

Typst IPA

While the features are somewhat organized into separate files, you can import everything via the `ipa.typ` entry file.

```
#import("ipa.typ"): *
```

Conversion

Sample word: Russian ⟨Привет⟩ [prⁱɪv^jet]

To convert X-SAMPA, Praat, Branner, and SIL notation to the IPA, use the following functions:

```
#xsampa("pr_jIv_jet")
#praat("pr\\^j\\icv\\^jet")
#branner("prj^Ivj^et")
#sil("prj^i=vj^et")
```

Output:

- prⁱɪv^jet
- prⁱɪv^jet
- prⁱɪv^jet
- prⁱɪv^jet

You can also reverse the conversion, from the IPA to X-SAMPA, Praat, Branner, and SIL notation:

```
#xsampa("priɪvjet", reverse: true)
#praat("priɪvjet", reverse: true)
#branner("priɪvjet", reverse: true)
#sil("priɪvjet", reverse: true)
```

Output:

- pr_jIv_jet
- pr\\^j\\icv\\^jet
- prj^Ivj^et
- prj^i=vj^et

Brackets and braces

You can mark your text as [phonetic] , /phonemic/ , ⟨orthographic⟩ , and {prosodic} :

```
#phonetic("priɪvjet") /* or */ #phnt("priɪvjet")
#phonemic("prɪvet") /* or */ #phnm("prɪvet")
#orthographic("Привет") /* or */ #orth("Привет")
#prosodic("I actually don't know what this is") /* or */ #prsd("...")
```

Output:

- [prⁱɪv^jet]
- /prɪvet/
- ⟨Привет⟩
- {I actually don't know what this is}

Unit Tests

X-SAMPA

Ii:Uu:O:eE:@3:Q{VA: → ii:ʊu:ɔ:ɛɛ:əɜ:ɒæʌɑ:

passed → ii:ʊu:ɔ:ɛɛ:əɜ:ɒæʌɑ:

Ii:Uu:O:eE:@3:Q{VA: ← ii:ʊu:ɔ:ɛɛ:əɜ:ɒæʌɑ:

passed → Ii:Uu:O:eE:@3:Q{VA:

mnN → mnŋ

passed → mnŋ

mnN ← mnŋ

passed → mnN

pttSkbddZg → pttʃkɒddʒg

passed → pttʃkɒddʒg

pttSkbddZg ← pttʃkɒddʒg

passed → pttSkbddZg

fTsSxvDzZh → fθsfxvðzʒh

passed → fθsfxvðzʒh

fTsSxvDzZh ← fθsfxvðzʒh

passed → fTsSxvDzZh

lrjw → lrjw

passed → lrjw

lrjw ← lrjw

passed → lrjw

i1ueoa → iiueoa

passed → iiueoa

i1ueoa ← iiueoa

passed → i1ueoa

mm_jnn_j → mm^jnn^j

passed → mm^jnn^j

mm_jnn_j ← **mm^jnn^j**

passed → mm_jnn_j

pp_jtt_jkk_jbb_jdd_jgg_j → **pp^jtt^jkk^jbb^jdd^jgg^j**

passed → pp^jtt^jkk^jbb^jdd^jgg^j

pp_jtt_jkk_jbb_jdd_jgg_j ← **pp^jtt^jkk^jbb^jdd^jgg^j**

passed → pp_jtt_jkk_jbb_jdd_jgg_j

tsts_jts → **tsts^jtϕ**

passed → tsts^jtϕ

tsts_jts ← **tsts^jtϕ**

passed → tsts_jts\

ff_jss_js`s\:xx_jvv_jzz_jz`z\:G → **ff^jss^jϕ:xx^jvv^jzz^jzϕ:γ**

passed → ff^jss^jϕ:xx^jvv^jzz^jzϕ:γ

ff_jss_js`s\:xx_jvv_jzz_jz`z\:G ← **ff^jss^jϕ:xx^jvv^jzz^jzϕ:γ**

passed → ff_jss_js`s\:xx_jvv_jzz_jz`z\:G

5l_jj → **ll^jj**

passed → ll^jj

5l_jj ← **ll^jj**

passed → 5l_jj

r_jr → **r^jr**

passed → r^jr

r_jr ← **r^jr**

passed → r_jr

iuu:u:aa:awaj → **iuu:u:aa:awaj**

passed → iuu:u:aa:awaj

iuu:u:aa:awaj ← **iuu:u:aa:awaj**

passed → iuu:u:aa:awaj

ptt_?kq?bdd_?dZg → **ptt^skq?bdd^sd3g**

passed → ptt^skq?bdd^sd3g

ptt_?\kq?bdd_?\dZg ← ptt^ςkq?bdd^ςd₃g

passed → ptt_?\kq?bdd_?\dZg

fTss_?\SxXX\hvDzD_?\z_?\GR?\ → fθss^ςfxχ^hhvðzð^ςz^ςγ^ϐι

passed → fθss^ςfxχ^hhvðzð^ςz^ςγ^ϐι

fTss_?\SxXX\hvDzD_?\z_?\GR?\ ← fθss^ςfxχ^hhvðzð^ςz^ςγ^ϐι

passed → fTss_?\SxXX\hvDzD_?\z_?\GR?

mn → mn

passed → mn

mn ← mn

passed → mn

r → r

passed → r

r ← r

passed → r

l5jw → l_jw

passed → l_jw

l5jw ← l_jw

passed → l5jw

Praat

\ici\:f\hsu\:f\ct\:fe\ef\:f\sw → ii:ʊu:ɔ:ee:ə

passed → ii:ʊu:ɔ:ee:ə

\ici\:f\hsu\:f\ct\:fe\ef\:f\sw ← ii:ʊu:ɔ:ee:ə

passed → \ici\:f\hsu\:f\ct\:fe\ef\:f\sw

\er\:f\ab\ae\vt\as\:f → 3:ɒæΛɑ:

passed → 3:ɒæΛɑ:

\er\:f\ab\ae\vt\as\:f ← 3:ɒæΛɑ:

passed → \er\:f\ab\ae\vt\as\:f

mn\ng → mnŋ

passed → mnŋ

mn\ng ← mnŋ

passed → mn\ng

ptt\shkbdd\zh\gs → pttfkbdd3g

passed → pttfkbdd3g

ptt\shkbdd\zh\gs ← pttfkbdd3g

passed → ptt\shkbdd\zh\gs

f\tfs\shxv\dhz\zhh → fθsfxvðzzh

passed → fθsfxvðzzh

f\tfs\shxv\dhz\zhh ← fθsfxvðzzh

passed → f\tfs\shxv\dhz\zhh

lrjw → lrjw

passed → lrjw

lrjw ← lrjw

passed → lrjw

i\i-ueoa → iiueoa

passed → iiueoa

i\i-ueoa ← iiueoa

passed → i\i-ueoa

mm\^jnn\^j → mm^jnn^j

passed → mm^jnn^j

mm\^jnn\^j ← mm^jnn^j

passed → mm\^jnn\^j

pp\^jtt\^jkk\^jbb\^jdd\^j\gs\gs\^j → pp^jtt^jkk^jbb^jdd^jgg^j

passed → pp^jtt^jkk^jbb^jdd^jgg^j

pp\^jtt\^jkk\^jbb\^jdd\^j\gs\gs\^j ← pp^jtt^jkk^jbb^jdd^jgg^j

passed → pp\^jtt\^jkk\^jbb\^jdd\^j\gs\gs\^j

tsts\^jt\cc → tsts^jt_ç

passed → tsts^jt_ç

tsts\^jt\cc ← tsts^jt_ç

passed → tsts\^jt\cc

ff\^jss\^j\s.\cc\:fxx\^jvv\^j → ff^jss^js_ç:xx^jvv^j

passed → ff^jss^js_ç:xx^jvv^j

ff\^jss\^j\s.\cc\:fxx\^jvv\^j ← ff^jss^js_ç:xx^jvv^j

passed → ff\^jss\^j\s.\cc\:fxx\^jvv\^j

zz\^j\z.\zc\:f\gf → zz^j~~z_ç~~:y

passed → zz^j~~z_ç~~:y

zz\^j\z.\zc\:f\gf ← zz^j~~z_ç~~:y

passed → zz\^j\z.\zc\:f\gf

\l~l\^jj → ll^j

passed → ll^j

\l~l\^jj ← ll^j

passed → \l~l\^jj

r\^jr → r^jr

passed → r^jr

$r^{\wedge}jr \leftarrow r^{\flat}r$

passed $\rightarrow r^{\wedge}jr$

$iui\backslash fu\backslash faa\backslash fawaj \rightarrow iui:u:aa:awaj$

passed $\rightarrow iui:u:aa:awaj$

$iui\backslash fu\backslash faa\backslash fawaj \leftarrow iui:u:aa:awaj$

passed $\rightarrow iui\backslash fu\backslash faa\backslash fawaj$

$ptt^{\wedge}9kq\backslash ?gbdd\backslash ^{\wedge}9d\backslash zh\backslash gs \rightarrow ptt^{\circ}kq?bdd^{\circ}d3g$

passed $\rightarrow ptt^{\circ}kq?bdd^{\circ}d3g$

$ptt^{\wedge}9kq\backslash ?gbdd\backslash ^{\wedge}9d\backslash zh\backslash gs \leftarrow ptt^{\circ}kq?bdd^{\circ}d3g$

passed $\rightarrow ptt^{\wedge}9kq\backslash ?gbdd\backslash ^{\wedge}9d\backslash zh\backslash gs$

$f\backslash tfss\backslash ^{\wedge}9\backslash shx\backslash cf\backslash h-hv\backslash dh \rightarrow f\theta ss^{\circ}fx\chi^{\flat}hhv\delta$

passed $\rightarrow f\theta ss^{\circ}fx\chi^{\flat}hhv\delta$

$f\backslash tfss\backslash ^{\wedge}9\backslash shx\backslash cf\backslash h-hv\backslash dh \leftarrow f\theta ss^{\circ}fx\chi^{\flat}hhv\delta$

passed $\rightarrow f\backslash tfss\backslash ^{\wedge}9\backslash shx\backslash cf\backslash h-hv\backslash dh$

$z\backslash dh\backslash ^{\wedge}9z\backslash ^{\wedge}9\backslash gf\backslash ri\backslash 9e \rightarrow z\delta^{\circ}z^{\circ}\gamma\mathfrak{B}\mathfrak{I}$

passed $\rightarrow z\delta^{\circ}z^{\circ}\gamma\mathfrak{B}\mathfrak{I}$

$z\backslash dh\backslash ^{\wedge}9z\backslash ^{\wedge}9\backslash gf\backslash ri\backslash 9e \leftarrow z\delta^{\circ}z^{\circ}\gamma\mathfrak{B}\mathfrak{I}$

passed $\rightarrow z\backslash dh\backslash ^{\wedge}9z\backslash ^{\wedge}9\backslash gf\backslash ri\backslash 9e$

$mn \rightarrow mn$

passed $\rightarrow mn$

$mn \leftarrow mn$

passed $\rightarrow mn$

$r \rightarrow r$

passed $\rightarrow r$

$r \leftarrow r$

passed $\rightarrow r$

$l\backslash l-jw \rightarrow lljw$

passed $\rightarrow lljw$

$\mathbb{M}\sim\mathbf{jw} \leftarrow \mathbb{H}\mathbf{jw}$
 $\text{passed} \rightarrow \mathbb{M}\sim\mathbf{jw}$

Branner

Ii:Uu:c&:eE:@E&a"&ae)v&a": → ii:ʊu:ɔ:ɛɛ:əɜ:ɒæʌɑ:

passed → ii:ʊu:ɔ:ɛɛ:əɜ:ɒæʌɑ:

Ii:Uu:c&:eE:@E&a"&ae)v&a": ← ii:ʊu:ɔ:ɛɛ:əɜ:ɒæʌɑ:

passed → Ii:Uu:c&:eE:@E&a"&ae)v&a":

mnng) → mnŋ

passed → mnŋ

mnng) ← mnŋ

passed → mnng)

pttSkbdd3"g → pttfkbdd3g

passed → pttfkbdd3g

pttSkbdd3"g ← pttfkbdd3g

passed → pttSkbdd3"g

fO-sSxvd-z3"h → fθsfxvðz3h

passed → fθsfxvðz3h

fO-sSxvd-z3"h ← fθsfxvðz3h

passed → fO-sSxvd-z3"h

lrjw → lrjw

passed → lrjw

lrjw ← lrjw

passed → lrjw

ii-ueoa → iiueoa

passed → iiueoa

ii-ueoa ← iiueoa

passed → ii-ueoa

mmj^nnj^ → mm^jnn^j

passed → mm^jnn^j

mmj[^]nnj[^] ← mmⁱnnⁱ

passed → mmj[^]nnj[^]

ppj[^]ttj[^]kkj[^]bbj[^]ddj[^]ggj[^] → pp^jtt^jkk^jbb^jdd^jgg^j

passed → pp^jtt^jkk^jbb^jdd^jgg^j

ppj[^]ttj[^]kkj[^]bbj[^]ddj[^]ggj[^] ← pp^jtt^jkk^jbb^jdd^jgg^j

passed → ppj[^]ttj[^]kkj[^]bbj[^]ddj[^]ggj[^]

tstsj[^]tci) → tstsⁱtç

passed → tstsⁱtç

tstsj[^]tci) ← tstsⁱtç

passed → tstsj[^]tci)

ffj[^]ssj[^]sr)ci):xxj[^]vvj[^]zzj[^]zr)zi):g" → ffⁱssⁱçç:xxⁱvv^jzz^jzç:γ

passed → ffⁱssⁱçç:xxⁱvv^jzz^jzç:γ

ffj[^]ssj[^]sr)ci):xxj[^]vvj[^]zzj[^]zr)zi):g" ← ffⁱssⁱçç:xxⁱvv^jzz^jzç:γ

passed → ffj[^]ssj[^]sr)ci):xxj[^]vvj[^]zzj[^]zr)zi):g"

l~)lj[^]j → ll^j

passed → ll^j

l~)lj[^]j ← ll^j

passed → l~)lj[^]j

rj[^]r → r^jr

passed → r^jr

rj[^]r ← r^jr

passed → rj[^]r

iui:u:aa:awaj → iui:u:aa:awaj

passed → iui:u:aa:awaj

iui:u:aa:awaj ← iui:u:aa:awaj

passed → iui:u:aa:awaj

ptt&g[^]kq?bdd&g[^]d3"g → ptt^çkq?bdd^çd3g

passed → ptt^çkq?bdd^çd3g

ptt&g^kq?bdd&g^d3"g ← ptt^kq?bdd^d3g

passed → ptt&g^kq?bdd&g^d3"g

fO-ss&g^SxXh-hvd-zd-&g^z&g^g"R%?& → f0ss^fχχhhvðzð^z^γƁf

passed → f0ss^fχχhhvðzð^z^γƁf

fO-ss&g^SxXh-hvd-zd-&g^z&g^g"R%?& ← f0ss^fχχhhvðzð^z^γƁf

passed → fO-ss&g^SxXh-hvd-zd-&g^z&g^g"R%?&

mn → mn

passed → mn

mn ← mn

passed → mn

r → r

passed → r

r ← r

passed → r

ll~)jw → lljw

passed → lljw

ll~)jw ← lljw

passed → ll~)jw

SIL

i=i:u<u:o<:ee<:e=e>:o=a<u>a=: → **ii:ʊu:ɔ:ee:əɜ:ɒæʌɑ:**

passed → ii:ʊu:ɔ:ee:əɜ:ɒæʌɑ:

i=i:u<u:o<:ee<:e=e>:o=a<u>a=: ← **ii:ʊu:ɔ:ee:əɜ:ɒæʌɑ:**

passed → i=i:u<u:o<:ee<:e=e>:o=a<u>a=:

mnn> → **mnŋ**

passed → mnŋ

mnn> ← **mnŋ**

passed → mnn>

ptts=kbddz=g< → **pttʃkbddʒg**

passed → pttʃkbddʒg

ptts=kbddz=g< ← **pttʃkbddʒg**

passed → ptts=kbddz=g<

ft=ss=xvd=zz=h → **fθsfxvðzʒh**

passed → fθsfxvðzʒh

ft=ss=xvd=zz=h ← **fθsfxvðzʒh**

passed → ft=ss=xvd=zz=h

lrjw → **lrjw**

passed → lrjw

lrjw ← **lrjw**

passed → lrjw

iI=ueoa → **iiueoa**

passed → iiueoa

iI=ueoa ← **iiueoa**

passed → iI=ueoa

mmj^jnnj^j → **mm^jnn^j**

passed → mm^jnn^j

mmj[^]nnj[^] ← mmⁱnnⁱ

passed → mmj[^]nnj[^]

ppj[^]ttj[^]kkj[^]bbj[^]ddj[^]g<g<j[^] → ppⁱttⁱkkⁱbbⁱddⁱggⁱ

passed → ppⁱttⁱkkⁱbbⁱddⁱggⁱ

ppj[^]ttj[^]kkj[^]bbj[^]ddj[^]g<g<j[^] ← ppⁱttⁱkkⁱbbⁱddⁱggⁱ

passed → ppj[^]ttj[^]kkj[^]bbj[^]ddj[^]g<g<j[^]

tstsj[^]tc< → tstsⁱtç

passed → tstsⁱtç

tstsj[^]tc< ← tstsⁱtç

passed → tstsj[^]tc<

ffj[^]ssj[^]s<c<:xxj[^]vvj[^]zzj[^]z<z>:g= → ffⁱssⁱç:xxⁱvvⁱzzⁱzç:γ

passed → ffⁱssⁱç:xxⁱvvⁱzzⁱzç:γ

ffj[^]ssj[^]s<c<:xxj[^]vvj[^]zzj[^]z<z>:g= ← ffⁱssⁱç:xxⁱvvⁱzzⁱzç:γ

passed → ffj[^]ssj[^]s<c<:xxj[^]vvj[^]zzj[^]z<z>:g=

l~lj[^]j → llj

passed → llj

l~lj[^]j ← llj

passed → l~lj[^]j

rj[^]r → rⁱr

passed → rⁱr

rj[^]r ← rⁱr

passed → rj[^]r

iui:u:aa:awaj → iui:u:aa:awaj

passed → iui:u:aa:awaj

iui:u:aa:awaj ← iui:u:aa:awaj

passed → iui:u:aa:awaj

ptt[?]<[^]kq[?]=bdd[?]<[^]dz=g< → ptt^ςkq[?]bdd^ςd3g

passed → ptt^ςkq[?]bdd^ςd3g

ptt?<^kq?=bdd?<^dz=g< ← ptt^ςkq?bdd^ςd3g

passed → ptt?<^kq?=bdd?<^dz=g<

ft=ss?<^s=xx=h>hvd=zd=?<^z?<^g=R>?< → fθss^ςfxχ^hh^vðzð^ςz^ςγ^ϖΓ

passed → fθss^ςfxχ^hh^vðzð^ςz^ςγ^ϖΓ

ft=ss?<^s=xx=h>hvd=zd=?<^z?<^g=R>?< ← fθss^ςfxχ^hh^vðzð^ςz^ςγ^ϖΓ

passed → ft=ss?<^s=xx=h>hvd=zd=?<^z?<^g=R>?<

mn → mn

passed → mn

mn ← mn

passed → mn

r → r

passed → r

r ← r

passed → r

ll~~jw → lljw

passed → lljw

ll~~jw ← lljw

passed → ll~~jw