

Braille Translation Programs

J M Gill

Research Unit for the Blind, Brunel University
Uxbridge, Middlesex, England

The shortage of people skilled in transcribing text to contracted braille encouraged the development of computer-based braille production systems. In English, grade 2 braille utilizes 190 abbreviations and contractions whose use are governed by rules dependent on pronunciation and meaning. No computer program has yet been devised that can cope with all the rules of grade 2 braille. For instance, a program frequently has problems with words which are spelt the same but are contracted differently eg DO the verb is contracted but DO the musical note is not.

Programs vary significantly in speed and accuracy of translation; what is acceptable will depend on the application. Virtually all programs will output perfect braille if a skilled brailist proof-reads the output and then modifies the input file. The programs also vary in their ability to format the braille output; this is particularly important when compositor tape input is being used.

The early programs were mainly designed for book and magazine production, but the advent of the microcomputer has encouraged the development of systems for the fast local production of documents in contracted braille. This is analogous to comparing a typesetting machine to a word-processing typewriter.

The problem of translating contracted braille to text is no easier than text to braille. There are many instances where the braille could be two things in print but the braille reader chooses the correct meaning from the context. The main application of these programs is to permit a blind person to input to a word-processing system in contracted braille; the input is often through a paperless braille device such as a Versabraille.

Arts Computer Products Inc, 80 Boylston Street, Suite 1260,
Boston, Massachusetts 02116, USA. Tel: 617-482 8248.
Name of program: Dottran
Description: Program for converting text to contracted English braille (American edition). The program is compatible with Unix, RT-11 and CP/M systems.
Price: \$1700

Name of program: Bman

Description: Macro file for brailleing Unix manuals.

Price: \$249

Centre TOBIA, Universite Paul Sabatier, 118 Rte de Narbonne,
31062 Toulouse Cedex, France. Tel: 61-53 11 20 ext 407.

Description: Program to translate text to contracted French
braille.

Department of Services for the Blind, State Office Building
Annex, PO Box 758, Frankfort, Kentucky 40601, USA. Tel:
502-564 4754.

Name of program: Braille 1.99

Description: Program written in HPL to run on a Hewlett
Packard computer 9800 series or above.

Price: \$10

Duxbury Systems Inc, 77 Great Road, Acton, Massachusetts 01720,
USA. Tel: 617-263 7761.

Name of program: Duxbury Braille Translator

Description: Fortran program translates text to contracted
braille in the American, English, Spanish or Arabic code.
This system operates on a minicomputer. Another version,
written in Z-80 assembler runs under CP/M. Also tables for
Halifax mathematics code available.

Price: \$4795 for microcomputer version; \$19,800 plus
installation costs for minicomputer version.

Institut fur Angewandte Mathematik, University Bonn, Wegeler
Strasse 6, D-5300 Bonn, German Federal Republic. Tel: 0228-
733423.

Description: Program to translate text to contracted German
braille.

Jupiter Technology Inc, 111 Gibbs Street, Newton Centre,
Massachusetts 02159, USA. Tel: 617-965 5092.

Name of program: Quick Braille

Description: Program to translate text to contracted
English braille (American edition) written in assembler
language to run on a PDP-11 computer.

Maryland Computer Services, 2010 Rock Spring Road, Forest Hill,
Maryland 21050, USA. Tel: 301-838 8888.

Name of program: Braille Production

Description: Translates text to contracted English braille
(American edition) for output on a LED-120 or Theil
embosser. The program is written in Basic and will run on
HP125 computers under CP/M.

Price: \$1000

Massachusetts Institute of Technology, Room 3-144, 77
Massachusetts Avenue, Cambridge, Massachusetts 02139, USA.
Tel: 617-253 2220.

Name of program: Dotsys

Description: Program written in Cobol to translate text to
contracted English braille (American edition). The program
is table driven and users can modify the table to produce
braille in other codes.

Raised Dot Computing, 310 South 7th Street, Lewisburg,
Pennsylvania 17837, USA. Tel: 717-523 6739.

Name of program: Braille-Edit

Description: Program written in assembler language to run on
an Apple II microcomputer. Translates text to contracted
English braille (American edition) for output on a paper
embosser (RS-14, LED-120, Sagem, Braillemboss or Cranmer
brailier) or paperless braille device (Versabraille). Also
included is a reverse translator for input from a
Versabraille.

Price: \$250

RB Aids for the Blind Ltd, Institute for Bioengineering, Brunel
University, Uxbridge, Uxbridge (0895) 37188.

Name of program: BITS

Description: The Braille and Ink-print Text-processing
System includes a translation program, written in Fortran,
for producing contracted English braille on Sagem, LED-120
or RS-14 embosser or on a Versabraille. The program runs
under CP/M.

Price: £1000

Name of program: BASIS

Description: The Braille And Speech Information System
permits input from a Versabraille in contracted braille and
outputs in print or speech. The system includes word-
processing facilities. The program is written in Fortran
and runs under CP/M.

Price: £500

Royal National Institute for the Blind, Braille House, 338
Goswell Road, London EC1V 7JE, England. Tel: 01-837 9921.

Name of program: Dotsys III F

Description: A Fortran version of the MIT Dotsys with tables
to produce English contracted braille.