

pIqaD (Klingon) and its Usage

Back in the halcyon days of 1997, a [proposal](#) was made for encoding the “pIqaD” characters used for writing Klingon (ᳵᳶ᳚ᳪ᳚ ᳶ᳚᳚). The proposal was rejected, on the grounds that pIqaD was not actually used by its purported userbase, who instead used the standard Latin orthography for Klingon. The issue reared its head on the Unicode mailing list from [time to time since](#) then (links are to thread-headers, not necessarily to the most relevant messages therein). And there have been [blogs](#) entirely in pIqaD, and also usage in [dictionary sites](#) and [other websites](#) (click “pIqaD Lexicon” in the menu on the left and choose some options from that menu). There are pages [describing](#) how to use pIqaD (where to get fonts, etc). Note that some of these sites are quite old (and indeed are archived and no longer available at their original locations); this is not a new phenomenon. And yet the claim has always been that there is a lack of usage.

The years roll by as they always do, and more examples of pIqaD usage for Klingon have been coming to light. Does this still not count as usage?

- A comic book has recently been published (Johnson, Mike and Parrot, Ryan [Star Trek: ᳶ᳚᳚᳚᳚᳚ ᳶ᳚᳚](#) [Manifest Destiny] #1(Klingon Edition), 2016, IDW Publishing) whose text is entirely in pIqaD, even down to the titles of people credited on the title page (figs 1, 2).
- The book ᳵᳶ᳚ᳪ᳚ ᳶ᳚᳚ ᳶ᳚᳚᳚᳚᳚ ᳶ᳚᳚᳚᳚᳚ ᳶ᳚᳚᳚᳚᳚ ᳶ᳚᳚᳚᳚᳚ (Robinson, Ben, Rick Sternbach, and Robert Bonchune. *Klingon Bird of Prey I.K.S. Rotarran (B’rel Class) Owner’s Workshop Manual*. Sparkford: Haynes, 2012.) clearly lists its Klingon title on its front cover and title page, and has pIqaD page and chapter headers, pIqaD page numbers, and pIqaD in its glossary (figs 3, 4, 5).
- pIqaD has been used in a [legal brief](#) filed with a U.S. court.
- Microsoft’s Bing Translation tool has pIqaD as an option for inputting and outputting Klingon text (fig 6, showing output only. The text used is the well-established [PUA encoding of pIqaD](#) which has been mentioned in earlier discussions of this topic).
- Some years ago, a Klingon edition of Monopoly came out (figs 11, 12, 14, 15, 16) on which practically everything written on the box in English is also there in Klingon in pIqaD, and pIqaD is also found on its gameboard and cards.
- pIqaD can be found on wine bottle labels (fig 7) and on phone apps (figs 9, 13).

- A set of “Quotable Klingon” cards was issued by Paramount, which show Klingon aphorisms in English and in Klingon in both Latin and pIqaD transcriptions (figs 8, 10), with plenty of better examples available via [Google image search](#)).

Can Meroitic show so much evidence of *modern* usage?

It is certainly true that many Klingonists use only the Roman orthography (I myself do not use pIqaD much, if at all). But then, some people write Sanskrit only with Devanagari characters, and never use other Bramhi scripts for it, yet we still encode Sanskrit-specific characters in those other scripts. The existence of an alternative does not invalidate other options. Nor does its artificiality (all writing systems are artificial, and several already-encoded ones are quite new on the world scene also); after all, the Unicode Consortium has recently recommended encoding other symbols associated with [mythical planets](#). I think it is time for the issue of pIqaD to be revisited again, and resolved once and for all, by encoding it.

The content of [N1643](#) is reiterated below, with minor changes (including two additional characters listed in the [ConScript Unicode Registry](#)), as the current proposal, if only to serve as a starting point. I beg the pardon of Michael Everson, the original author of the work, for placing my name on it (as the current requester), and for leaving him on the hook for providing glyph shapes.

DOC TYPE: Individual contribution

TITLE: **Proposal to encode Klingon in Plane 1 of ISO/IEC 10646-2**

SOURCE: Mark Shoulson (after Michael Everson (IE))

STATUS: Proposal.

DISTRIBUTION: Worldwide

A. Administrative	
1. Title	Proposal to encode Klingon in Plane 1 of ISO/IEC 10646-2
2. Requester's name	Mark Shoulson
3. Requester type	Individual request
6a. Completion	This is a complete proposal.
6b. More information to be provided?	No
B. Technical -- General	
1a. New script? Name?	Yes. Klingon
1b. Addition of characters to existing block? Name?	No.
2. Number of characters	37
3. Proposed category	Category B.1
4. Proposed level of implementation and rationale	Level 1
5a. Character names included in proposal?	Yes
5b. Character names in accordance with guidelines?	Yes
5c. Character shapes reviewable?	Yes
6a. Who will provide computerized font?	Michael Everson,

	Evertype
6b. Font currently available?	Michael Everson, Evertype
6c. Font format?	TrueType
7a. Are references (to other character sets, dictionaries, descriptive texts, etc.) provided?	Yes.
7b. Are published examples (such as samples from newspapers, magazines, or other sources) of use of proposed characters attached?	No
8. Does the proposal address other aspects of character data processing?	No

C. Technical -- Justification

1. Contact with the user community?	Yes, with the Klingon Language Institute
2. Information on the user community?	Klingon enjoys both scholarly and popular use.
3a. The context of use for the proposed characters?	Used to write ṭḥingan ḥol, the Klingon language.
3b. Reference	
4a. Proposed characters in current use?	Yes
4b. Where?	By scholars and enthusiasts.
5a. Characters should be encoded entirely in BMP?	No. Positions U+0001 CDD0 - U+0001 CD7F are proposed for the encoding.
5b. Rationale	Accordance with the Roadmap.
6. Should characters be kept in a continuous range?	Yes
7a. Can the characters be considered a presentation form of an existing character or character sequence?	No.
7b. Where?	
7c. Reference	

8a. Can any of the characters be considered to be similar (in appearance or function) to an existing character?	No
8b. Where?	
8c. Reference	
9a. Combining characters or use of composite sequences included?	No
9b. List of composite sequences and their corresponding glyph images provided?	No
10. Characters with any special properties such as control function, etc. included?	No

D. SC2/WG2 Administrative

To be completed by SC2/WG2

1. Relevant SC 2/WG 2 document numbers:	
2. Status (list of meeting number and corresponding action or disposition)	
3. Additional contact to user communities, liaison organizations etc.	
4. Assigned category and assigned priority/time frame	
Other Comments	

This encoding at derives from the Linux kernel source code (“Documentation/unicode.txt” by H. Peter Anvin, hpa@zytor.com), from which some of the description here has been taken. This proposal differs from the Linux registration by including an additional character, KLINGON SYMBOL FOR EMPIRE at U+xxFF, as well as two punctuation characters.

Several glyph forms for the Klingon alphabet are extant. The Qo’noS font, designed for *Star Trek: The Motion Picture* by the Astra Image Corporation, is the standard font used by the Klingon Language Institute and Paramount (though Paramount appears to use the characters unsystematically vis à vis the Klingon language). The Klinzhai font, derived from *The U.S.S. Enterprise Officer’s Manual* (1980), predates Marc Okrand’s *Klingon Dictionary* and does not have a standard relationship to *tlhIngan Hol* or to the Qo’noS font.)

Klingon has an alphabet of 26 characters, a positional numeric writing system with 10 digits, and is written left-to-right, top-to-bottom. Punctuation in the form of triangles for commas and full stops is attested in the examples. The standard Okrand transliteration for Klingon runs as follows:

a b ch D e gh H I j l m n ng o p q Q r S t tlh u v w y '

In the names list below, “q” is written Q and “Q” is written QH.

This encoding has been endorsed by the Klingon Language Institute (<http://www.kli.org/>).

```
U+xxD0 KLINGON LETTER A;Lo;0;L;;;;;N;;;;;
U+xxD1 KLINGON LETTER B;Lo;0;L;;;;;N;;;;;
U+xxD2 KLINGON LETTER CH;Lo;0;L;;;;;N;;;;;
U+xxD3 KLINGON LETTER D;Lo;0;L;;;;;N;;;;;
U+xxD4 KLINGON LETTER E;Lo;0;L;;;;;N;;;;;
U+xxD5 KLINGON LETTER GH;Lo;0;L;;;;;N;;;;;
U+xxD6 KLINGON LETTER H;Lo;0;L;;;;;N;;;;;
U+xxD7 KLINGON LETTER I;Lo;0;L;;;;;N;;;;;
U+xxD8 KLINGON LETTER J;Lo;0;L;;;;;N;;;;;
U+xxD9 KLINGON LETTER L;Lo;0;L;;;;;N;;;;;
U+xxDA KLINGON LETTER M;Lo;0;L;;;;;N;;;;;
U+xxDB KLINGON LETTER N;Lo;0;L;;;;;N;;;;;
U+xxDC KLINGON LETTER NG;Lo;0;L;;;;;N;;;;;
U+xxDD KLINGON LETTER O;Lo;0;L;;;;;N;;;;;
U+xxDE KLINGON LETTER P;Lo;0;L;;;;;N;;;;;
U+xxDF KLINGON LETTER Q;Lo;0;L;;;;;N;;;;;
U+xxE0 KLINGON LETTER QH;Lo;0;L;;;;;N;;;;;
U+xxE1 KLINGON LETTER R;Lo;0;L;;;;;N;;;;;
U+xxE2 KLINGON LETTER S;Lo;0;L;;;;;N;;;;;
U+xxE3 KLINGON LETTER T;Lo;0;L;;;;;N;;;;;
U+xxE4 KLINGON LETTER TLH;Lo;0;L;;;;;N;;;;;
U+xxE5 KLINGON LETTER U;Lo;0;L;;;;;N;;;;;
U+xxE6 KLINGON LETTER V;Lo;0;L;;;;;N;;;;;
U+xxE7 KLINGON LETTER W;Lo;0;L;;;;;N;;;;;
U+xxE8 KLINGON LETTER Y;Lo;0;L;;;;;N;;;;;
U+xxE9 KLINGON LETTER GLOTTAL STOP;Lo;0;L;;;;;N;;;;;
U+xxF0 KLINGON DIGIT ZERO;Nd;0;L;;0;0;0;N;;;;;
U+xxF1 KLINGON DIGIT ONE;Nd;0;L;;1;1;1;N;;;;;
U+xxF2 KLINGON DIGIT TWO;Nd;0;L;;2;2;2;N;;;;;
U+xxF3 KLINGON DIGIT THREE;Nd;0;L;;3;3;3;N;;;;;
U+xxF4 KLINGON DIGIT FOUR;Nd;0;L;;4;4;4;N;;;;;
U+xxF5 KLINGON DIGIT FIVE;Nd;0;L;;5;5;5;N;;;;;
U+xxF6 KLINGON DIGIT SIX;Nd;0;L;;6;6;6;N;;;;;
U+xxF7 KLINGON DIGIT SEVEN;Nd;0;L;;7;7;7;N;;;;;
U+xxF8 KLINGON DIGIT EIGHT;Nd;0;L;;8;8;8;N;;;;;
U+xxF9 KLINGON DIGIT NINE;Nd;0;L;;9;9;9;N;;;;;
U+xxFD KLINGON COMMA;Po;0;L;;;;;N;;;;;
U+xxFE KLINGON FULL STOP;Po;0;L;;;;;N;;;;;
U+xxFF KLINGON SYMBOL FOR EMPIRE;Po;0;ON;;;;;N;;;;;
```

U+xxD0	KLINGON LETTER A		F8D	F8E	F8F
U+xxD1	KLINGON LETTER B				
U+xxD2	KLINGON LETTER CH				
U+xxD3	KLINGON LETTER D				
U+xxD4	KLINGON LETTER E				
U+xxD5	KLINGON LETTER GH				
U+xxD6	KLINGON LETTER H				
U+xxD7	KLINGON LETTER I				
U+xxD8	KLINGON LETTER J				
U+xxD9	KLINGON LETTER L				
U+xxDA	KLINGON LETTER M				
U+xxDB	KLINGON LETTER N				
U+xxDC	KLINGON LETTER NG				
U+xxDD	KLINGON LETTER O				
U+xxDE	KLINGON LETTER P				
U+xxDF	KLINGON LETTER Q				
U+xxE0	KLINGON LETTER QH				
U+xxE1	KLINGON LETTER R				
U+xxE2	KLINGON LETTER S				
U+xxE3	KLINGON LETTER T				
U+xxE4	KLINGON LETTER TLH				
U+xxE5	KLINGON LETTER U				
U+xxE6	KLINGON LETTER V				
U+xxE7	KLINGON LETTER W				
U+xxE8	KLINGON LETTER Y				
U+xxE9	KLINGON LETTER GLOTTAL STOP				
U+xxEA	(This position shall not be used)				
U+xxEB	(This position shall not be used)				
U+xxEC	(This position shall not be used)				
U+xxED	(This position shall not be used)				
U+xxEE	(This position shall not be used)				
U+xxEF	(This position shall not be used)				
U+xxF0	KLINGON DIGIT ZERO				
U+xxF1	KLINGON DIGIT ONE				
U+xxF2	KLINGON DIGIT TWO				
U+xxF3	KLINGON DIGIT THREE				
U+xxF4	KLINGON DIGIT FOUR				
U+xxF5	KLINGON DIGIT FIVE				
U+xxF6	KLINGON DIGIT SIX				
U+xxF7	KLINGON DIGIT SEVEN				
U+xxF8	KLINGON DIGIT EIGHT				
U+xxF9	KLINGON DIGIT NINE				
U+xxFA	(This position shall not be used)				
U+xxFB	(This position shall not be used)				
U+xxFC	(This position shall not be used)				
U+xxFD	KLINGON COMMA				
U+xxFE	KLINGON FULL STOP				
U+xxFF	KLINGON SYMBOL FOR EMPIRE				

	F8D	F8E	F8F
0			
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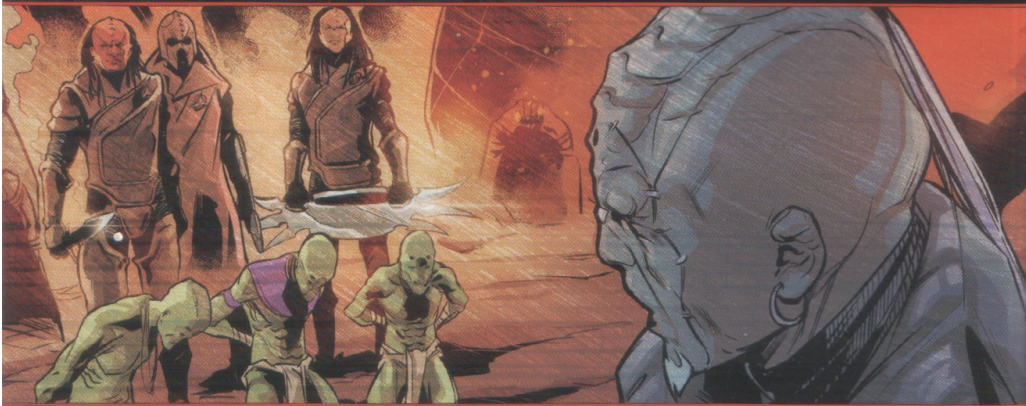


Illustration 1: Page from comic book

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STAR TREK

MANIFEST DESTINY



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ESTHER SANZ

ANDWORLD DESIGN

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TED ADAMS

ROGER CHEESBRO, JEREMY COWAN, CHRIS LIPSCOMBE



ANGEL HERNANDEZ
 JOSE LUIS DEL RIO



TONY SHASTEEN
 BOB PEAK



RACHAEL SLOTT
 FRANCESCA ZAMBON

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Illustration 2: Title page from comic. Note piqap for roles of artists.

KLINGONTM BIRD-OF-PREY



I.K.S. Rotarran (B'rel-class)

Owners' Workshop Manual

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STAR TREKTM

OFFICIAL LICENSED PRODUCT

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Rick Sternbach and Ben Robinson

Illustration 3: Front cover of book

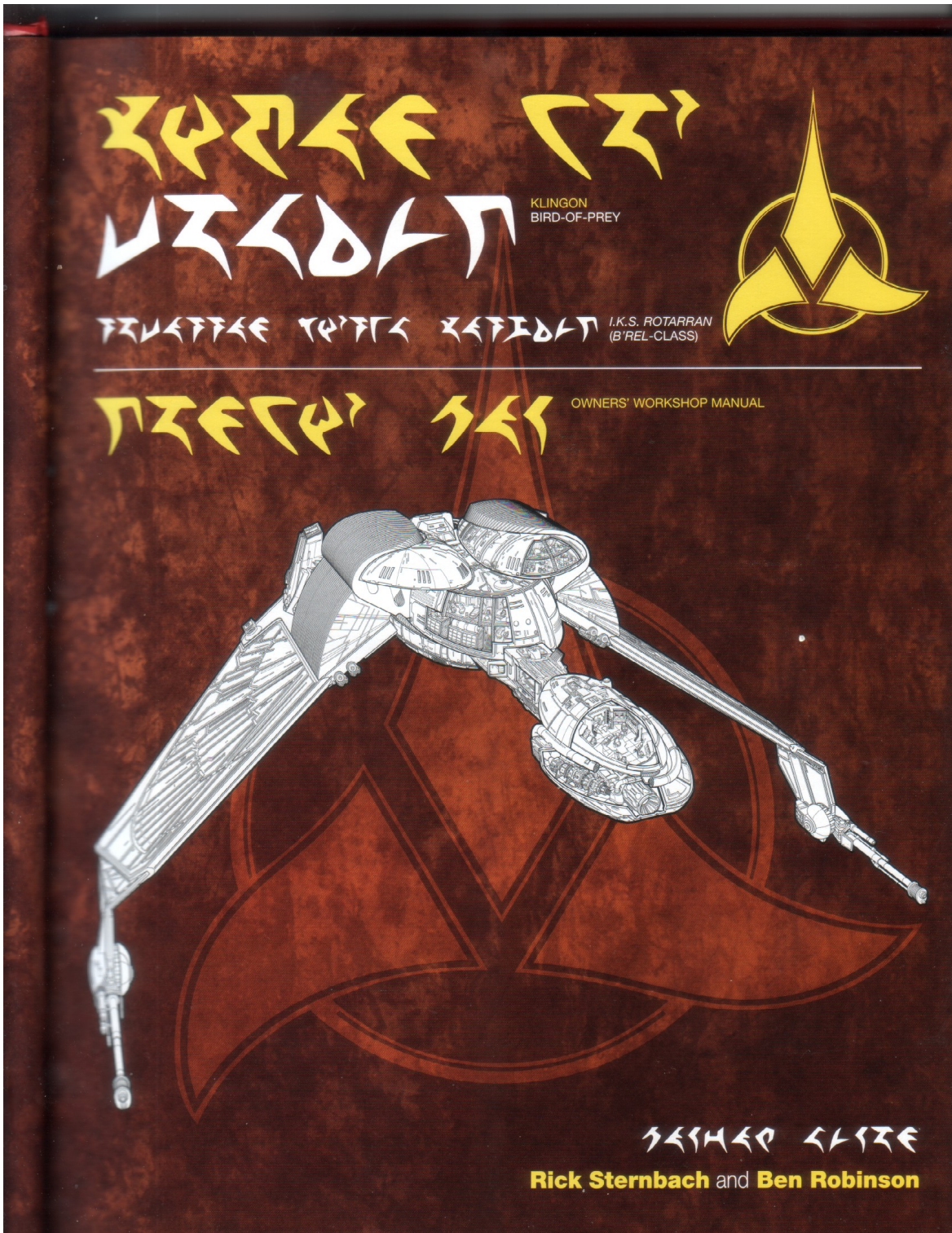


Illustration 4: Title page

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Illustration 5: Page of glossary

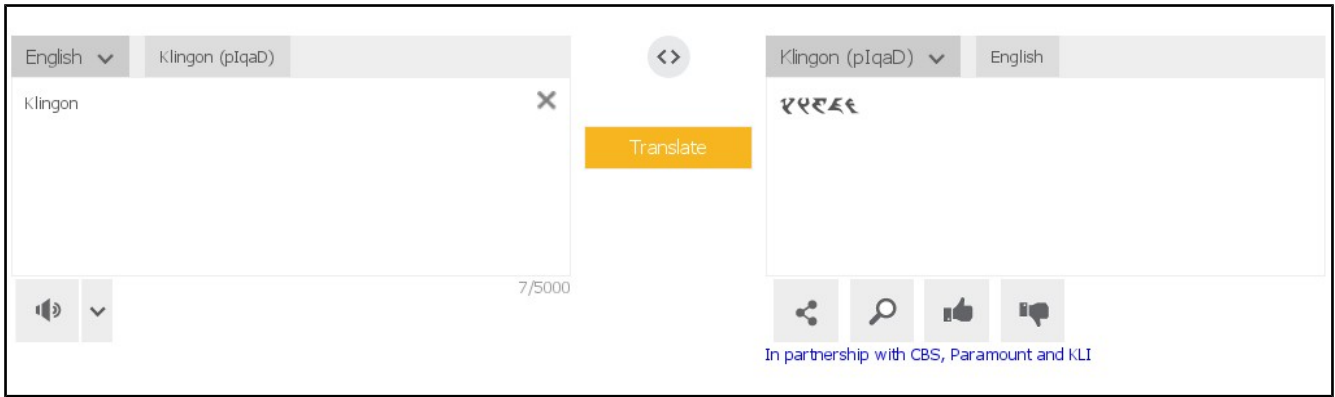


Illustration 6: Bing translate (output shown)

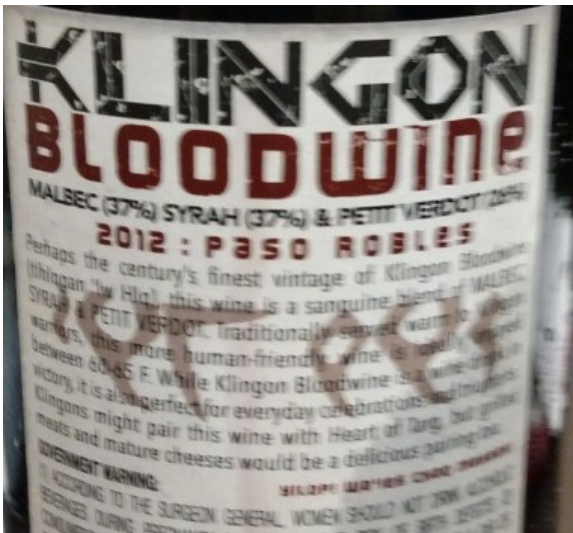


Illustration 7: Klingon "Blood Wine" label

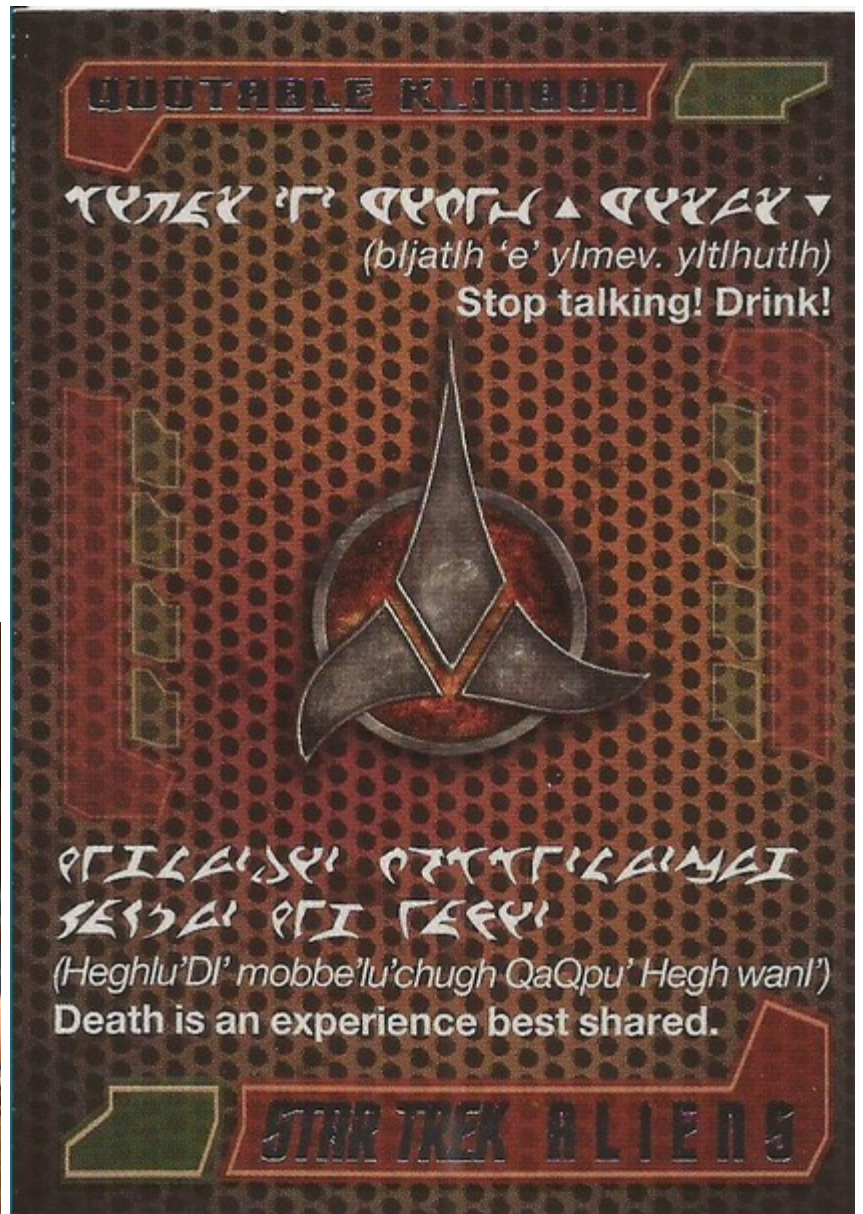


Illustration 8: Card from "Quotable Klingon"



Illustration 9: pIqaD app



Illustration 10: More “Quotable Klingon” cards



Illustration 11: Box of Klingon Monopoly



Illustration 12: Front and back of **ᐃᑦᑦ** and **ᑭᐃᐃ** cards from Klingon Monopoly

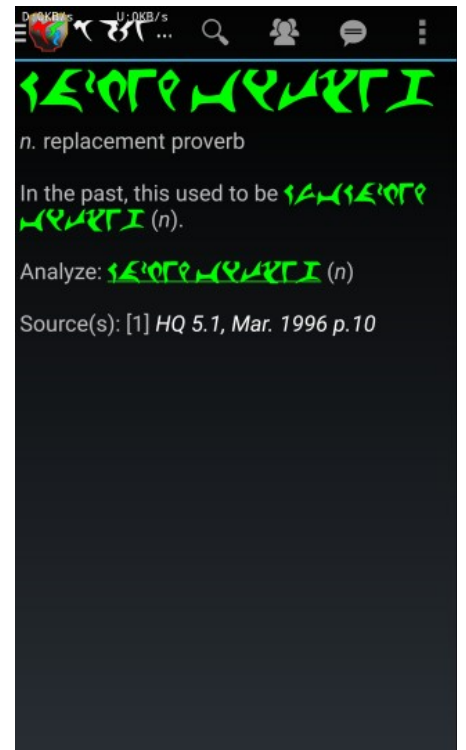


Illustration 13: **ᑦᑦᑦᑦ**, a Klingon dictionary app, in pIqaD mode



Illustration 14: Property cards (front and back; the pIqaD shows the name of the property) and samples of money from Klingon Monopoly



Illustration 15: Part of Klingon Monopoly game board

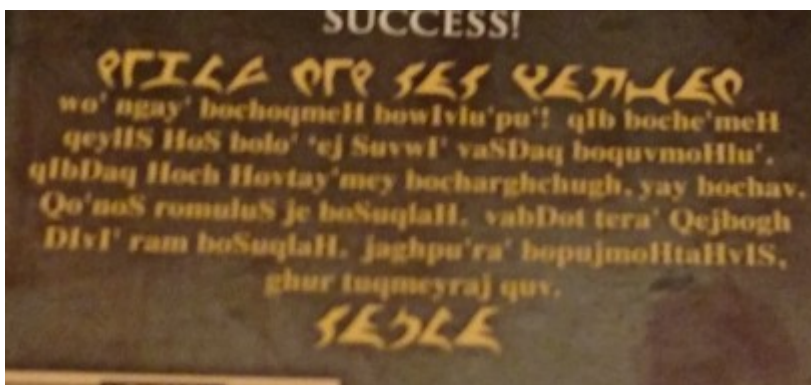


Illustration 16: From the back of the Klingon Monopoly box