

Discussion Document

A Simplified Braille Code

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The main criterion was to greatly ease the learning of the code while minimising any decrease in space saving and reading speed.

To assess the effect on space saving the code was tested on two corpora - the Gill corpus and the Brown corpus. The Gill corpus consists of 2,561,308 words of English text which has been transcribed into braille. The Brown corpus consists of 1,014,232 words of American text. Since the Gill corpus consists of material used by braille readers, the usage of 'blind' and 'braille' is far higher than in ink print texts.

The proposed code is a subset of existing Grade 2 braille, and all relevant existing rules apply. The only exception is TION which is represented by the single cell sign dots 4, 5, 6. The proposed code does not include any initial or final or double letter contractions. This significantly reduces the number of rules relating to the braille contractions.

The entry in the table marked SPACE refers to the space omitted between certain contractions (e.g. AND THE). The spaces saved by using the TO, INTO and BY contractions are counted under these contractions.

In the Gill corpus, 10000 spaces saved corresponds to 0.35% of the total space saved by using the proposed contraction system. For the Brown corpus, 10000 spaces corresponds to 0.78% of the total space saved. A 90% saving relative to Grade 2 braille means an overall increase in length of less than 3%.

Table of spaces saved by the use of proposed contractions  
in the Gill and Brown corpora.

Contraction	Spaces saved in Gill corpus	Spaces saved in Brown corpus
ABOUT	12258	5490
AFTER	6918	3315
AND	163526	68048
ALSO	3800	2142
AR	76177	32333
AS	13878	7247
BE	21203	8472
BECAUSE	7095	4410
BEFORE	8600	4072
BETWEEN	7640	3650
BLE	24446	9824
BLIND	10476	228
BRaille	7628	4
BUT	18542	8760
BY	21390	10334
CAN	9764	3858
CH	39197	16193
CHILD	2996	1004
CHILDREN	9738	2310
COM	28590	11234
CON	31180	15508
COULD	11346	5328
DIS	13252	5508
DO	4302	1373
EA	48088	21720
ED	96125	45681
EN	105392	48854
ENOUGH	2475	1695
ER	141146	60949
EVERY	4760	1968
FIRST	7155	4161
FOR	67150	28862
FROM	29475	13071
GH	20864	9730
GOOD	4944	1870

GREAT	3114	2052
HAVE	27939	11823
HIM	4988	2616
HIS	20430	12936
IN	117380	56143
ING	151780	60580
INTO	11355	5313
IT	21310	9080
JUST	5907	2616
KNOWLEDGE	3000	1160
LIKE	10782	4014
LITTLE	8868	3400
MORE	11130	6642
NOT	20818	9236
OF	80243	34933
OU	49318	22024
OUT	9360	4336
OW	33565	13216
PEOPLE	13205	4340
QUITE	3384	1128
RATHER	4080	1860
SAID	11224	3928
SH	31403	12279
SHALL	10340	1072
SHOULD	16684	3644
SO	5202	2032
ST	78992	36684
STILL	6340	3132
SUCH	5624	2602
TH	39247	16870
THAT	64608	32334
THE	377164	183384
THIS	31083	15417
TION	114651	52515
TO	118346	51948
VERY	9141	2379
WAS	34498	19214
WERE	15831	9621
WH	26066	11269

WHICH	28420	14228
WILL	17598	6747
WITH	52704	24888
WOULD	17583	8547
YOU	38420	7244
YOUR	10974	1894
(SPACE)	40151	19424
Total	2895766	1281950
Total for Grade 2	3217789	1432906
Saving compared to Grade 2	90.0%	89.5%