

# Information about Pali Type 1 Fonts, Character Sets and Issues

ñ Ñ ā Ā ī Ī ū Ū ḷ Ḹ ṅ Ṅ ṭ Ṭ ḍ Ḍ ṇ Ṇ ṁ Ṃ

To use any Type 1 font on a Windows computer a version of Adobe Type Manager (ATM) must be installed. An exception to this requirement is Windows 2000 (and Windows XP – when it is available). Windows 2000 can use/display Type 1 fonts just as well as TrueType fonts.

Adobe Type Manager Lite is a free version of ATM available from Adobe, either with some of their programs or as a **free** <http://www.adobe.com/products/atmlight/main.html> (6 Mb) download from their website. A set of fully featured Pali Type 1 fonts is freely available from BuddhaNet [http://www.buddhanet.net/ftp\\_pali.htm](http://www.buddhanet.net/ftp_pali.htm) or from other websites. It is recommended that this family of Pali Type 1 fonts is used to minimise problems. It is a matter of first installing ATM Lite and then using ATM to install the Type 1 fonts. Or if using Windows 2000/XP just install the Pali fonts only. [Mac users can obtain ATM Lite for Mac & Mac Pali Type 1 fonts.]

A display of the Pali font families is on the next page. Each family has ten instances of the variations in the font family with the exception of Pali Chancery which has only one instance (a display font). The ten instances are not displayed but they are Regular, Bold, Italic and Bold Italic. There is also a Condensed version of the four instances with one instance each of Small Capitals and Condensed Small Capitals.

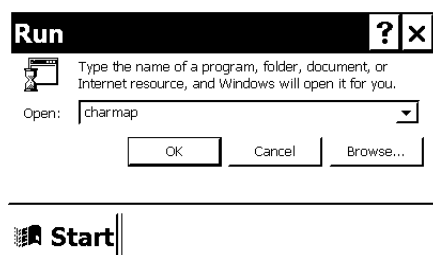
If using Word 2000 or similar it is possible to develop keyboard macros to easily input the Pali characters using the keyboard. Otherwise page 3 has a guide to manually entering the characters using the Alt + right hand keypad number set (with the NumLock light on – [otherwise this method won't work]).

## Most reliable method for inputting Pali characters (other than macros).

Please make sure the NumLock light is on, then hold down the Alt key and simultaneously enter the required keyboard combination via the right hand keypad number set (this will not work with the numbers at the top of the main keyboard). Using this method “long a” (lowercase) ā is entered via the combination Alt + 224. Notice that the necessary leading zero is omitted sometimes from the number combination but this zero is needed, so the combination is really Alt + 0224. Release the Alt key after this combination is entered and the long a character ā will appear. Of course you must have a Pali Type 1 font installed and be using it to enter this character, otherwise you will see à.

Other Desktop Publishing programs may use different methods to enter an extended character (i.e. not on the usual keyboard). The above method works in all situations. Otherwise, for example, InDesign has a “replace character” function (much like inserting via the clipboard). Running the “character map” applet can help both identify the extended character set and also insert the characters (via the clipboard). But the tiny viewing

window of “charmap” makes this difficult. Print out and use the character map on page 5 for this purpose. In the Run dialog on the Start menu you can enter “charmap” or “charmap.exe” — without the quotes — to run the character map applet. There are many font viewers available – double clicking a Type 1 font when ATM is installed will allow you to view that particular font in a font window; but you will not see the extended characters in a Pali font, for example, using the ATM viewing function.



Pali Times Type 1 CSX characters

ñ Ñ ā Ā ī Ī ū Ū ḷ Ḹ ṅ Ṇ ṭ Ṭ ḍ Ḍ ṇ Ṅ ṁ Ṁ ṁ Ṃ  
... ‘ ’ “ ” — • – f > < » « ” <sup>a</sup>

Pali Helvetica Type 1 CSX characters

ñ Ñ ā Ā ī Ī ū Ū ḷ Ḹ ṅ Ṇ ṭ Ṭ ḍ Ḍ ṇ Ṅ ṁ Ṁ ṁ Ṃ  
... ‘ ’ “ ” — • – f > < » « ” <sup>a</sup>

Pali Bookman Type 1 CSX characters

ñ Ñ ā Ā ī Ī ū Ū ḷ Ḹ ṅ Ṇ ṭ Ṭ ḍ Ḍ ṇ Ṅ ṁ Ṁ ṁ Ṃ  
... ‘ ’ “ ” — • – f > < » « ” <sup>a</sup>

*Pali Chancery Type 1 CSX characters*

ñ Ñ ā Ā ī Ī ū Ū ḷ Ḹ ṅ Ṇ ṭ Ṭ ḍ Ḍ ṇ Ṅ ṁ Ṁ ṁ Ṃ  
... ‘ ’ “ ” — • – f > < » « ” <sup>a</sup>

Pali Charter Type 1 CSX characters

ñ Ñ ā Ā ī Ī ū Ū ḷ Ḹ ṅ Ṇ ṭ Ṭ ḍ Ḍ ṇ Ṅ ṁ Ṁ ṁ Ṃ  
... ‘ ’ “ ” — • – f > < » « ” <sup>a</sup>

Pali Palatino Type 1 CSX characters

ñ Ñ ā Ā ī Ī ū Ū ḷ Ḹ ṅ Ṇ ṭ Ṭ ḍ Ḍ ṇ Ṅ ṁ Ṁ ṁ Ṃ  
... ‘ ’ “ ” — • – f > < » « ” <sup>a</sup>

Times\_Norman Type 1 non-CSX characters

§ ṛ ‡ Ḷ ē ĭ ṛ ṛ † ě Ṇ ũ ḷ Ū Ź Ṛ ḷ ṇ ṁ ṁ ṁ  
Ö ë í î î ó ï ñ É õ ã ě ´ ṛ ũ

The Times\_Norman characters are not in the same position as the Pali CSX fonts, as you can see above.  
Below is how the line above should look. A Times\_Norman character set is on page 6.

ñ Ñ ā Ā ī Ī ū Ū ḷ Ḹ ṅ Ṇ - ṭ ḍ Ḍ ṇ Ṅ ṁ Ṁ ṁ Ṃ<sub>(n.a.)</sub> ē ō

The Times\_Norman Pali characters are not in the standard CSX positions – examples of long e and o above.

# Pali Type 1 fonts in CS(x) format

This an example of Pali Type 1 font character set CSX using Chandra Yenco's free Pali Type 1 font families.

(Enter all codes with NUMLOCK enabled, simultaneously hold down the ALT key, entering keypad numbers on right side of keyboard, then release Alt key for character to appear in text)

Long a = Alt+0224 = ā

Long A = Alt+0226 = Ā

Long i = Alt+0227 = ī

Long I = Alt+0228 = Ī

Long u = Alt+0229 = ū

Long U = Alt+0230 = Ū

UnderDot m = Alt0252 = ṃ

UnderDot M = Alt0253 Ṃ

Nowadays, a new standard has replaced the OverDot m with the UnderDot m

UnderDot t = Alt+0241 = ṭ

UnderDot T = Alt+0242 = Ṭ

Spanish n = Alt+0164 = ñ

Spanish N = Alt+0165 = Ñ

UnderDot n = Alt+0245 = ṇ

UnderDot N = Alt+0246 = Ṇ

OverDot n = Alt+0239 = ṅ

OverDot N = Alt+0240 = Ṅ

UnderDot l = Alt+0235 = ḷ

UnderDot L = Alt+0236 = Ḹ

UnderDot d = Alt+0243 = ḍ

UnderDot D = Alt+0244 = Ḍ

These are standard CS(X) Pali character positions (unlike other non-standard Pali fonts). Please use Chandra Yenco's Type 1 Pali fonts.



# Entire Character Set of Pali Bookman Type 1 csx

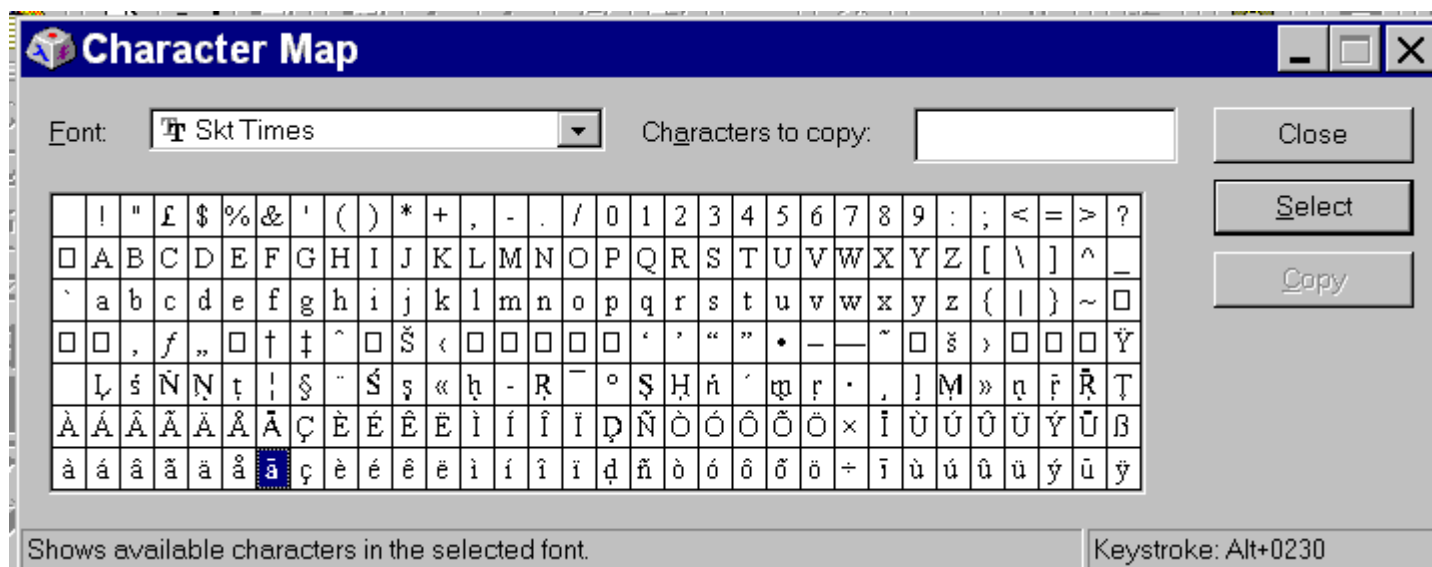
0	•	1	•	2	•	3	•	4	•	5	•	6	•	7	•	8	•	9	•	10	•	11	•	12	•	13	•	14	•	15	•
16	•	17	•	18	•	19	•	20	•	21	•	22	•	23	•	24	•	25	•	26	•	27	•	28	•	29	•	30	•	31	•
32		33	!	34	"	35	#	36	\$	37	%	38	&	39	'	40	(	41	)	42	*	43	+	44	,	45	-	46	.	47	/
48	0	49	1	50	2	51	3	52	4	53	5	54	6	55	7	56	8	57	9	58	:	59	;	60	<	61	=	62	>	63	?
64	@	65	A	66	B	67	C	68	D	69	E	70	F	71	G	72	H	73	I	74	J	75	K	76	L	77	M	78	N	79	O
80	P	81	Q	82	R	83	S	84	T	85	U	86	V	87	W	88	X	89	Y	90	Z	91		92	\	93		94	^	95	_
96	,	97	a	98	b	99	c	100	d	101	e	102	f	103	g	104	h	105	i	106	j	107	k	108	l	109	m	110	n	111	o
112	p	113	q	114	r	115	s	116	t	117	u	118	v	119	w	120	x	121	y	122	z	123	{	124		125	}	126	~	127	•
128	•	129	•	130	,	131	f	132	"	133	...	134	†	135	‡	136	~	137	%	138	Š	139	‘	140	Œ	141	•	142	Z	143	•
144	•	145	,	146	,	147	"	148	"	149	•	150	_	151	_	152	~	153	™	154	Š	155	,	156	œ	157	•	158	Z	159	Ÿ
160		161	!	162	¢	163	£	164	ñ	165	Ñ	166	!	167	Š	168	..	169	©	170	Š	171	«	172	¬	173	-	174	®	175	-
176	o	177	±	178	²	179	³	180	´	181	µ	182	¶	183	.	184	¸	185	¹	186	º	187	»	188	¼	189	½	190	¾	191	¿
192	À	193	Á	194	Â	195	Ã	196	Ä	197	Å	198	Æ	199	Ç	200	Ð	201	É	202	Ê	203	Ë	204	Ì	205	Í	206	Î	207	Ï
208	Ð	209	Ñ	210	Ò	211	Ó	212	Ô	213	Õ	214	Ö	215	×	216	Ø	217	Ù	218	Ú	219	Û	220	Ü	221	Ý	222	Þ	223	ß
224	à	225	á	226	â	227	ã	228	ä	229	å	230	æ	231	ç	232	ø	233	é	234	ê	235	ë	236	ì	237	í	238	î	239	ï
240	Ñ	241	†	242	‡	243	‰	244	Ð	245	ñ	246	Ñ	247	÷	248	ø	249	ù	250	ú	251	û	252	ü	253	ý	254	þ	255	ÿ

Use this character map for entering Type 1 Pali characters



An example of the Windows character set with the characters represented by hexadecimal numbers rather than ordinary numbers. In some character text viewers or applications this alternate view can be useful for entering characters. For example, in InDesign, through the insert character menu, Unicode or other character numbers can be entered as appropriate.

	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
00	<u>NUL</u> 0000	<u>STX</u> 0001	<u>SOT</u> 0002	<u>ETX</u> 0003	<u>EOT</u> 0004	<u>ENQ</u> 0005	<u>ACK</u> 0006	<u>BEL</u> 0007	<u>BS</u> 0008	<u>HT</u> 0009	<u>LF</u> 000A	<u>VT</u> 000B	<u>FF</u> 000C	<u>CR</u> 000D	<u>SO</u> 000E	<u>SI</u> 000F
10	<u>DLE</u> 0010	<u>DC1</u> 0011	<u>DC2</u> 0012	<u>DC3</u> 0013	<u>DC4</u> 0014	<u>NAK</u> 0015	<u>SYN</u> 0016	<u>ETB</u> 0017	<u>CAN</u> 0018	<u>EM</u> 0019	<u>SUB</u> 001A	<u>ESC</u> 001B	<u>FS</u> 001C	<u>GS</u> 001D	<u>RS</u> 001E	<u>US</u> 001F
20	<u>SP</u> 0020	!	"	#	\$	%	&	'	(	)	*	+	,	-	.	/
30	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
40	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
50	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
60	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
70	p	q	r	s	t	u	v	w	x	y	z	{		}	~	<u>DEL</u> 007F
80	€ 20AC	◻	ƒ 0192	„ 201E	… 2026	† 2020	‡ 2021	ˆ 02C6	% 2030	Š 0160	< 2039	€ 0152	◻	Ž 017D	◻	◻
90	◻	˘ 2018	˙ 2019	˚ 201C	˛ 201D	• 2022	– 2013	— 2014	˜ 02DC	™ 2122	š 0161	> 203A	œ 0153	◻	ž 017E	ÿ 0178
A0	<u>NBSP</u> 00A0	ı 00A1	ç 00A2	£ 00A3	* 00A4	¥ 00A5	ı 00A6	Š 00A7	ˆ 00A8	© 00A9	ª 00AA	« 00AB	¬ 00AC	– 00AD	® 00AE	— 00AF
B0	° 00B0	± 00B1	² 00B2	³ 00B3	´ 00B4	µ 00B5	¶ 00B6	· 00B7	¸ 00B8	¹ 00B9	º 00BA	» 00BB	¼ 00BC	½ 00BD	¾ 00BE	¿ 00BF
C0	À 00C0	Á 00C1	Â 00C2	Ã 00C3	Ä 00C4	Å 00C5	Æ 00C6	Ç 00C7	È 00C8	É 00C9	Ê 00CA	Ë 00CB	Ì 00CC	Í 00CD	Î 00CE	Ï 00CF
D0	Ð 00D0	Ñ 00D1	Ò 00D2	Ó 00D3	Ô 00D4	Õ 00D5	Ö 00D6	× 00D7	Ø 00D8	Ù 00D9	Ú 00DA	Û 00DB	Ü 00DC	Ý 00DD	Þ 00DE	ß 00DF
E0	à 00E0	á 00E1	â 00E2	ã 00E3	ä 00E4	å 00E5	æ 00E6	ç 00E7	è 00E8	é 00E9	ê 00EA	ë 00EB	ì 00EC	í 00ED	î 00EE	ï 00EF
F0	ð 00F0	ñ 00F1	ò 00F2	ó 00F3	ô 00F4	õ 00F5	ö 00F6	÷ 00F7	ø 00F8	ù 00F9	ú 00FA	û 00FB	ü 00FC	ý 00FD	þ 00FE	ÿ 00FF



Above is an example of the inadequate Windows 98 Character Map applet (CharMap)

		Decimal		Hex		Character	
0	□	1	□	2	□	3	□
4	□	5	□	6	□	7	□
8	□	9	□	10	□	11	□
12	□	13	□	14	□	15	□
16	□	17	□	18	□	19	□
20	□	21	□	22	□	23	□
24	□	25	□	26	□	27	□
28	□	29	□	30	□	31	□
32	!	33	!	34	“	35	#
36	\$	37	%	38	&	39	.
40	(	41	)	42	*	43	+
44	,	45	-	46	.	47	/
48	0	49	1	50	2	51	3
52	4	53	5	54	6	55	7
56	8	57	9	58	:	59	;
60	<	61	=	62	>	63	?
64	@	65	A	66	B	67	C
68	D	69	E	70	F	71	G
72	H	73	I	74	J	75	K
76	L	77	M	78	N	79	O
80	P	81	Q	82	R	83	S
84	T	85	U	86	V	87	W
88	X	89	Y	90	Z	91	[
92	\	93		94	^	95	_
96	,	97	a	98	b	99	c
100	d	101	e	102	f	103	g
104	h	105	i	106	j	107	k
108	l	109	m	110	n	111	o
112	p	113	q	114	r	115	s
116	t	117	u	118	v	119	w
120	x	121	y	122	z	123	{
124		125	}	126	~	127	[
128	€	129	□	130	,	131	ƒ
132	”	133	...	134	+	135	±
136	^	137	%	138	Š	139	◀
140	œ	141	□	142	□	143	◁
144	□	145	,	146	,	147	“
148	”	149	.	150	-	151	—
152	ˆ	153	™	154	Ÿ	155	›
156	œ	157	□	158	□	159	ÿ
160	□	161	!	162	¢	163	£
164	□	165	¥	166	!	167	§
168	ˆ	169	©	170	²	171	«
172	¬	173	-	174	®	175	—
176	◊	177	±	178	²	179	³
180	´	181	µ	182	¶	183	.
184	ˆ	185	ı	186	◦	187	»
188	¼	189	½	190	¾	191	¿
192	À	193	Á	194	Â	195	Ã
196	Ä	197	Å	198	Æ	199	Ç
200	È	201	É	202	Ê	203	Ë
204	Ì	205	Í	206	Î	207	Ï
208	Ð	209	Ñ	210	Ò	211	Ó
212	Ô	213	Õ	214	Ö	215	×
216	Ø	217	Ù	218	Ú	219	Û
220	Ü	221	Ý	222	Þ	223	ß
224	à	225	á	226	â	227	ã
228	ä	229	å	230	æ	231	ç
232	è	233	é	234	ê	235	ë
236	ì	237	í	238	î	239	ï
240	ø	241	ù	242	ú	243	û
244	ü	245	ý	246	þ	247	÷
248	ø	249	ù	250	ú	251	û
252	ü	253	ý	254	þ	255	ÿ

Above is the standard Windows character set representation which is useful as a reference.