

PACKAGE ID - 001023SPARC00 MTPOT

KWIC TITLE - MTPOT is the Linkage Code Between Teapot and
ZLIB

AUTHORS - Sun, N.
Superconducting Super Collider Laboratory,
Waxahachie, TX, (United States)

Yang, Y.T.
Superconducting Super Collider Laboratory,
Waxahachie, TX, (United States)

Pilat, F.
Superconducting Super Collider Laboratory,
Waxahachie, TX, (United States)

Bourianoff, G.
Superconducting Super Collider Laboratory,
Waxahachie, TX, (United States)

LIMITATION CODE -UNL **AUDIENCE CODE** - UNL

COMPLETION DATE - 02/01/1994 **PUBLICATION DATE** - 02/01/1994

DESCRIPTION - MTpot can perform both element-by-element tracking and
truncated Tylor map extraction and tracking.

PACKAGE CONTENTS - Media Directory; Software Abstract; README.File (4
pages); Media Includes Source Code, Executable Module, Object
Module, Sample Problem Input and Output Data;

SOURCE CODE INCLUDED? - Yes

MEDIA QUANTITY - 1 CD Rom

METHOD OF SOLUTION - Non-linear mapping method such as Automatic
Differentiation maps with the use of Zlib and its related programs
are used for short-term tracking. Maps of relatively low-order are
used to improve speed.

COMPUTER - SUN SPARC

OPERATING SYSTEMS - SunOS, Unix

PROGRAMMING LANGUAGES - Fortran

SOFTWARE LIMITATIONS - Only some features of the accelerator lattice
can be analyzed since low-order maps are used.

SOURCE CODE AVAILABLE (Y/N) - Y

UNIQUE FEATURES - Non-linear mapping methods with maps of relatively
low-order are used for analysis. Low-order maps can be extracted

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UNIQUE FEATURES - (CONT) in a short time.

RELATED SOFTWARE - Zlib, TEAPOT

OTHER PROG/OPER SYS INFO - File format given in SSCL-preprint-474
included in the documents.

TIME REQUIREMENTS - Approximately 1 hour for 20,000 element, 60
particle, 1024 turns Zmap extraction and tracking with map of
order 4. Workstation: Sun Sparc2.

ABSTRACT STATUS - Submitted 6/22/95. Released AS-IS 6/29/95.

SUBJECT CLASS CODE - VW

KEYWORDS -

COMPUTER PROGRAM DOCUMENTATION
M CODES
SUPERCONDUCTING SUPER COLLIDER
MAPPING
BEAM DYNAMICS
COMPUTERIZED SIMULATION

EDB SUBJECT CATEGORIES -
990200 430200

SPONSOR - DOE/ER

PACKAGE TYPE - AS - IS