

আদর্শ বহুলিঙ্গি পৰিক্ৰমা

Aadarsha Ratne script-set has been developed in dedication to our beloved father Ratneswar Deka who left us for his heavenly abode on October 1, 1998 শুক্ল নৱমী তিথি আহিন ৫৫০ শকবাব্দ। The development was carried out under the project name Ratne Prakalpa starting in October 1998. Today, Aadarsha Ratne script-set supports languages as such Assamese, Bengali, Kamrupi and Manipuri. Users may please read Copyright © and Licensee issues in this document and thank you for choosing Ratne script-set.

Release History

Originator	Comment	Version	Date
Dr. Rabin Deka	Initial	1.01	12/01/1998
Dr. Rabin Deka	Final map	2.01	06/10/1999
Dr. Rabin Deka	Major final	2.05	08/15/1999
Dr. Rabin Deka	Printing press	2.11	09/30/1999
Dr. Rabin Deka	Internet	2.31	11/30/2000
Dr. Rabin Deka	Aadarsha Ratne Lata (open type)	2.00	11/30/2001
Dr. Rabin Deka	Aadarsha Ratne Kadamba (open type) hand written	2.00	11/30/2001
Dr. Rabin Deka	Aadarsha Ratne Hema (open type)	2.00	11/30/2002
Dr. Rabin Deka	Aadarsha Ratne Internet (open type)	2.10	11/30/2003
Dr. Rabin Deka	Aadarsha Ratne New (open type)	2.10	11/30/2003
Dr. Rabin Deka	Aadarsha Ratne Narrow (open type)	2.10	11/30/2003
Dr. Rabin Deka	Aadarsha Ratne Chandra (open type)	2.00	11/30/2004
Dr. Rabin Deka	Aadarsha Ratne Mahendra (open type)	2.00	11/30/2004
Dr. Rabin Deka	Aadarsha Ratne Sagar (open type)	2.10	11/30/2004
Dr. Rabin Deka	Aadarsha Ratne Kadamba (open type) hand written	2.10	12/03/2004
Dr. Rabin Deka	Aadarsha Ratne Lata (open type) hand written	2.10	11/30/2004
Dr. Rabin Deka	Aadarsha Ratne Tagar (open type) hand written	2.10	12/03/2004
Dr. Rabin Deka	Aadarsha Ratne Web (open type)	2.10	12/23/2004
Dr. Rabin Deka	Aadarsha Ratne Subarna (open type)	2.10	01/04/2005

Background History

In brief, I would like to write about my father. So I have looked for a suitable font-set in the market. I then have learnt that none of the commercial Assamese, Bengali, or Manipuri font-sets is complete to support all Kamrupi phonemes and *juktyakshar*. So I have decided to design a font-set to solve the purpose. The idea was good as I can improve the font-set to an extent before I complete the manuscript on my Father.

Initially, I call the font-set *Asomi Ratne* but later on changed to *Aadarsha Ratne*. This is done as because it brings the font-set to the top of the menu by any word-processor utility. The other name *Ratne* is in dedication to our beloved father, as his friends used to call him *Ratne*.

Aadarsha Ratne script-set turns out to be the World's first 32-bit TrueType supporting all *juktkshyar*. The script-set supports languages as such Assamese, Bengali, Kamrupi and Manipuri. The script-set is designed using rather complex-conjugate vector technique and due to its algorithmic design concept although the font-set is 32-bit it takes less than 50k disk-space. Version 1.01 was available in February 1999, and it was installed in AGP office, Guwahati Club Ambari, in April 1999. There has been a number of changes since then and Version 2.01 was released in June 1999. There are some default mapping differences between 1.01 and 2.01, but it does not affect the users. A major version is now available to support all type of professional writing with default mapping same as 2.01, i.e., default mapping remains the same from version 2.01 on words.

Ratne font-set has been found well received in Assam and abroad. People have started using it for writing e-mails around the world. Some of World's first Assamese e-mails are in link <http://ratneresearch.com/>. Academic and research institutes have also started using *Aadarsha Ratne* font-set, including Tezpur University and Plasma Research Institute of Assam, India. URL <http://ratneresearch.com/> includes more information on *Ratne scripts* including answers to FAQ and other related information.



Copyright and Contact

Copyright © *Ratne Research* and trade-secret laws protect this document; the information contained within it is, therefore, proprietary and is the exclusive property of *Ratne Research* while any unauthorized reproduction and/or distribution of this document without the express written consent of *Ratne Research* are strictly prohibited.

These Fonts/Software and the Documentation are protected by the copyright laws of the U.S.A; Australia; India (Assam); Japan; Singapore; UK; other Signatory Countries of BERN Convention as well as the International Treaties; and Trade Secret Laws of various states.

Ratne Research is a non-profit Digital Signal Processing R&D Institute registered in California, U.S.A.

Email contact: aadarsharatne@gmail.com
Address: 1324 S Winchester BL Unit 177
San Jose, CA 95128, U.S.A.

Fonts and Software License Agreement

1. Font-set and Software is released for single non-commercial non-printing and non-publishing use only, for other purposes please contact for a license to *Ratne Research*.
2. *Ratne Research* grants the right to you to use the Fonts/Software and the right to use the Fonts/Software on any single computer on your name.
3. Fonts/Software may be transferred from one computer; may backup for archival purposes and transfer the Fonts/Software from distribution-disk/ZIP-file on to the hard disk.
4. These Fonts/Software and accompanying documentation are Copyright © protected; you may not modify, reverse, disassemble, de-compile or translate the Fonts/Software; you may not rent, lease, or sublicense the software.
5. You have a royalty free right to reproduce and distribute files created using these Fonts/Software for non-commercial; non-profit; strictly-personal purposes.
6. You may not use these Fonts/Software for publication purposes including for or on behalf of other person; commercial or non-commercial entity; for-profit or non-profit organization.
7. If you do not agree to the terms & conditions you may not use/install the Fonts/Software.

Installation Instruction

Requires IBM PC/AT, Microsoft Windows 3.0/3.1, Windows95/98/2000, Windows NT, Windows XP etc, with 100KB HD space and any Window Word-processor - also works for MAC Unix and Linux.

If you have an old version of same Aadarsha Ratne font then first uninstall the old font file before installing the new version.

Setup Instruction for Windows 3.0/3.1

At DOS Prompt type "win" or run Windows. In Windows Main Group then double click on Control Panel; insert the font disk in your 3 and 1/2 inch floppy drive; from Control Panel Windows, double click on "Fonts"; fonts window, click on Add box; change Drives to where the font disk you had inserted; choose *Aadarsha Ratne* and double click. Installation is done. Close Control Panel windows; re-boot the PC

Setup Instruction for Windows 95/98/2000 and NT/WinXP

Open the "Font" folder in the PC (click on "My Computer" then click on "Control Panel" then click on "Font") then place uncompressed font file to "Font" folder.

Setup Instruction for MAC

Place uncompressed font file on Desktop and click it. A window will appear with installation button; click on this button. Or simply place the font file into the "Font Book" folder in MAC or to "/user/library/Fonts" folder.

Setup Instruction for Linux

1. Create a directory for new fonts
mkdir /usr/share/fonts/truetype
2. Move the uncompressed font files to the new font directory
mv *.ttf /usr/share/fonts/truetype
3. Navigate to the font directory
cd /usr/share/fonts/truetype
4. Create fonts.scale and fonts.dir
mkfontscale && mkfontdir
fc-cache
5. Add the new font directory to the X11 font path
chkfontpath --add /usr/share/fonts/truetype
6. Restart X font server
/etc/rc.d/init.d/xfs restart

How to Use

Ratne font-set can be used in any window application such as Microsoft Words, Lotus AmiPro, Microsoft Excel, Lotus 123, Visio, WordPerfect, Microsoft Write, Microsoft Works, Microsoft Powerpoint, PrintShop for Windows, AutoCad for windows, Canvas for Windows, Paintbrush for windows etc. In order to use, run any window version above or Microsoft Word. Select * *Ratne* *font from fonts pull-down menu and enjoy.

Ratne Class I Algorithm

This algorithm is a method that its implementation enables one to restore *Romanized Assamese* typing-habits while still viewing *Ratne screepts* on screen in the computer. In brief it is a macro rule-base with artificial intelligence, i.e., the user will either be corrected or asked to choose a *Romanized Assamese* word to tune her/him to her/his typing-habits. This technique is right now under experimentation and yet to be released to users, but this is a platform independent utility.

While "Ratne Class II Mapping Algorithm" is described here, you may implement any or both algorithms for your use if you have a license for the font-set or get a license as well as copy of the Macro-utility from *Ratne Research*.

Ratne Class II Alphabet Mapping

ASCII	a	b	c	d	e	f	g	h	i	j	k	l	m
বলে	।	ব	চ	দ	ে	ই	গ	হ	ি	জ	ক	ল	ম
ASCII	A	B	C	D	E	F	G	H	I	J	K	L	M
বলে	অ	ভ	ছ	ধ	এ	ঈ	ঘ	ং	ী	য	খ	উ	ঊ
ASCII	n	o	p	q	r	s	t	u	v	w	x	y	z
বলে	ন	ঁ	প	ট	ব	স	ত	ু	ড়	ৱ	ষ	য়	ঝ
ASCII	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
বলে	ণ	ও	ফ	ঠ	ৱ	শ	থ	়	ঢ়	ট	ধ	ঢ়	ড

Alt+Number	0198	0199	0200	Alt+0166
বলে	ঞ	ঠ	ড	ণ

Ratne Class II Number & Punctuation Mapping

ASCII	0	1	2	3	4	5	6	7	8	9	`
বলে	০	১	২	৩	৪	৫	৬	৭	৮	৯	ৰ
ASCII	~	!	@	#	\$	%	^	&	*	()
বলে	ট	!	@	ং	\$	%	ৱ	ঃ	৳	()
ASCII	-	_	=	+	[]	\	{	}		;
বলে	-	ৱ	=	+	[]	ৱ	ঐ	ঊ		;
ASCII	'	:	"	,	.	/	<	>	?		
বলে	'	:	"	,	.	/	ঋ	ঢ়	?		

Ratne Class II Composite and Juktyakshar Mapping

Open a Microsoft Word document and set the font set to *Ratne Internet* in the fonts' pull down menu. In the table below, first column from left is a number-sequence. On your keyboard both left and right side of the space bar there are two keys "Alt". Press a "Alt" key, while pressing punch the number from the number pad located on the right hand side of your keyboard; the Num Lock key must be turned on.

Ratne Class II Composit Mapping

Alt+ Number	Ratne Microsoft	বলে	উদাহরণ	Alt+ Number	Ratne Microsoft	বলে	উদাহরণ
0127		বলে	Logo	0163	Ctrl+M2	ড	জঙ্ঘা
0172		□		0164	Ctrl+c2	ঢ	ইচ্ছা
0129		□		0165	Ctrl+j2		□
0130	Ctrl+^2	,		0166	Ctrl+n2	ও	গঞ্জা
0131	Ctrl+	□		0167	Ctrl+N2	□	□ট
0132	Ctrl+			0168	Ctrl+t2	ত	মহাত্মা
0133	Ctrl+.	...	বাক ...	0169	Ctrl+t3	ড	স্তন
0134	Ctrl+l1	□	□	0170	Ctrl+t4	ড	বস্ত
0135	Ctrl+l2	উঁ	উঁ	0171	Ctrl+e2	এ	প্তী
0136	Ctrl+	□		0172	Ctrl+	□	
0137	Ctrl+Y2	্য	শ্য, শ্য, শ্য	0173	Ctrl+	-	- বলে
0138	Ctrl+	হু		0174	Ctrl+n2	ন	ফন্ট
0139	Ctrl+U2	বলে		0175	Ctrl+n3	ন	উন্মনা
0140	Ctrl+	বলে		0176	Ctrl+n4	ন	ষণ
0141	Ctrl+u2	□		0177	Ctrl+5	ন	তীক্ষ
0142	Ctrl+	□		0178	Ctrl+p2	প	ইপা ...
0143	Ctrl+-2	□		0179	Ctrl+b2	ব	বুলতে
0144	Ctrl+~2	□		0180	Ctrl+b3	ব	কুক
0145	Ctrl+	'		0181	Ctrl+b4	ব	জ্বালা
0146	Ctrl+	'		0182	Ctrl+	¶	¶
0147	Ctrl+	"		0183	Ctrl+.	.	১২৩০৭
0148	Ctrl+	"		0184	Ctrl+b5	□	
0149	Ctrl+2	□		0185	Ctrl+m2	ম	তন্মা
0150	Ctrl+2-	-	সাত-সাগরী	0186	Ctrl+m3	ম	তন্তইমা
0151	Ctrl+3-	-	সাত-সাগরী	0187	Ctrl+m4	ম	মহাত্মা
0152	Ctrl+	□		0188	Ctrl+m5	□	□
0153	Ctrl+hl	□	□	0189	Ctrl+l2	ল	আল্পনা
0154	Ctrl+	হু		0190	Ctrl+l3	ল	উপা-উপি
0155	Ctrl+U3	ি	ক, ক	0191	Ctrl+l4	ল	শুরু
0156	Ctrl+	ঁ		0192	Ctrl+S2	স	পশ্চিম
0157	Ctrl+*	□	□	0193	Ctrl+x2	খ	ভীষ্ম
0158	Ctrl+	□	□	0194	Ctrl+x3	খ	শত্রু
0159	Ctrl+	□	□	0195	Ctrl+s2	স	পম্পা
0160	Ctrl+	□	□	0196	Ctrl+s3	স	ত্বাস্তবেস্ত
0161	Ctrl+k2	ক	বক্ত	0197	Ctrl+h2	ং	গার্হস্থ্য
0162	Ctrl+g2	□					

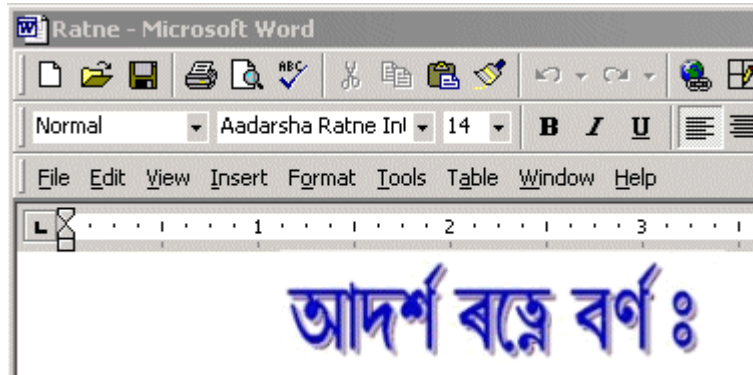
Ratne Class II Juktyakshar Mapping

Alt+ Number	Ratne Microsoft	বলে	উদাহরণ	Alt+ Number	Ratne Microsoft	বলে	উদাহরণ
0201	Ctrl+kk	ক	বকর	0230	Ctrl+nD	ক	অক
0202	Ctrl+kQ	ক্ট	অক্টোপাচ	0231	Ctrl+nn	ন	দাউনা
0203	Ctrl+kx	ক্স	বিক্সা	0232	Ctrl+pt	প্ত	সপ্ত
0204	Ctrl+gu	গু	গুরাহাটি	0233	Ctrl+pp	প্প	অপ্প ...
0205	Ctrl+gg	গ্গ	গ্লাউবা	0234	Ctrl+bj	ব্জ	কব্জা
0206	Ctrl+gD	গ্ধ	দুগ্ধ	0235	Ctrl+	ব	শব
0207	Ctrl+Mk	ক	অক	0236	Ctrl+bB	ক	লক
0208	Ctrl+Mg	গ	অগ	0237	Ctrl+B\	ব	শুব
0209	Ctrl+cn	ক্ন	বাক্না	0238	Ctrl+mb	ম্ব	নবেষব
0210	Ctrl+jj	ক্জ	লক্জারতী	0239	Ctrl+mB	ম্ভ	দম্ভ
0211	Ctrl+jz	ক্জা	হুজ্জা	0240	Ctrl+rB	ব্ভ	সব্ভম
0212	Ctrl+jn	ক্জ	জ্ঞানদা	0241	Ctrl+ru	ক	আক্ণি
0213	Ctrl+nc	ক্ণ	কাঞ্চন	0242	Ctrl+rU	ক্ণ	আক্ণনা
0214	Ctrl+Cn	ক্ণ	বক্ণনা	0243	Ctrl+lK	ক	শক
0215	Ctrl+nj	ক্জ	ব্যক্জ	0244	Ctrl+lZ	ক্ভ	টমাচ উল্ভ
0216	Ctrl+nz	ক্ভ	ক্ভ	0245	Ctrl+lI	ক্ভ	উল্ভাহ
0217	Ctrl+Qt	ক্ভ	চক্ভগ্রাম	0246	Ctrl+su	ক্ভ	আক্ভ
0218	Ctrl+ZZ	ক্ভ	আক্ভ	0247	Ctrl+St	ক্ভ	ক্ভ
0219	Ctrl+NQ	ক্ভ	কক্ভ	0248	Ctrl+xq	ক্ভ	টলক্ভয়
0220	Ctrl+NZ	ক্ভ	লক্ভন	0249	Ctrl+xQ	ক্ভ	কক্ভ
0221	Ctrl+tt	ক্ভ	উক্ভব	0250	Ctrl+sk	ক্ভ	ক্ভল
0222	Ctrl+th	ক্ভ	অক্ভথমা	0251	Ctrl+sr	ক্ভ	ক্ভী
0223	Ctrl+tr	ক্ভ	ক্ভয়	0252	Ctrl+sb	ক্ভ	দেবক্ভা
0224	Ctrl+dd	ক্ভ	উক্ভ	0253	Ctrl+hu	ক্ভ	ক্ভব
0225	Ctrl+dD	ক্ভ	বক্ভ	0254	Ctrl+hN	ক্ভ	অপবক্ভ
0226	Ctrl+db	ক্ভ	ক্ভীপ	0255	Ctrl+hm	ক্ভ	ব্রাক্ভণ

Ratne Microsoft Mapping

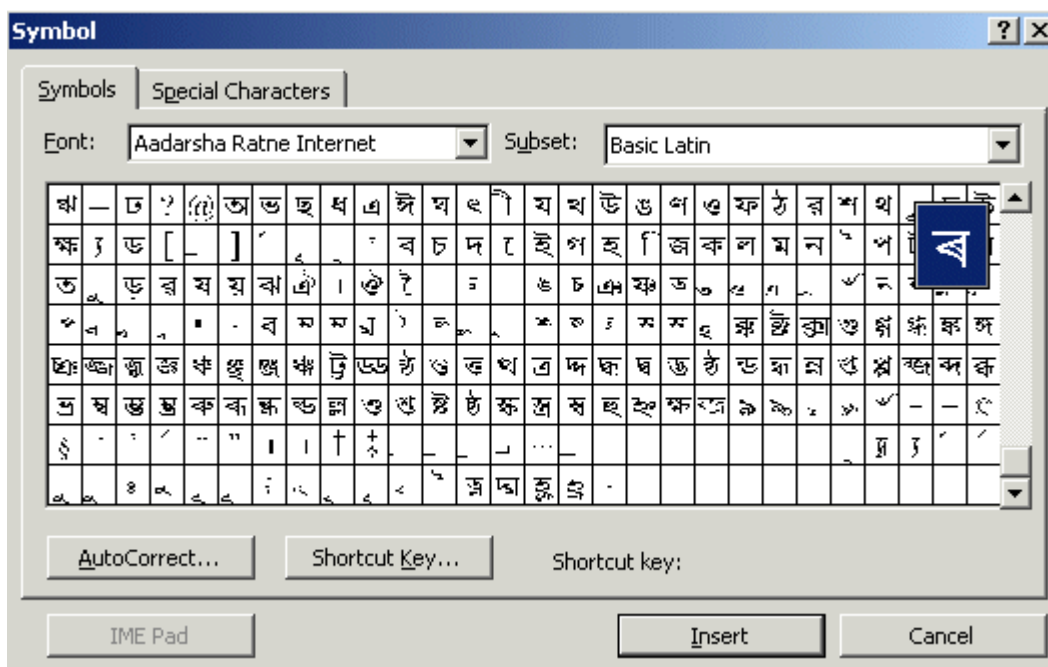
The second column of *Ratne Class II Mapping* that starts with “Ctrl+” is what is called *Ratne Microsoft Mapping*. If you have remembered the basic *Ratne Class II Number & Punctuation Mapping* and *Ratne Class II Alphabet Mapping* then it should be easy to remember the “Ctrl+” sequences.

To create the macro-utility, open a Microsoft Word document and give it a suitable name.



Now from the pull-down menu choose *Ratne* font. Then choose "Insert" from the menu bar, and from the pull-down menu choose "symbol". It will display the "Symbol" image in your Microsoft Word doc. If you do not see *Ratne* font then click on the arrow in the font window and choose *Ratne* font as applicable.

You may highlight any *akhar juktyakshar or symbol* here using the Blue Cursor and you can move it to different location either by using the mouse or by arrow keys. Then you click on "Shortcut Key..." button to enable you to map the *akhar juktyakshar or symbol* that you have highlighted (make sure that you remove any previous assignment before you assign any short-cut keys). For *Ratne* font-set I would recommend you to use *Ratne Microsoft Mapping* that I defined in tables above; it will make it easy for you to remember. You can also create your own *Ratne Microsoft Mapping* as you wish. If you would like to have a copy as well as the license for the macro-utility from Ratne Research contact Ratne Research via above email. There is a \$9.50 license fee for macro-utility.



Acknowledgement

During the development phase, the developer has received inputs from a number of persons.

From Assam the developer is grateful to his family, brothers, sisters his parents. He owes thanks to Mr Paresh Chandra Haloi, M.A, Artfed Chairman, Govt. of Assam. From Abroad there has been a lot who has encouraged the development efforts of *Ratne* scripts, and the developer is *grateful to all*.