

Encoding Pitman Shorthand scripts into Unicode Character Set

Version Controls

Version Status	Version #	Version Date	Description
Draft	1.0	28-Jul-2014	

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.

Pitman Scripts described below is based on Pitman's New Era Shorthand which has been adapted to 30 languages all over.

Typology

Pitman Shorthand is a system of representing an English word or set of related English phrases using Consonants and Vowels. As mentioned earlier, Pitman Shorthand (is based on simple geometric symbols) 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).

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.

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 1/6th 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.

Proposed Character Sets

















The property of each characters of Pitman Shorthand script is detailed as under. It is assumed the code point for each character will be provided by Unicode once the characters are approved for encoding.

SL #	Pitman Script ^{\$\$}	Character Property
1		<Code Point>;PITMAN LETTER PEE;Lo;0;L;;;;N;;;;;
2		<Code Point>;PITMAN LETTER BEE;Lo;0;L;;;;N;;;;;
3		<Code Point>;PITMAN LETTER TEE;Lo;0;L;;;;N;;;;;
4		<Code Point>;PITMAN LETTER DEE;Lo;0;L;;;;N;;;;;
5		<Code Point>;PITMAN LETTER CHAY;Lo;0;L;;;;N;;;;;
6		<Code Point>;PITMAN LETTER JAY;Lo;0;L;;;;N;;;;;
7		<Code Point>;PITMAN LETTER KAY;Lo;0;L;;;;N;;;;;
8		<Code Point>;PITMAN LETTER GAY;Lo;0;L;;;;N;;;;;
9		<Code Point>;PITMAN LETTER RAY;Lo;0;L;;;;N;;;;;
10		<Code Point>;PITMAN LETTER WAY;Lo;0;L;;;;N;;;;;
11		<Code Point>;PITMAN LETTER YAY;Lo;0;L;;;;N;;;;;
12		<Code Point>;PITMAN LETTER DOWN HAY;Lo;0;L;;;;N;;;;;
13		<Code Point>;PITMAN LETTER UP HAY;Lo;0;L;;;;N;;;;;
14		<Code Point>;PITMAN LETTER EM;Lo;0;L;;;;N;;;;;
15		<Code Point>;PITMAN LETTER EN;Lo;0;L;;;;N;;;;;
16		<Code Point>;PITMAN LETTER ING;Lo;0;L;;;;N;;;;;

17		<Code Point>;PITMAN LETTER EFF;Lo;0;L;;;;N;;;;
18		<Code Point>;PITMAN LETTER VEE;Lo;0;L;;;;N;;;;
19		<Code Point>;PITMAN LETTER ITH;Lo;0;L;;;;N;;;;
20		<Code Point>;PITMAN LETTER THEE;Lo;0;L;;;;N;;;;
21		<Code Point>;PITMAN LETTER ESS;Lo;0;L;;;;N;;;;
22		<Code Point>;PITMAN LETTER ZEE;Lo;0;L;;;;N;;;;
23		<Code Point>;PITMAN LETTER ISH;Lo;0;L;;;;N;;;;
24		<Code Point>;PITMAN LETTER ZHEE;Lo;0;L;;;;N;;;;
25		<Code Point>;PITMAN LETTER ELL;Lo;0;L;;;;N;;;;
26		<Code Point>;PITMAN LETTER AR;Lo;0;L;;;;N;;;;
27		<Code Point>;PITMAN LETTER Ā UP;Lo;0;L;;;;N;;;;
28		<Code Point>;PITMAN LETTER Ě MIDDLE;Lo;0;L;;;;N;;;;
29		<Code Point>;PITMAN LETTER Ĩ DOWN;Lo;0;L;;;;N;;;;
30		<Code Point>;PITMAN LETTER Ŏ UP;Lo;0;L;;;;N;;;;
31		<Code Point>;PITMAN LETTER Ů MIDDLE;Lo;0;L;;;;N;;;;
32		<Code Point>;PITMAN LETTER ŏ ŏ DOWN;Lo;0;L;;;;N;;;;
33		<Code Point>;PITMAN LETTER AH UP;Lo;0;L;;;;N;;;;
34		<Code Point>;PITMAN LETTER Ā MIDDLE;Lo;0;L;;;;N;;;;
35		<Code Point>;PITMAN LETTER Ě Ě DOWN;Lo;0;L;;;;N;;;;

36	┌	<Code Point>;PITMAN LETTER AW UP;Lo;0;L;;;;N;;;;;
37	┌	<Code Point>;PITMAN LETTER Ō MIDDLE;Lo;0;L;;;;N;;;;;
38	┌	<Code Point>;PITMAN LETTER ŌŌ DOWN;Lo;0;L;;;;N;;;;;
39	∨	<Code Point>;PITMAN LETTER I UP;Lo;0;L;;;;N;;;;;
40	∨	<Code Point>;PITMAN LETTER OW DOWN;Lo;0;L;;;;N;;;;;
41	∨	<Code Point>;PITMAN LETTER OI UP;Lo;0;L;;;;N;;;;;
42	∨	<Code Point>;PITMAN LETTER EW DOWN;Lo;0;L;;;;N;;;;;
43	∨	<Code Point>;PITMAN LETTER DIPHONE Ā OR AH UP;Lo;0;L;;;;N;;;;;
44	∨	<Code Point>;PITMAN LETTER DIPHONE Ē OR Ā MIDDLE;Lo;0;L;;;;N;;;;;
45	∨	<Code Point>;PITMAN LETTER DIPHONE Ī OR ĒĒ DOWN;Lo;0;L;;;;N;;;;;
46	∨	<Code Point>;PITMAN LETTER DIPHONE Ō OR AW UP;Lo;0;L;;;;N;;;;;
47	∨	<Code Point>;PITMAN LETTER DIPHONE Ū OR Ō MIDDLE;Lo;0;L;;;;N;;;;;
48	∨	<Code Point>;PITMAN LETTER DIPHONE ŐŐ OR ŌŌ DOWN;Lo;0;L;;;;N;;;;;
49	∨	<Code Point>;PITMAN LETTER TRIPHONE I UP;Lo;0;L;;;;N;;;;;
50	∨	<Code Point>;PITMAN LETTER TRIPHONE OW DOWN;Lo;0;L;;;;N;;;;;
51	∨	<Code Point>;PITMAN LETTER TRIPHONE OI UP;Lo;0;L;;;;N;;;;;
52	∨	<Code Point>;PITMAN LETTER TRIPHONE EW TRIPHONE DOWN;Lo;0;L;;;;N;;;;;
53	o	<Code Point>;PITMAN AFFIX LOOP ST;Lo;0;L;;;;N;;;;;
54	o	<Code Point>;PITMAN AFFIX LOOP ST WITH LOW CIRCLE S;Lo;0;L;;;;N;;;;;

55		<Code Point>;PITMAN AFFIX LOOP STR;Lo;0;L;N;
56		<Code Point>;PITMAN AFFIX LOOP STR WITH LOW CIRCLE S;Lo;0;L;N;
57		<Code Point>;PITMAN AFFIX LOW CIRCLE S;Lo;0;L;N;
58		<Code Point>;PITMAN AFFIX HIGH CIRCLE S FINAL;Lo;0;L;N;
59		<Code Point>;PITMAN AFFIX HIGH CIRCLE SW INITIAL;Lo;0;L;N;
60		<Code Point>;PITMAN AFFIX LOW CIRCLE S INSIDE WAY;Lo;0;L;N;
61		<Code Point>;PITMAN AFFIX R HOOK;Lo;0;L;N;
62		<Code Point>;PITMAN AFFIX R HOOK INSIDE;Lo;0;L;N;
63		<Code Point>;PITMAN AFFIX R HOOK WITH LOW CIRCLE S;Lo;0;L;N;
64		<Code Point>;PITMAN AFFIX R HOOK INSIDE WITH LOW CIRCLE S;Lo;0;L;N;
65		<Code Point>;PITMAN AFFIX R HOOK WITH LOW CIRCLE S MIDDLE;Lo;0;L;N;
66		<Code Point>;PITMAN AFFIX LOW L HOOK;Lo;0;L;N;
67		<Code Point>;PITMAN AFFIX HIGH L HOOK INSIDE;Lo;0;L;N;
68		<Code Point>;PITMAN AFFIX LOW L HOOK WITH LOW CIRCLE S;Lo;0;L;N;
69		<Code Point>;PITMAN AFFIX HIGH L HOOK INSIDE WITH LOW CIRCLE S;Lo;0;L;N;
70		<Code Point>;PITMAN AFFIX LOW L HOOK WITH LOW CIRCLE S MIDDLE;Lo;0;L;N;
71		<Code Point>;PITMAN AFFIX N HOOK;Lo;0;L;N;
72		<Code Point>;PITMAN AFFIX N HOOK WITH LOW CIRCLE S;Lo;0;L;N;

73		<Code Point>;PITMAN AFFIX N HOOK INSIDE;Lo;0;L;.....N;.....
74		<Code Point>;PITMAN AFFIX N HOOK INSIDE WITH LOW CIRCLE S;Lo;0;L;.....N;.....
75		<Code Point>;PITMAN AFFIX N HOOK WITH LOW CIRCLE S MIDDLE;Lo;0;L;.....N;.....
76		<Code Point>;PITMAN AFFIX N HOOK INSIDE WITH LOW CIRCLE S MIDDLE;Lo;0;L;.....N;.....
77		<Code Point>;PITMAN AFFIX F HOOK;Lo;0;L;.....N;.....
78		<Code Point>;PITMAN AFFIX V HOOK;Lo;0;L;.....N;.....
79		<Code Point>;PITMAN AFFIX V HOOK WITH LOW CIRCLE S;Lo;0;L;.....N;.....
80		<Code Point>;PITMAN AFFIX F HOOK WITH LOW CIRCLE S;Lo;0;L;.....N;.....
81		<Code Point>;PITMAN AFFIX HIGH W HOOK;Lo;0;L;.....N;.....
82		<Code Point>;PITMAN ENLARGE HOOK HW FOR WAY;Lo;0;L;.....N;.....
83		<Code Point>;PITMAN AFFIX LOW W HOOK INSIDE;Lo;0;L;.....N;.....
84		<Code Point>;PITMAN AFFIX HIGH HW HOOK INSIDE;Lo;0;L;.....N;.....
85		<Code Point>;PITMAN AFFIX W INITIAL ATTACHED;Lo;0;L;.....N;.....
86		<Code Point>;PITMAN AFFIX LEFT W DETACHED;Lo;0;L;.....N;.....
87		<Code Point>;PITMAN AFFIX RIGHT W DETACHED;Lo;0;L;.....N;.....
88		<Code Point>;PITMAN AFFIX TICK H;Lo;0;L;.....N;.....

\$\$ Source: <http://www.long-live-pitmans-shorthand.org.uk/index.htm>

Character Ordering and Roadmap to the Pitman Shorthand character block

<< To be included – Once the characters are finalized >>

Collation

<< To be included – Once the characters are finalized >>

Collation Table

<< To be included – Once the characters are finalized >>

Character Properties

<< To be discussed >>

Input and Keyboard Layout

<< **Can be included once the character sets are finalized. This is optional** >>

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 vowels: 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.

<i>Pitman Script</i> ^{\$\$}	<i>Word that is represented</i>	<i>Consonant</i>	<i>Diphthong Ew</i>
	Few		
	Mew		
	New		
	Value		







^{\$\$} Source: <http://www.long-live-pitmans-shorthand.org.uk/index.htm>

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.

Pitman Script^{\$\$}	Word that is represented	Consonant	Diphone (Down-left)
	Weighing		
	Readmit		

^{\$\$} Source: <http://www.long-live-pitmans-shorthand.org.uk/index.htm>

Pitman Script^{\$\$}	Word that is represented	Consonant	Diphone (Up-right)
	Jawing		
	Poem		







^{\$\$} Source: <http://www.long-live-pitmans-shorthand.org.uk/index.htm>

Pitman Script^{\$\$}	Word that is represented	Consonant	Triphone
	Diary		
	Loyal		
	Tower		
	Viewer		

^{\$\$} Source: <http://www.long-live-pitmans-shorthand.org.uk/index.htm>

Overlapping vowels:

Overlapping refers to a vowel crossing a Pitman consonant script where a dash vowel (Light and Heavy dash) finds it place. These vowels are used when they come between a script and a hook (R and L hooks) when pronounced. For e.g., word *perfect*. Here a vowel occurs between a consonant P and a hook R. Position of this overlapping vowel is decided by the position of the normal vowel. (cf. Protect – Here the vowel does not sound in between). The purpose of crossing the script is to show that it is an overlapping vowel as there is no position for an affixed hook as compared to a consonant script. Apart from dash vowels, even a diphone or a diphthong can be overlapped subject to conditions being satisfied.

Pitman Script^{\$\$}	Word that is represented	Vowel / Diphone / Diphthong
	Nurse	Dash Vowel
	Course	Dash Vowel
	Mixture	EW Diphthong
	Capture	EW Diphthong
	Healthier	Down-left Diphone
	Junior	Down-left Diphone

^{\$\$} Source: <http://www.long-live-pitmans-shorthand.org.uk/index.htm>

Intervening dot vowels:

Where a dot vowel (Light and Heavy dot) occurs between a script and the initial hook (R and L hooks), they are written as a small circle instead of a dot to clearly indicate that it is an intervening vowel but considering the rule of vowel position.

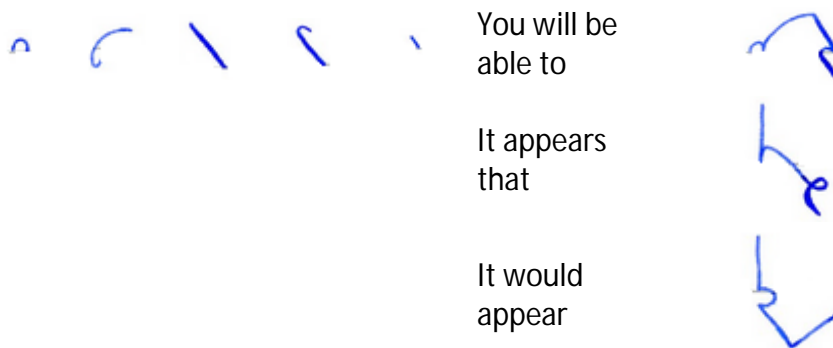
Pitman Script^{\$\$}	Word that is represented	Circle Vowel
	Direct	
	Dark	
	Gnarl	

^{\$\$} Source: <http://www.long-live-pitmans-shorthand.org.uk/index.htm>

Joined phrases:

Joining of two or more words is a principle in Pitman shorthand which is called *phraseography*. This means, more than one words which form meaningful sentence in normal English, which when written in Pitman script, can be joined together as much as possible provided there is smooth flow in writing the scripts. This type of joining has also got the advantage of speed writing which is particularly useful during advanced stages of writing.

While joining strokes, for the sake of convenience but without losing the meaning and visualization, some scripts are omitted. One example of this is the phrase "*as a matter of fact*". Here each word has a separate Pitman script but when written in phrase, the word 'a' is omitted and also for the word "of and fact" of is omitted and for the word fact, F is omitted. This is a generally accepted principle and practiced for speed writing as far as it is easy for a transcriber to identify and understand the script.







Source: <http://www.long-live-pitmans-shorthand.org.uk/index.htm>

Prefix:

In Pitman script, the word "con" when coming at the beginning of a word, is represented by a *dot* at the head of the first consonant script. Examples are compose, control etc. Here Pitman script is written only for "pose" and "trol" pre-fixed by a dot for the word "con"

In Pitman shorthand, there is another prefix that is used for the word "self". It is represented by a small circle in the second position before the first consonant in the script. Example: the word self-defense. Here it is enough if we script for the word "defense" and self is written before the Pitman Letter "DEE".




Another variant to "self" is also available. This is the combination of the word "self" + "con". Here the word "fident" is written in Pitman script prefixed by a small circle at the head of the first consonant script which represents self-con

Pitman Script^{\$\$}	Word that is represented	Prefix type
	Compose	Dot representing 'com'
	Control	Dot representing 'com'
	Self-defense	Circle representing 'self'
	Self-confident	Circle representing "self-con"

^{\$\$} Source: <http://www.long-live-pitmans-shorthand.org.uk/index.htm>

Stenographic period:

Unlike period in normal English which is used for full stop, exclamatory or question mark, in Pitman stenography the dot is replaced by a small "x" or cross. This is to avoid confusion between the dot vowel and the period used for full stop etc.

<i>Pitman Script</i> ^{\$\$}	<i>Punctuation that is represented</i>
	Full stop
	Question mark
	Exclamation mark

^{\$\$} Source: <http://www.long-live-pitmans-shorthand.org.uk/index.htm>

Proper Name:

To identify the name of a person or place in a Pitman script list, it is described by making a double line mark beneath that script to show that it is a proper name.