Contents

This file contains information, which languages can be typeset with `ucs.sty`. It is not complete at all and shall be used as a technical reference only, i.e. you should not take it as a source of linguistic information. Names of languages and of scripts may be mixed without further notice.

If you find errors, omissions, better example strings etc., do not hesitate to contact me: `<dominique@unruh.de>`

1 Latin scripts

Many of the example phrases were taken from `http://hcs.harvard.edu/~igp/glass.html`.

Esperanto (Esperanto)

Esperanto can be typeset using fontencoding T1. This language is known to `babel.sty` as `esperanto`.

Examples:

Normal .... Eĥoŝanĝo ĉiuĵaŭde
Bold .... **Eĥoŝanĝo ĉiuĵaŭde**
Italic .... *Eĥoŝanĝo ĉiuĵaŭde*
Slanted .... *Eĥoŝanĝo ĉiuĵaŭde*
Sans serif .... Eĥoŝanĝo ĉiuĵaŭde
Typewriter .... `Eĥoŝanĝo ĉiuĵaŭde`

Small caps .... Eĥoŝanĝo ĉiuĵaŭde

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[esperanto,english]{babel}
\newcommand\esperantotext[1]{\foreignlanguage{esperanto}{#1}}
    ...
\esperantotext{Eĥoŝanĝo ĉiuĵaŭde}
```

German (Deutsch)

German can be typeset using fontencoding T1. This language is known to `babel.sty` as `german`. For Austrian use `austrian`, for new orthography: `ngerman` resp. `naustrian`.

Examples:

Normal .... Häßliche Ölsardinen
Bold .... **Häßliche Ölsardinen**
Italic .... *Häßliche Ölsardinen*
Slanted .... *Häßliche Ölsardinen*
Sans serif .... Häßliche Ölsardinen
Typewriter .... `Häßliche Ölsardinen`
Small caps .... Hässliche Ölsardinen

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[german,english]{babel}
\newcommand\germantext[1]{\foreignlanguage{german}{#1}}
    ...
\germantext{Häßliche Ölsardinen}
```

French (Français)

French can be typeset using fontencoding T1. This language is known to `babel.sty` as `french`.

Examples:

Normal .... A sa façon
Bold .... **A sa façon**
Italic .... *A sa façon*
Slanted .... *A sa façon*
Sans serif .... A sa façon
Typewriter .... `A sa façon`
Small caps .... A sa façon

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[french,english]{babel}
\newcommand\frenchtext[1]{\foreignlanguage{french}{#1}}
    ...
\frenchtext{A sa façon}
```

English

English can be typeset using fontencoding T1. This language is known to `babel.sty` as `english`. British English: `british`, American English: `american`.

Examples:

Normal	The quick brown fox jumps over the lazy dog.
Bold	**The quick brown fox jumps over the lazy dog.**
Italic	*The quick brown fox jumps over the lazy dog.*
Slanted	*The quick brown fox jumps over the lazy dog.*
Sans serif	The quick brown fox jumps over the lazy dog.
Typewriter	`The quick brown fox jumps over the lazy dog.`
Small caps	THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[english,english]{babel}
\newcommand\englishtext[1]{\foreignlanguage{english}{#1}}
    ...
\englishtext{The quick brown fox jumps over the lazy dog.}
```

Vietnamese (Tiếng Việt)

Vietnamese can be typeset using fontencoding T5. This language is known to `babel.sty` as `vietnam`. Note that the babel language loads `dblaccnt.sty`, which introduces potential compatibility problems.

Examples:

Normal	Sự mặc thị của Đức Chúa...
Bold	**Sự mặc thị của Đức Chúa...**
Italic	*Sự mặc thị của Đức Chúa...*
Slanted	*Sự mặc thị của Đức Chúa...*
Sans serif	Sự mặc thị của Đức Chúa...
Typewriter	`Sự mặc thị của Đức Chúa...`
Small caps	SỰ MẶC THỊ CỦA ĐỨC CHÚA...

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[vietnam,english]{babel}
\newcommand\vietnamtext[1]{\foreignlanguage{vietnam}{#1}}
    ...
\vietnamtext{Sự mặc thị của Đức Chúa}
```

Afrikaans

Afrikaans can be typeset using fontencoding T1. This language is known to `babel.sty` as `afrikaans`.

Examples:

Normal .... Ek kan glas eet, dit maak my nie seer nie.
Bold .... **Ek kan glas eet, dit maak my nie seer nie.**
Italic .... *Ek kan glas eet, dit maak my nie seer nie.*
Slanted .... *Ek kan glas eet, dit maak my nie seer nie.*
Sans serif .... Ek kan glas eet, dit maak my nie seer nie.
Typewriter .... `Ek kan glas eet, dit maak my nie seer nie.`
Small caps .... Ek kan glas eet, dit maak my nie seer nie.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[afrikaans,english]{babel}
\newcommand\afrikaanstext[1]{\foreignlanguage{afrikaans}{#1}}
    ...
\afrikaanstext{Ek kan glas eet, dit maak my nie seer nie.}
```

Bahasa

Bahasa can be typeset using fontencoding T1. This language is known to `babel.sty` as `bahasa`.

Brazilian

Brazilian can be typeset using fontencoding T1. This language is known to `babel.sty` as `brazil`.

Breton

Breton can be typeset using fontencoding T1. This language is known to `babel.sty` as `breton`.

Catalan (Catalâ)

Catalan can be typeset using fontencoding T1. This language is known to `babel.sty` as `catalan`.

Examples:

Normal .... Puc menjar vidre que no em fa mal.
Bold .... **Puc menjar vidre que no em fa mal.**
Italic .... *Puc menjar vidre que no em fa mal.*
Slanted .... *Puc menjar vidre que no em fa mal.*
Sans serif .... Puc menjar vidre que no em fa mal.
Typewriter .... `Puc menjar vidre que no em fa mal.`
Small caps .... Puc menjar vidre que no em fa mal.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[catalan,english]{babel}
\newcommand\catalantext[1]{\foreignlanguage{catalan}{#1}}
    ...
\catalantext{Puc menjar vidre que no em fa mal.}
```

Croatian

Croatian can be typeset using fontencoding T1. This language is known to `babel.sty` as `croatian`.

Czech (Česky)

Czech can be typeset using fontencoding T1. This language is known to `babel.sty` as `czech`.

Examples:

Normal .... Můžu jíst sklo; to mi neškodí.
Bold .... **Můžu jíst sklo; to mi neškodí.**
Italic .... *Můžu jíst sklo; to mi neškodí.*
Slanted .... *Můžu jíst sklo; to mi neškodí.*
Sans serif .... Můžu jíst sklo; to mi neškodí.
Typewriter .... `Můžu jíst sklo; to mi neškodí.`
Small caps .... MůŽU JÍST SKLO; TO MI NEŠKODÍ.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[czech,english]{babel}
\newcommand\czechtext[1]{\foreignlanguage{czech}{#1}}
    ...
\czechtext{Můžu jíst sklo; to mi neškodí.}
```

Danish (Dansk)

Danish can be typeset using fontencoding T1. This language is known to `babel.sty` as `danish`.

Examples:

Normal .... Jeg kan spise glas, det gør ikke ondt på mig.
Bold .... **Jeg kan spise glas, det gør ikke ondt på mig.**
Italic .... *Jeg kan spise glas, det gør ikke ondt på mig.*
Slanted .... *Jeg kan spise glas, det gør ikke ondt på mig.*
Sans serif .... Jeg kan spise glas, det gør ikke ondt på mig.
Typewriter .... `Jeg kan spise glas, det gør ikke ondt på mig.`
Small caps .... JEG KAN SPISE GLAS, DET GØR IKKE ONDT PÅ MIG.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[danish,english]{babel}
\newcommand\danishtext[1]{\foreignlanguage{danish}{#1}}
    ...
\danishtext{Jeg kan spise glas, det gør ikke ondt på mig.}
```

Dutch

Dutch can be typeset using fontencoding T1. This language is known to `babel.sty` as `dutch`.

Examples:

Normal .... Ik kan glas eten. Het doet geen pijn.
Bold .... **Ik kan glas eten. Het doet geen pijn.**
Italic .... *Ik kan glas eten. Het doet geen pijn.*
Slanted .... *Ik kan glas eten. Het doet geen pijn.*
Sans serif .... Ik kan glas eten. Het doet geen pijn.

Typewriter .... `Ik kan glas eten. Het doet geen pijn.`
Small caps .... IK KAN GLAS ETEN. HET DOET GEEN PIJN.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[dutch,english]{babel}
\newcommand\dutchtext[1]{\foreignlanguage{dutch}{#1}}
    ...
\dutchtext{Ik kan glas eten. Het doet geen pijn.}
```

Finnish (Suomi)

Finnish can be typeset using fontencoding T1. This language is known to `babel.sty` as `finnish`.

Examples:

Normal .... Pystyn syömään lasia. Se ei koske yhtään.
Bold .... **Pystyn syömään lasia. Se ei koske yhtään.**
Italic .... *Pystyn syömään lasia. Se ei koske yhtään.*
Slanted .... *Pystyn syömään lasia. Se ei koske yhtään.*
Sans serif .... Pystyn syömään lasia. Se ei koske yhtään.
Typewriter .... `Pystyn syömään lasia. Se ei koske yhtään.`
Small caps .... PYSTYN SYÖMÄÄN LASIA. SE EI KOSKE YHTÄÄN.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[finnish,english]{babel}
\newcommand\finnishtext[1]{\foreignlanguage{finnish}{#1}}
    ...
\finnishtext{Pystyn syömään lasia. Se ei koske yhtään.}
```

Estonian

Estonian can be typeset using fontencoding T1. This language is known to `babel.sty` as `estonian`.

Examples:

Normal .... Ma võin klaasi süüa, see ei tee mulle midagi.
Bold .... **Ma võin klaasi süüa, see ei tee mulle midagi.**
Italic .... *Ma võin klaasi süüa, see ei tee mulle midagi.*
Slanted .... *Ma võin klaasi süüa, see ei tee mulle midagi.*
Sans serif .... Ma võin klaasi süüa, see ei tee mulle midagi.
Typewriter .... `Ma võin klaasi süüa, see ei tee mulle midagi.`
Small caps .... MA VÕIN KLAASI SÜÜA, SEE EI TEE MULLE MIDAGI.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[estonian,english]{babel}
\newcommand\estoniantext[1]{\foreignlanguage{estonian}{#1}}
    ...
\estoniantext{Ma võin klaasi süüa, see ei tee mulle midagi.}
```

Icelandic

Icelandic can be typeset using fontencoding T1.

Examples:

Normal .... Èg get borðað gler, það meiðir mig ekki.
Bold .... **Èg get borðað gler, það meiðir mig ekki.**
Italic .... *Èg get borðað gler, það meiðir mig ekki.*
Slanted .... *Èg get borðað gler, það meiðir mig ekki.*
Sans serif .... Èg get borðað gler, það meiðir mig ekki.
Typewriter .... `Èg get borðað gler, það meiðir mig ekki.`
Small caps .... ÈG GET BORÐAÐ GLER, ÞAÐ MEIÐIR MIG EKKI.

Some usage example:

```
\usepackage[utf8]{inputenc}
\newcommand\icelandictext[1]{#1}
    ...
\icelandictext{Èg get borðað gler, það meiðir mig ekki.}
```

Galician (Galego)

Galician can be typeset using fontencoding T1. This language is known to `babel.sty` as `galician`.

Hungarian (Magyar)

Hungarian can be typeset using fontencoding T1. This language is known to `babel.sty` as `hungarian`.

Examples:

Normal .... Meg tudom enni az üveget, nem árt nekem.
Bold .... **Meg tudom enni az üveget, nem árt nekem.**
Italic .... *Meg tudom enni az üveget, nem árt nekem.*
Slanted .... *Meg tudom enni az üveget, nem árt nekem.*
Sans serif .... Meg tudom enni az üveget, nem árt nekem.
Typewriter .... `Meg tudom enni az üveget, nem árt nekem.`
Small caps .... MEG TUDOM ENNI AZ ÜVEGET, NEM ÁRT NEKEM.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[hungarian,english]{babel}
\newcommand\hungariantext[1]{\foreignlanguage{hungarian}{#1}}
    ...
\hungariantext{ Meg tudom enni az üveget, nem árt nekem.}
```

Irish

Irish can be typeset using fontencoding T1. This language is known to `babel.sty` as `irish`.

Examples:

Normal .... Tá mé in ann gloine a ithe; Ní chuireann sé isteach nó amach orm.
Bold .... **Tá mé in ann gloine a ithe; Ní chuireann sé isteach nó amach orm.**
Italic .... *Tá mé in ann gloine a ithe; Ní chuireann sé isteach nó amach orm.*
Slanted .... *Tá mé in ann gloine a ithe; Ní chuireann sé isteach nó amach orm.*
Sans serif .... Tá mé in ann gloine a ithe; Ní chuireann sé isteach nó amach orm.
Typewriter .... `Tá mé in ann gloine a ithe; Ní chuireann sé isteach nó amach orm.`

Small caps .... TÁ MÉ IN ANN GLOINE A ITHE; NÍ CHUIREANN SÉ ISTEACH NÓ AMACH ORM.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[irish,english]{babel}
\newcommand\irishtext[1]{\foreignlanguage{irish}{#1}}
    ...
\irishtext{Tá mé in ann gloine a ithe; Ní chuireann sé isteach nó amach orm.}
```

Italian (Italiano)

Italian can be typeset using fontencoding T1. This language is known to `babel.sty` as `italian`.

Examples:

Normal .... Posso mangiare il vetro, non mi fa male.
Bold .... **Posso mangiare il vetro, non mi fa male.**
Italic .... *Posso mangiare il vetro, non mi fa male.*
Slanted .... *Posso mangiare il vetro, non mi fa male.*
Sans serif .... Posso mangiare il vetro, non mi fa male.
Typewriter .... `Posso mangiare il vetro, non mi fa male.`
Small caps .... POSSO MANGIARE IL VETRO, NON MI FA MALE.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[italian,english]{babel}
\newcommand\italiantext[1]{\foreignlanguage{italian}{#1}}
    ...
\italiantext{Posso mangiare il vetro, non mi fa male.}
```

Latin (Lingua latina)

Latin can be typeset using fontencoding T1.

Examples:

Normal .... Vitrum edere possum; mihi non nocet.
Bold .... **Vitrum edere possum; mihi non nocet.**
Italic .... *Vitrum edere possum; mihi non nocet.*
Slanted .... *Vitrum edere possum; mihi non nocet.*
Sans serif .... Vitrum edere possum; mihi non nocet.
Typewriter .... `Vitrum edere possum; mihi non nocet.`
Small caps .... VITRUM EDERE POSSUM; MIHI NON NOCET.

Some usage example:

```
\usepackage[utf8]{inputenc}
\newcommand\latintext[1]{#1}
    ...
\latintext{Vitrum edere possum; mihi non nocet.}
```

Upper Sorbian

Upper Sorbian can be typeset using fontencoding T1. This language is known to `babel.sty` as `uppersorbian`.

Lower Sorbian

Lower Sorbian can be typeset using fontencoding T1. This language is known to `babel.sty` as `lowersorbian`.

Norwegian (Norsk)

Norwegian can be typeset using fontencoding T1. Use `nynorsk` for new orthography.

Examples:

Normal .... Jeg kan spise glas. Det gjør meg ikke vondt.
Bold .... **Jeg kan spise glas. Det gjør meg ikke vondt.**
Italic .... *Jeg kan spise glas. Det gjør meg ikke vondt.*
Slanted .... *Jeg kan spise glas. Det gjør meg ikke vondt.*
Sans serif .... Jeg kan spise glas. Det gjør meg ikke vondt.
Typewriter .... `Jeg kan spise glas. Det gjør meg ikke vondt.`
Small caps .... JEG KAN SPISE GLAS. DET GJØR MEG IKKE VONDT.

Some usage example:

```
\usepackage[utf8]{inputenc}
\newcommand\norsktext[1]{#1}
    ...
\norsktext{Jeg kan spise glas. Det gjør meg ikke vondt.}
```

Polish (Polska)

Polish can be typeset using fontencoding T1. This language is known to `babel.sty` as `polish`.

Portuguese (Portuges)

Portuguese can be typeset using fontencoding T1. This language is known to `babel.sty` as `portuguese`.

Examples:

Normal .... Posso comer vidro, não me fere.
Bold .... **Posso comer vidro, não me fere.**
Italic .... *Posso comer vidro, não me fere.*
Slanted .... *Posso comer vidro, não me fere.*
Sans serif .... Posso comer vidro, não me fere.
Typewriter .... `Posso comer vidro, não me fere.`
Small caps .... POSSO COMER VIDRO, NÃO ME FERE.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[portuguese,english]{babel}
\newcommand\portuguesetext[1]{\foreignlanguage{portuguese}{#1}}
    ...
\portuguesetext{Posso comer vidro, não me fere.}
```

Romanian

Romanian can be typeset using fontencoding T1. This language is known to `babel.sty` as `romanian`.

Examples:

Normal .... Pot minca sticla. Nu ma doare.
Bold .... **Pot minca sticla. Nu ma doare.**
Italic .... *Pot minca sticla. Nu ma doare.*
Slanted .... *Pot minca sticla. Nu ma doare.*
Sans serif .... Pot minca sticla. Nu ma doare.
Typewriter .... `Pot minca sticla. Nu ma doare.`

Small caps .... Pot minca sticla. Nu ma doare.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[romanian,english]{babel}
\newcommand\romaniantext[1]{\foreignlanguage{romanian}{#1}}
    ...
\romaniantext{Pot minca sticla. Nu ma doare.}
```

Scottish

Scottish can be typeset using fontencoding T1. This language is known to `babel.sty` as `scottish`.

Examples:

Normal .... 'S urrainn dhomh gloinne ithe; cha ghoirtich i mi.
Bold .... **'S urrainn dhomh gloinne ithe; cha ghoirtich i mi.**
Italic .... *'S urrainn dhomh gloinne ithe; cha ghoirtich i mi.*
Slanted .... *'S urrainn dhomh gloinne ithe; cha ghoirtich i mi.*
Sans serif .... 'S urrainn dhomh gloinne ithe; cha ghoirtich i mi.
Typewriter .... `'S urrainn dhomh gloinne ithe; cha ghoirtich i mi.`
Small caps .... 'S urrainn dhomh gloinne ithe; cha ghoirtich i mi.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[scottish,english]{babel}
\newcommand\scottishtext[1]{\foreignlanguage{scottish}{#1}}
    ...
\scottishtext{'S urrainn dhomh gloinne ithe; cha ghoirtich i mi.}
```

Slovak (Slovensky)

Slovak can be typeset using fontencoding T1. This language is known to `babel.sty` as `slovak`.

Spanish (Español / Castellano)

Spanish can be typeset using fontencoding T1. This language is known to `babel.sty` as `spanish`.

Examples:

Normal .... Puedo comer vidrio, no me hace daño.
Bold .... **Puedo comer vidrio, no me hace daño.**
Italic .... *Puedo comer vidrio, no me hace daño.*
Slanted .... *Puedo comer vidrio, no me hace daño.*
Sans serif .... Puedo comer vidrio, no me hace daño.
Typewriter .... `Puedo comer vidrio, no me hace daño.`
Small caps .... Puedo comer vidrio, no me hace daño.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[spanish,english]{babel}
\newcommand\spanishtext[1]{\foreignlanguage{spanish}{#1}}
    ...
\spanishtext{Puedo comer vidrio, no me hace daño.}
```

Swedish (Svenska)

Swedish can be typeset using fontencoding T1. This language is known to `babel.sty` as `swedish`.

Examples:

Normal .... Jag kan äta glas, det gör inte ont.
Bold .... **Jag kan äta glas, det gör inte ont.**
Italic .... *Jag kan äta glas, det gör inte ont.*
Slanted .... *Jag kan äta glas, det gör inte ont.*
Sans serif .... Jag kan äta glas, det gör inte ont.
Typewriter .... `Jag kan äta glas, det gör inte ont.`
Small caps .... JAG KAN ÄTA GLAS, DET GÖR INTE ONT.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[swedish,english]{babel}
\newcommand\swedishtext[1]{\foreignlanguage{swedish}{#1}}
    ...
\swedishtext{Jag kan äta glas, det gör inte ont.}
```

Turkish (Türkçe)

Turkish can be typeset using fontencoding T1. This language is known to `babel.sty` as `turkish`.

Examples:

Normal .... Cam yiyebilirim, bana birsey yapmaz.
Bold .... **Cam yiyebilirim, bana birsey yapmaz.**
Italic .... *Cam yiyebilirim, bana birsey yapmaz.*
Slanted .... *Cam yiyebilirim, bana birsey yapmaz.*
Sans serif .... Cam yiyebilirim, bana birsey yapmaz.
Typewriter .... `Cam yiyebilirim, bana birsey yapmaz.`
Small caps .... CAM YIYEBILIRIM, BANA BIRSEY YAPMAZ.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[turkish,english]{babel}
\newcommand\turkishtext[1]{\foreignlanguage{turkish}{#1}}
    ...
\turkishtext{Cam yiyebilirim, bana birsey yapmaz.}
```

Welsh

Welsh can be typeset using fontencoding T1. This language is known to `babel.sty` as `welsh`.

Examples:

Normal .... Dw i'n gallu bwyta gwydr, dwy e ddim yn gwneud dolur i mi.
Bold .... **Dw i'n gallu bwyta gwydr, dwy e ddim yn gwneud dolur i mi.**
Italic .... *Dw i'n gallu bwyta gwydr, dwy e ddim yn gwneud dolur i mi.*
Slanted .... *Dw i'n gallu bwyta gwydr, dwy e ddim yn gwneud dolur i mi.*
Sans serif .... Dw i'n gallu bwyta gwydr, dwy e ddim yn gwneud dolur i mi.
Typewriter .... `Dw i'n gallu bwyta gwydr, dwy e ddim yn gwneud dolur i mi.`
Small caps .... DW I'N GALLU BWYTA GWYDR, DWY E DDIM YN GWNEUD DOLUR I MI.

Some usage example:

```
\usepackage[utf8]{inputenc}
```

```
\usepackage[welsh,english]{babel}
\newcommand\welshtext[1]{\foreignlanguage{welsh}{#1}}
    ...
\welshtext{Dw i'n gallu bwyta gwydr, dwy e ddim yn gwneud dolur i mi.}
```

2 Cyrillic

Many languages named here where taken from
`ftp://ftp.dante.de/tex-archive/fonts/cyrillic/lh/doc/beresta.tgz`.

Russian (Русский)

This language can be typeset using fontencoding T2A. This language is known to `babel.sty` as `russian`.

Examples:

Normal	Луна. Балкон. Она и он. Вдруг — супруг. «Подлец!» Конец.
Bold	**Луна. Балкон. Она и он. Вдруг — супруг. «Подлец!» Конец.**
Italic	*Луна. Балкон. Она и он. Вдруг — супруг. «Подлец!» Конец.*
Slanted	*Луна. Балкон. Она и он. Вдруг — супруг. «Подлец!» Конец.*
Sans serif	Луна. Балкон. Она и он. Вдруг — супруг. «Подлец!» Конец.
Typewriter	`Луна. Балкон. Она и он. Вдруг - супруг. «Подлец!» Конец.`
Small caps	ЛУНА. БАЛКОН. ОНА И ОН. ВДРУГ — СУПРУГ. «ПОДЛЕЦ!» КОНЕЦ.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[russian,english]{babel}
\newcommand\russiantext[1]{\foreignlanguage{russian}{#1}}
    ...
\russiantext{Луна. Балкон. Она и он. Вдруг - супруг. «Подлец!» Конец.}
```

Ukrainian

This language can be typeset using fontencoding T2A. This language is known to `babel.sty` as `ukrainian`.

Byelorussian

Byelorussian can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Bulgarian

Bulgarian can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Macedonian

Macedonian can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Serbian

Serbian can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Moldavian

Moldavian can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Kurdish (Cyrillic)

Kurdish (Cyrillic) can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Ossetian

Ossetian can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Tadzhik

Tadzhik can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Abkhazian

Abkhazian can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Abazinian

Abazinian can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Adygey

Adygey can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Kabardinian-Chircassian

Kabardinian-Chircassian can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Ingush

Ingush can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Chechen

Chechen can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Avar

Avar can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Dargin

Dargin can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Lak

Lak can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Lezgin

Lezgin can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Tabasaran

Tabasaran can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Mansi

Mansi can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Khanty

Khanty can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Komi

Komi can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Komi-Permyak

Komi-Permyak can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Mari

Mari can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Mordvin

Mordvin can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Saam

Saam can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Udmurt

Udmurt can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Nganasan

Nganasan can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Nenets

Nenets can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Selkup

Selkup can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Chuvash

Chuvash can be typeset using the LH fonts (fontencoding `T2A`).

Examples:

Normal .... Улмуççи çуркунне çеçкере кӑмӑллӑ—çке ун айӗнче çӳреье.
Bold .... **Улмуççи çуркунне çеçкере кӑмӑллӑ—çке ун айӗнче çӳреье.**
Italic .... *Улмуççи çуркунне çеçкере кӑмӑллӑ—çке ун айӗнче çӳреье.*
Slanted .... *Улмуççи çуркунне çеçкере кӑмӑллӑ—çке ун айӗнче çӳреье.*
Sans serif .... Улмуççи çуркунне çеçкере кӑмӑллӑ—çке ун айӗнче çӳреье.
Typewriter .... `Улмуççи çуркунне çеçкере кӑмӑллӑ-çке ун айӗнче çӳреье.`
Small caps .... УЛМУÇÇИ ÇУРКУННЕ ÇЕÇКЕРЕ КӐМӐЛЛӐ—ÇКЕ УН АЙӖНЧЕ ÇӲРЕЬЕ.

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[T2A,T1]{fontenc}
\newcommand\chuvashtext[1]{\bgroup\fontencoding{T2A}\selectfont#1\egroup}
    ...
\chuvashtext{Улмуççи çуркунне çеçкере кӑмӑллӑ-çке ун айӗнче çӳреье.}
```

Azerbaijani

Azerbaijani can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Gagaus

Gagaus can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Turkmen

Turkmen can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Altai

Altai can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Balkar

Balkar can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Bashkir

Bashkir can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Kazakh

Kazakh can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Kara-Kalpak

Kara-Kalpak can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Karachai

Karachai can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Kirgiz

Kirgiz can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Crimea-Tatar

Crimea-Tatar can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Kumyk

Kumyk can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Nogai

Nogai can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Tatar

Tatar can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Uzbek

Uzbek can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Uigur

Uigur can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Dolgan

Dolgan can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Tofalar

Tofalar can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Tuvinian

Tuvinian can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Khakassian

Khakassian can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Shor

Shor can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Yakut

Yakut can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Buryat

Buryat can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Kalmyk

Kalmyk can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Mongolian (Cyrillic)

Mongolian (Cyrillic) can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Evenki

Evenki can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Even

Even can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Nanai

Nanai can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Ulchi

Ulchi can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Dungan

Dungan can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Chukchi

Chukchi can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Koryak

Koryak can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Nivkh

Nivkh can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Aleut

Aleut can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Itelmen

Itelmen can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Eskimo

Eskimo can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Yukagir

Yukagir can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

Kettish

Kettish can be typeset using the LH fonts (try e.g. fontencodings T2A, T2B, T2C, T2D, X2, XS). See also Russian (p. 12).

3 CJK

Japanese (日本語)

This language can be typeset using the fonts supported by CJK-LaTeX and fontencoding C40. Activate the Unicode option `cjkjis`

Examples:
Family `song` (kanji48 font) .... 私は消しゴムです。

Chinese (中文)

This language can be typeset using the fonts supported by CJK-LaTeX and fontencoding C00. Activate the Unicode option `cjkbg5`

Examples:
Family `ming` (Arphic font) .... 耶穌基督的啓示...
Family `ming` (Arphic font), slanted .... *耶穌基督的啓示*...
Family `kai` (Arphic font) .... 耶穌基督的啓示...
Family `kai` (Arphic font), slanted .... 耶穌基督的啓示...
Family `CNS` .... 耶穌基督的啟示...
Family `moekai` (Taiwan MOE font) .... 耶穌基督的啟示...
Family `moesong` (Taiwan MOE font) .... 耶穌基督的啟示...

Korean (한글)

This language can be typeset using the fonts supported by CJK-LaTeX and fontencoding C61. Activate the Unicode option `cjkhangul`

Examples:

Family `mj` .... 예수 그리스도의 계시라 이는. . .
Family `mj`, bold .... **예수 그리스도의 계시라 이는. . .**
Family `dr` .... **예수 그리스도의 계시라 이는**. . .
Family `gr` .... 예수 그리스도의 계시라 이는. . .
Family `gs` .... 예수 그리스도의 계시라 이는. . .
Family `gt` .... 예수 그리스도의 계시라 이는. . .

4 Indian scripts

Thai (ภาษาไทย)

This encoding can be typeset using the fontencoding C90 and fontfamilies `nrsr` or `dbss`,[1] or using the fontencoding LTA and one of the fonts `arialuni.ttf`[2] or `code2000.ttf`[3].

Examples:

Fontencoding `LTA`, Family `arial` (`arialuni.ttf`) สวัสดีครับ, สวัสดีค่ะ
Fontencoding `LTA`, Family `c2000` (`code2000.ttf`) สวัสดีครับ, สวัสดีค่ะ

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[LTA,T1]{fontenc}
\newcommand\thaitext[1]{\bgroup\fontencoding{LTA}\fontfamily{arial}\selectfont#1\egroup}
    ...
\thaitext{สวัสดีครับ, สวัสดีค่ะ}
```

Kuy

See also Thai (p. 21).

Lavna

See also Thai (p. 21).

Pali

See also Thai (p. 21).

Devanagari

This script can be written using the fontencoding LDV and the font `arialuni.ttf`[4], but it will lack ligatures and halfforms.

[1] install CJK-LaTeX and ThaiLaTeX to get these
[2] MS Arial Unicode: `http://download.microsoft.com/download/publisher2000/Aruniup/2000/WIN98/EN-US/Aruniupd.exe`
[3] Code2000: `http://home.att.net/~jameskass/`
[4] MS Arial Unicode: `http://download.microsoft.com/download/publisher2000/Aruniup/2000/WIN98/EN-US/Aruniupd.exe`

Hindi

See also Devanagari (p. 21).

Marathi

See also Devanagari (p. 21).

Nepali

See also Devanagari (p. 21).

Awadhi

See also Devanagari (p. 21).

Begheli

See also Devanagari (p. 21).

Bhatneri

See also Devanagari (p. 21).

Bhili

See also Devanagari (p. 21).

Bihari

See also Devanagari (p. 21).

Braj-Bhasha

See also Devanagari (p. 21).

Chhattisgarhi

See also Devanagari (p. 21).

Garhwali

See also Devanagari (p. 21).

Gondi

See also Devanagari (p. 21).

Harauti

See also Devanagari (p. 21).

Ho

See also Devanagari (p. 21).

Jaipuri

See also Devanagari (p. 21).

Kachchhi

See also Devanagari (p. 21).

Kanauji

See also Devanagari (p. 21).

Konkani

See also Devanagari (p. 21).

Kului

See also Devanagari (p. 21).

Kumaoni

See also Devanagari (p. 21).

Kurku

See also Devanagari (p. 21).

Kurukh

See also Devanagari (p. 21).

Marwari

See also Devanagari (p. 21).

Mundari

See also Devanagari (p. 21).

Newari

See also Devanagari (p. 21).

Palpa

See also Devanagari (p. 21).

Santali

See also Devanagari (p. 21).

Telugu (తెలుగు)

This language can be typeset using fontencoding `LTL`[5] and the TeluguTeX fonts or fontencoding `LTG`[6] and the font `code2000.ttf`[7].

Note that with `LTG` superscript vowels look wrong and no ligatures are supported.

Examples:

Fontencoding `LTL`, normal .... తెలుగు
Fontencoding `LTL`, bold .... తెలుగు
Fontencoding `LTL`, slanted .... తెలుగు
Fontencoding `LTL`, X-non-uniform (`\fontseries{nx}`) .... తెలుగు
Fontencoding `LTL`, Y-non-uniform (`\fontseries{ny}`) .... తెలుగు

Fontencoding `LTA`, Family `c2000` (`code2000.ttf`) .... తెలుగు

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[unistring]{ucsutils}
\usepackage[LTL,T1]{fontenc}
% Note: This macro does not work in moving arguments (captions etc.)
% because of the macro call \unistring{#1}. You may use
% \SetUnicodeOption{combine}#1\SetUnicodeOption{nocombine} instead,
% but then you may not provide whitespaces or other ASCII characters as input,
% i.e. you have to call the macro for each word separately.
\newcommand\telugutext[1]{\bgroup\fontencoding{LTL}\selectfont\unistring{#1}\egroup}
    ...
\telugutext{తెలుగు}
```

[5] Contributed with `ucs.sty`. Install also TeluguTeX.
[6] Contributed with `ucs.sty`.
[7] Code2000: `http://home.att.net/~jameskass/`

5 African scripts

Ge'ez

This script can be written using the fonts `gfzemenu.ttf`[8], `jiret.ttf`[9] or `code2000.ttf`[10]. Use fontencoding `LET`.

See section 7.1 for instructions on installing these fonts. The TEX names should be as follows:

`gfzemenu.ttf`	gfzemen
`jiret.ttf`	jiret
`code2000.ttf`	code2k

Examples:

Family `gfzem` (`gfzemenu.ttf`) .... **ሰማይ አይታረስ ንጉሥ አይከሰስ።**. . .
Family `jiret` (`jiret.ttf`) .... ሰ ማ ይ አ ይ ታ ረ ስ ን ጉ ሥ አ ይ ከ ሰ ስ ። . . .
Family `c2000` (`code2000.ttf`) .... **ሰማይ አይታረስ ንጉሥ አይከሰስ።**. . .

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[LET,T1]{fontenc}
\newcommand\geeztext[1]{\bgroup\fontencoding{LET}\fontfamily{gfzem}\selectfont#1\egroup}
    ...
\geeztext{ሰማይ አይታረስ ንጉሥ አይከሰስ።}
```

Amharic (Ethiopic)

See also Ge'ez (p. 25).

Tigrinya (Eritrean)

See also Ge'ez (p. 25).

Tigre (Eritrean)

See also Ge'ez (p. 25).

Oromo (Ethiopic)

See also Ge'ez (p. 25).

[8] `ftp://ftp.ethiopic.org/pub/fonts/TrueType/gfzemenu.ttf`
[9] `http://www.senamirmir.com/download/jiret.zip`
[10] Code2000: `http://home.att.net/~jameskass/`

6 Miscellaneous languages and scripts

Greek (Ελληνικά)

Greek can be typeset using fontencoding `LGR`. This language is known to `babel.sty` as `greek`. Ancient (polytonic) Greek as `polutonikogreek`. Normally the CB fonts are installed by default. You can alternatively use the Kerkis fonts[11][12].

Examples:

Family `cmr` (CB fonts) .... χαῖρε, ὦ χαῖρε, Ἐλευθεριά!
Family `cmr` (CB fonts), bold .... **χαῖρε, ὦ χαῖρε, Ἐλευθεριά!**
Family `cmr` (CB fonts), italic .... *χαῖρε, ὦ χαῖρε, Ἐλευθεριά!*
Family `cmr` (CB fonts), slanted .... *χαῖρε, ὦ χαῖρε, Ἐλευθεριά!*
Family `cmr` (CB fonts), sans serif .... χαῖρε, ὦ χαῖρε, Ἐλευθεριά!
Family `cmr` (CB fonts), typewriter .... χαῖρε, ὦ χαῖρε, Ἐλευθεριά!
Family `cmr` (CB fonts), small caps .... ΧΑΙΡΕ, Ω ΧΑΙΡΕ, ἘΛΕΥΘΕΡΙΑ!

Family `mak` (Kerkis fonts) .... χαῖρε, ὦ χαῖρε, Ἐλευθεριά!
Family `mak` (Kerkis fonts), slanted .... *χαῖρε, ὦ χαῖρε, Ἐλευθεριά!*
Family `mak` (Kerkis fonts), bold[12] .... **χαρε, χαρε, Ελευθεριά!**
Family `mak` (Kerkis fonts), italic[12] .... *χαρε, χαρε, Ελευθεριά!*
Family `mak` (Kerkis fonts), small caps[12] .... ΧΑΡΕ, ΧΑΡΕ, ΕΛΕΥΘΕΡΙΆ!
Family `mak` (Kerkis fonts), fontshape `ui`[12] .... χαρε, χαρε, Ελευθεριά!
Family `mak` (Kerkis fonts), fontshape `sco`[12] .... *ΧΑΡΕ, ΧΑΡΕ, ΕΛΕΥΘΕΡΙΆ!*
Family `mak` (Kerkis fonts), fontshape `cal`[12] .... *χαρε, χαρε, Ελευθεριά!*

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[greek,english]{babel}
\newcommand\greektext[1]{\foreignlanguage{greek}{#1}}
    ...
\greektext{χαῖρε, ὦ χαῖρε, Ἐλευθεριά!}
```

Hebrew

This language (also biblical, i.e. vowelified) can be typeset using fontencoding `LHE`[13]. There is also a babel language (`hebrew`), but at least on my system it did not work correctly.

Examples:

Normal (Jerusalem) .... למה הם פשוט לא מדברים עברית
Bold (Dead Sea) .... **למה הם פשוט לא מדברים עברית**
Italic (Old Jaffa) .... למה הם פשוט לא מדברים עברית
Sans serif (Tel Aviv) .... למה הם פשוט לא מדברים עברית

Family `clas`, normal (HClassic) .... למה הם פשוט לא מדברים עברית
Family `clas`, slanted (HCaption) .... *למה הם פשוט לא מדברים עברית*

Family `fr` (Frank Ruehl), normal .... **למה הם פשוט לא מדברים עברית**
Family `fr` (Frank Ruehl), slanted .... ***למה הם פשוט לא מדברים עברית***
Family `fr` (Frank Ruehl), bold .... **למה הם פשוט לא מדברים עברית**

Family `shold` (Shalom Old) .... למה הם פשוט לא מדברים עברית

---

[11] `http://iris.math.aegean.gr/software/kerkis/`

[12] Some of the Kerkis fontstyles do not support polytonic Greek, they silently drop accented characters (except those just with oxia; see the examples)

[13] Available from `/language/hebrew/hebtex/macros/latex_macros/lheenc.def`. Get also files `lhe*.fd`.

Family shstk (Shalom Stick) .... למה הם פשוט לא מדברים עברית
Family shscr (Shalom Script) .... למה הם פשוט לא מדברים עברית

Family crml (Carmel), normal .... **למה הם פשוט לא מדברים עברית**
Family crml (Carmel), slanted .... ***למה הם פשוט לא מדברים עברית***

Family redis (Redis), normal .... למה הם פשוט לא מדברים עברית
Family redis (Redis), slanted .... *למה הם פשוט לא מדברים עברית*
Family redis (Redis), bold .... **למה הם פשוט לא מדברים עברית**

Some usage example:

```
\usepackage[utf8]{inputenc}
\usepackage[LHE,T1]{fontenc}
% \beginR and \endR need e-LaTeX
\newcommand\hebrewtext[1]{\bgroup\fontencoding{LHE}\selectfont\beginR#1%
    \endR\egroup}
    ...
% The file should contain the R2L text in logical order, i.e. the rightmost letter first.
\hebrewtext{למה הם פשוט לא מדברים עברית}
```

Braille (⠃ ⠗⠇)

This script can be typeset using the package `braille.sty`, available from CTAN.[14]

Examples:

Normal .... ⠠⠋⠑⠑⠇ ⠫⠜⠮
With `puttinydots` .... ⠠⠋⠑⠑⠇⠀⠫⠜⠮
With `8dots` and `puttinydots` .... ⢋⠑⠑⠇⠀⠫⠜⠮
With `mirror` and `puttinydots` .... ⠵⠣⠝⠀⠸⠊⠊⠙⠄

Some usage example:

```
\usepackage[compact]{braille}
% With \brailleunit == 0.75ex, the braille letters will
% approximately match the other letters in size.
\newcommand\brailletext[1]{{\setlength\brailleunit{.75ex}#1}}
    ...
\brailletext{ ⠠⠋⠑⠑⠇ ⠫⠜⠮}
```

IPA (ɪntəˈnæʃənəl fəˈnɛtɪk əsoʊsiˈeɪʃn)

The IPA (International Phonetic Association) alphabet can be written using the fontencoding `T3`. For some letters you have to load the package tipa, possibly with options `extra` or `tone`. Activate the Unicode option `tipa`.

Examples:

Family `cmr` .... ɪntəˈnæʃənəl fəˈnɛtɪk əsoʊsiˈeɪʃn
Family `cmr`, bold .... **ɪntəˈnæʃənəl fəˈnɛtɪk əsoʊsiˈeɪʃn**
Family `cmr`, slanted .... *ɪntəˈnæʃənəl fəˈnɛtɪk əsoʊsiˈeɪʃn*
Family `cmss` (sans serif) .... ɪntəˈnæʃənəl fəˈnɛtɪk əsoʊsiˈeɪʃn

Family `ptm` (Times) .... ɪntəˈnæʃənəl fəˈnɛtɪk əsoʊsiˈeɪʃn
Family `ptm` (Times), bold .... **ɪntəˈnæʃənəl fəˈnɛtɪk əsoʊsiˈeɪʃn**
Family `ptm` (Times), slanted .... *ɪntəˈnæʃənəl fəˈnɛtɪk əsoʊsiˈeɪʃn*

[14] /macros/latex/contrib/supported/braille/braille.sty

Family phv (Helvetica, sans serif) .... ɪntəˈnæʃənəl fəˈnɛtɪk əsoʊsiˈeɪʃn

Some usage example:

```
\usepackage[notipa]{ucs}
\usepackage[utf8]{inputenc}
\usepackage[T3,T1]{fontenc}
\newcommand\ipatext[1]{\bgroup\fontencoding{T3}\selectfont\SetUnicodeOption{tipa}#1\egroup}
    ...
\ipatext{ɪntəˈnæʃənəl fəˈnɛtɪk əsoʊsiˈeɪʃn}
```

Klingon ([illegible] / [illegible])

We deal here with Klingon using the writing system often (incorrectly) attributed to Michael Okuda[15]. It can be typeset using fontencoding LKL and the font pIq.mf[16]. You have to activate the Unicode option privatecsur in order to use Klingon characters. The characters are encoded in ucs.sty according to the CSUR Registry[17].

Examples:

Normal .... [illegible]

Some usage example:

```
\usepackage[noprivatecsur]{ucs}
\usepackage[utf8]{inputenc}
\usepackage[LKL,T1]{fontenc}
\newcommand\klingontext[1]{\bgroup\fontencoding{LKL}\fontfamily{kli}\selectfont%
    \SetUnicodeOption{privatecsur}#1\egroup}
    ...
\klingontext{[illegible]}
```

7 Technical Details

7.1 How To Install TrueType Fonts

This section describes how to use a TrueType font with LaTeX. We will concentrate on fonts which are Unicode encoded.

The explanations here are valid for teTeX, but the necessary actions should be similar in other distributions.

You need the following prerequisites to use the font:

- A fontencoding supporting that font.
- The font file (*.ttf).
- A LaTeX name for the font.
- A LaTeX distribution which supports TrueType fonts[18] and automatic generation of PK files[19].

In this document, when some language section proposes some font, the fontencoding, the font file and the LaTeX name are given. If you want to install some other font for some language, see below.

[15] http://www.kli.org/tlh/pIqaD.html
[16] Available from //fonts/okuda/pIq.mf
[17] ConScript Unicode Registry: http://www.evertype.com/standards/csur/; this registry coordinates the assignment of blocks out of the Unicode Private Use Area to constructed/artificial scripts.
[18] We assume that this is done via ttf2tfm and ttf2pk or some programs of equivalent configuration syntax.
[19] The latter is not strictly necessary, but we will not consider the additional measures to take if this is note the case.

Step 1. Put the font file somewhere into your TTF search path.[20] Take care to change the filename to contain only lowercase letters.

Step 2. Run

```
ttf2tfm <fontfilename> <tfmpath>/<latexname>@<subfontencoding>@
```

Here `<fontfilename>` and `<latexname>` are as described above. `<tfmpath>` is your TFM search path.[21] `<subfontencoding>` is the name of some SFD file[22], use `Unicode` unless mentioned otherwise.[23]

Step 3. Add the line output at the end of `ttf2tfm`'s output to `ttfonts.map`. This line should be something like

```
<latexname>@<subfontencoding>@    <fontfilename>
```

If you want to install some font which contains the characters for some fontencoding, you can easily extend the fontencoding as follows (as long as it is some fontencoding for Unicode encoded TrueType fonts):

Step 1. Choose some LaTeX name for the font. If you have different font files in the same font family for e.g. normal, bold, italic etc. you should choose different LaTeX names, in most cases just use the font's filename (without `*.ttf`)

Step 2. Choose some LaTeX font family name for the font. This name should not have more than five letters (all lowercase), take e.g. the first five letters of the font name or some other sufficiently clear, unique and natural abbreviation.

Step 3. Create a file `<lowercase fontencoding><fontfamily>.fd` and containing

```
\ProvidesFile{<lowercase fontencoding><fontfamily>.fd}
\DeclareFontFamily{<fontencoding>}{<fontfamily>}
```

Take care to provide a type the fontencoding using the correct case (lowercase or normal) as told above.

Step 4. For each font file in that family add

```
\DeclareFontShape{<fontencoding>}{<fontfamily>}{m}{n}{<-> * <latexname><suffix>}{}
```

to the file created in step 3. To find out which `<suffix>` to use, look at other font definition files for that fontencoding (i.e. some `<fontencoding>*.fd` file). While you are looking at that file anyway, you should look whether there are any other specialities which you may want to reproduce.

7.2 Direct access to Unicode fonts

7.2.1 The fontencoding LUC

There is a special fontencoding `LUC` which gives direct access to Unicode fonts by code position. When `LUC` is activated, just use `\textunicodechar{`<*number*>`}` to access code position <*number*>.

To be used with `LUC`, a font `font` must be split into subfonts named `fontXX` where `XX` is hexadecimal value from 00 to 16FF (formatted as `%02x` (`printf`-style)).

The font `fontXX` should contain the code positions `U+XX00..U+XXFF`.

Note that kerning and ligatures do not work with fontencoding LUC.

[20] `kpsewhich -expand-var $TTFONTS` will show this path. You may also set it in `texmf.cnf` or as an environment variable.
[21] `kpsewhich -expand-var $TFMFONTS` will show this path. You may also set it in `texmf.cnf` or as an environment variable.
[22] See `ttf2tfm`'s documentation. This is something else than the fontencoding.
[23] You may install a font with different encodings if they have different LaTeX names. The encodings `Unicode` and `UnicodeT` can even coexist with the same LaTeX name, because all subfont names in UnicodeT are postfixed with `t`.

When you install TrueType fonts as described in 7.1, choose `Unicode` or `UnicodeX`[24] as subfont encoding. This will generate font using the above mentioned naming conventions.

7.2.2 Using input encoding `utf8` to access Unicode fonts

If you have set up a font to be usable with fontencoding `LUC` [25], you can directly access it with the input encoding `utf8` using the following code:

```
\makeatletter
  % \unichar is called by utf8. Redefine it to call \textunicodechar
\renewcommand\unichar[1]{\textunicodechar{#1}}
  % If the active fontencoding does not support direct Unicode access,
  % fall back to the normal ucs.sty-mechanism
\ProvideTextCommandDefault{\textunicodechar}[1]{\uni@char{#1}}
```

Now a Unicode character in your document will use `\textunicodechar` in all fontencodings with support it (e.g. `LUC`), and the normal mechanism otherwise.

Therefore you will be able to access characters not yet supported by `ucs.sty` directly using fontencoding `LUC`.

A full example using `code2000.ttf`[26] would be:

```
\documentclass{article}
\usepackage[utf8]{inputenc}
\usepackage[LUC,T1]{fontenc}
\makeatletter
\renewcommand\unichar[1]{\textunicodechar{#1}}
\ProvideTextCommandDefault{\textunicodechar}[1]{\uni@char{#1}}

\begin{document}
  {
  \fontfamily{c2000}\fontencoding{LUC}\selectfont
   % U+E0A6 U+E086 U+E096 U+E085 U+E0A7
  }
\end{document}
```

Note that this example would show in an editor otherwise unless `code2000.ttf`[27] or some similarly encoded font is used to display the source.

[24] `UnicodeX` supports code positions greater than `U+FFFF`. It does not work with all versions of `ttf2tfm`.
[25] See 7.2.1
[26] Code2000: `http://home.att.net/~jameskass/`
[27] Code2000: `http://home.att.net/~jameskass/`

Index