic data. The operation you are trying to perform can only take place on Syllabic data in a Unicode font.

Message: Missing character in font
Sometimes it happens that a character is missing from the font you are converting to. In this case, the Utilities will try and replace the missing character and will warn you that they have done that. Here are the messages:



Action Required: No action required. Information only is being provided.

5.4.3 Transliteration messages

Non-Inuktitut words
During the conversion from Roman to Syllabics, you may get a message saying that "Non-Inuktitut words were skipped". This message can occur even when nothing appears to be skipped—for example when there is an extra space at the beginning of your selection.

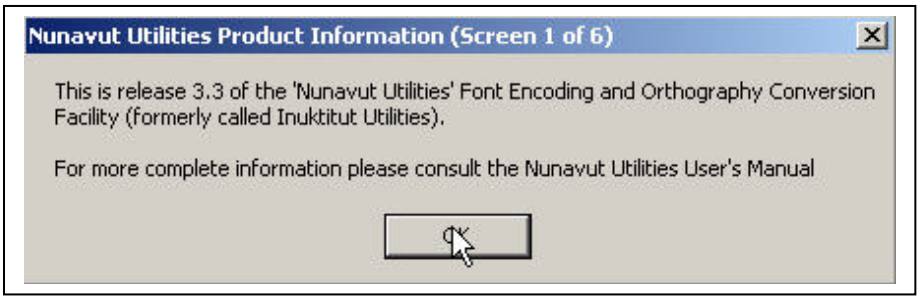
Action Required: Check the data to to review what was skipped. It may be that no further action is necessary. Or perhaps a spelling mistake has prevented the data from being converted. If the word contains letters not used in Inuktitut then the data may be skipped because the program thinks it is not Inuktitut. (Kitikmeot for example.)

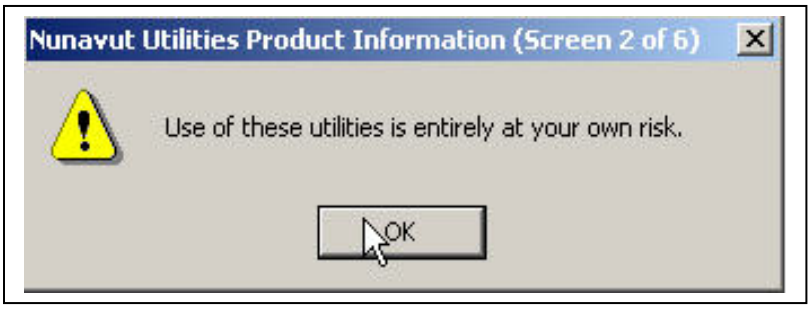
No Inuktitut words at all.
If the program thinks that the data you selected has no Inuktitut words at all in it, you will get the following message:

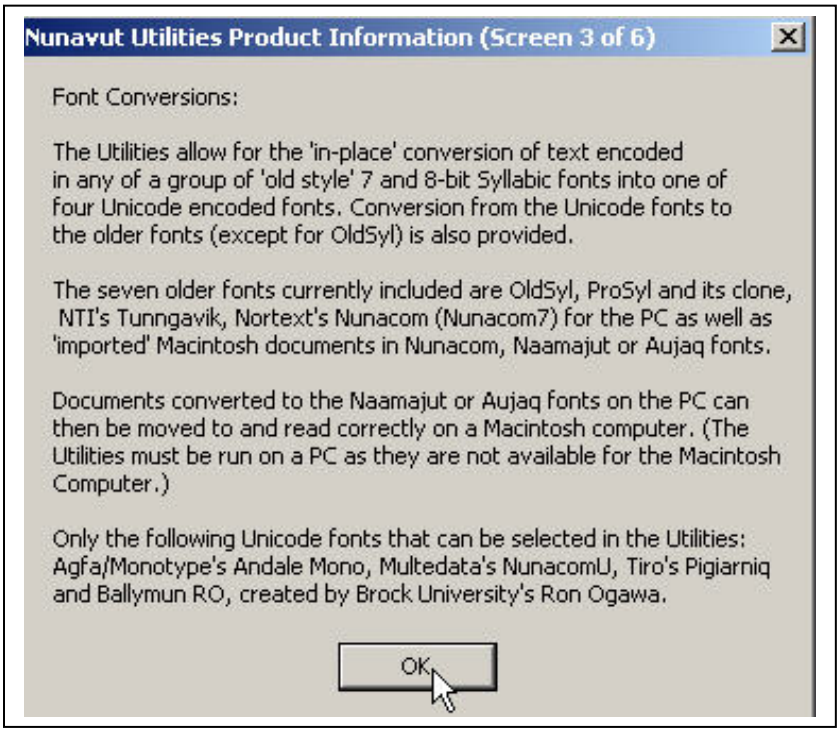
Action Required: Same as above.

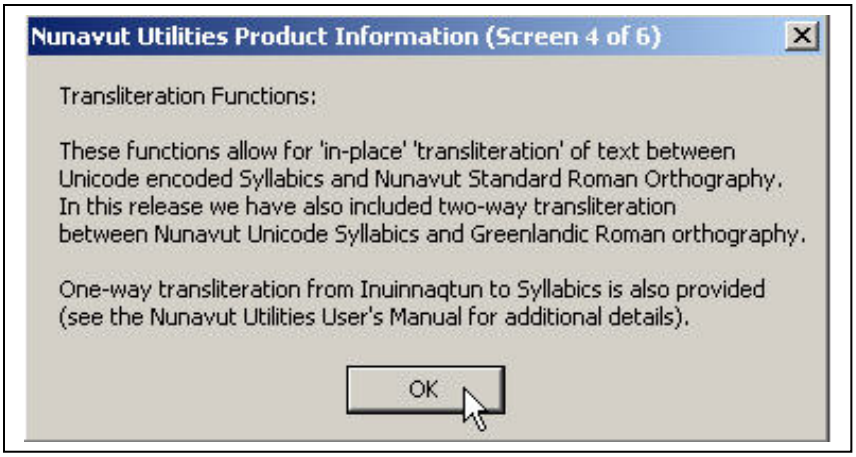
5.4.4 Product Information screens

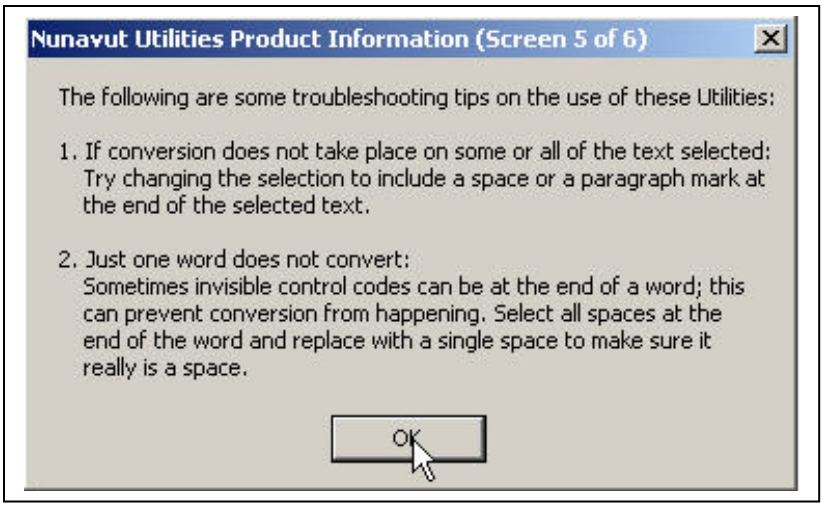
Since this manual may not always be readily available to everyone using the Nunavut Utilities, a limited amount of information is provided within the Utilities under “Help and information” as follows:

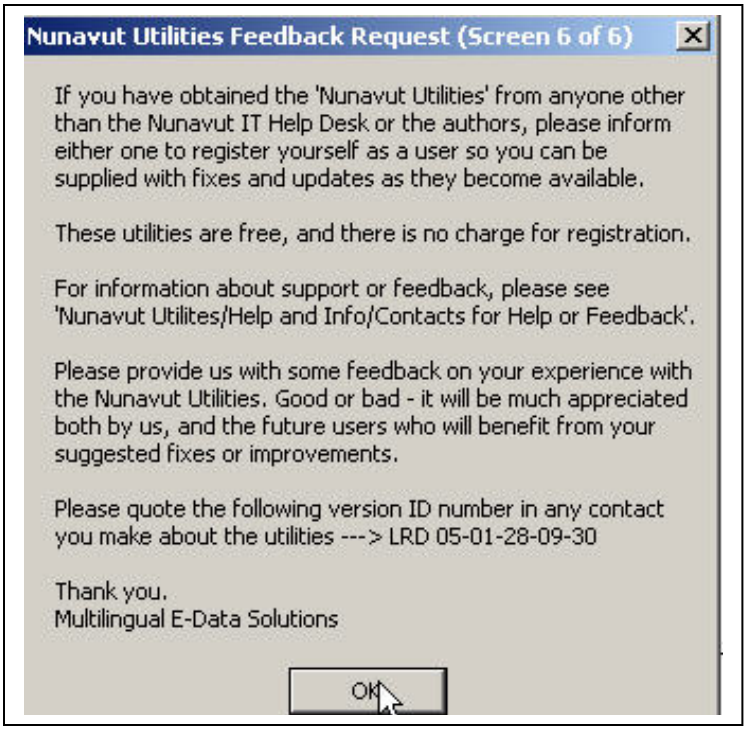







Nunavut Utilities Product Information (Screen 4 of 6)
Transliteration Functions:
These functions allow for 'in-place' 'transliteration' of text between Unicode encoded Syllabics and Nunavut Standard Roman Orthography. In this release we have also included two-way transliteration between Nunavut Unicode Syllabics and Greenlandic Roman orthography.
One-way transliteration from Inuinnaqtun to Syllabics is also provided (see the Nunavut Utilities User's Manual for additional details).
OK


Nunavut Utilities Product Information (Screen 5 of 6)
The following are some troubleshooting tips on the use of these Utilities:
1. If conversion does not take place on some or all of the text selected: Try changing the selection to include a space or a paragraph mark at the end of the selected text.
2. Just one word does not convert: Sometimes invisible control codes can be at the end of a word; this can prevent conversion from happening. Select all spaces at the end of the word and replace with a single space to make sure it really is a space.
OK


Nunavut Utilities Feedback Request (Screen 6 of 6)
If you have obtained the 'Nunavut Utilities' from anyone other than the Nunavut IT Help Desk or the authors, please inform either one to register yourself as a user so you can be supplied with fixes and updates as they become available.
These utilities are free, and there is no charge for registration.
For information about support or feedback, please see 'Nunavut Utilites/Help and Info/Contacts for Help or Feedback'.
Please provide us with some feedback on your experience with the Nunavut Utilities. Good or bad - it will be much appreciated both by us, and the future users who will benefit from your suggested fixes or improvements.
Please quote the following version ID number in any contact you make about the utilities ---> LRD 05-01-28-09-30
Thank you.
Multilingual E-Data Solutions
OK

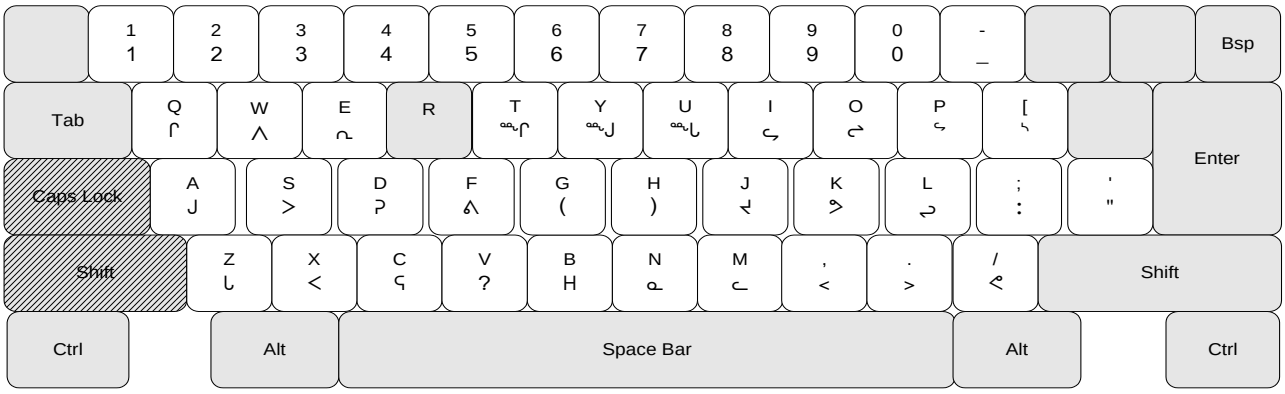
5.5 Unicode Keyboard Layout

(Note: the Department of Education has produced stick-on keytops)

Microsoft UNICODE Keyboard — Level 1
(Caps Lock ON)

Multilingual E-Data Solutions
www.multedata.com
October 1999

Microsoft UNICODE Keyboard — Level 2
(Caps Lock ON + Shift)



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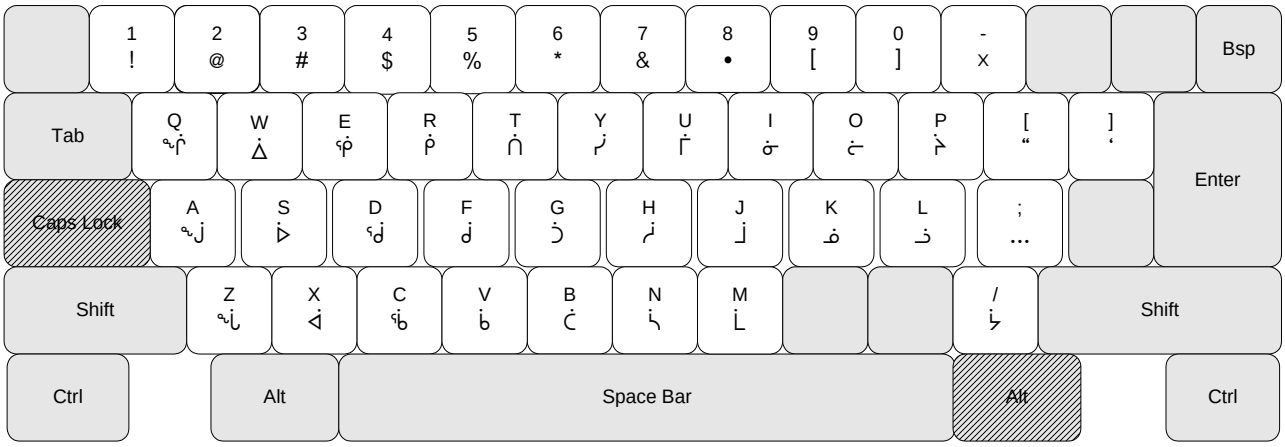
Microsoft UNICODE Keyboard — Level 3
(Caps Lock ON + Alt)



NOTE: Must use Right Alt key not Left Alt Key

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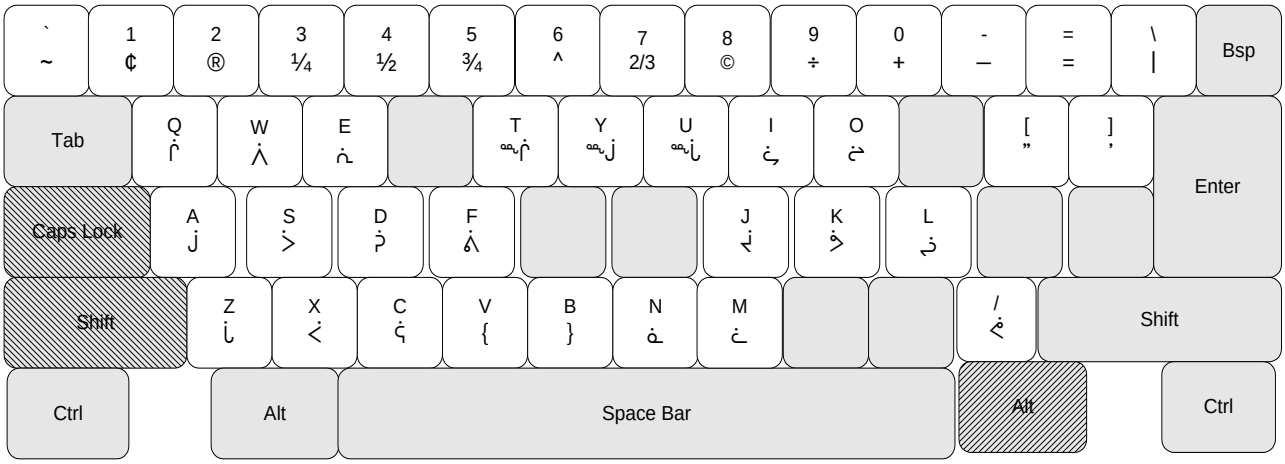
www.multedata.com
October 1999

Microsoft UNICODE Keyboard — Level 4
(Caps Lock ON + Alt + Shift)



NOTE: Must use Right Alt key not Left Alt Key

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October 1999