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TM-(L)-734/030/00

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TECHNICAL MEMORANDUM

(TM Series)

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1604 Simulation Program Descriptions SYSTEM
Milestone 11

SIPSA Tables and Stores

by
J. D. Solomon
18 March 1963

Approved
J. B. Munson

DEVELOPMENT

CORPORATION

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1.0 SUBROUTINE IDENTIFICATION

1.1 Title

STCA	Ident: K14, Mod. 01
STCB	Ident: K15, Mod. 01
STCC	Ident: K16, Mod. 01
STCD	Ident: K17, Mod. 01
STCE	Ident: K18, Mod. 01
SIMBUF	Ident: K13, Mod. 02

1.2 Programmed

December 1963, G. A. Madrid, System Development Corporation

2.0 PURPOSE

STCA is a one-word store containing simulated vehicle time in seconds.

STCB is a one-word store containing vehicle time in eight-tenths of a second.

STCC is a one-word store containing interpolated vehicle time.

STCD is a one-word store containing system time in seconds.

STCE is a one-word store containing elapsed time in seconds.

SIMBUF is an output buffer containing 24 cells.

3.0 USAGE

3.1 Calling Sequence

Each of the one-word stores and the output buffer are addressed by their respective names.

3.2 Data Format

See Appendix A for data formats.

4.0 METHOD

The contents of STCA, STCB, STCC, STCD, and STCE are initially set by SIFSA¹, updated by SDGC², and used by SCGR³, STGR⁴, and SRGR⁵.

The contents of SIMBUF are set by SCGR³, STGR⁴, SRGR⁵, and SDOR⁶, and output by SDGC².

5.0 STORAGE REQUIREMENT

STCA	1 Cell
STCB	1 Cell
STCC	1 Cell
STCD	1 Cell
STCE	1 Cell
SIMBUF	24 ₁₀ Cells

-
1. TM-(L)-734/015/00, Computer Program Design Specifications for the Simulation of the Augmented SCF Environment at the STA and CPDC, System Development Corporation, 21 November 1962.
 2. TM-(L)-734/026/00, Data Generation Control Program (SDGC), System Development Corporation, 15 March 1963.
 3. TM-(L)-734/032/00, Simulated Time Data Generation Routine (SCGR), System Development Corporation, 15 March 1963.
 4. TM-(L)-734/024/00, Simulated Telemetry Data Generation Routine (STGR), System Development Corporation, 15 March 1963.
 5. TM-(L)-734/023/00, Simulated Tracking Data Generation Routine (SRGR), System Development Corporation, 15 March 1963.
 6. TM-(L)-734/028/00, Simulated Data Direct Octal Input Routine (SDOR), System Development Corporation, 22 March 1963.

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6.0 REFERENCES

- 6.1 TM-(L)-734/015/00, Computer Program Design Specifications for the Simulation of the Augmented SCF Environment at the STA and CPDC, System Development Corporation, 21 November 1962.
- 6.2 TM-(L)-734/026/00, Data Generation Control Program (SDGC), System Development Corporation, 15 March 1963.
- 6.3 TM-(L)-734/032/00, Simulated Time Data Generation Routine (SCGR), System Development Corporation, 15 March 1963.
- 6.4 TM-(L)-734/024/00, Simulated Telemetry Data Generation Routine (STGR), System Development Corporation, 15 March 1963.
- 6.5 TM-(L)-734/023/00, Simulated Tracking Data Generation Routine (SRGR), System Development Corporation, 15 March 1963.
- 6.6 TM-(L)-734/028/00, Simulated Data Direct Octal Input Routine (SDOR), System Development Corporation, 22 March 1963.
- 6.7 TM-(L)-734/025/00, Simulated Input Preparation System (SIPSA), System Development Corporation, 15 March 1963.
- 6.8 CPL Catalogue No. 95901.

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APPENDIX A
DATA FORMATS



STCA

V_1 = Vehicle Time in Seconds



STCB

V_2 = Vehicle Time in 0.8 Seconds



STCC

V_I = Interpolated Vehicle Time



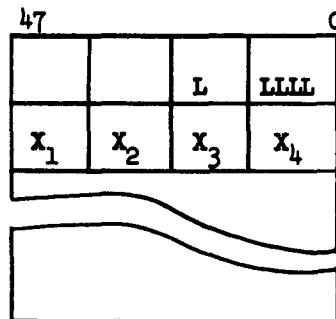
STCD

S = System Time



STCE

E = Elapsed Time



SIMBUF + 0

SIMBUF + 23

LLLL = number of 160-A words in SIMBUF

X = 160-A (12-bit) data words

SIMBUF + 0 is complemented if data originated from TLM Computer

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Scientific rept., TM(L)-734/030/00,
by J. D. Solomon. 18 March 1963,
6p., 14 refs.
(Contract AF 19(628)-1648, Space
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Systems Division, AFSC)

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DESCRIPTORS: Programming (Computers).
Satellite Networks.

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Identifies the subroutines used
for SIPSA (Simulated Input
Preparation System for Augmentation)
Tables and Stores.

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