

“Te Whakatipu o Reo Māori i te Tukutuku Ao Whānui”

‘The Preservation, Transmission and Development of Māori text on the World Wide Web’

He pepa kua whakaatu ki te hui
‘toi te kupu, toi te mana, toi te whenua’
i tū i te

4-6 Hōngongoi 2000.

Nā Te Taka Keegan,
nō Te Whare Wānanga o Waikato.

He Mihi

Ko te wehi ki runga rawa. Ka tangihia ngā mate, Ihaka mā, moe mai i te āhurutanga o ngā atua, moe mai. Kāti.

Koutou, ngā pūkenga kōrero, ngā kaiārahi i ngā whakatipuranga, ōku nei tohunga kua tūtū mai nei, tātou o te ao ora, kia ora huihui mai anō tātou.

Kupu Whakataki

Kua tuhia te pepa nei hei whakatakoto i ētehi o āku nei kitenga, ētehi o aku nei mahi, me ētehi o aku nei whakaaro hoki e pā ana ki te kaupapa nei, arā te oranga o te reo Māori i runga i te Tukutuku Ao Whānui (TAW).¹

Kia mōhio mai koutou, he rerekē te TAW ki te ipurangi. Me kī he wāhanga noa iho te TAW o te ipurangi. Nō reira, i tēnei pepa ka whakawhāiti te tirohanga ki te TAW anake, ka waiho ērā atu wāhanga o te ipurangi (pērā i te īmera, te bulletin board, te FTP, me te aha atu rānei) hei kaupapa rangahau mō tētehi takutatanga.

Hei Whakatakoto Kaupapa

Ko tā te pepa nei, he titiro ki te oranga o te reo Māori i runga i te TAW. E toru ngā kaupapa nui ka tirohia;

i) Te Pupuri o te reo Māori

ii) Te Whakawhiti o te reo Māori

iii) Te Whakapuāwai o te reo Māori

Nō reira, ka tirohia aua kaupapa e toru i runga i te āhuatanga o te ipurangi. Kua hāngai ēnei kōrero ki tēnei wā tonu, te waenganui o te tau 2000. Ka rerekē ngā āhuatanga i tētehi atu tau, ā tētehi atu tau.

1.0 Te Pupuri o te Reo Māori

Ko te TAW tētehi āhuatanga tino pai mō te pupuri me tiaki i ngā tuinga reo Māori;

- i) ka pūmau tonu te tiaki
- ii) ka kore e taea e tētehi atu te raweke
- iii) ka wātea mai i ngā wā katoa
- iv) ka wātea mai ki ngā wāhi katoa i reira tētehi rorohiko me te wahapū ipurangi
- v) ka māmā noa te utu pānui
- vi) ka māmā noa te utu whakakape
- vii) ka tere rawa, ka nui rawa te rapu.

Ko ngā āhuatanga e whakararu nei:

- i) me whiwhi rorohiko me te wahapū
- ii) me mōhio ki te whakahaere rorohiko
- iii) kāore anō he reo-ā-waha²
- iv) anipā mō te mana pupuri, mana tā
- v) te iti o ngā Māori i te ipurangi.

1.1 Kohikohinga Niupepa

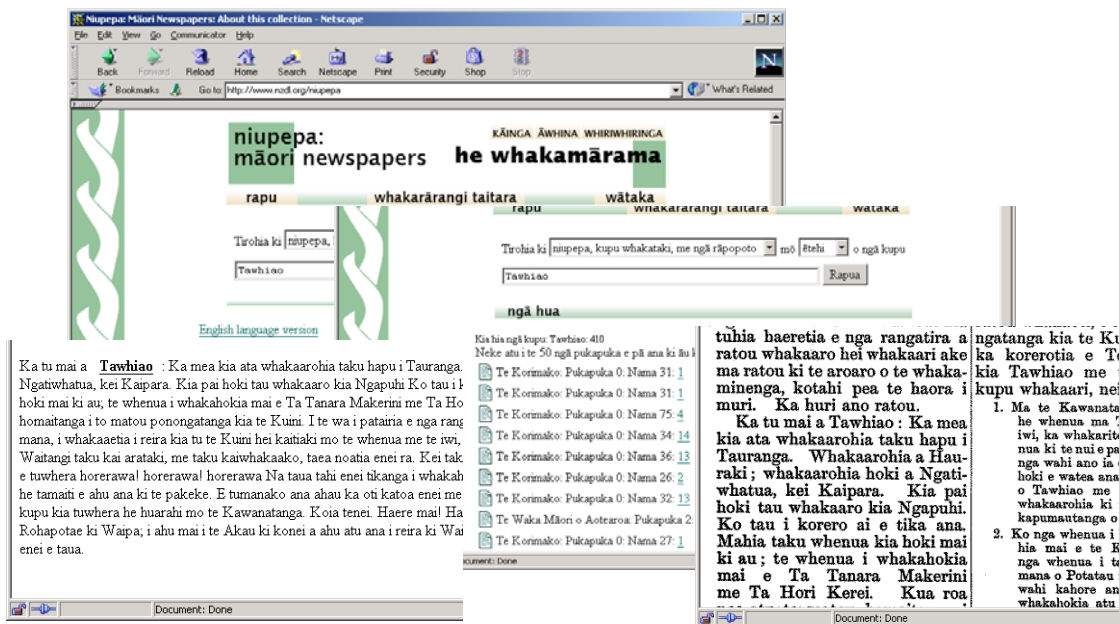
Ko te kohikohinga Niupepa he kohikohinga o ngā niupepa kua tā tuatahitia mai i ngā tau 1842-1933. E 38 ngā niupepa, ā, nuku atu i te 21,000 ngā whārangi.

Kei te whakawhitia tonutia ngā niupepa rā ki runga i te ipurangi, heoi anō, hei te mutunga ka noho hei tino taonga mō te reo Māori. Tirohia te *Whakaahua 1*.

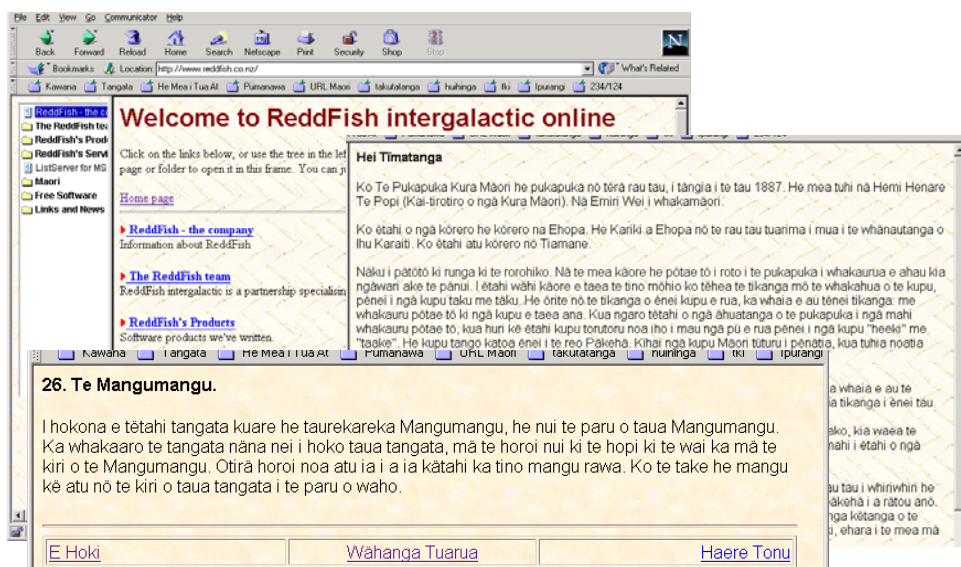
1.2 Te Pukapuka Kura Māori

Ko Te Pukapuka Kura Māori he pukapuka nō tērā rau tau, i tāngia i te tau 1887. He mea tuhi nā Hemi Henare Te Popi (Kai-tiroiro Kura Māori). Nā Emiri Wei i whakamāori, nā Greg Ford i pātōtō ki runga i te ipurangi

Ko ētahi o ngā kōrero he kōrero nā Ehopa. He Kariki a Ehopa nō te rau tau tuarima i mua i te whānautanga o Ihu Karaiti. Ko ētahi atu kōrero nō Tiamani. Kei te *Whakaahua 2*.



Whakaahua 1: Niupepa Maori



Whakaahua 2: Te Pukapuka Kura Māori

2.0 Te Whakawhiti o te Reo Māori

Tōna tikanga he māmā noa iho te whakawhiti i te reo Māori mā te Tukutuku Ao Whānui. Mā te kaituhi, mā te kaiwhakarite rānei e whakairiiri i ngā whārangi. Mā te kaipānui e tono i aua whārangi kia tukuna iho ki tāna ake rorohiko pānui ai. Engari ia, kei te whakararu mai tētehi ngarara āhua nui tonu.

2.1 Ko te Oro Pūare Roa

Ko tētehi rerenga kētanga o te tuhi reo Māori i te tuhi reo Pākehā ko te whakaatu mai i te oro pūare roa. He mea pakanga tonu ētehi o ngā tautohetohe e pā ana ki te whakaatu mai o te oro pūare nei, ā, he tohu tērā i te nui o tēnei take ki ngā kaituhi Māori.

Ki a au nei, kua tau te nuinga o ngā kaituhi i te reo Māori ki ngā āhuatanga e rua nei;

- i) me whakaatu i te oro pūare roa
- ii) mā te tohutō hei whakaatu³

Ka raruraru ngā rorohiko tawhito i te tohutō.

2.2 Ko te whakaritenga ISO 8689-1

I te rorohiko e whakawhitiwhiti ana i ngā kōrero kāore e taea te whakawhiti atu i te pū reta, ko ngā nama anakē e taea ana. Nō reira, ka whakaritea ngā pū reta ki ngā nama, ā, ka tukua atu, ka tukua mai aua nama. Ko tētehi o aua whakaritenga ko te ISO 8689-1,⁴ ā, koia nei te whakaritenga ka whaia e te nuinga o ngā rorohiko tawhito.

Ko te raruraru o te whakaritenga nei, kāore kau he tohutō i roto i ngā pū reta. Tirohia te *Āpitianga 1*. Nō reira, kāore e taea e ngā rorohiko ISO 8689-1 te tuhi i te tohutō. Koia nā anake te take i rapu atu i tētehi atu whakaritenga mō te tuhi i te reo Māori, ā, ka whānau mai ko te tuhi o te oro pūrua.

2.3 Ko te Umlaut me te Momotuhi Māori

Kāore ētehi i pai ki ngā ahuatanga o te tuhi i te oro pūrua, ka rapu atu i tētehi atu whakaritenga, ana, ka whānau mai ko te *umlaut* me te momotuhi (*Font*) Māori. I tēnei whakaritenga ka tuhia te *umlaut* kē mō te oro pūare roa, ā, ka kōwhiritia tētehi momotuhi Māori. E kī ana he momotuhi Māori i te mea

kua tinea te momotuhi nei, kua tangohia ngā *umlaut* katoa, kua whakakapea ki ngā pū tohutō. Nō reira, ka kōwhiritia te momotuhi Māori, kia huri ai te *umlaut* hei tohutō.

Kua āhua pai tēnei whakaritenga, tae rawa ki ēnei rā, koia nei te whakaritenga kua whakamahia i te nuinga ngā tuhinga reo Māori i runga i te rorohiko. Heoi anō, kei te whakararu tonu mai, pēneitia:

- i) me ako te kaituhi i aua āhuatanga e rua
- ii) me whakarite he āhuatanga kia māmā ai te tuhi i te tohu *umlaut*
- iii) me hoko he pūmanawa hei hanga i te maha o ngā momotuhi Māori
- iv) he uaua te tuhi i te *umlaut* me te tohutō i te tuhinga kotahi
- v) ka pōhēhē ngā kapānui nō tāwāhi ko te *umlaut* kē te oro pūare ka whakahuitia i te reo Māori
- vi) ahakoa te kaha rawa o te kōwhiri i ngā momotuhi Māori ka putaputa tonu mai te tohu *umlaut* ki ētehi tuhinga.

2.4 Ka Rerekē te PC ki te Mac

Ka kitea atu ngā pū pērā i te *umlaut* i te wāhanga tuarua o te whakaritenga, arā kei te *Extended Character Set*. Ko tētehi atu raru, he whakaritenga o te PC mō taua wāhanga tuarua, ā, he whakaritenga anō o te Macintosh mō te wāhanga tuarua.

Tirohia te *Āpitianga 2* me te *Āpitianga 3*. Ki te tuku atu te rorohiko PC i te rerenga;

``...ngā pānui Māori'`

ka puta pēnei kē mai i te mata o te Macintosh;

``...ng% p%nui M%ori'`

Ka pērā tonu atu i te Macintosh ki te PC, arā ki te tuku atu te Macintosh i te rerenga;

``I pūhia te kūri'`

ka kitea peneitia i te rorohiko PC;

``I pŷhia te kŷri.'`

He āhuatanga tēnei ka kitea i te tuku ĩmera, i te tohatoha kōnae hoki, i te PC me te Mac.

2.5 Unicode

Ehara i te mea ko te reo Māori te reo anake o te ao ka whakararuraru pērātia Ka whakararu te nuinga o ngā reo i tua atu i te reo Ingarihi, ā, ka whakararu hoki ngā kairangahau pūtaiao me ngā kaituhi pāngarau.

I te tau 1988 ka hui ngā kairangahau o te tuhituhi ki te whakarite i tētehi whakaritenga hou, he mea e taea ana te whakatūtuki i ngā reo maha me ngā mātauranga maha puta noa i te ao. Ko te kaupapa, ko te hanga i tētehi whakaritenga, 'kia kotahi te nama e tohu atu ana i te pū, ahakoa te rorohiko, ahakoa te pūmanawa, ahakoa te reo'. I tapaina taua whakaritenga ko te Unicode.

I te tau 1991 ka hui tahi ai ngā tāngata o Unicode me ngā tāngata o ISO. Mai i te 1992 ka rite tahi ai ngā whakaritenga hou o te ISO me te Unicode. E ōrite ana te ISO 10646 ki te UTF-16.⁵ He mea *16 bit* aua whakaaturanga. Ko te UTF-8 he wāhanga noa o te UTF-16, ā, he mea *8 bit*.

Kei te tautoko ngā kamupene rorohiko i te Unicode, pērā i a Apple, Compaq, Hewlett-Packard, IBM, Microsoft, NCR, Oracle, Reuters, Sun Microsystems, Unisys, me Xerox. Ka tautoko hoki te nuinga o ngā pūmanawa whakahaere me ngā pūmanawa o te ipurangi (pērā i te HTML, Java, ECMAScript, XML, LDAP) i te Unicode.

He mana tūturu te tūranga o te tohutō i te Unicode, i te UTF-16, i te UTF-8 hoki.

2.6 Ka patua rawatia te *umlaut*

Kua tae ki te wā kua kore he take hei tuhi i te tohu *umlaut* hei whakaatu mai i te tohutō. E āhei ana ngā rorohiko hou ki te whakaatu mai i te tohu tuturu o te tohutō.

Nō reira, me tīmata tērā whakaaturanga inaianei. Me whakamutu te tuhi i te tohu *umlaut* i ngā tuhinga Māori. Me huri kē ki te tuhi i ngā tohutō hei whakaatu i te oro pūare roa o te reo Māori.

Ka kore rawa e taea te whakatika i taua āhuatanga i te wā poto. He maha rawa ngā

tuhinga kua tuhia ki te *umlaut*. He maha rawa ngā rorohiko kua whakaritea ki te *umlaut*. He maha rawa ngā tāngata kua waia ki te mahi *umlaut*. Ahakoa tērā, me whakarere atu te tohu *umlaut*, me whakatūturu mai te tohutō kia tika.

3.0 Ngā Pātengi Raraunga

I taku tirohanga tuatahi ki te Tukumuku Ao Whānui, i te tau 1993, kua ruarua noa iho ngā tuhinga e pā ana ki te iwi Māori. Kātahi ka maha haere engari kua nui hoki ngā kōrero kino, ngā kōrero whakaiti-ā-iwi i te Māori. Kātahi ka whakatika haere taua āhuatanga, engari ka mehameha noa ngā tuhinga ki te reo Māori. Kei te nui haere ngā tuhinga reo Māori i runga i te TAW i ēnei rā. Ko ētehi ka kitea i aku nei tauira o tēnei pepa.

Ka nui haere ngā tuhinga, ka uaua haere te rapu i tētehi kaupapa mai i aua tuhinga. Ka hangaia ngā pūmanawa rapu, arā ngā mīhini rapu (*Search Engines*). Ka kore te nuinga o ngā mīhini rapu e titiro ki te kōrero ake o te tuhinga. Engari kē ka pānuitia, ka rapua ngā kōrero kua tuhia e pā ana ki te tuhinga. Arā, ka tirohia nā wai i tuhi, ināwhea, he aha ngā kupu nui, he aha ngā kaupapa. E kī ana aua kōrero whakamārama he metadata, he kōrero e pā ana ki te kōrero.

Ko tērā tētehi whakaritenga o aua kōrero, he *metadata standard*, kei te whakapakari mai i te ao ipurangi. A tōnā wā pea, ko tēnei te whakaritenga ka whaia e te nuinga o ngā kaituhi o te TAW. Ko Dublin Core te ingoa.

Kua whakamāoritia te Dublin Core! Nō reira, he whakaritenga tēnei e taea ai te whakamahi i te Dublin Core ki ngā whārangi reo Māori, e taea ai hoki te whakamahi i te Dublin Core mā runga tonu i te reo Māori. Tirohia te:

www.tki.org.nz/associates/metadata.html

He tohu tēnei e whakaatu mai ana i te ū o te reo Māori ki ngā āhuatanga o te Tukumuku Ao Whānui. Ka mau te wehi!

4.0 Te Whakapuāwai o Reo Māori

Ko tāku e mea atu ana kei te nui haere te reo Māori i runga i te Tukumuku Ao Whānui. Kei

reira, kei te TAW ētehi āhuatanga e ngāwari noa ai te māhorahora mai o te reo rangatira. Ka whakaatu mai i ngā tauira e toru noa iho, me ētehi whakakitenga mō ngā āhuatanga hou kei te whakatata mai.

4.1 Ko Te Kete Ipurangi

He tūranga i te TAW mō ngā kura katoa o Aotearoa. He tūranga reo rua. Kei reira ngā rauemi, ngā pānui, ngā kōwae ako, ngā kōrero katoa e whai pānga ki ngā kura puta noa i te motu. He wāhanga hoki mō ngā mātauranga Māori. Kei reira hoki he wāhi kua rāhuitia hei rūmaki i te reo Māori. Nō reira, kua āhua nui tonu ngā whārangi reo Māori kua whakairihia ki Te Kete Ipurangi.

4.2 Pūkana

Ko te tūranga TAW nō te rōpū Pūkana, te whakaaturanga ka kite atu i te pouaka whakaata i ngā ata o te Rātapu. He mea pārekareka ana ki te rangatahi.

4.3 Te Kura o Te Whaiti

Ko ngā whārangi TAW o Te Kura o Te Whaiti ngā whārangi TAW tuatahi (ki taku mōhio) kua whakatūria e te kura kaupapa. He ataāhua hoki. Hei tauira, hei wero ki ngā kura reo Māori katoa o te motu.

4.4 Ka titiro Whakamua

Kātahi anō a reo Māori ka tīmata ki te whakapakari ki runga i te papa o te TAW. E whakapono ana au ka kore e roa ka puta mai hoki:

- i) ētehi atu tuhinga reo Māori maha rawa
- ii) ko te reo o ngā kaumātua me ngā kuia kua hopungia i runga i te reo irirangi
- iii) te katoa o te Office 2000 me te Windows 2000 i te reo Māori
- iv) ngā rīpene me ngā whitiāhua o te ‘rongo hou’ mai i a Ruia Mai, Te Karere, mā
- v) he akoranga reo Māori e whakahaere ana ki te whare wānanga

vi) he īmera-ā-waha reo Māori

vii) ngā kōrero o te Kōti Whenua Māori i tētehi Digital Library pērā i te NZDL⁶

viii) te kōrero-ā-waha o te rorohiko, he hua ka puta mai i te mahi a Mark Laws

ix) ētehi atu āhuatanga kāore anō tātou kia kitea, kāore anō kia whakaarohia

5.0 Ka Whakakapi

Āe rānei, kāore rānei ka whai oranga te reo Māori i tēnei āhuatanga? I ngā wā o mua he reo kōrero, he reo-ā-waha. Ka tuhia te reo Māori ki runga pepa, ā, tae rawa ki te wā ka riro mā te pukapuka hei whakaako i te reo. Ka nui ngā auē, ngā mamae i te rerenga kētanga o te reo kua rewa ake i te pukapuka.

Nā, inaiānei kei te aro ki te Tukutuku Ao Whānui. Ka rerekē anō te reo? Ko te painga o te TAW ko te āheitanga ki te whakahua mai i ngā kupu. Heoi anō ka tae atu ki te wā e ngāwari ana taua āhuatanga, ka rerekē anō te reo Māori? Ko te reo Māori tonu tērā e kōrerotia ana? Ka pēwhea te wairua o te reo?

Ko tērā hoki te whakaaro, kia whai oranga tētehi reo me āhei taua reo te whakahua i ngā āhuatanga o tōna ao.

Ka pēwhea ngā pūkōrero, ngā kaumātua me ngā kuia i tēnei ao ipurangi? Ko rātou te pūtaketake o ngā kōrero tawhito, ngā kōrero hītori, ngā mana me ngā tapu. Ki a au nei, me whai wā ki te hopu i ngā taonga me ngā mōhiotanga e noho atu rā i a rātou, kei ngaro noa atu.

Āe rānei, kāore rānei ka whai oranga te reo Māori i tēnei āhuatanga? Ko wai ka hua? Kāore anō te kaupapa nei kia rangahaua. Me titiro ēnei āhuatanga katoa kia taea ai te whakatikatikatika te waka i te wā ka rorirori haere. Kāti.

E kī ana te kōrero, ‘Ka pū te rūhā, ka hao te rangatira.’ Kei a rātou tō tātou oranga. Tukua rātou ki te ipurangi kia eke panuku, kia eke tangaroa. Haumi e, hui e, taiki e.

Ngā Tūrangi Ipurangi i kōrerotia:

www.nzdl.org/niupepa	Te Kohikohinga Niupepa
www.reddfish.co.nz/pukapukakura/index.htm	Pukapuka Kura Māori o Reddfish
www.unicode.org/	mō te Unicode
www.unicode.org/press/press_release-3.0.html	he kōrero Unicode
www.iso.ch/	te rōpū ISO
www.tki.org.nz/	Te Kete Ipurangi
www.tki.org.nz/teaching/Māori/takaro.php3?maori=ae	Te tima whutupōro o Jaradites Kuaka
www.pukana.co.nz/	Pūkana
www.tewhaiti.school.nz/	Te Kura o Te Whaiti
www.ruiamai.co.nz/	Ruia Mai
www.toitekupu.org.nz/	Toi te Kupu
kel.otago.ac.nz/translator/	Te Translator o Mark Laws mā

Kia mahara: e tika ana ēnei URL i te 4 o Hōngongoi, āe rānei, kāore rānei e tika ana ināianei

¹ Tukutuku Ao Whānui = World Wide Web

² me kī, kāore he reo-ā-waha i tua atu i te reo irirangi o Ruia Mai

³ tohutō = macron symbol, arā he paku rārangi ka tuhia ki runga i te oro pūare hei tohu atu kia tō taua oro

⁴ ISO = International Standards Organisation

⁵ UTF = Unicode Transformation Format

⁶ NZDL = New Zealand Digital Library, ko te kaitiaki o te Kohikohinga Niupepa.

Ngā Mahere Pū Tawhito

	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
00	NUL 0000	STX 0001	SOT 0002	ETX 0003	EOT 0004	ENQ 0005	ACK 0006	BEL 0007	BS 0008	HT 0009	LF 000A	VT 000B	FF 000C	CR 000D	SO 000E	SI 000F
10	DLE 0010	DC1 0011	DC2 0012	DC3 0013	DC4 0014	NAK 0015	SYN 0016	ETB 0017	CAN 0018	EM 0019	SUB 001A	ESC 001B	FS 001C	GS 001D	RS 001E	US 001F
20	SP 0020	!	"	#	\$	%	&	'	()	*	+	,	-	.	/
30	0 0030	1 0031	2 0032	3 0033	4 0034	5 0035	6 0036	7 0037	8 0038	9 0039	:	;	<	=	>	?
40	@ 0040	A 0041	B 0042	C 0043	D 0044	E 0045	F 0046	G 0047	H 0048	I 0049	J 004A	K 004B	L 004C	M 004D	N 004E	O 004F
50	P 0050	Q 0051	R 0052	S 0053	T 0054	U 0055	V 0056	W 0057	X 0058	Y 0059	Z 005A	[005B	\ 005C] 005D	^ 005E	_ 005F
60	` 0060	a 0061	b 0062	c 0063	d 0064	e 0065	f 0066	g 0067	h 0068	i 0069	j 006A	k 006B	l 006C	m 006D	n 006E	o 006F
70	p 0070	q 0071	r 0072	s 0073	t 0074	u 0075	v 0076	w 0077	x 0078	y 0079	z 007A	{ 007B	 007C	} 007D	~ 007E	DEL 007F
80																
90																
A0	NBSP 00A0	¡ 00A1	¢ 00A2	£ 00A3	* 00A4	¥ 00A5	¦ 00A6	§ 00A7	¨ 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 ₄ 00BC	½ ₂ 00BD	¾ ₄ 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	ø 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

Āpitihanga 1: ISO 8859-1 (Latin 1)

80	81	82	83	84	85	86	87	88	89	8A	8B	8C	8D	8E	8F
90	91	92	93	94	95	96	97	98	99	9A	9B	9C	9D	9E	9F
A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	AA	AB	AC	AD	AE	AF
B0	B1	B2	B3	B4	B5	B6	B7	B8	B9	BA	BB	BC	BD	BE	BF
C0	C1	C2	C3	C4	C5	C6	C7	C8	C9	CA	CB	CC	CD	CE	CF
D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	DA	DB	DC	DD	DE	DF
E0	E1	E2	E3	E4	E5	E6	E7	E8	E9	EA	EB	EC	ED	EE	EF
F0	F1	F2	F3	F4	F5	F6	F7	F8	F9	FA	FB	FC	FD	FE	FF

Āpitihanga 2: Macintosh Latin 1

80	81	82	83	84	85	86	87	88	89	8A	8B	8C	8D	8E	8F
90	91	92	93	94	95	96	97	98	99	9A	9B	9C	9D	9E	9F
A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	AA	AB	AC	AD	AE	AF
B0	B1	B2	B3	B4	B5	B6	B7	B8	B9	BA	BB	BC	BD	BE	BF
C0	C1	C2	C3	C4	C5	C6	C7	C8	C9	CA	CB	CC	CD	CE	CF
D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	DA	DB	DC	DD	DE	DF
E0	E1	E2	E3	E4	E5	E6	E7	E8	E9	EA	EB	EC	ED	EE	EF
F0	F1	F2	F3	F4	F5	F6	F7	F8	F9	FA	FB	FC	FD	FE	FF

Āpitihanga 3: Windows Latin 1