

## Reference Chart for IPA Typography

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### Overview

This table is intended to provide quick and concise reference for people who want to type or refer to IPA characters in either the Summer Institute of Linguistics (SIL) IPA Encore fonts or using Unicode. I refer to this table often in general word processing and in web-based documents associated with my monthly mystery spectrograms (<http://www.umanitoba.ca/linguistics/robh/>), and believe others might find it useful as well.

The SIL fonts are available as freeware from SIL (Summer Institute of Linguistics, 2002). They are True Type fonts and, once installed, can be used like any standard font in computer word processing and similar applications. For word processing SIL encourages the use of a standard keyboard, but provides a table of codes which allow typing in an individual character by using the Alt key (or Option key on Macs). The typist holds down the Alt key and enters (using the number pad) a four-digit code.

The Unicode standard is an international character-coding standard that is useful for Generalized Markup Language kinds of applications, such as HyperText Markup Language (HTML) for web pages. Each IPA character (indeed, just about every alphabetic character in just about every language) has been assigned a unique code, which can be referred to as a symbol in an HTML document. The codes may be entered as either a decimal or a hexadecimal number. In HTML, symbol codes start with an ampersand identifier “&” followed by a number sign “#”, and end with a semi-colon “;”. Decimal numbers are entered directly after the number sign and before the semicolon, while hexadecimal numbers are preceded by an “x”. (See below for examples.) The user’s browser, in presenting the page, looks up the symbol and presents it on screen or in print appropriately.

This table was compiled from materials provided with the SIL freeware fonts package (Summer Institute of Linguistics, n.d.), from the Unicode symbols list provided by John Wells (Wells, 2002). Also included are IPA reference numbers as assigned in the *Handbook of the International Phonetic Association* (International Phonetic Association, 1999), and symbol names as set down in the *Phonetic Symbol Guide* (Pullum & Ladusaw, 1996).

### About this table

The table is arranged in six columns, described below. The order of elements is from Pullum & Ladusaw (1996; hereafter “P&L”), although I may at some point move stuff around (I can’t decide if Turned V really belongs with all the “a” vowels or down by “v”). The table excludes some of the more complicated diacritics which are available from the SIL fonts but which do not have Unicode equivalents (e.g. the fall-rise diacritic). It also excludes some of the unit symbols for things which are official composed of symbols and diacritics in the IPA chart. For instance, Unicode offers unit symbols for barred-l and schwa-r. These have not been included in this

version of the chart (although composing them results in some pretty ugly symbols). I'll try to add them in a later version.

### ***Understanding and using the table***

Find the symbol you want to use by looking for it in the first column. These are presented in the order they appear in P&L: all the “a” vowels are together, followed by all the “b” shaped symbols, etc. Then you can use the codes provided to either insert it into your document. I have also used this table to refer to symbols in notes and in e-mail with editors and colleagues (“It’s the rhoticity sign. You know, IPA 419, Unicode 734.”)

#### **IPA**

This column presents the IPA symbol or diacritic as it appears in the SIL Doulos IPA93 font, which looks a lot like the official representation in the IPA Handbook (International Phonetic Association, 1999). Overstriking diacritics are presented with an invisible leading space so the symbol centers properly. In both the SIL fonts and the Unicode Standard, you type overstriking characters *after* the symbol you’re attaching it to.

#### **IPA#**

This column presents the IPA reference number, as indicated in the Handbook (International Phonetic Association, 1999). Every symbol on the chart has a unique reference number.

#### **SIL**

This column is for typing in an SIL font. First, switch to the appropriate font. To enter a symbol, *press and hold* the Alt-key while entering the four digit code from the number pad. (In Mac operating systems, use the Option-key.) Release the Alt-key and the symbol magically appears. The four digit number must be entered from the number-pad—using the standard keyboard numbers results in some other kind of look-up and the wrong symbol will appear. You’ll notice that each Alt-code is actually a three-digit number with a leading zero. If you don’t enter the leading zero, the computer will grab the wrong symbol. There’s probably a reason for all this, and if I find out why, I’ll update these notes.

#### **UDec**

To put a phonetic symbol on a web page or some other Unicode-compliant GML document, you must use a Unicode enabled font. Unicode is an international symbol-referencing standard, which has unique codes for IPA characters, as well as alphabetic characters for just about every segment-based writing system you can come up with. The trick is finding them.

In a html document (web page source), make sure the string you want will appear in a Unicode font. This can be accomplished with a (now deprecated) FONT tag (i.e. `<FONT NAME="Lucida Sans Unicode">`, with appropriate `</FONT>` tag at the end of the IPA character string) or with a SPAN or DIV tag and class specified in a style sheet or `<STYLE>` tag.

Symbol codes start with a leading ampersand “&”. Then to tell the server you’re giving it a reference number and not a symbol name, you type a number sign “#”. To specify the IPA symbol, follow the number sign with the three digit UDec number from this column, followed by a semicolon “;”. So the Unicode symbol for schwa is `&#601;` and turned v is `&#652;`. Where no number is given, the character is a standard Roman-based character and should be typed using a standard keystroke, or is not available in the Unicode standard.

## **UHex**

Unicode numbers can also be entered in hexadecimal format. If you prefer to use Hex codes from this column, you must follow the number sign with an “x”, so the server knows the code your entering is in hex rather than decimal. Schwa would be `&#x0259;` and turned-v is `&#x028C;`. Where no number is given, the character is a standard Roman-based character and should be typed using a standard keystroke, or is not available in the Unicode standard.

## **Acknowledgments and anticipations**

The tabular form was compiled from my notes and assorted resources by Penny Gilbert. I edited Penny’s spreadsheet into the form you see here.

Changes anticipated in the future include unit Unicode symbols for composed IPA characters, when available; replacement of codes in the SIL column with regular keystrokes, when available (i.e. “Q” for Ash, “D” for Eth); possibly moving some of the symbols out of P&L order for clarity (e.g. if we decide turned-v really does belong with the V symbols and not the A symbols); and possibly adding keystroke references for other commonly used freeware IPA fonts. Comments and suggestions should be addressed to Rob Hagiwara and will be greatly appreciated.

## **References**

- International Phonetic Association. (1999). *Handbook of the International Phonetic Association*. Cambridge: Cambridge University Press.
- Pullum, G. K., & Ladusaw, W. A. (1996). *Phonetic Symbol Guide* (Second ed.). Cambridge: The MIT Press.
- Summer Institute of Linguistics. (2002). *SIL Home Page* [web page], <http://www.sil.org/>
- Summer Institute of Linguistics. (n.d.). *SIL Encore IPA Fonts* [web page], <http://www.sil.org/computing/fonts/encore-ipa.html>
- Wells, J. C. (2002). *The IPA in Unicode* [web page], <http://www.phon.ucl.ac.uk/home/wells/ipa-unicode.htm>

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IPA	IPA#	SIL	UDec	UHex	P&L
ɑ	304	0097			Lower-Case A
ɐ	324	0140	592	0250	Turned A
ɑ̣	305	0065	593	0251	Script A
ɑ̤	313	0129	594	0252	Turned Script A
æ	325	0081	230	00E6	Ash
Λ	314	0195	652	028C	Turned V
b	102	0098			Lower-Case B
ḃ	160	0186	595	0253	Hooktop B
B	121	0245	665	0299	Small Capital B
β	127	0066	946	03B2	Beta
c	107	0099			Lower-Case C
ç	138	0067	231	00E7	C Cedilla
ç̣	182	0254	597	0255	Curly-Tail C
d	104	0100			Lower-Case D
ɖ	162	0235	599	0257	Hooktop D
ɗ	106	0234	598	0256	Right-Tail D
ð	131	0068	240	00F0	Eth
e	302	0101			Lower-Case E
ə	322	0171	601	0259	Schwa
ɚ	397	0130	600	0258	Reversed E
ɛ	303	0069	603	025B	Epsilon
ɜ	395	0207	606	025E	Closed Epsilon
ɚ	326	0206	604	025C	Reversed Epsilon
f	128	0102			Lower-Case F
g	110	0103			Lower-Case G
ɢ	166	0169	608	0260	Hooktop G
G	112	0071	610	0262	Small Capital G
Ɠ	168	0253	667	029B	Hooktop Small Capital G

IPA	IPA#	SIL	UDec	UHex	P&L
ɣ	141	0196	611	0263	Gamma
ɤ	422	0236	736	02E0	Velarized
ɣ̣	315	0070	612	0264	Ram's Horns
h	146	0104			Lower-Case H
ᵹ	404	0072	688	02B0	Superscript Lower-Case H
ɦ	144	0240	295	0127	Crossed H
ɦ̣	147	0250	614	0266	Hooktop H
ɥ	171	0231	613	0265	Turned H
ɦ̥	175	0238	615	0267	Hooktop Heng
H	172	0075	668	029C	Small Capital H
i	301	0105			Lower-Case I
ï	317	0246	616	0268	Barred I
I	319	0073	618	026A	Small Capital I
j	153	0106			Lower-Case J
ᵹ	421	0074	690	02B2	Superscript Lower-Case J
ɰ	139	0198	669	029D	Curly-Tail J
ȝ	108	0239	607	025F	Barred Dotless J
ɰ̣	164	0215	644	0284	Hooktop Barred Dotless J
k	109	0107			Lower-Case K
l	155	0108			Lower-Case L
ˀ	426	0058			Superscript Lower-Case L
ł	148	0194	620	026C	Belted L
ɭ	156	0241	621	026D	Right-Tail L
ḷ	149	0076	622	026E	L-Yogh Ligature
L	158	0059	671	029F	Small Capital L
m	114	0109			Lower-Case M
ḿ	115	0077	625	0271	Meng
Ṁ	316	0181	623	026F	Turned M

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IPA	IPA#	SIL	UDec	UHex	P&L
ɰ	154	0229	624	0270	Long-Leg Turned M
ɱ	116	0110			Lower-Case N
<sup>n</sup>	425	0060			Superscript Lower-Case N
ɱ	118	0248	626	0272	Left-Hook N
ɱ	119	0078	331	014B	Eng
ɱ	117	0247	627	0273	Right-Tail N
ɴ	120	0178	628	0274	Small Capital N
ɔ	307	0111			Lower-Case O
⊙	176	0135	664	0298	Bullseye
ø	323	0080	629	0275	Barred O
θ	130	0084	952	03B8	Theta
ø	310	0079	248	00F8	Slashed O
ϕ	126	0184	632	0278	Phi
œ	311	0191	339	0153	O-E Ligature
œ	312	0175	630	0276	Small Capital O-E Ligature
ɔ	306	0141	596	0254	Open O
ɹ	101	0112			Lower-Case P
ɻ	111	0113			Lower-Case Q
ɹ	122	0114			Lower-Case R
ɹ	124	0082	638	027E	Fish-Hook R
ɹ	125	0125	637	027D	Right-Tail R
ɹ	151	0168	633	0279	Turned R
ɹ	152	0211	635	027B	Right-Tail Turned R
ɹ	181	0228	634	027A	Turned Long-Leg R
ʀ	123	0123	640	0280	Small Capital R
ʀ	143	0210	641	0281	Inverted Small Capital R
ʀ	132	0115			Lower-Case S
ʀ	136	0167	642	0282	Right-Tail S

IPA	IPA#	SIL	UDec	UHex	P&L
ɿ	134	0083	643	0283	Esh
ɿ	103	0116			Lower-Case T
ɿ	105	0255	648	0288	Right-Tail T
ʊ	308	0117			Lower-Case U
ʊ	318	0172	649	0289	Barred U
ʊ	321	0085	650	028A	Upsilon
ʋ	129	0118			Lower-Case V
ʋ	150	0086	651	028B	Script V
ʋ	170	0119			Lower Case W
ʋ	169	0227	653	028D	Turned W
<sup>w</sup>	420	0087	695	02B7	Superscript Lower-Case W
x	140	0120			Lower-Case X
χ	142	0088	967	03C7	Chi
y	309	0121			Lower-Case Y
ʏ	157	0180	654	028E	Turned Y
ʏ	320	0089	655	028F	Small Capital Y
z	133	0122			Lower-Case Z
z	183	0252	657	0291	Curly-Tail Z
z	137	0189	656	0290	Right-Tail Z
ʒ	135	0090	658	0292	Yogh
ʔ	113	0063	660	0294	Glottal Stop
ʔ	173	0251	673	02A1	Barred Glottal Stop
ʔ	145	0192	661	0295	Reversed Glottal Stop
ʔ	423	0179	740	02E4	Super. Reversed Glottal Stop
ʔ	174	0185	674	02A2	Barred Reversed Glottal Stop
!	178	0151	451	01C3	Exclamation Point
	177	0142	448	01C0	Pipe
‡	179	0156	450	01C2	Double-Barred Pipe

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IPA	IPA#	SIL	UDec	UHex	P&L
‖	180	0146	449	01C1	Double Pipe
ˊ	513	0064	769	0301	IPA High Tone / Acute
ˉ	514	0035	772	0304	IPA Mid Tone / Macron
ˋ	515	0036	768	0300	IPA Low Tone / Grave
ˊˋ	512	0038			IPA Rising Tone / Wedge
ˆ	513	0094			IPA Falling Tone / Circumflex
˜	414	0061	800	0320	Underbar
₊	413	0043	799	031F	Subscript Plus
ₓ	416	0126	829	033D	Superscript Cross
ₙ	408	0053	810	032A	Subscript Bridge
ₜ	409	0176	826	033A	Subscript Turned Bridge
ₚ	410	0054	827	033B	Subscript Box
ˆ	429	0051	797	031D	Raising Sign
ˆ	430	0052	798	031E	Lowering Sign
ˆ	417	0049	792	0318	Advancement Sign
ˆ	418	0050	793	0319	Retraction Sign
ˆ	501	0200	712	02C8	Vertical Stroke (Superior)
ˆ	502	0199	716	02CC	Vertical Stroke (Inferior)
ˆ	431	0096	809	0329	Syllabicity Mark
ˆ	427	0124	794	031A	Corner
↑	518	0139		0000	Up Arrow
↓	517	0155		0000	Down Arrow
↗	510	0204		0000	Northeast Arrow
↘	511	0205		0000	Southeast Arrow
.	506	0046			Period
˙	504	0062	721	02D1	Half-Length Mark
¨	415	0095	776	0308	Umlaut
¨	405	0045	804	0324	Subscript Umlaut

IPA	IPA#	SIL	UDec	UHex	P&L
ː	503	0249	720	02D0	Length Mark
ˑ	401	0039	700	02BC	Apostrophe
˚	402B	0042	778	030A	Over-Ring
˚	402A	0056	805	0325	Under-Ring
˘		0055	796	031C	Subscript Left Half-Ring
˘		0166	825	0339	Subscript Right Half-Ring
˘	424	0041	771	0303	Tilde
˘	428	0242	820	0334	Mid Tilde
˘	406	0048	816	0330	Subscript Tilde
˘	407	0209	828	033C	Subscript Seagull
˘	403	0164	812	032C	Subscript Wedge
˘	505	0040	774	0306	Breve
˘	432	0057	815	032F	Subscript Arch
˘	433	0131			Top Ligature
˘	509	0237			Bottom Ligature
˘	419	0213	734	02DE	Rhoticity Sign

Precomposed characters

These characters are officially composed of standard IPA characters and diacritics. They are presently unsanctioned as unit symbols by the International Phonetic Association, although they may appear as examples of diacritic usage (and are assigned numbers). However, the Unicode standard provides precomposed versions for these symbols.

IPA	IPA #s	SIL	UDec	UHex	P&L (common name)
ɚ	327	0171+0213	602	0259	Right-hook Schwa (Schwa R)
ɚ	326+419	0206+0213	605	025D	Right-hook Reversed Epsilon (Stressed Schwa-R)
ɫ	209	0108+0242	619	026B	Tilde L (Dark L)

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