1MOBILITY

STN Database Summary Sheet

STN is operated in North America
by Chemical Abstracts Service.

1MOBILITY, (Global Mobility Bibliographic Database) from the Society of Automotive Engineers (SAE), Inc., is a bibliographic database that contains information on worldwide literature of technologies for self-propelled vehicles. Vehicles include those for land, sea, air, and space. Both scientific and technical research is contained in the database. 1MOBILITY corresponds to the printed publications, SAE Cumulative Index of SAE Technical Papers (1906-1964) and (1965-1991), Index to Fisita Proceedings, SAE Technical Literature Abstracts, Association for the Advancement of Automotive Medicine Conference Proceedings (1959-present), International Research Council on the Biokinetics of Impact Conference Proceedings (1973-present), Human Factors and Ergonomics Society Conference Proceedings (1990-present), Human Factors (1989-present), Ergonomics in Design (1993-present), and Journal of Traffic Medicine (1990-present).

The records in this file contain bibliographic information, controlled and supplementary terms, and abstracts.

1MOBILITY may also be searched in the file cluster MOBILITY. MOBILITY consists of two databases from SAE, 1MOBILITY and 2MOBILITY (See the 2MOBILITY Database Summary Sheet for details on searching this file.) It is recommended that these files be searched together to enhance search results.

Subject Coverage

Technological information on mobility engineering including:

- Automation
- Emissions
- Environment
- Fuels and Lubricants
- Human Factors
- Management
- Manufacturing
- Marketing
- Materials
- Noise and Vibration
- Propulsion
- Reliability
- Research and Design
- Quality
- Safety
- Testing
- Transportation (automobiles, buses, motorcycles, helicopters, aircraft, spacecraft, trucks, and marine vehicles)

Sources

- Books
- Conference Proceedings
- Journals
- Papers
- File Data
- 1906 to the present
- More than 128,235 records (12/02)
- Updated monthly
- Automatic current-awareness searches (SDIs) are run monthly

User Aids

- Index to Fisita Proceedings
- SAE Cumulative Index of SAE Technical Papers (1906-1964)
- SAE Cumulative Index of SAE Technical Papers (1965-1991)
- SAE Technical Literature Abstracts
- 2MOBILITY Database Summary Sheet
- Online Helps (HELP DIRECTORY lists all help messages available)
- Multifile Searching User Guide
- STNGUIDE

Database Producer

SAE International
400 Commonwealth Drive
Warrendale, PA 15096
Phone: (724) 772-7108
Telefax: (724) 776-3087

In North America
CAS
STN North America
P.O. Box 3012
Columbus, Ohio 43210-0012 U.S.A.

CAS Customer Care:
Phone: 800-753-4227 (North America)
614-447-3700 (worldwide)
Fax: 614-447-3751
E-mail: help@cas.org
Internet: www.cas.org

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P.O. Box 2465
76012 Karlsruhe
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Fax: +49-7247-808-259
E-mail: helpdesk@fiz-karlsruhe.de
Internet: www.stn-international.de

In Japan
JAICI (Japan Association for
International Chemical Information)
STN Japan
Nakai Building
6-25-4 Honkomagome, Bunkyo-ku
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Phone: +81-3-5978-3601 (Technical Service)
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Search and Display Field Codes

There are no fields that allow left truncation in this file.

Search Field Name	Search Code	Search Examples	Display Codes
Basic Index (contains single words from the abstract (AB), controlled (CT) and supplementary terms (ST), and title (TI)	None (or /BI)	S DUMP TRUCK# S PASSENGER CAR#/BI S NISSAN AND 1996	AB, CT, ST, TI
Accession Number	/AN	S 1998:1004/AN	AN
Author	/AU	S BAKER T?/AU S BAKER,T?/AU	AU
Classification Code **(1)**	/CC	S SPACE/CC S "LAND OR SEA"/CC S AIR SPACE/CC	CC
Controlled Term	/CT	S ADHESIVES/CT S MANUFACTURING PROCESSES/CT	CT
Controlled Word	/CW	S INTELLIGENT VEHICLE/CW	CT
Corporate Source **(1)**	/CS	S HONEYWELL AERONAUTIC?/CS	CS, AU
Country of Publication (code and text)	/CY	S US/CY S UNITED STATES/CY	CY
Cross Reference	/CR	S 630115/CR	CR
Document Number	/DN	S 080008/DN	DN
Document Type (code and text)	/DT	S CONFERENCE?/DT S CA/DT	TC
Entry Date **(2)**	/ED	S ED>=200000100	Not displayed
Field Availability	/FA	S AB/FA	Not displayed
File Segment (code and text)	/FS	S SAE/FS	FS
International Standard (Document) Number (contains ISSN, AND ISBN)	/ISN	S 0736-2536/ISN	ISN, SO
Journal Title	/JT	S AUTOMOTIVE ENGINEER?/JT	JT, SO
Language (code and text)	/LA	S EN/LA S ENGLISH/LA	LA
Meeting Date **(2,3)**	/MD	S 20-23 APR 1992/MD	MD, SO
Meeting Location	/ML	S (AIRLINE OR AEROSPACE)/SO AND CALIF?/ML	ML, SO
Meeting Title	/MT	S CAR CRASH CONFERENCE/MT	MT, SO
Meeting Year **(2)**	/MY	S 1987<1999	MD, SO
Publication Date **(2)**	/PD	S PD>19900600 AND ISUZU/CS	SO
Publication Year **(2)**	/PY	S 1996-2000/PY	PY, SO
Source (contains journal title, meeting information, collation information (volume, issue, pagination), publishing information, ISBN, and ISSN)	/SO	S USA/SO S 1991/SO	ISN, JT, MD, ML, MT, PY, SO
Supplementary Term	/ST	S MISSILES/ST AND THERMAL CONTROL/CT	ST
Title	/TI	S BRAKE CYLINDER?/TI	TI
Update Date **(2)**	/UP	S UP>=19980100	Not displayed

(1) Searching with implied (S) proximity is available in this field.
(2) Numeric search field that may be searched using numeric operators or ranges.
(3) When the meeting date is multiple days, e.g., 20-23 APR 1992, only the first and last days are searchable.

DISPLAY and PRINT Formats

Any combination of display fields and formats may be used to display and print answers. Multiple codes must be separated by commas or spaces, e.g., D L1 1-5 TI SO. The fields are displayed or printed in the order requested.

Hit-term highlighting is available for all displayable fields except PY. Highlighting must be ON during SEARCH in order to use the HIT, KWIC, and OCC formats.

Format	Content	Examples
AB	Abstract	D L4 1-4 ABS
AN	Accession Number	D L1 3 AN
AU (CS)	Author (includes Corporate Source)	D AU 1,3-5
CC	Classification Code	D CC 5-10
CR	Cross Reference	D 1-3,7,8 CR
CT	Controlled Term	D CT
CY	Country of Publication	D CY 1-5
DN	Document Number	D L1 DN 3
DT (TC)	Document Type	D 1,3,6 DT L5
FS	File Segment	D FS
ISN	International Standard (Document) (ISSN and ISBN) Number	D ISN 2
JT	Journal Title	D L8 JT 1-3
LA	Language	D 1,4 LA
MD	Meeting Date	D L1 MD
ML	Meeting Location	D ML
MT	Meeting Title	D MT L1 4
PY	Publication Year	D PY
SO	Source	D SO
ST	Supplementary Term	D L3 ST
TC	Treatment Code (DT)	D TC 2 L5
TI	Title	D TI 2
ABS	AB	D 2,6 ABS
ALL	AN, DN, TI, AU, SO (MT, ML, MD), CR, CY, DT, FS, LA, AB, CC, CT, ST	D L1 ALL
BIB	AN, DN, TI, AU, CS, SO (MT, ML, MD), CY, DT, FS, LA (default)	D BIB
CBIB	Compressed bibliographic information	D 4-7 CBIB
IALL	ALL, indented with text labels	D IALL 3
IBIB	BIB, indented with text labels	D L4 IBIB 2 5
IND **(1)**	CC, CT, ST	D IND L8
SAM	TI, CC, CT, ST	D 1-5 SAM
SCAN **(2,3)**	TI, CC, CT, ST (random display without answer number)	D SCAN
HIT	Fields containing hit terms	D HIT
KWIC	Hit term with 20 words on either side (KeyWord-In-Context)	D KWIC
OCC **(1)**	Fields that contain hit terms and number of times they occur	D OCC

(1) No online display fee for this format.
(2) No online display charge for this option. SCAN must be specified on the command line, i.e., D SCAN or DISPLAY SCAN.
(3) SCAN must be specified on the command line, i.e., D SCAN or DISPLAY SCAN.

SELECT, ANALYZE, and SORT Fields

The SELECT command is used to create E-numbers or an L-number containing terms taken from the specified field in an answer set.

The ANALYZE command is used to create an L-number containing terms taken from the specified field in an answer set.

The SORT command is used to rearrange the search results in either alphabetic or numeric order of the specified field(s).

Field Name	Field Code	ANALYZE/ SELECT (1)	SORT
Abstract	AB	Y **(2)**	N
Accession Number	AN	Y	N
Author	AU	Y **(3)**	Y
Classification Code	CC	Y	Y
Controlled Term	CT	Y	N
Corporate Source	CS	Y **(4)**	Y
Country of Publication	CY	Y	Y
Cross Reference	CR	Y	N
Document Number	DN	Y	Y
Document Type	DT	Y	Y
File Segment	FS	Y	Y
International Standard Book Number	ISBN	N	Y
International Standard (Document) Number	ISN	Y **(5)**	Y
International Standard Serial Number	ISSN	N	Y
Journal Title	JT	Y	Y
Language	LA	Y	Y
Meeting Date	MD	Y	Y
Meeting Location	ML	Y	Y
Meeting Title	MT	Y	Y
Occurrence count of hit terms	OCC	N	Y
Publication Date	PD	Y	Y
Publication Year	PY	Y **(6)**	Y
Source	SO	Y **(7)**	N
Supplementary Term	ST	Y	N
Title	TI	Y (default)	Y
Treatment Code	TC	Y	Y

(1) HIT may be used to restrict terms extracted to terms that match the search expression used to create the answer set, e.g., SEL HIT TI.
(2) Appends /BI to the terms created by SELECT..
(3) Selects or analyzes author and corporate source with /AU appended to the terms created by SELECT.
(4) Selects or analyzes author and corporate source with /CS appended to the terms created by SELECT.
(5) Selects or analyzes ISSN and ISBN with /ISN appended to the terms created by SELECT.
(6) SELECT HIT and ANALYZE HIT are not valid with this field.
(7) Selects ISSN and ISBN with /SO appended to the terms created by SELECT.

Sample Records

DISPLAY ALL

```
AN   1999:5578  1MOBILITY
DN   1999-01-3444
TI   Fastener delivery system
AU   Alcombright, Daniel S.(Remmele Engineering, Inc.); Bedwell, Wm.
     Todd(Remmele Engineering, Inc.)
SO   (1999 Oct 01) . Society of Automotive Engineers, Inc., Warrendale,
     Pennsylvania, USA. Also published in: P-347.
     Meeting Info.: Aerospace Automated Fastening Conference and Exposition.
     Nashville, Tennessee, USA. 1999 Oct 05 - 1999 Oct 07.
CY   United States
DT   Conference Article; (Technical Paper)
FS   SAE
LA   English
AB   The Fastener Delivery System (FDS) provides a new and unique method to
     automatically feed fasteners. The FDS is a compact automated system that
     conveys fasteners on demand to a user- supplied end effecter. The system
     may consist of up to six basic elements: a drum, a drum positioning
     system, a fastener lifting assembly, an escapement head, a jib crane, and
     a computer control system.
     Systems are currently in use at Boeing's Advanced Manufacturing Center in
     St. Louis, Missouri, for the automated assembly of the F/A-18E Super
     Hornet. Each system can store over 8,000 fasteners of 400 different
     varieties. Rivets, slave bolts, and threaded fasteners are conveyed on
     demand in non-sequential order with no changeover. Fastener dimensions
     range from head diameters of 4 mm to 22 mm and lengths from 6 mm to 58 mm.
     The fasteners are stored in tubes, which are arranged in a high-density,
     radial pattern in precision-machined covered drums.  The drums act as
     ''mini-warehouses.'''' Drums are interchangeable and uniquely identified
     with a barcode. The inventory of the drum is tracked in a relational database.
     The fasteners are propelled using a fastener configurable, low air
     pressure stream. Fasteners travel on demand from the drum through the
     escapement shuttle and to the end effecter in a few seconds.
     The FDS can be used in a wide variety of manufacturing applications in
     aerospace, automotive and marine systems. It is an alternative to
     vibratory and centrifugal bowl feeders where on-demand, high-reliability
     feeding of multiple fasteners is required. The FDS can be fixed-mounted or
     arranged for portable use.
CC   Air or Space
CT   Assembling; Automation; Fasteners; Inventory control; Storage
```

DISPLAY IBIB

```
ACCESSION NUMBER:   2000:480  1MOBILITY
DOCUMENT NUMBER:    12-103-1027-415
TITLE:              Three-dimensional fiber optimization with computer-aided
                    internal optimization
AUTHOR:             Reuschel, D.(Institut fur Materialforschung II); Mattheck,
                    C.(Institut fur Materialforschung II)
SOURCE:             (1999 Sep 01) The Aeronautical Journal, Vol. 103, No. 1027;
                    p. 415. The Royal Aeronautical Society, London, England.
                    ISSN 0001-9240.
PUB. COUNTRY:       United Kingdom
DOCUMENT TYPE:      Journal
FILE SEGMENT:       RAS
LANGUAGE:           English
```

DISPLAY SCAN

```
TI   Proportional braking for large trucks in mountain mine service-some
     aspects of design
CC   Land or Sea
CT   Truck design; Mining equipment; Brakes
ST   CONSTRUCTION & INDUSTRIAL MACHINERY, TRACTORS, AND MILITARY
     EQUIPMENT
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