

# **Specification of Japanese HV-Script Format**

**Ver. 2.0.3**

**2003/12/24**

**YAMAHA Corporation**

[Notes]

Operation is not guaranteed although this book is a document about HV-Script.

The contents of this document may be changed without notice.

Copyright of this document belongs to YAMAHA Corporation.

For reprinting or copying of this document, permission of Semiconductor Division of YAMAHA Corporation is needed.



Copyright (c) 2002-2003 YAMAHA CORPORATION

All rights reserved

# Contents

---

<b>REVISION HISTORY</b> .....	<b>3</b>
<b>1 INTRODUCTION</b> .....	<b>5</b>
<b>2 FUNDAMENTAL COMPOSITION</b> .....	<b>5</b>
<b>3 FORMAT</b> .....	<b>6</b>
3.1 HEADER .....	6
3.2 BODY .....	6
3.2.1 Voice Character String.....	7
3.2.2 Rhythm Marks.....	9
3.2.3 Control Character String .....	12
3.2.4 Event .....	14
3.2.5 Comment out.....	15
<b>4 EXAMPLE OF HV-SCRIPT</b> .....	<b>16</b>
<b>5 CODE TABLE OF CHARACTER AND SYMBOLS</b> .....	<b>17</b>
<b>6 DEFAULT VOICE MAP</b> .....	<b>22</b>

## Revision History

Edition	Date	Contents	
0.7.0	2002.10.17	First released	
0.8.0	2002.11.24	update	Corrected following items based on 0.7.0. , and stated it 0.8.0. - Took “Dull sound” into a part of “Reading mark” - Corrected and added descriptions about input limitation generally. - Corrected description about pitch.
1.0.0.0	2003.02.28	2	Changed HV-Script header size 2 bytes to 4 bytes
		3.1	Changed the character string of HV-Script header.
		3.2.4	Deleted description about pause event.
		3.2.4.1	Divided voice quality change into voice and extend voice.
		3.2.4.2	Changed description about numerical setting range of user event.
		4	Changed the example of HV-Script according to the change of specification. Deleted P (pause) from the Alphabet table.
		Table 14	Added X (voice quality change) into the Alphabet table.
2.0.0.0	2003.05.16	3.2.4.1	Added description of “Refer to “6 Default Voice Map“ into the explanation of voice quality change event.
		6	Added description of “ Default voice map”.
2.0.0.1	2003.05.30	Table 12	Corrected notation of [ひゃ] of S-JIS.
2.0.1.2	2003.06.27	3.2	Corrected and added description about clause, syllable, and rhythm.
		3.2.1	Added question mark to clause punctuation mark.
		3.2.1.2	Deleted description about the continuous input of a “Long vowel” using the numerical value.
		3.2.1.3	Deleted description about the continuous input of a “Silent” using the numerical value.
		3.2.1.4	Added question mark to clause punctuation mark. Added description about “*” mark to clause punctuation. Added description about “,” and “.” mark.
		3.2.2.1	Deleted description about “*”mark from the description of “Accent mark”. Deleted description about “ ” mark from the description of “Accent mark”. Corrected description about priority between “Accent mark”, “?”, and “*”. Corrected description about the pitch and valume of Tables3-4, and Fig.3.
		3.2.2.2	Deleted description about the rhythm mark “%” of clause.
		3.2.3.3	Deleted description about question mark.
		3.2.4.3	Corrected description of Height accent / Degree of rhythm change of a clause.
		Table 14	Corrected description of “*”. Deleted description of “%”.
		6	Deleted description about provision of voice parameter.
2.0.2.3	2003.7.18	3.2.3.3	The description correction and addition about the input position of a tempo mark
		3.2.3.4	The description correction and addition about the input position of utterance length unification expected.
		3.2.4.3	The description correction and addition about the degree of rhythm change of a height accent and a clause
2.0.3	2004.12.24	3.1	Explanation about the purport the header is described into the beginning of HV-Script, was added.

	3.2.1.4	Description about the amount of changing by “?” and “*” marks was added.
	Fig.2	Description about “1” in horizontal-axis was added.
	Fig.3	Description about “1” in horizontal-axis was added.
	Fig.5	Description about “1” in horizontal-axis was added.
	Table 13	Clerical error of Martian was corrected.

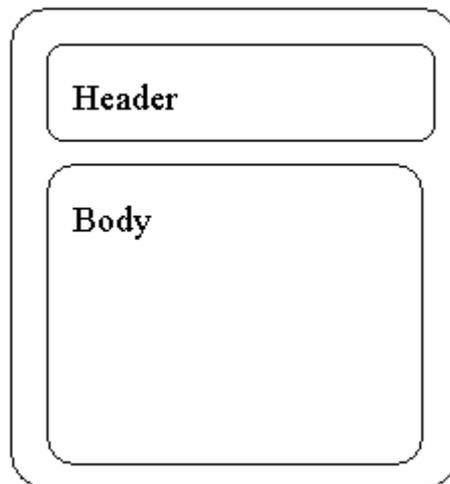
# 1 Introduction

HV-Script is the format for performing a voice synthesis which consists of the synthesis character string included a rhythm marks, a set up of pronounced voice, and a message to a playback application and etc. , and it serves as a text input in order to make the input easier by the users.

## 2 Fundamental Composition

HV-Script is composed of “Header” and “Body”.

Header is composed of the 4-byte of ASCII code characters, that displays a start of HV-Script and character code used by language and Body. In addition, Body is a character string written in the character code specified by Header, and consists of the vocal information and the playback information.



**Figure 1 Fundamental Composition of HV-Script**

## 3 Format

### 3.1 Header

Header is expressed at the beginning of HV-Script. It is described with the 4-byte of alphabet capital letter (ASCII).

HV#J

---

HV# (0x48,0x56,0x23)	Start of HV-Script
J (0x4A)	Indicate “Country”, “Language” and “Character” Codes. In this case, it signifies the Japanese Shift-JIS.

### 3.2 Body

Body is described using character codes (Shift-JIS) specified by Header, and consists as follows.

- Voice character string : The character to utter is expressed.
- Rhythm mark : Marks which gives a clause (\*1), a syllable (\*2), and a rhythm (\*3) to voice character string.
- Control character string : The volume, the pitch of sound, speaking speed, etc. are set up.
- Event : The message transmission to a playback application, and etc.
- Comment out : A comment can be written into HV-Script. The comment has no influence on the playback processing.

The alphabet used by Body treats a capital letter and a small letter as equivalent in full size. Moreover, full size and half size are altogether treated as equivalent. The Shift-JIS code table of a sign and a character is shown in Table 10 to 15.

- \*1 clause : The clause is a text unit which is divided from a head of clause till “Clause pause mark”.  
(For the details about “Clause pause marks”, refer to the later in this document)

<Example> HV#J こんにちわ。 げんき？ きよーは、 ひえるね。  
                   Clause        Clause        Clause        Clause

- \*2 syllable : One “Reading mark” shows one syllable.  
 \*3 rhythm : The rhythm of the language made by the strength of sound, length, height, and etc.

### 3.2.1 Voice Character String

It is consisted of a character to utter and silence, and a character string which showed the punctuation of a clause below.

- Reading mark
- Long vowel
- Silent
- Clause punctuation mark

#### 3.2.1.1 Reading Mark [Full Size Hiragana (Shift-JIS)]

Character to pronounce. “Reading mark” and its Shift-JIS code are shown in Table10-Table12

Input with the character of exact “sound” to pronounce.

<Example> [わたしは] → [わたしわ]

Dull sound must be inputted as one character.

<Example> [しゝ] → [じ]

However, [うゝ] can be pronounced with dull mark. Use [ゝ] (0x814A) for the dull mark.

**Table 1 Change of Dull mark**

Input	Reading mark to change
うゝ あ	ば
うゝ い	び
うゝ え	べ
うゝ お	ぼ
うゝ (In the cases of other than the above)	ぶ

#### 3.2.1.2 Long Vowel [“—”, “~”]

Pronounce last “Reading mark” extended. It extends longer as it was inputted continuously.

“—” is the “long vowel” of fixed pitch, and “~” is the “long vowel” of vibrated pitch.

<Example> [おはよ—————]

#### 3.2.1.3 Silent[ “ ” ]

A constant silent sound is inserted. The silent time becomes long by the number inputted continuously.

### 3.2.1.4 Clause Punctuation Symbols [ “、” , “,” , “。” , “.” , “?” , “\*” ]

It shows an end of the clauses.

“Silent” is inputted compulsorily, One-term by “、” and “,” , two-terms by “。” , and “.”

A symbol “?” raises a pitch and volume to a latest “Reading mark” or latest “Long vowel”, and expresses interrogative rhythm. The amount of change becomes large by attaching the numerical value of 1 to 99 back like “? 99”. Moreover, two-terms of “Silent” are inputted compulsorily. When “?” is inputted continuously like “?????”, each symbols are considered as the end of Clause. In this case, the amount of pitch and volume change is the same as one “?”, but Silent increases by the count of “?”.

A symbol “\*” decreases a pitch and volume to a latest “Reading sign” or latest “Long vowel”, and expresses rhythm. The amount of change becomes large by attaching the numerical value of 1 to 99 back like “\* 99”. Moreover, two-terms of “Silent” are inputted compulsorily. When “\*” is inputted continuously like “\*\*\*\*\*”, each symbols are considered as the end of Clause. In this case, the amount of pitch and volume change is the same as one “\*”, but Silent increases by the count of “\*”.

## 3.2.2 Rhythm Marks

Rhythm is given per a clause or syllable units to a voice letter string.

### 3.2.2.1 Accent Symbols [“ ’ “ , “ ^ “ , “ / “ , “ \_ “ , “ \$ “ , “ < “ , “ > “ , “ & “ , “ = “ ]

By describing it just before a “Reading mark” or a “Long vowel”, it performs a changes of pitch (Table 2/Figure 2), a change of volume (Table 3/Figure 3), and set up of a rhythm. In addition, it is accumulated the amount of change until a “Clause punctuation mark” or the symbols shown in Table 4 which returns a change.

Although it allows describing a “Height accent” and a “Strength accent” simultaneously to one of a “Reading mark” or a “Long vowel”, however, when two or more different “Height accents” or “Strength accents” are described, it wears the back and considers as priority.

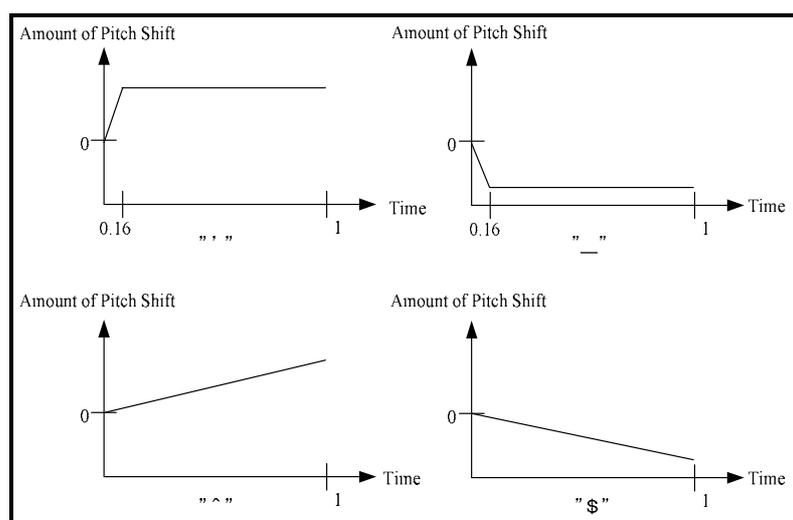
It is possible to use it in combination with symbols, [/], [=] and [&], which cancel a change, and when symbols are inputted like [’/], it performs the change after returning the amount of shifts to 0.

Moreover, the amount of shifts becomes larger as the same mark was inputted continuously (Figure 4), and it means the same thing as inputting the numerical value of 1 to 99 into just after the mark, such as [’99].

When “?” or “\*” are effective to “Reading mark” or “Long vowel” which sets right after the “Accent mark”, “Accent mark” will be skipped.

**Table 2 Height Accent Symbols**

Symbol	Contents
'	Raises pitch at anlaut.
^	Raises pitch under pronunciation.
_	Decreases pitch at anlaut.
\$	Decreases pitch under pronunciation.

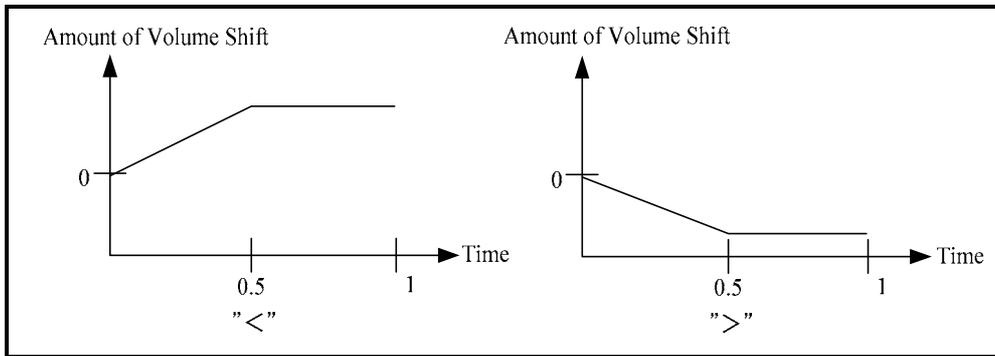


**Figure 2 Height Accent Symbols**

“1” in the horizontal axis shows Utterance Length of each character. Utterance Length differs for every character.

**Table 3 Strength Accent Symbols**

Symbol	Contents
<	Raises volume during a sound generation
>	Decreases volume during a sound generation.

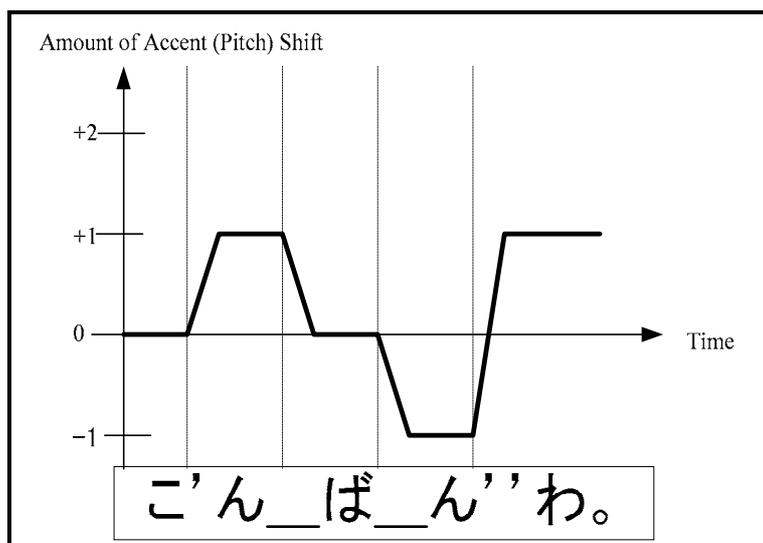


**Figure 3 Strength Accent Symbols**

“1” in the horizontal axis shows Utterance Length of each character. Utterance Length differs for every character.

**Table 4 Accent Shift Clear**

Symbol	Contents
/	Clears pitch shifted by “Accent mark”.
=	Clears volume shifted by “Accent mark”.
&	Clears pitch and volume shifted by “Accent mark”.



**Figure 4 Accent Symbols (example)**

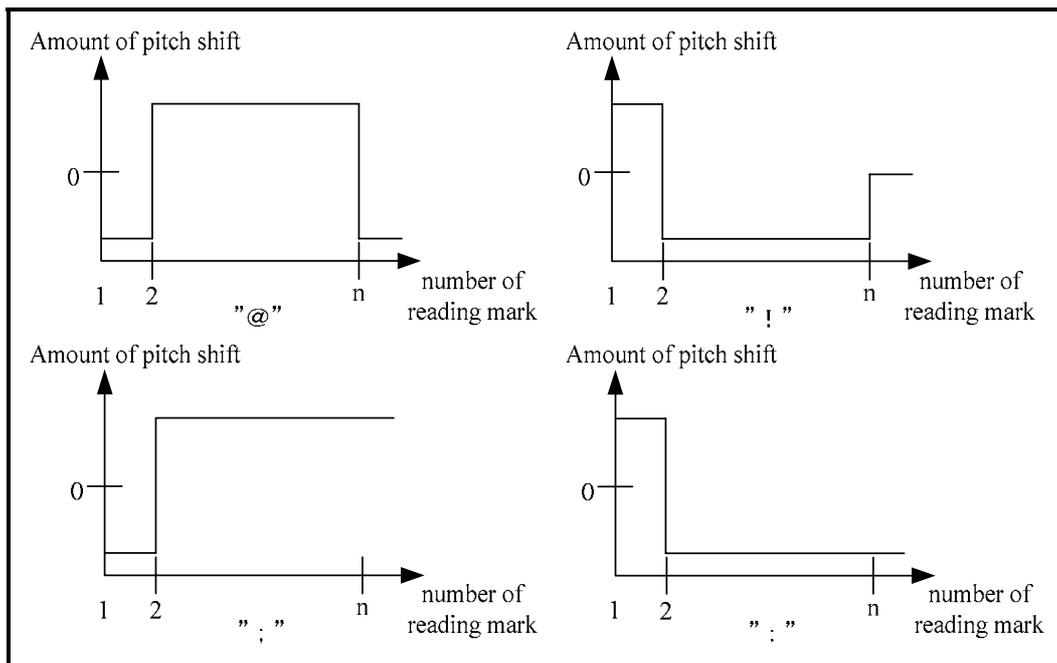
### 3.2.2.2 Rhythm of a Clause [“@”, “:”, “;”, “!”, “+”]

It is described at the head of a clause, and gives rhythm (tune) to the clause section uniformly. “Rhythm of clause” mark and its actions are shown in Table 5, Figure 5

It is effective only in the setup clause, and it has no change when it’s not describing. Since “+” sets “Height accent mark” randomly to each “Reading mark” or “Long vowel”, “Height accent mark” written in the clause is ignored.

**Table 5 Rhythm Symbols of a Clause**

Symbol	Contents
@	It becomes higher with the 2nd “Read mark”, and falls at the last.
!	It becomes lower with the 2nd “Read mark”, and goes up by the last.
;	It becomes higher with the 2nd “Read mark.”
:	It becomes lower with the 2nd “Read mark.”
+	Random pitch



**Figure 5 Rhythm of a Clause (In case of a Reading mark number n)**

“1” in the horizontal axis shows Utterance Length of each character. Utterance Length differs for every character.

### 3.2.3 Control Character String

By the use of the following marks, the change of a volume, pitch, and etc. are given. The same value is maintained until it changes the changed amount of change into the next time

In addition, in the definition of the following setup values, it is indicated that the portion surrounded by “[ ]” is for the indispensable input, and the portion surrounded by “( )” is for an arbitrary input.

#### 3.2.3.1 Volume

V[value]

Numerical setting range : 1 to 5 (Default value : 4)

Explanation : Message to change volume

The amount of volume shift effected by each setting value is shown in Table 6

It effects from the first “Reading mark” after the input location, until the location next “Volume” was set, or the performance was finished.

“Volume” between “Reading mark” and “Long vowel” or between “Long vowel” and “Long vowel” effects from the first “Reading mark” after “Long vowel”.

**Table 6 Table of Volume Change Parameter**

Message	Amount of shift [ dB ]
V1	-24
V2	-18
V3	-12
V4	-6
V5	0

#### 3.2.3.2 Pitch

[Music Scale] (Octave value)

Scale setting range : C, C#, D, D#, E, F, F#,G,G#,A,A#,B

Octave specification range : 1 to 3 (Default value : 2)

Explanation : Message to set height of voice sound to pronounce.

Specification of music scale and octave (Table 7). Height of octave is set automatically to the height which matches to the voice.

When an octave value is omitted, it would be set with the existing value.

When a pitch specification does not exist, it would be played with the default voice value.

It effects from the first “Reading mark” after the input location, until the location next “pitch” is specified, or the performance is finished.

“Pitch” between “Reading mark” and “Long vowel” or between “Long vowel” and “Long vowel” effects from the first “Reading mark” after “Long vowel”.

**Table 7 Amount of Octave Specification Range Shift**

Octave specification range	Amount of shift
1	Default – 1 octave
2	Default
3	Default + 1 octave

**3.2.3.3 Speed****S [Value]**

Numerical specification range : 0 to 99 (Default value : 50)

Explanation : Message to shift utterance speed.

Each time the indicated value is increased of one point, the utterance length becomes short of a certain quantity. Also the length becomes long, as the value decreases.

It effects from the first “Reading mark”, “Long vowel”, “Silent”, and “Clause punctuation mark” after input location, until the next “Speed” specified or the performance finished.

Operation about speed like the following examples described in the Long-vowel sound is not guaranteed.

(Example) HV#J あ S40――S50ー。

**3.2.3.4 Utterance Length Unification****L [value]**

Numerical setting range : 0 to 1 (Default value : 0)

Explanation : The switch to make it sure if all utterance length will be made the same after the described position. ON/OFF of a switch is as in Table 8.

It effects from the first “Reading mark”, and “Long vowel” after input location, until the next “Utterance length unification” specified or the performance finished.

Operation about speed like the following examples described in the Long-vowel sound is not guaranteed.

(Example) HV#J あ L1――L0ー。

**Table 8 Utterance Length Unification Setting Value**

Numerical setting	Utterance length of a Reading mark
0	Peculiar length
1	Same length

## 3.2.4 Event

The message sent to a playback application and etc. at the time of playback of HV-Script.

### 3.2.4.1 Voice Quality Change

K[value], X[value]

---

Numerical setting range	:	0 to 15 (Default value : K0)
Explanation	:	It changes the voice quality of synthesized voice sound to the voice quality of numerical setting range. K0 to K15 are default voice. X0 to X15 are extended voice, and extended voice must be set up beforehand. It is effective from the first “Reading mark” and “Long Vowel” after inputted location, until the next “Voice quality change” specified or the performance finished. Refer to “Section 6 Default Voice Map“ about contents of default voice

### 3.2.4.2 User Event

U[value]

---

Numerical setting range	:	0 to 9
Explanation	:	Message to execute the event specified by a user under the performance of HV-Script.

### 3.2.4.3 Height accent / Degree of Rhythm Change of a Clause

W [value]

---

Numerical setting range	:	1 to 5 (Default value : 3)
Explanation	:	Message to change “Degree of rhythm change” of “Height accent mark” and “Rhythm mark of clause”. It changes a lot as the specified value gains. Amount of shift for each numerical setting is as shown in Table 9. It is effective from the next “Reading mark” and “Long vowel” after the inputted location, until the next value specified or the performance finished. The operation of the height accent described during a long vowel sound and the operation of the rhythm change degree in a clause are not guaranteed. (Example) HV#J あ’W5――W3。

**Table 9 Height accent / Rhythm change parameter of a clause**

Message	The degree of rhythm change (×2)
W1	1/6
W2	1/2
W3	1
W4	2
W5	5

### 3.2.5 Comment out

It makes it possible to write in a comment into HV-Script.

[ (character string) ]

Explanation

: An area surrounded by “[ ]” is considered as a comment.  
It is impossible to describe between nests or commands.  
(Example: V[Volume]5)

## 4 Example of HV-Script

The following is the example of inputting a HV-Script.

HV#J@S54 おはよ^~く、ございます U1。 お'<げ\_ん=きですか? S56 きよ\_おわ[「きょうは」は「きよおわ」  
と入力する。JV5s51 とっっっ'ても,S54'い/いて\$ん\_き、です\_ね。L1W5K4 そーです\_ねー。

## 5 Code Table of Character and Symbols

Table 10 Reading marks (1)

Char.	S-JIS								
あ	0x82A0	い	0x82A2	う	0x82A4	え	0x82A6	お	0x82A8
ぁ	0x829F	ぃ	0x82A1	ぅ	0x82A3	ぇ	0x82A5	ぉ	0x82A7
か	0x82A9	き	0x82AB	く	0x82AD	け	0x82AF	こ	0x82B1
さ	0x82B3	し	0x82B5	す	0x82B7	せ	0x82B9	そ	0x82BB
た	0x82BD	ち	0x82BF	つ	0x82C2	て	0x82C4	と	0x82C6
				っ	0x82C1				
な	0x82C8	に	0x82C9	ぬ	0x82CA	ね	0x82CB	の	0x82CC
は	0x82CD	ひ	0x82D0	ふ	0x82D3	へ	0x82D6	ほ	0x82D9
ま	0x82DC	み	0x82DD	む	0x82DE	め	0x82DF	も	0x82E0
や	0x82E2			ゆ	0x82E4			よ	0x82E6
ゃ	0x82E1			ゅ	0x82E3			ょ	0x82E5
ら	0x82E7	り	0x82E8	る	0x82E9	れ	0x82EA	ろ	0x82EB
わ	0x82ED	ゐ	0x82EE			ゑ	0x82EF	を	0x82F0
わ	0x82EC								
ん	0x82F1								
が	0x82AA	ぎ	0x82AC	ぐ	0x82AE	げ	0x82B0	ご	0x82B2
ぎ	0x82B4	じ	0x82B6	ず	0x82B8	ぜ	0x82BA	ぞ	0x82BC
だ	0x82BE	ぢ	0x82C0	づ	0x82C3	で	0x82C5	ど	0x82C7
ば	0x82CE	び	0x82D1	ぶ	0x82D4	べ	0x82D7	ぼ	0x82DA
ば	0x82CF	び	0x82D2	ぶ	0x82D5	べ	0x82D8	ぼ	0x82DB

Table 11 Reading marks (2)

Char.	S-JIS	Char.	S-JIS	Char.	S-JIS	Char.	S-JIS
				いえ	0x82A2 0x82A5		
		うい	0x82A4 0x82A1	うえ	0x82A4 0x82A5	うお	0x82A4 0x82A7
きや	0x82AB 0x82E1	きゆ	0x82AB 0x82E3	きえ	0x82AB 0x82A5	きよ	0x82AB 0x82E5
しや	0x82B5 0x82E1	しゆ	0x82B5 0x82E3	しえ	0x82B5 0x82A5	しよ	0x82B5 0x82E5
		すい	0x82B7 0x82A1				
ちや	0x82BF 0x82E1	ちゆ	0x82BF 0x82E3	ちえ	0x82BF 0x82A5	ちよ	0x82BF 0x82E5
つあ	0x82C2 0x829F	つい	0x82C2 0x82A1	つえ	0x82C2 0x82A5	つお	0x82C2 0x82A7
てや	0x82C4 0x82E1	てゆ	0x82C4 0x82E3	てえ	0x82C4 0x82A5	てよ	0x82C4 0x82E5
		てい	0x82C4 0x82A1	とう	0x82C6 0x82A3		
にや	0x82C9 0x82E1	にゆ	0x82C9 0x82E3	にえ	0x82C9 0x82A5	によ	0x82C9 0x82E5
ひや	0x82D0 0x82E1	ひゆ	0x82D0 0x82E3	ひえ	0x82D0 0x82A5	ひよ	0x82D0 0x82E5
みや	0x82DD 0x82E1	みゆ	0x82DD 0x82E3	みえ	0x82DD 0x82A5	みよ	0x82DD 0x82E5
りや	0x82E8 0x82E1	りゆ	0x82E8 0x82E3	りえ	0x82E8 0x82A5	りよ	0x82E8 0x82E5
ぎや	0x82AC 0x82E1	ぎゆ	0x82AC 0x82E3	ぎえ	0x82AC 0x82A5	ぎよ	0x82AC 0x82E5
じゃ	0x82B6 0x82E1	じゆ	0x82B6 0x82E3	じえ	0x82B6 0x82A5	じよ	0x82B6 0x82E5
		ずい	0x82B8 0x82A1				
ぢや	0x82C0 0x82E1	ぢゆ	0x82C0 0x82E3	ぢえ	0x82C0 0x82A5	ぢよ	0x82C0 0x82E5
		づい	0x82C3 0x82A1				
でや	0x82C5 0x82E1	でゆ	0x82C5 0x82E3	でえ	0x82C5 0x82A5	でよ	0x82C5 0x82E5
		でい	0x82C5 0x82A1	どう	0x82C7 0x82A3		
びや	0x82D1 0x82E1	びゆ	0x82D1 0x82E3	びえ	0x82D1 0x82A5	びよ	0x82D1 0x82E5
ぴや	0x82D2 0x82E1	ぴゆ	0x82D2 0x82E3	ぴえ	0x82D2 0x82A5	ぴよ	0x82D2 0x82E5
ふあ	0x82D3 0x829F	ふい	0x82D3 0x82A1	ふえ	0x82D3 0x82A5	ふお	0x82D3 0x82A7
ふや	0x82D3 0x82E1	ふゆ	0x82D3 0x82E3				

Table 12 Reading marks (3)

Char.	S-JIS	Char.	S-JIS	Char.	S-JIS
うゝ あ	0x82A4 0x814A 0x829F	うゝ い	0x82A4 0x814A 0x82A1	うゝ	0x82A4 0x814A
うゝ え	0x82A4 0x814A 0x82A5	うゝ お	0x82A4 0x814A 0x82A7		

Table 13 Alphabets

Symbol	S-JIS	Symbol	S-JIS	Symbol	S-JIS	Symbol	S-JIS	Message
A	0x41	a	0x61	A	0x8260	a	0x8281	Pitch
B	0x42	b	0x62	B	0x8261	b	0x8282	Pitch
C	0x43	c	0x63	C	0x8262	c	0x8283	Pitch
D	0x44	d	0x64	D	0x8263	d	0x8284	Pitch
E	0x45	e	0x65	E	0x8264	e	0x8285	Pitch
F	0x46	f	0x66	F	0x8265	f	0x8286	Pitch
G	0x47	g	0x67	G	0x8266	g	0x8287	Pitch
K	0x4B	k	0x6B	K	0x826A	k	0x828B	Voice quality change (Default voice)
L	0x4C	l	0x6C	L	0x826B	l	0x828C	Utterance length unification
S	0x53	s	0x73	S	0x8272	s	0x8293	Speed
U	0x55	u	0x75	U	0x8274	u	0x8295	User event
V	0x56	v	0x76	V	0x8275	v	0x8296	Volume
W	0x57	w	0x77	W	0x8276	w	0x8297	Height accent / Degree of rhythm change of clause
X	0x58	x	0x78	X	0x8277	x	0x8298	Voice quality change (extended voice)

Table 14 Symbols

Symbol (half-size character)	S-JIS	Symbol (Full-size character)	S-JIS	Message
" "(space)	0x20	" "(space)	0x8140	Input of "Silent"
!	0x21	!	0x8149	Rhythm of clause
		ˆ	0x814A	Voiced sound symbol
#	0x23	#	0x8194	Pitch
\$	0x24	\$	0x8190	Height accent
&	0x26	&	0x8195	Shift Clear of Height accent and Strength accent
'	0x27	'	0x8166	Height accent
*	0x2A	*	0x8196	Clause punctuation
、	0xA4	、	0x8141	Clause punctuation
+	0x2B	+	0x817B	Rhythm of clause
,	0x2C	,	0x8143	Clause punctuation
—	0xB0	—	0x815B	Long Vowel
-	0x2D	-	0x815C	Long Vowel
		—	0x817C	Long Vowel
		-	0x815D	Long Vowel
。	0xA1	。	0x8142	Clause punctuation
.	0x2E	.	0x8144	Clause punctuation
/	0x2F	/	0x815E	Shift Clear of Height accent
:	0x3A	:	0x8146	Rhythm of clause
;	0x3B	;	0x8147	Rhythm of clause
<	0x3C	<	0x8183	Strength accent
=	0x3D	=	0x8181	Shift Clear of Strength accent
>	0x3E	>	0x8184	Strength accent
?	0x3F	?	0x8148	Interrogative rhythm
@	0x40	@	0x8197	Rhythm of clause
[	0x5B	[	0x816D	Start of Comment-out
]	0x5D	]	0x816E	End of Comment-out
^	0x5E	^	0x814F	Height accent
—	0x5F	—	0x8151	Height accent
~	0x7E	~	0x8160	Long vowel (Pitch vibration)

**Table 15 Numeral Value**

Symbol (half-size character)	S-JIS	Symbol (half-size character)	S-JIS	Message
0	0x30	0	0xA3B0	Input numeral value
1	0x31	1	0xA3B1	Input numeral value
2	0x32	2	0xA3B2	Input numeral value
3	0x33	3	0xA3B3	Input numeral value
4	0x34	4	0xA3B4	Input numeral value
5	0x35	5	0xA3B5	Input numeral value
6	0x36	6	0xA3B6	Input numeral value
7	0x37	7	0xA3B7	Input numeral value
8	0x38	8	0xA3B8	Input numeral value
9	0x39	9	0xA3B9	Input numeral value

## 6 Default Voice Map

Following table shows a default voice map.

**Table 16 Default voice map**

No.	Name	Dict	Pitch Shift	Fixed Pitch	Prosodic Volume	Dimensions
0	Normal Man	m	0	—	E	Normal male voice
1	Normal Woman	w	0	—	E	Normal female voice
2	Onih-san	m	0	—	E	Fine male voice
3	Oneh-san	w	300	—	E	Soft female voice
4	Boy	w	700	—	E	Boy voice
5	Girl	w	1200	—	E	Girl voice
6	Radio Voice Man	m	100	—	E	Male voice in AM radio style
7	Radio Voice Woman	w	300	—	E	Female voice in AM radio style
8	Hard-boiled	m	-1200	—	E	Low & well-trained male voice
9	Witch	m	0	—	E	Like an Old witch lady voice
10	Hanazumari	m	0	—	E	Stuffy nose male voice
11	Shitatarazu	m	200	—	E	Speak with a lisp
12	Water	m	0	—	E	Speak in the water
13	Martian	m	0	—	E	Vibrated voice like an alien
14	Robot	m	0	80	E	Robot voice with no intonation
15	Synth	m	1200	—	E	Synthesizer sound

\* No 0 to 15 refer to K0 to K15 of Voice quality change ( one of the event mark of HV-Script ) .

\* Dict shows the sex of the base of the voice. [m] means a male, and [f] means a female.

\* Pitch Shift shows the amount of pitch shift to the standard voice for each male and female. The unit is cent.

\* Fixed Pitch is used to fix the pitch to play. The unit is Hz.

When the pitch is fixed, pitch shift set in HV-Script is ignored, and it is played with the designated pitch.

\* Prosodic Volume is used to designate Enable / Unable of “Volume change specification”.

[E] means enable, and U means unable.

When the “Volume change specification” is designated to [Unable], “Strength accent” or “Volume specification” in HV-Script are ignored.