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Coded Character Sets

A Technical Primer for Librarians

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<http://rocky.uta.edu/doran/charsets/>

7-bit Code Matrix

16 columns x 8 rows = 128 cells

Every cell in the array contains a number (expressed in hexadecimal)
128 code positions because there are 128 (or 2^7) 7-bit bit patterns

00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F
20	21	22	23	24	25	26	27	28	29	2A	2B	2C	2D	2E	2F
30	31	32	33	34	35	36	37	38	39	3A	3B	3C	3D	3E	3F
40	41	42	43	44	45	46	47	48	49	4A	4B	4C	4D	4E	4F
50	51	52	53	54	55	56	57	58	59	5A	5B	5C	5D	5E	5F
60	61	62	63	64	65	66	67	68	69	6A	6B	6C	6D	6E	6F
70	71	72	73	74	75	76	77	78	79	7A	7B	7C	7D	7E	7F

Some code points are reserved for control functions

The rest of the code points can be
assigned to graphical characters,
i.e. the "character repertoire"

ASCII

Character Repertoire On 7-bit Code Matrix

128 (2^7) Code Positions

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0																
1																
2		!	"	#	\$	%	&	'	()	*	+	,	-	.	/
3	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_
6	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
7	p	q	r	s	t	u	v	w	x	y	z	{		}	~	

Code chart at <http://rocky.uta.edu/doran/charsets/ascii.html>

Space for notes (or doodling)

Latin-1

Character Repertoire On 8-bit Code Matrix

256 (2⁸) Code Positions

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0																
1																
2		!	"	#	\$	%	&	'	()	*	+	,	-	.	/
3	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_
6	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
7	p	q	r	s	t	u	v	w	x	y	z	{		}	~	
8																
9																
A		ı	ç	£		¥	ı	§	¨	©	ª	«	¬		®	¯
B	°	±	²	³	´	µ	¶	·	¸	¹	º	»	¼	½	¾	¿
C	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
D	Ð	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
E	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
F	ð	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ

Code chart at <http://rocky.uta.edu/doran/charsets/latin1.html>

MARC-8

Default Character Repertoire

On 8-bit Code Matrix

256 (2⁸) Code Positions

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0																
1																
2		!	"	#	\$	%	&	'	()	*	+	,	-	.	/
3	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_
6	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
7	p	q	r	s	t	u	v	w	x	y	z	{		}	~	
8																
9																
A		Ł	Ø	Đ	Ɔ	Æ	Œ	’	-	ƚ	®	±	Œ	Ů	’	
B	’	ł	ø	đ	Ɔ	æ	œ	”		£	ð		σ	Ů		
C	°	ℓ	Ⓢ	©	#	¿	ı									
D																
E	’	˘	˙	˚	˛	˜	˝	ˆ	˜	˘	˙	˚	˛	˜	˝	ˆ
F	˘	˙	˚	˛	˜	˝	ˆ	˜	˘	˙	˚	˛	˜	˝	ˆ	

Code chart at <http://rocky.uta.edu/doran/charsets/marc8default.html>