Document #
Date: 2015-10-26
Title: Encoding Pitman Shorthand scripts into Unicode Character Set
Source: Pitman scripts and its adaptation over years
Author: Ramachandran
Status: Individual contribution for consideration / review by UTC
Replaces: [L2/15-116]

Revision History

Date	Revision Description	Comments / Review## by	Document Status
2015-10-24	1. Adaptation of Pitman Shorthand to more than 15 Languages with details of language specified. Earlier comment removed.[Para 2 of historical overview section] (p.2) 2. Minor addition to Para 1 last two sentences [Script structure section] (p. 3) 3. Heading and description of Pitman character table changed (p.4) 4. Pitman characters are redesigned. Included additional vowels, glyphs, halved and doubled consonants, compound consonants and punctuation characters. Around 120 new characters added (p. 4 – 17) 5. Code-block allocation for all defined characters, including separate code block for supplemental punctuations. Character properties defined for all included characters (p. 18 -24) 6. Representation of running script (**Representation 1.1 and 2.1**) further added with proposed characters (in this revision) as per comments from Stanislav. (p. 26 and 28) 7. Changes to character ordering since there are more characters added. Also, description for punctuation marks changed and more punctuations marks added. There is also a mention about fonts (p. 29) 8. Examples for orientation of Hooks including Shun hook, Loops and Dash vowel depicted (p. 34 – 39) 9. In the references section, screen snap of grammalogues are included. These can be used as reference for stenem referred in point 6 above. (p. 43) 10. More links and references added {p. 44 – 45)	Duncan McKenzie.	For review at UTC Meeting [1st week of Nov 2015]

Received comments from Stanislav Jan Šarman based on his review of the previous version. A few of his comments were/are under discussion list and will be taken into consideration for action in my next revision.

Historical overview of Pitman Shorthand and its adaptations

Pitman Shorthand scripts are widely used in English speaking countries. It is called 'Phonography' as it is a system of writing scripts based on pronunciation of English words and not using spelling of the words. Originally developed by the Englishman *Sir Isaac Pitman,* it was published in 1837. Since then, there have been several revisions to the original version for easy adaption.

There are at-least three "dialects" of Pitman's shorthand: the original Pitman's, Pitman's New Era, and Pitman's 2000. The later versions dropped certain symbols and introduced other simplifications to earlier versions. For example, strokes "rer" (heavy curved downstroke) and "kway," (hooked horizontal straight stroke) are present in Pitman's New Era, but not in Pitman's 2000. The characters that are proposed for encoding (in this proposal) are the consonants, vowels and dipthongs which are *prima facie* the base characters for Pitman Shorthand irrespective of any versions. Pitman's New Era is a fairly old version as compared to Pitman 2000 version. There is subtle difference between these two versions not with respect to base characters but some ligatures. Pitman Scripts described below is based on Pitman's New Era Shorthand which has been adapted to around 15 Languages (viz., Japanese, Latin, Dutch, German, French, Spanish, Italian, Malay, Welsh, Swahili, Sinhala, Hebrew, Esperanto, Hindi, Portuguese) to name a few.

Unsupported orthographies This proposal encodes Pitman Scripts used for English language. There is a roadmap to encode Pitman Scripts used for other supported languages in future, subject to availability of relevant materials or documentations which is being pursued.

Typology

Pitman Shorthand is a system of representing an English word or set of related English phrases using Consonants and Vowels (cf. Duployan Shorthand). As mentioned earlier, Pitman Shorthand (is based on simple geometric symbols viz., lines and curves) is written phonetically and not using spelling of each letters. Consonants are represented using strokes (Lines and Curves) can be easily differentiated either visually or according to their functionality and Vowels are represented using (Dot and Dash) although there are special vowels or combination of vowels which are described in the subsequent sections. Consonants and Vowels are written following a set of rules and their orientation does not change generally, except for in some cases. Pitman shorthand scripts are written Left to Right proceeding down the page. Scripts belonging to more than one word can be joined together to achieve fast writing of subsequent set of group words (e.g., the phrase, "As a matter of fact" can be combined together and written as a single script even though each word is a separate script).

This proposal for encoding Pitman Shorthand follows a similar framework and methodology as adopted in the "Proposal to include Duployan script and Shorthand Format Controls in UCS" as both the systems use almost the same writing pattern, although the way Pitman scripts rendered are different from that adopted by Duployan shorthand method.

Script Structure

In Pitman Shorthand, there is specific distinction between each Consonants in which some are written with light strokes (e.g., P, T, F, ITH, Kay, M, R) and some with heavy strokes (e.g., B, D, V, THEE, GY, ING) Vowels are represented by Light/Heavy Dot/Dash. There are 12 vowels in total (3 Light dots, 3 Heavy dots, 3 Light dashes and 3 Heavy dashes). There are three positions in which the vowels can be placed for a consonant to form meaningful phonemes. For the purpose of encoding, only 4 vowels are considered (ignoring their relative positions). These four vowels are Light Dot, Light Dash, Heavy Dot and Heavy Dash

In addition to the above vowels, there are certain special vowels called Diphthongs which are used separately or in combination with the vowels. Also, there are separate syllables called Diphones and Triphones. Apart from the original consonants, all these special vowels have separate script in Pitman Shorthand and they are also part of the allocation table.

Pitman Consonant scripts are generally written at the size of $1/6^{th}$ an inch. For easier representation of words, sometimes the size of the stroke is halved or doubled to add additional Consonant phonemes

Also, there are different variants to Consonant strokes (called dual consonants) which are added to the consonants either at the start or middle or at the end. Those variants are small and large hooks, small and large circles, ST and STR loops, Shun Hooks. These variant characters are not to be written individually but will be forming part of the main Consonant stroke to provide additional phonetic characters in a more convenient way, but following the rules in which they should be used. These variants also have separate character set and will be part of the allocation table.

Pitman Shorthand scripts can be joined together cursively for achieving the speed in writing but maintaining legibility. Wherever required, scripts belonging to more than one word can be joined together in a more flexible way to attain greater speed.

Pitman characters and their name

Characters of Pitman Shorthand (that are proposed for encoding) are detailed as below:

SL #	Pitman Character	Character Name
1	\	PITMAN LETTER **PEE**
2	\	PITMAN LETTER **BEE**
3	|	PITMAN LETTER **TEE**
4	|	PITMAN LETTER **DEE**
5	/	PITMAN LETTER **CHAY**
6	/	PITMAN LETTER **JAY**
7	—	PITMAN LETTER **KAY**
8	—	PITMAN LETTER **GAY**
9	/	PITMAN LETTER **RAY**
10	/	PITMAN LETTER **WAY**
11	/	PITMAN LETTER **YAY**
12	/	PITMAN LETTER UP **HAY**

SL #	Pitman Character	Character Name
13		PITMAN LETTER DOWN **HAY**
14		PITMAN LETTER **EM**
15		PITMAN LETTER **EN**
16		PITMAN LETTER **ING**
17		PITMAN LETTER **EFF**
18		PITMAN LETTER **VEE**
19		PITMAN LETTER **ITH**
20		PITMAN LETTER **THEE**
21		PITMAN LETTER **ESS**
22		PITMAN LETTER **ZEE**
23		PITMAN LETTER **ISH**
24		PITMAN LETTER **ZHEE**

SL #	Pitman Character	Character Name
25	⌒	PITMAN LETTER **ELL**
26	⌒	PITMAN LETTER **AR**
27	⚬	PITMAN VOWEL SIGN **LIGHT DOT**
28	–	PITMAN VOWEL SIGN **LIGHT DASH**
29	•	PITMAN VOWEL SIGN **HEAVY DOT**
30	▬	PITMAN VOWEL SIGN **HEAVY DASH**
31	∘	PITMAN **INTERVENING DOT** VOWEL
32	∨	PITMAN LETTER **I** UP
33	∧	PITMAN LETTER **OW** DOWN
34	꜓	PITMAN LETTER **OI** UP
35	⌒	PITMAN LETTER **EW** DOWN
36	∟	PITMAN **DIPHONE SIGN** FOR LIGHT and HEAVY DOT VOWEL

SL #	Pitman Character	Character Name
37	⌐	PITMAN **DIPHONE SIGN** FOR LIGHT and HEAVY DASH VOWEL
38	⋁	PITMAN **TRIPHONE** LETTER **I** UP
39	⋀	PITMAN **TRIPHONE** LETTER **OW** DOWN
40	⊃	PITMAN **TRIPHONE** LETTER **OI** UP
41	∼	PITMAN **TRIPHONE** LETTER **EW** DOWN
42	∩	PITMAN LIGHT **R HOOK** FOR LETTER TEE and DEE
43	∩	PITMAN HEAVY **R HOOK** FOR LETTER TEE and DEE
44	∪	PITMAN LIGHT **R HOOK** FOR LETTER EM
45	∪	PITMAN HEAVY **R HOOK** FOR LETTER EM
46	∩	PITMAN LIGHT **L HOOK** FOR LETTER TEE and DEE
47	∩	PITMAN HEAVY **L HOOK** FOR LETTER TEE and DEE
48	∪	PITMAN LIGHT **L HOOK** FOR LETTER EM

SL #	Pitman Character	Character Name
49	ᴗ	PITMAN HEAVY **L HOOK** FOR LETTER EM
50	ᴜ	PITMAN LIGHT **N HOOK** FOR LETTER TEE and DEE
51	ᴜ	PITMAN HEAVY **N HOOK** FOR LETTER TEE and DEE
52	ᴗ	PITMAN LIGHT **N HOOK** FOR LETTER EM
53	ᴗ	PITMAN HEAVY **N HOOK** FOR LETTER EM
54	ᴜ	PITMAN LIGHT **F or V HOOK** FOR LETTER TEE and DEE
55	ᴜ	PITMAN HEAVY **F or V HOOK** FOR LETTER TEE and DEE
56	ᴗ	PITMAN LIGHT **SHUN HOOK** LEFT MOTION FOR LETTER TEE and DEE
57	ᴗ	PITMAN HEAVY **SHUN HOOK** LEFT MOTION FOR LETTER TEE and DEE
58	ᴗ	PITMAN LIGHT **SHUN HOOK** RIGHT MOTION FOR LETTER TEE and DEE
59	ᴗ	PITMAN HEAVY **SHUN HOOK** RIGHT MOTION FOR LETTER TEE and DEE
60	ᴗ	PITMAN LIGHT **SHUN HOOK** FOR LETTER EM

SL #	Pitman Character	Character Name
61	ᴗ	PITMAN HEAVY **SHUN HOOK** FOR LETTER EM
62	ᗧ	PITMAN FINAL LIGHT **SHUN HO**OK FOLLOWING CIRCLE ES
63	ᗧ	PITMAN FINAL HEAVY **SHUN HOOK** FOLLOWING CIRCLE ES
64	᧐	PITMAN FINAL LIGHT **SHUN HOOK** FOLLOWING CIRCLE ES WITH ADDED ES CIRCLE
65	᧐	PITMAN FINAL HEAVY **SHUN HOOK** FOLLOWING CIRCLE ES WITH ADDED ES CIRCLE
66	∘	PITMAN **SMALL CIRCLE** ATTACHED TO HOOKS FOR STRAIGHT STROKES
67	∘	PITMAN **SMALL CIRCLE** ATTACHED TO HOOKS FOR CURVED STROKES
68	O	PITMAN **BIG CIRCLE** ATTACHED TO HOOKS FOR STRAIGHT STROKES
69	○	PITMAN **BIG CIRCLE** ATTACHED TO HOOKS FOR CURVED STROKES
70	)	PITMAN LIGHT **ST LOOP** FOR LETTER TEE and DEE
71	)	PITMAN HEAVY **ST LOOP** FOR LETTER TEE and DEE
72	⌣	PITMAN LIGHT **ST LOOP** INITIAL FOR LETTER EM

SL #	Pitman Character	Character Name
73	‿	PITMAN HEAVY **ST LOOP** INITIAL FOR LETTER EM
74	‿	PITMAN LIGHT **ST LOOP** FINAL FOR LETTER EM
75	‿	PITMAN HEAVY **ST LOOP** FINAL FOR LETTER EM
76	)	PITMAN LIGHT **STR LOOP** FOR LETTER TEE and DEE
77	)	PITMAN HEAVY **STR LOOP** FOR LETTER TEE and DEE
78	‿	PITMAN LIGHT **STR LOOP** FOR LETTER EM
79	‿	PITMAN HEAVY **STR LOOP** FOR LETTER EM
80	○	PITMAN LIGHT **SMALL CIRCLE**
81	○	PITMAN HEAVY **SMALL CIRCLE**
82	○	PITMAN LIGHT **LARGE CIRCLE**
83	○	PITMAN HEAVY **LARGE CIRCLE**
84	⊂	PITMAN INITIAL LIGHT **W HOOK** FOR LETTER KAY

SL #	Pitman Character	Character Name
85	؏	PITMAN INITIAL HEAVY **W HOOK** FOR LETTER GAY
86	‿	PITMAN INITIAL **W HOOK** FOR LETTER EL
87	‿	PITMAN INITIAL **WH HOOK** FOR LETTER EL
88	כ	PITMAN INITIAL **W HOOK** FOR LETTER KAY, GAY, EM, AR and RAY
89	⊂	PITMAN MEDIAL LEFT **W HOOK** DISJOINED FOR LETTER KAY, GAY, EM, AR and RAY
90	כ	PITMAN MEDIAL RIGHT **W HOOK** DISJOINED FOR LETTER KAY, GAY, EM, AR and RAY
91	⌒	PITMAN **HEAVY** LETTER **ELL**
92	⌐	PITMAN **HEAVY** LETTER **AR**
93	⌣	PITMAN **HEAVY** LETTER **EM**
94	⌒	PITMAN LETTER **WAY** WITH **ENLARGED HOOK**
95	＼	PITMAN LETTER **PEE HALVED**
96	＼	PITMAN LETTER **BEE HALVED**

SL #	Pitman Character	Character Name
97			PITMAN LETTER **TEE HALVED**
98	**|**	PITMAN LETTER **DEE HALVED**
99	/	PITMAN LETTER **CHAY HALVED**
100	**/**	PITMAN LETTER **JAY HALVED**
101	—	PITMAN LETTER **KAY HALVED**
102	**—**	PITMAN LETTER **GAY HALVED**
103	/	PITMAN LETTER **RAY HALVED**
104	ᶜ⁄	PITMAN LETTER **WAY HALVED**
105	ᶜ	PITMAN LETTER **YAY HALVED**
106	₆	PITMAN LETTER UP **HAY HALVED**
107	⁹	PITMAN LETTER DOWN **HAY HALVED**
108	⌒	PITMAN LETTER **EM HALVED**

SL #	Pitman Character	Character Name
109	⌒	PITMAN LETTER HEAVY **EM HALVED**
110	⌣	PITMAN LETTER **EN HALVED**
111	⌣	PITMAN LETTER HEAVY **EN HALVED**
112	ᴗ	PITMAN LETTER **ING HALVED** WITH ADDITION OF **R HOOK**
113	⌒	PITMAN LETTER **EFF HALVED**
114	⌒	PITMAN LETTER **VEE HALVED**
115	(	PITMAN LETTER **ITH HALVED**
116	(	PITMAN LETTER **THEE HALVED**
117	)	PITMAN LETTER **ESS HALVED**
118	)	PITMAN LETTER **ZEE HALVED**
119	⌡	PITMAN LETTER **ISH HALVED**
120	⌡	PITMAN LETTER **ZHEE HALVED**

SL #	Pitman Character	Character Name
121		PITMAN LETTER **ELL HALVED**
122		PITMAN LETTER HEAVY **ELL HALVED**
123		PITMAN LETTER **AR HALVED**
124		PITMAN LETTER HEAVY **AR HALVED**
125		PITMAN LETTER **PEE DOUBLED**
126		PITMAN LETTER **BEE DOUBLED**
127		PITMAN LETTER **TEE DOUBLED**
128		PITMAN LETTER **DEE DOUBLED**
129		PITMAN LETTER **CHAY DOUBLED**
130		PITMAN LETTER **JAY DOUBLED**
131		PITMAN LETTER **KAY DOUBLED**
132		PITMAN LETTER **GAY DOUBLED**

SL #	Pitman Character	Character Name
133		PITMAN LETTER **RAY DOUBLED**
134		PITMAN LETTER **WAY DOUBLED**
135		PITMAN LETTER **YAY DOUBLED**
136		PITMAN LETTER UP **HAY DOUBLED**
137		PITMAN LETTER DOWN **HAY DOUBLED**
138		PITMAN LETTER **EM DOUBLED**
139		PITMAN HEAVY LETTER **EM DOUBLED**
140		PITMAN LETTER **EN DOUBLED**
141		PITMAN LETTER **ING DOUBLED**
142		PITMAN LETTER **EFF DOUBLED**
143		PITMAN LETTER **VEE DOUBLED**
144		PITMAN LETTER **ITH DOUBLED**

SL #	Pitman Character	Character Name
145	(	PITMAN LETTER **THEE DOUBLED**
146	)	PITMAN LETTER **ESS DOUBLED**
147	)	PITMAN LETTER **ZEE DOUBLED**
148	)	PITMAN LETTER **ISH DOUBLED**
149	)	PITMAN LETTER **ZHEE DOUBLED**
150	(	PITMAN LETTER **ELL DOUBLED**
151	(	PITMAN LETTER **AR DOUBLED**

Punctuation Characters
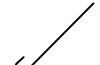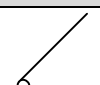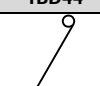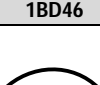
SL #	Pitman Character	Character Name
152	⌄	PITMAN SYMBOL **FULL STOP** PERIOD
153	?	PITMAN SYMBOL **QUESTION MARK**
154	!	PITMAN SYMBOL **EXCLAMATION MARK**
155	⌐	PITMAN SYMBOL **EM or EN DASH**

156	₣	PITMAN SYMBOL **LEFT BRACKETS** or **PARENTHESES**
157	}	PITMAN SYMBOL **RIGHT BRACKETS** or **PARENTHESES**
158	∥	PITMAN SYMBOL **INITITAL CAPITALS**
159	⫿	PITMAN SYMBOL **ALL INITITAL CAPITALS**
160	∥	PITMAN SYMBOL **PARAGRAPH MARK**
161	⌇	PITMAN SYMBOL **EMPHASIS** or **CAUTION**
162	∿	PITMAN SYMBOL **HUMOR**

Allocation Table

The current allocation of code blocks (**U+1BCB0…..U+1BCFF**) may not suffice the accommodation of other glyphs and characters. Hence the next code block starting from **U+1BD00…U+1BD5F**) is utilized.

	1BCB	1BCC	1BCD	1BCE	1BCF	1BD0	1BD1	1BD2	1BD3	1BD4	1BD5
0	1BCB0	1BCC0	1BCD0	1BCE0	1BCF0	1BD00	1BD10	1BD20	1BD30	1BD40	1BD50
1	1BCB1	1BCC1	1BCD1	1BCE1	1BCF1	1BD01	1BD11	1BD21	1BD31	1BD41	1BD51
2	1BCB2	1BCC2	1BCD2	1BCE2	1BCF2	1BD02	1BD12	1BD22	1BD32	1BD42	1BD52
3	1BCB3	1BCC3	1BCD3	1BCE3	1BCF3	1BD03	1BD13	1BD23	1BD33	1BD43	1BD53
4	1BCB4	1BCC4	1BCD4	1BCE4	1BCF4	1BD04	1BD14	1BD24	1BD34	1BD44	1BD54
5	1BCB5	1BCC5	1BCD5	1BCE5	1BCF5	1BD05	1BD15	1BD25	1BD35	1BD45	1BD55
6	1BCB6	1BCC6	1BCD6	1BCE6	1BCF6	1BD06	1BD16	1BD26	1BD36	1BD46	1BD56
7	1BCB7	1BCC7	1BCD7	1BCE7	1BCF7	1BD07	1BD17	1BD27	1BD37	1BD47	1BD57
8	1BCB8	1BCC8	1BCD8	1BCE8	1BCF8	1BD08	1BD18	1BD28	1BD38	1BD48	1BD58
9	1BCB9	1BCC9	1BCD9	1BCE9	1BCF9	1BD09	1BD19	1BD29	1BD39	1BD49	1BD59
A	1BCBA	1BCCA	1BCDA	1BCEA	1BCFA	1BD0A	1BD1A	1BD2A	1BD3A	1BD4A	1BD5A

	1BCB	1BCC	1BCD	1BCE	1BCF	1BD0	1BD1	1BD2	1BD3	1BD4	1BD5
B	1BCBB	1BCCB	1BCDB	1BCEB	1BCFB	1BD0B	1BD1B	1BD2B	1BD3B	1BD4B	1BD5B
C	1BCBC	1BCCC	1BCDC	1BCEC	1BCFC	1BD0C	1BD1C	1BD2C	1BD3C	1BD4C	1BD5C
D	1BCBD	1BCCD	1BCDD	1BCED	1BCFD	1BD0D	1BD1D	1BD2D	1BD3D	1BD4D	1BD5D
E	1BCBE	1BCCE	1BCDE	1BCEE	1BCFE	1BD0E	1BD1E	1BD2E	1BD3E	1BD4E	1BD5E
F	1BCBF	1BCCF	1BCDF	1BCEF	1BCFF	1BD0F	1BD1F	1BD2F	1BD3F	1BD4F	1BD5F

Note: A few code blocks are shaded and left blank for provision of further characters that may find its place, based on subsequent reviews

Allocation - Supplemental Punctuation

	2E0	2E1	2E2	2E3	2E4
3					ɤ
					2E43
4					ʔ
					2E44
5					⬇
					2E45
6					↝
					2E46
7					⸇
					2E47
8					⸈
					2E48
9					⫽
					2E49
A					⫻
					2E4A
B					⫼
					2E4B
C					⸌
					2E4C
D					⸍
					2E4D

Character properties

1BCB0;PITMAN LETTER PEE;Lo;0;L;;;;;N;;;;;
1BCB1;PITMAN LETTER BEE;Lo;0;L;;;;;N;;;;;
1BCB2;PITMAN LETTER TEE;Lo;0;L;;;;;N;;;;;
1BCB3;PITMAN LETTER DEE;Lo;0;L;;;;;N;;;;;
1BCB4;PITMAN LETTER CHAY;Lo;0;L;;;;;N;;;;;
1BCB5;PITMAN LETTER JAY;Lo;0;L;;;;;N;;;;;
1BCB6;PITMAN LETTER KAY;Lo;0;L;;;;;N;;;;;
1BCB7;PITMAN LETTER GAY;Lo;0;L;;;;;N;;;;;
1BCB8;PITMAN LETTER RAY;Lo;0;L;;;;;N;;;;;
1BCB9;PITMAN LETTER WAY;Lo;0;L;;;;;N;;;;;
1BCBA;PITMAN LETTER YAY;Lo;0;L;;;;;N;;;;;
1BCBB;PITMAN LETTER UP HAY;Lo;0;L;;;;;N;;;;;
1BCBC;PITMAN LETTER DOWN HAY;Lo;0;L;;;;;N;;;;;

1BCC0;PITMAN LETTER EM;Lo;0;L;;;;;N;;;;;
1BCC1;PITMAN LETTER EN;Lo;0;L;;;;;N;;;;;
1BCC2;PITMAN LETTER ING;Lo;0;L;;;;;N;;;;;
1BCC3;PITMAN LETTER EFF;Lo;0;L;;;;;N;;;;;
1BCC4;PITMAN LETTER VEE;Lo;0;L;;;;;N;;;;;
1BCC5;PITMAN LETTER ITH;Lo;0;L;;;;;N;;;;;
1BCC6;PITMAN LETTER THEE;Lo;0;L;;;;;N;;;;;
1BCC7;PITMAN LETTER ESS;Lo;0;L;;;;;N;;;;;
1BCC8;PITMAN LETTER ZEE;Lo;0;L;;;;;N;;;;;
1BCC9;PITMAN LETTER ISH;Lo;0;L;;;;;N;;;;;
1BCCA;PITMAN LETTER ZHEE;Lo;0;L;;;;;N;;;;;
1BCCB;PITMAN LETTER ELL;Lo;0;L;;;;;N;;;;;
1BCCC;PITMAN LETTER AR;Lo;0;L;;;;;N;;;;;

1BCD0;PITMAN VOWEL SIGN LIGHT DOT;Lo;0;L;;;;;N;;;;;
1BCD1;PITMAN VOWEL SIGN LIGHT DASH;Lo;0;L;;;;;N;;;;;
1BCD2;PITMAN VOWEL SIGN HEAVY DOT;Lo;0;L;;;;;N;;;;;
1BCD3;PITMAN VOWEL SIGN HEAVY DASH;Lo;0;L;;;;;N;;;;;
1BCD4;PITMAN INTERVENING DOT VOWEL;Lo;0;L;;;;;N;;;;;
1BCD5;PITMAN LETTER I UP;Lo;0;L;;;;;N;;;;;
1BCD6;PITMAN LETTER OW DOWN;Lo;0;L;;;;;N;;;;;
1BCD7;PITMAN LETTER OI UP;Lo;0;L;;;;;N;;;;;
1BCD8;PITMAN LETTER EW DOWN;Lo;0;L;;;;;N;;;;;
1BCD9;PITMAN DIPHONE SIGN FOR LIGHT and HEAVY DOT VOWEL;Lo;0;L;;;;;N;;;;;
1BCDA;PITMAN DIPHONE SIGN FOR LIGHT and HEAVY DASH VOWEL   ;Lo;0;L;;;;;N;;;;;
1BCDB;PITMAN TRIPHONE LETTER I UP;Lo;0;L;;;;;N;;;;;
1BCDC;PITMAN TRIPHONE LETTER OW DOWN;Lo;0;L;;;;;N;;;;;
1BCDD;PITMAN PITMAN TRIPHONE LETTER OI UP;Lo;0;L;;;;;N;;;;;
1BCDE;PITMAN PITMAN TRIPHONE LETTER EW DOWN;Lo;0;L;;;;;N;;;;;

1BCE0;PITMAN LIGHT R HOOK FOR LETTER TEE and DEE;Lo;0;L;;;;;N;;;;;
1BCE1;PITMAN HEAVY R HOOK FOR LETTER TEE and DEE;Lo;0;L;;;;;N;;;;;
1BCE2;PITMAN LIGHT R HOOK FOR LETTER EM;Lo;0;L;;;;;N;;;;;
1BCE3;PITMAN HEAVY R HOOK FOR LETTER EM;Lo;0;L;;;;;N;;;;;
1BCE4;PITMAN LIGHT L HOOK FOR LETTER TEE and DEE;Lo;0;L;;;;;N;;;;;
1BCE5;PITMAN HEAVY L HOOK FOR LETTER TEE and DEE;Lo;0;L;;;;;N;;;;;

1BCE6;PITMAN LIGHT L HOOK FOR LETTER EM;Lo;0;L;;;;;N;;;;;
1BCE7;PITMAN HEAVY L HOOK FOR LETTER EM;Lo;0;L;;;;;N;;;;;
1BCE8;PITMAN LIGHT N HOOK FOR LETTER TEE and DEE;Lo;0;L;;;;;N;;;;;
1BCE9;PITMAN HEAVY N HOOK FOR LETTER TEE and DEE;Lo;0;L;;;;;N;;;;;
1BCEA;PITMAN LIGHT N HOOK FOR LETTER EM;Lo;0;L;;;;;N;;;;;
1BCEB;PITMAN HEAVY N HOOK FOR LETTER EM;Lo;0;L;;;;;N;;;;;
1BCEC;PITMAN LIGHT F or V HOOK FOR LETTER TEE and DEE;Lo;0;L;;;;;N;;;;;
1BCED;PITMAN HEAVY F or V HOOK FOR LETTER TEE and DEE;Lo;0;L;;;;;N;;;;;

1BCF0;PITMAN LIGHT SHUN HOOK LEFT MOTION FOR LETTER TEE and DEE;Lo;0;L;;;;;N;;;;;
1BCF1;PITMAN HEAVY SHUN HOOK LEFT MOTION FOR LETTER TEE and DEE;Lo;0;L;;;;;N;;;;;
1BCF2;PITMAN LIGHT SHUN HOOK RIGHT MOTION FOR LETTER TEE and DEE;Lo;0;L;;;;;N;;;;;
1BCF3;PITMAN HEAVY SHUN HOOK RIGHT MOTION FOR LETTER TEE and DEE;Lo;0;L;;;;;N;;;;;
1BCF4;PITMAN LIGHT SHUN HOOK FOR LETTER EM;Lo;0;L;;;;;N;;;;;
1BCF5;PITMAN HEAVY SHUN HOOK FOR LETTER EM;Lo;0;L;;;;;N;;;;;
1BCF6;PITMAN FINAL LIGHT SHUN HOOK FOLLOWING CIRCLE ES;Lo;0;L;;;;;N;;;;;
1BCF7;PITMAN FINAL HEAVY SHUN HOOK FOLLOWING CIRCLE ES;Lo;0;L;;;;;N;;;;;
1BCF8;PITMAN FINAL LIGHT SHUN HOOK FOLLOWING CIRCLE ES WITH ADDED ES CIRCLE ;Lo;0;L;;;;;N;;;;;
1BCF9;PITMAN FINAL HEAVY SHUN HOOK FOLLOWING CIRCLE ES WITH ADDED ES CIRCLE;Lo;0;L;;;;;N;;;;;
1BCFA;PITMAN SMALL CIRCLE ATTACHED TO HOOKS FOR STRAIGHT STROKES;Lo;0;L;;;;;N;;;;;
1BCFB;PITMAN SMALL CIRCLE ATTACHED TO HOOKS FOR CURVED STROKES;Lo;0;L;;;;;N;;;;;
1BCFC;PITMAN BIG CIRCLE ATTACHED TO HOOKS FOR STRAIGHT STROKES;Lo;0;L;;;;;N;;;;;
1BCFD;PITMAN BIG CIRCLE ATTACHED TO HOOKS FOR CURVED STROKES;Lo;0;L;;;;;N;;;;;

1BD00;PITMAN LIGHT ST LOOP FOR LETTER TEE and DEE;Lo;0;L;;;;;N;;;;;
1BD01;PITMAN HEAVY ST LOOP FOR LETTER TEE and DEE;Lo;0;L;;;;;N;;;;;
1BD02;PITMAN LIGHT ST LOOP INITIAL FOR LETTER EM;Lo;0;L;;;;;N;;;;;
1BD03;PITMAN HEAVY ST LOOP INITIAL FOR LETTER EM;Lo;0;L;;;;;N;;;;;
1BD04;PITMAN LIGHT ST LOOP FINAL FOR LETTER EM;Lo;0;L;;;;;N;;;;;
1BD05;PITMAN HEAVY ST LOOP FINAL FOR LETTER EM;Lo;0;L;;;;;N;;;;;
1BD06;PITMAN LIGHT STR LOOP FOR LETTER TEE and DEE;Lo;0;L;;;;;N;;;;;
1BD07;PITMAN HEAVY STR LOOP FOR LETTER TEE and DEE;Lo;0;L;;;;;N;;;;;
1BD08;PITMAN LIGHT STR LOOP FOR LETTER EM;Lo;0;L;;;;;N;;;;;
1BD09;PITMAN HEAVY STR LOOP FOR LETTER EM;Lo;0;L;;;;;N;;;;;
1BD0A;PITMAN LIGHT SMALL CIRCLE;Lo;0;L;;;;;N;;;;;
1BD0B;PITMAN HEAVY SMALL CIRCLE;Lo;0;L;;;;;N;;;;;
1BD0C;PITMAN LIGHT LARGE CIRCLE;Lo;0;L;;;;;N;;;;;
1BD0D;PITMAN HEAVY LARGE CIRCLE;Lo;0;L;;;;;N;;;;;

1BD10;PITMAN INITIAL LIGHT W HOOK FOR LETTER KAY;Lo;0;L;;;;;N;;;;;
1BD11;PITMAN INITIAL HEAVY W HOOK FOR LETTER GAY;Lo;0;L;;;;;N;;;;;
1BD12;PITMAN INITIAL W HOOK FOR LETTER EL;Lo;0;L;;;;;N;;;;;
1BD13;PITMAN INITIAL WH HOOK FOR LETTER EL;Lo;0;L;;;;;N;;;;;
1BD14;PITMAN INITIAL W HOOK FOR LETTER KAY, GAY, EM, AR and RAY;Lo;0;L;;;;;N;;;;;
1BD15;PITMAN MEDIAL LEFT W HOOK DISJOINED FOR LETTER KAY, GAY, EM, AR and RAY;Lo;0;L;;;;;N;;;;;
1BD16;PITMAN MEDIAL RIGHT W HOOK DISJOINED FOR LETTER KAY, GAY, EM, AR and RAY;Lo;0;L;;;;;N;;;;;
1BD17;PITMAN HEAVY LETTER ELL;Lo;0;L;;;;;N;;;;;
1BD18;PITMAN HEAVY LETTER AR;Lo;0;L;;;;;N;;;;;
1BD19;PITMAN HEAVY LETTER EM;Lo;0;L;;;;;N;;;;;
1BD1A;PITMAN LETTER WAY WITH ENLARGED HOOK;Lo;0;L;;;;;N;;;;;

1BD1B;PITMAN LETTER PEE HALVED;Lo;0;L;;;;;N;;;;;
1BD1C;PITMAN LETTER BEE HALVED;Lo;0;L;;;;;N;;;;;
1BD1D;PITMAN LETTER TEE HALVED;Lo;0;L;;;;;N;;;;;
1BD1E;PITMAN LETTER DEE HALVED;Lo;0;L;;;;;N;;;;;
1BD1F;PITMAN LETTER CHAY HALVED;Lo;0;L;;;;;N;;;;;
1BD20;PITMAN LETTER JAY HALVED;Lo;0;L;;;;;N;;;;;
1BD21;PITMAN LETTER KAY HALVED;Lo;0;L;;;;;N;;;;;
1BD22;PITMAN LETTER GAY HALVED;Lo;0;L;;;;;N;;;;;
1BD23;PITMAN LETTER RAY HALVED;Lo;0;L;;;;;N;;;;;
1BD24;PITMAN LETTER WAY HALVED;Lo;0;L;;;;;N;;;;;
1BD25;PITMAN LETTER YAY HALVED;Lo;0;L;;;;;N;;;;;
1BD26;PITMAN LETTER UP HAY HALVED;Lo;0;L;;;;;N;;;;;
1BD27;PITMAN LETTER DOWN HAY HALVED;Lo;0;L;;;;;N;;;;;
1BD28;PITMAN LETTER EM HALVED;Lo;0;L;;;;;N;;;;;
1BD29;PITMAN LETTER HEAVY EM HALVED;Lo;0;L;;;;;N;;;;;
1BD2A;PITMAN LETTER EN HALVED;Lo;0;L;;;;;N;;;;;
1BD2B;PITMAN LETTER HEAVY EN HALVED;Lo;0;L;;;;;N;;;;;
1BD2C;PITMAN LETTER ING HALVED WITH ADDITION OF R HOOK;Lo;0;L;;;;;N;;;;;
1BD2D;PITMAN LETTER EFF HALVED;Lo;0;L;;;;;N;;;;;
1BD2E;PITMAN LETTER VEE HALVED;Lo;0;L;;;;;N;;;;;
1BD2F;PITMAN LETTER ITH HALVED;Lo;0;L;;;;;N;;;;;
1BD30;PITMAN LETTER THEE HALVED;Lo;0;L;;;;;N;;;;;
1BD31;PITMAN LETTER ESS HALVED;Lo;0;L;;;;;N;;;;;
1BD32;PITMAN LETTER ZEE HALVED;Lo;0;L;;;;;N;;;;;
1BD33;PITMAN LETTER ISH HALVED;Lo;0;L;;;;;N;;;;;
1BD34;PITMAN LETTER ZHEE HALVED;Lo;0;L;;;;;N;;;;;
1BD35;PITMAN LETTER ELL HALVED;Lo;0;L;;;;;N;;;;;
1BD36;PITMAN LETTER HEAVY ELL HALVED;Lo;0;L;;;;;N;;;;;
1BD37;PITMAN LETTER AR HALVED;Lo;0;L;;;;;N;;;;;
1BD38;PITMAN LETTER HEAVY AR HALVED;Lo;0;L;;;;;N;;;;;

1BD39;PITMAN LETTER PEE DOUBLED;Lo;0;L;;;;;N;;;;;
1BD3A;PITMAN LETTER BEE DOUBLED;Lo;0;L;;;;;N;;;;;
1BD3B;PITMAN LETTER TEE DOUBLED;Lo;0;L;;;;;N;;;;;
1BD3C;PITMAN LETTER DEE DOUBLED;Lo;0;L;;;;;N;;;;;
1BD3D;PITMAN LETTER CHAY DOUBLED;Lo;0;L;;;;;N;;;;;
1BD3E;PITMAN LETTER JAY DOUBLED;Lo;0;L;;;;;N;;;;;
1BD3F;PITMAN LETTER KAY DOUBLED;Lo;0;L;;;;;N;;;;;
1BD40;PITMAN LETTER GAY DOUBLED;Lo;0;L;;;;;N;;;;;
1BD41;PITMAN LETTER RAY DOUBLED;Lo;0;L;;;;;N;;;;;
1BD42;PITMAN LETTER WAY DOUBLED;Lo;0;L;;;;;N;;;;;
1BD43;PITMAN LETTER YAY DOUBLED;Lo;0;L;;;;;N;;;;;
1BD44;PITMAN LETTER UP HAY DOUBLED;Lo;0;L;;;;;N;;;;;
1BD45;PITMAN LETTER DOWN HAY DOUBLED;Lo;0;L;;;;;N;;;;;
1BD46;PITMAN LETTER EM DOUBLED;Lo;0;L;;;;;N;;;;;
1BD47;PITMAN LETTER HEAVY EM DOUBLED;Lo;0;L;;;;;N;;;;;
1BD48;PITMAN LETTER EN DOUBLED;Lo;0;L;;;;;N;;;;;
1BD49;PITMAN LETTER ING DOUBLED;Lo;0;L;;;;;N;;;;;
1BD4A;PITMAN LETTER EFF DOUBLED;Lo;0;L;;;;;N;;;;;
1BD4B;PITMAN LETTER VEE DOUBLED;Lo;0;L;;;;;N;;;;;
1BD4C;PITMAN LETTER ITH DOUBLED;Lo;0;L;;;;;N;;;;;
1BD4D;PITMAN LETTER THEE DOUBLED;Lo;0;L;;;;;N;;;;;
1BD4E;PITMAN LETTER ESS DOUBLED;Lo;0;L;;;;;N;;;;;

1BD4F;PITMAN LETTER ZEE DOUBLED;Lo;0;L;;;;;N;;;;;
1BD50;PITMAN LETTER ISH DOUBLED;Lo;0;L;;;;;N;;;;;
1BD51;PITMAN LETTER ZHEE DOUBLED;Lo;0;L;;;;;N;;;;;
1BD52;PITMAN LETTER ELL DOUBLED;Lo;0;L;;;;;N;;;;;
1BD53;PITMAN LETTER AR DOUBLED;Lo;0;L;;;;;N;;;;;

Line breaking properties for punctuation

2E43;BA   # Po   PITMAN SYMBOL FULL STOP PERIOD
2E44;BA   # Po   PITMAN SYMBOL QUESTION MARK
2E45;BA   # Po   PITMAN SYMBOL EXCLAMATION MARK
2E46;BA   # Po   PITMAN SYMBOL EM or EN DASH
2E47;BA   # Po   PITMAN SYMBOL LEFT BRACKETS or PARENTHESES
2E48;BA   # Po   PITMAN SYMBOL RIGHT BRACKETS or PARENTHESES
2E49;BA   # Po   PITMAN SYMBOL INITITAL CAPITALS
2E4A;BA   # Po   PITMAN SYMBOL ALL INITITAL CAPITALS
2E4B;BA   # Po   PITMAN SYMBOL PARAGRAPH MARK
2E4C;BA   # Po   PITMAN SYMBOL EMPHASIS or CAUTION
2E4D;BA   # Po   PITMAN SYMBOL HUMOR

Representations using proposed code points

Representation 1:

    1.1. Running script: This is the running text this is represented using the proposed code points. The running script is as below;

> ***"The best time to do something worthwhile is between yesterday and tomorrow – unknown"***

    1.2. Running script representation using standard Pitman Script

    1.3. In the below section, we see the code point representation of the running script. In this section, we see the Pitman script that is rendered using by the proposed characters (meant for encoding)

Apart from script, its corresponding English equivalent words are provided for better understanding of the representation.

In addition to above, the proposed code point of each script is also depicted, in the highlighted area. [Each code point word pair is delimited with //]

The	Best	time	to do	Something

<1BCC5><1BCD8> // <1BCB1><1BCD1><1BCC7><1BCB2> // <1BCB2><1BCDC><1BCC0> // <1BCB2><1BCD5><1BCB3>1BCD5> // <1BCC7><1BCD4><1BCC0><1BCC5><1BCC2>

Worthwhile	is	between	yesterday	and	tomorrow

<1BCB9><1BCDA><1BCB8><1BCC5><1BCB9><1BCDC><1BCCB> // <1BCD2><1BCC7> // <1BCB1><1BCD2><1BCB2><1BCB9><1BCD8><1BCC1> // <1BCBA><1BCD1><1BCC7><1BCB2><1BCD1><1BCCC><1BCB3><1BCD7> // <1BCD0><1BCC1><1BCB3> // <1BCB2><1BCD5><1BCC0><1BCD6><1BCB8><1BCDA>
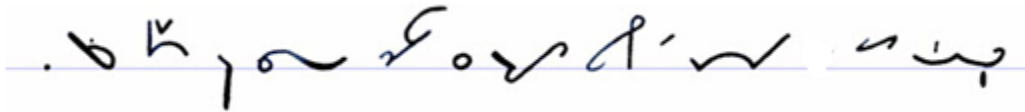
Representation 1.1: << Based on comments from Stanislav Jan Šarman >>

1.1. Running script: This is the running text this is represented using the proposed code points. The running script is as below;

"The best time to do something worthwhile is between yesterday and tomorrow – unknown"

1.2. Running script representation using standard Pitman Script

1.3. In the below section, we see the code point representation of the running script. In this section, we see the Pitman script that is rendered using by the proposed characters (meant for encoding)

Apart from script, its corresponding English equivalent words are provided for better understanding of the representation.

In addition to above, the proposed code point of each script is also depicted, in the highlighted area. [Each code point word pair is delimited with //]

Note: In the above chart, the words (The, to, and) are represented using the Dot and Dash Vowels (with specific orientation) as these three words are grammalogues and their pitman stenem is called Logogram in Pitman Shorthand. They do not have separate characters defined. [Refer references section]

Representation 2:

1.1. Running script: This is the running text this is represented using the proposed code points. The running scripts is as below;

"You will be able to"

1.2. Running script representation using standard Pitman Script

1.3. In the below section, we see the code point representation of the running script. In this section, we see the Pitman script that is rendered using by the proposed characters (meant for encoding)

Apart from script, its corresponding English equivalent words are provided for better understanding of the representation.

In addition to above, the proposed code point of each script is also depicted, in the highlighted area. [Each code point word pair is delimited with //]
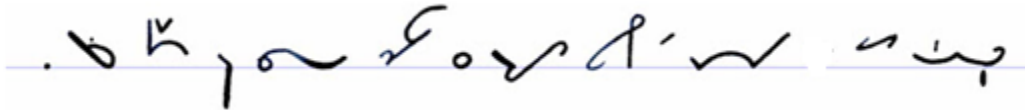
Representation 2.1: << Based on comments from Stanislav Jan Šarman >>

    1.1. Running script: This is the running text this is represented using the proposed code points. The running scripts is as below;
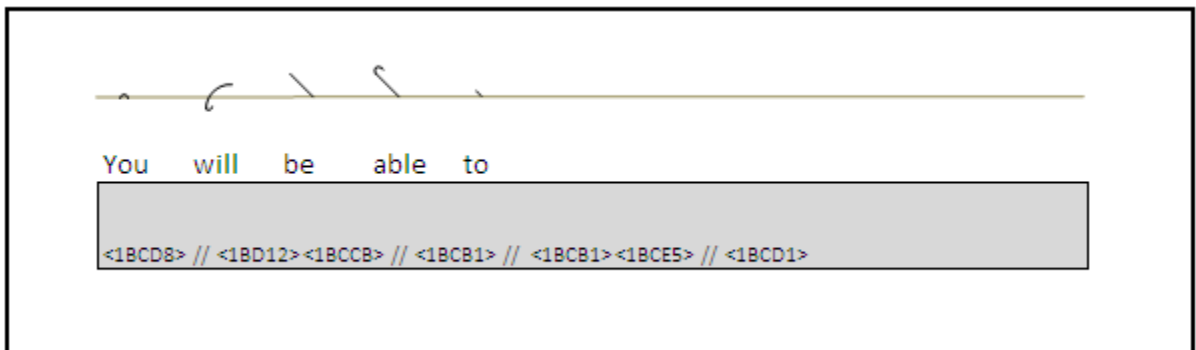
       "You will be able to"

    1.2. Running script representation using standard Pitman Script

    1.3. In the below section, we see the code point representation of the running script. In this section, we see the Pitman script that is rendered using by the proposed characters (meant for encoding)

Apart from script, its corresponding English equivalent words are provided for better understanding of the representation.

In addition to above, the proposed code point of each script is also depicted, in the highlighted area. [Each code point word pair is delimited with //]

You   will   be   able   to

<1BCD8> // <1BD12><1BCCB> // <1BCB1> // <1BCB1><1BCE5> // <1BCD1>

Note: In the above chart, the word <be> is represented using Pitman Letter BEE and the word <to> using Dash Vowel (with specific orientation) as these two words are grammalogues and their pitman stenem is called Logogram in Pitman Shorthand. They do not have separate characters defined. [Refer references section]

Character ordering

Characters are ordered by straight strokes starting from slanting left and progressing clockwise towards horizontal strokes followed by slanting strokes which are defined in Column 1 in the allocation table. Thereafter it starts with curved horizontal strokes and then followed by curved strokes progressing from left to right direction which are ordered in column 2 in the allocation table. Then the vowels, diphthongs and other combined vowels defined in column 3. Thereafter, hooks, circles, loops are defined from column 4 thru 6. Most of the compound consonants are defined in column 7. Lastly the halved and doubled consonants are defined from column 8 thru 11.

This allocation provides for all characters needed for Pitman English scripts. Some codes points in the block are left unallocated for addition of other languages characters to be provided for in future.

Stenographic period

Unicode has already encoded stenographic full stop U+2E3C STENOGRAPHIC FULL STOP which conveniently be used for rendering Pitman script as there are no other characters in Pitman stenography which resembles this character.

However, there is a separate character available in Pitman Shorthand for the purpose of writing the period (full stop) which is used for easy writing. This character is also proposed for encoding (U+2E43)

Punctuation marks

Like punctuation marks in English, there are a few punctuation marks available for Pitman Shorthand. They are proposed for encoding and are available as a separate code block U+2E43..U+2E4D.

Fonts

Characters that are proposed needs to be made available as Fonts for the purpose of encoding and publication of charts. This is being pursed and worked on in parallel.
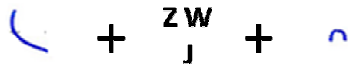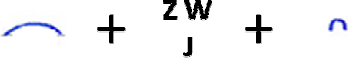
.
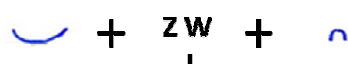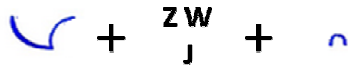
Pitman Rendering Model

Vowels in Pitman shorthand are indicated by small dot or dash along the consonant script. Mostly, the vowels are not joined to consonants but in certain cases can be joined for convenience purpose only, provided joining does not give them a different meaning.

Orientation of Diphthongs:

All dash vowels in Pitman shorthand are written perpendicular to straight scripts with respect to their position as decided by the sound. Apart from dot and dash vowels there are special vowels called diphthongs but they take either 1st or 3rd position and there is no second position. There are 4 diphthongs in Pitman shorthand which are either joined or disjoined with consonant scripts. The diphthong EW, normally orient itself conveniently with the curved strokes. For example, when attached with words like few, mew, new, value etc.

Table: 1 → Orientation of Diphthongs

Compound vowels

Combining two consecutive vowels sound are referred to compounding vowels. In Pitman shorthand, there are quite a few words which require a compounding vowel when written as Pitman script. Compound vowels can be of two types i.e., combining two vowels or combining a diphthong and a vowel. There former kind of compounding is referred to as Diphone and the latter referred to a Triphone. Diphone is written in two directions (down-left or up-right) depending upon whether the first occurring vowel is a dot vowel or a dash vowel consecutively. Vowel in a Triphone is always as a dash combined with a diphthong but in the obverse direction of diphthong.

Table: 2 → Compounding of Vowels (Diphone and Triphone)

Ligatures, Allograph, Variants and Affixes

The 'H' aspirate pronounced "HAY" is the allograph in Pitman Script. There are two forms of H in Pitman script. The different forms are used based on rules and according to the convenience of joining the stroke with other consonants.

Variants are alternative forms of scripts in Pitman shorthand. They are used in specific cases where convenience of joining strokes cursively, are required. Also they follow certain rules based on which it has to be decided whether the variant forms should be used or the full-form should be used.

Table: 3 → Ligatures, Variants, Allograph

Allograph (H Aspirate)

Variants
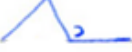
Ligatures are forms which combines more than one script into a single gylph. In Pitman shorthand, there are many ligatures defined for the purpose of easy writing, combining with other stokes and also following rules under which these ligatures are to be used. Ligatures in Pitman are Discretionary ones.

Ligatures (Discretionary)

) +	+ ⌣ → ℓ	ESS + T + F
⌒ +) +	+ ⌐ → ⌀	M + ESS + T + R
＼ +) +) → ℔	P + ESS + ESS
) + ✓ + ＼ → ℛ	ESS + WAY + P
) + ✓ → ℯ	ESS + WAY
✓ +) + ⌐ → ℊ	WAY + ESS + L

Affixes are used in Pitman shorthand for the purpose of representing W (WAY). They are joined and also disjoined.

Affixes

✓ + ─ + ⌣ → ⌒	WAY + K + NG
	+ ✓ + ⌣ +	→ ⌐	T + WAY + N + T
／ + ＼ + ✓ + ─ → △	RAY + P + WAY + K

Orientation of Hooks:

In Pitman Shorthand, there are many hooks which are affixed to both straight and curved consonants. They are deemed to be variants of consonant characters, which are used subject to certain defined conditions. They are used for easy formation of strokes. These hooks do not have any meaning in isolation.

For the purpose of encoding these hooks, only two categories of hook are defined. One hook is for straight consonant (Letter TEE or DEE) and the other for curved consonant (Letter EM). These two hooks are taken as reference points in this proposal. They can be oriented in different angles (rotated, vertically or horizontally flipped) for creating hooks to be used with other consonants.

Table: 4 → Hooks (R, L, N, F/V, SHUN)

R Hook:

L Hook:

│	+	⌒	→	⌠	**TEE + L Hook**
╲	+	⌒	→	╲	**PEE + L Hook**
╱	+	⌐	→	⌡	**JAY + L Hook**
⌒	+	⌣	→	⌒	**EM + L Hook**
⌡	+	⌒	→	⌡	**ISH + L Hook**
╲	+	⌢	→	⌡	**VEE + L Hook**

N Hook:

│	+	⌣	→	⌡	**TEE + N Hook**
╲	+	⌣	→	╲	**PEE + N Hook**
╱	+	⌣	→	⌡	**JAY + N Hook**
⌒	+	⌣	→	⌒	**EM + N Hook**
⌡	+	⌣	→	⌡	**ISH + N Hook**
╲	+	,	→	╲	**VEE + N Hook**

F/V Hook:

	+	⌣	⟶	⎮	**TEE + F/V Hook**
╲	+	⌐	⟶	╲	**PEE + F/V Hook**
╱	+	⌣	⟶	╱	**JAY + F/V Hook**

Shun Hook:

	+	⌣	⟶	⎮	**TEE + Shun Hook**
╲	+	⌣	⟶	╲	**PEE + Shun Hook**
╱	+	⌣	⟶	╱	**JAY + Shun Hook**
⌒	+	⌐	⟶	⌒	**EM + Shun Hook**
)	+	⌣	⟶	)	**ESS + Shun Hook**
╰	+	⌐	⟶	╰	**VEE + Shun Hook**

Orientation of Loops:

There are two types of loops in Pitman Shorthand. They are ST Loop and STR Loop. These loops can be affixed or joined to both straight and curved consonants subject to certain defined conditions. As like hooks, they are also used for easy formation of strokes. They are a form of glyph that represents the sound of two consonants (ESS + TEE for ST Loop) or three consonants (ESS + TEE + AR for STR Loop). These loops do not have any meaning in isolation

For the purpose of encoding these loops, only two orientations of ST and STR loops each, are defined. One orientation is for straight consonants (Letter TEE or DEE) and the other orientation is for curved consonant (Letter EM)

These two orientations are taken as reference points in this proposal. They can be oriented in different angles (rotated, vertically or horizontally flipped) for creating loops to be used with other consonants.

.

Table: 5 → Loops (ST& STR)

ST Loop:

│	+	)	→	♭	**TEE + ST Loop**
＼	+	⌐	→	⟍	**PEE + ST Loop**
／	+	)	→	∮	**JAY + ST Loop**
⌒	+	⌣	→	⌒	**EM + ST Loop**
)	+	(	→	∂	**ESS + ST Loop**
⌊	+	⌐	→	⟍	**VEE + ST Loop**

STR Loop:

│	+	)	⟶	♭	**TEE + STR Loop**
╲	+	⊃	⟶	⟍	**PEE + STR Loop**
╱	+	⊃	⟶	⟋	**JAY + STR Loop**
⌢	+	⌣	⟶	⌒	**EM + STR Loop**
)	+	(	⟶	∂	**ESS + STR Loop**
╲	+	⌐	⟶	⟍	**VEE + STR Loop**

Orientation of Dash vowels:

There are two types of vowels used in Pitman Shorthand (Dot and Dash Vowel) which are described above and proposed for encoding. Dot Vowel does not have any orientation but Dash Vowel orients themselves with the consonants to which are related. Orientation of Dash Vowel depends on the position (three positions) in which they are written. Also, its orientation varies when they are written before or after the consonant characters (more particularly when used along with curved consonants). There are no variations in orientation of light and heavy Dash Vowel.

Table: 6 → Orientation of Dash Vowel (Light and Heavy Dash)

$\|$ +	ZWNJ +	- →	-$\|$	**DASH$_2$ + TEE**
$\diagdown$ +	ZWNJ +	- →	$\diagdown$	**PEE + DASH$_3$**
$\diagup$ +	ZWNJ +	- →	$\diagup$	**JAY + DASH$_1$**
— +	ZWNJ +	- →	⌐—	**DASH$_1$ + KAY**
⌢ +	ZWNJ +	- →	⌢	**EM + DASH$_3$**
⌢ +	ZWNJ +	- →	⌢	**DASH$_1$ + EM**
$\diagdown$ +	ZWNJ +	- →	$\diagdown$	**VEE + DASH$_1$**
) +	ZWNJ +	- →	)-	**ESS + DASH$_2$**
$\diagup$ +	ZWNJ +	- →	$\diagup$	**WAY + DASH$_2$**
$\int$ +	ZWNJ +	- →	$\int$	**DASH$_3$ + EL**

Note: The subscript 1, 2, 3 given under the description (DASH) refers to the vowel position in relation to the consonant. The vowel appears either before or after the consonant. The vowel does not carry any meaning in isolation.

References

Representation of Vowels and Diphthongs

light dots:

a (bat)　　　　e (bet)　　　　i (bit)

heavy dots:

ah (ball)　　　a (bait)　　　ee (beet)

light dashes:

aw (bog)　　　u (bug)　　　oo (book)

heavy dashes:

aw*(law)　　　o (boat)　　　oo (boot)

others:

I (eye)　　　　oi (boy)

ow, bow　　　　you, few/if you

Example 1:

Examples, that were extracted from the below website.

According to Isaac Pitman's analysis, there are forty sounds in the English language, twenty-four consonants, twelve simple vowels, and four diphthongs, or double vowels. Adopting (substantially) the Pitmanic symbols, we may represent these sounds as below.

CONSONANTS

\ = p as in pop
\ = b as in bob
| = t as in tat
| = d as in did
/ = ch as in church
/ = j as in judge
— = k as in kick
— = g as in gig
\ = f as in fife
\ = v as in vivid

VOWELS (SINGLE)

(The vertical line is not a part of the vowel symbol, but is used to represent any consonant stroke. A vowel symbol, as a heavy or light dot, stands for different sounds according to its position.)

| • = a as in pa
| • = a as in may
| = e as in we
| ▬ = a as in all

THE SHORTHAND ALPHABET 273

Below is a classic example for the (**Representations using proposed code points)** provided above. The representation provided in (Page # 9 and # 10) is based on proposed characters which are only base consonants, vowels and dipthongs. The examples provided in the below screen also adhere to the representation model.
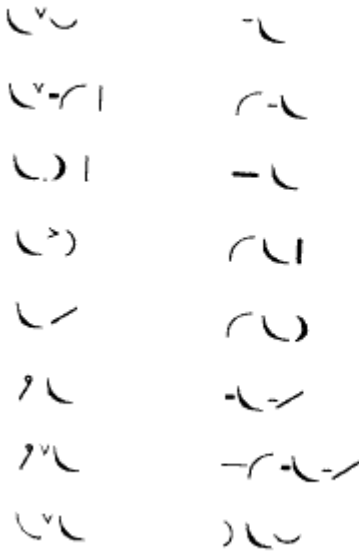
Fig. /. **Three** charts, reduced in size, used in the teaching of fonoline. The chart at the upper left shows the fonoline alphabet, omitting the symbol for the , sound of zh, which was not used in the first grade vocabulary. The words on the other charts are as shown below, and in the same order.

Words on Chart at Upper Right.

at	an
cat	can
fat	Dan
hat	ran
rat	fan
sat	man
that	than

Words on Chart at Left.

vine	of
violet	love
visit	give
voice	lived
very	lives
have	over
hive	clover
five	seven

REPORTING GRAMMALOGUES

ARRANGED PHONETICALLY.

CONSONANTS.

1 happy, 2 up, 3 put
1 happen, 2 upon
1 happened
3 principle, principal
1 particular, 2 opportu-
1 approve   [nity
1 by, 2 be, 3 to be
2 above
2 been
2 able, 3 belief, believe-d
2 build-ing, able to
1 liberty, 2 member, re-
member-ed, 3 number-ed

1 at, 2 it, 3 out
3 itself
1 at all, 2 tell, 3 till
2 told, till it
2 truth, 3 true
1 tried, 2 toward, trade
3 out of

1 had, 2 do, 3 different-
2 did   [-ence
2 advantage, 3 difficult
2 done, 3 down
1 had not, do not, don't,
2 did not
1 Dr. 2 dear. 3 during
2 deliver-ed-y

1 much, 2 which, 3 each
2 which have
1 child
2 chair, 3 cheer

1 large
3 religious
2 general-ly, 3 religion
1 gentleman, 2 gentlemen
1 larger
2 generation

— 1 can, 2 come
— 1 quite, 2 could
— 1 because
— 1 cannot, 2 account
— 1 call, 2 equal-ly
— 1 called, 2 cold, equalled
— 1 Christian, Christianity,
2 care
— 1 according, according to,
cart, 2 cared

— 1 go, ago, 2 give-n
— 1 God, 2 good
— 2 glory, glorify-ied
— 2 gold
— 1 guard, 2 great

1 half, 2 if
1 after, 2 if it
1 often, 2 Phonography
2 for
2 from

2 have
2 heaven
1 over, 2 ever-y
2 very, 3 however
3 evil

1 thank-ed, 2 think,
1 thought   [3 youth
3 through
2 third

1 though, thy, 2 them,
they
1 that, 2 without
1 those, thyself, 2 this,
3 thus, these, youths
2 themselves
3 within
2 other
2 there, their, they are
3 therefore

1 has, as, 2 his, is
2 so, us, 3 see, use (noun)
1 as is (his, or has), has
his, 2 is as, (or his), his is
2 first
2 special-ly, 3 speak
2 spirit
2 strength
1 Scripture; 2 secret
1 signify-ied, significant-
2 several, Saviour [-ance
1 sent; 2 send
2 somewhat

2 was, 3 whose, use (verb)

2 shall, shalt, 3 wish
3 sure
1 short

2 usual-ly; 2 pleasure

1 me, my, 2 him, may
1 might, met, 2 meet-ing
1 myself, 2 himself
1 most, 2 must
1 important-ance, 2 im-
prove-ed -ment
1 impossible, 2 improve-
ments
2 may not, amount
1 more, remark-ed,
2 Mr, mere

1 in, any, 2 no, know, 3 own
1 not, 2 nature
1 hand, 2 under
1 information, 2 nation
1 influence
2 opinion
1 nor, 2 near

1 language, owing,
2 thing, 3 young

2 Lord
1 light, 2 let

1 or, 2 your, 3 year
2 are, 3 our, hour
1 art
1 yard, 2 word

2 we, way, away
2 wait, weight
2 one
1 want, 2 went, won't
2 will, well

2 whether, 3 whither
1 while

2 ye; 2 yet
2 yes

1 high
2 holy
2 house

VOWELS.

DOTS. a, an, the, ah! aye, eh?

DASHES. of, on, and

all, O, oh! owe, awe, ought

to, but, should

two, too, he, who

When he and did follow each
other, vocalise did.

DIPHTHONGS.

I, eye, ay, how, why

with, when, what, would,

beyond, you.

In Phraseography os, and (written
upward), but, are used only initially;
and medial, is —

Next >>

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http://www.long-live-pitmans-shorthand.org.uk/

http://pitmanshorthand.homestead.com/PitmanBooks.html

http://pitmanshorthand.homestead.com/

http://www.britannica.com/EBchecked/topic/541788/shorthand/53187/Modern-symbol-systems

http://www.jstor.org/stable/6553?seq=1#page_scan_tab_contents

FRENCH PHONOGRAPHY: An Adaptation of PITMAN'S PHONETIC SHORTHAND to the FRENCH
@ https://archive.org/stream/frenchphonograph00reediala#page/n5/mode/2up

German shorthand = Deutsche Kurzschrift : an adaptation of Pitman's shorthand to German language
http://trove.nla.gov.au/work/18296303?selectedversion=NBD3458594

Esperanto shorthand: An adaptation of Pitman's shorthand to Esperanto. (Eldonita lauÌŒ la afabla
permeso de Sir Isaac Pitman & Sons, ltd.)
http://www.amazon.com/Esperanto-shorthand-adaptation-Esperanto-Eldonita/dp/B0008CCZTE

Stenografia Italiana;: Italian shorthand, an adaptation of Pitman's shorthand to the Italian language
http://www.amazon.com/Stenografia-Italiana-shorthand-adaptation-explanations/dp/B0008A8FPE

Pitman's shorthand adapted to Sinhala
http://www.amazon.co.uk/372/dp/B0000CMJV7

Pitman's shorthand adapted to Malay.
http://www.worldcat.org/title/pitmans-shorthand-adapted-to-malay/oclc/221194641
http://lib.sabah.uitm.edu.my/webopac20/Record/0000022598

Pitman shorthand adapted to Swahili
http://maktaba.ku.ac.ke/cgi-bin/koha/opac-detail.pl?biblionumber=61733