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SHARE PROGRAM LIBRARY SUBMITTAL FORM



SHARE PROGRAM LIBRARY AGENCY
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SPLA

CONTROL NUMBER: 227

This form should be completed and submitted with the program package to the SHARE Program Library Agency at the address shown above. Standards and instructions for submitting programs are in the SHARE Reference Manual, Section 6.

- (1) Program Number (to be filled by SPLA) 370D-15.2.015
- (2) Title of Program LPFREE, Linear Programming package with FREE format
input, version 1.0
- (3) System Type(s) (Machine) IBM 370 and above
- (4) Search Key(s) 03. Programming Systems
15. Management Science/Operations
Research
- (5) Programming Systems/Languages PL/I Optimizer
- (6) Primary Subject Code 15.
- (7) Minimum System Requirements IBM 370, PL/I Optimizer
- (8) New (N) or Revision (R) (if revision, show prior Program Number in Item 1) N
- (9) Date of Submittal 2 October 78
- (10) Documentation (number of original pages submitted) 1
- (11) Author's Name and Address John L. Ilgen
IBM Corporation, P. O. Box 390
Dept. B44, Bldg. 707
Poughkeepsie, NY 12602
- (12) Direct Technical Inquiries to Name & Address (if different than Author) SAME
- (13) Submitter's Installation Membership Code PSU
- (14) Abstract (should contain sufficient information for a reader to determine the value of the program). Listed on the reverse side of this form are subjects which may serve as a guide for a descriptive abstract.

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Subject Guide:

- a. Purpose
- b. Programming Language used
- c. Version and modification level or release number
- d. Field of application
- e. Type of routine (main program, subroutine, etc.)
- f. Specific description of machine requirements

<p>LPFREE is a PL/I main program to provide the student, as well as research</p>
<p>and industrial users, with a flexible, high-speed linear programming package with</p>
<p>free format, mathematical-style notation input. An option is provided to</p>
<p>generate MPSX input for problems that cannot be solved in memory and for</p>
<p>postoptimal analyses.</p>
<p> </p>
<p>The program is coded entirely in PL/I for the PL/I Optimizing Compiler,</p>
<p>and was developed at Penn State University on the IBM 3033 under MVT. LPFREE's</p>
<p>storage requirements are programmable and meaningful programs XXXX can be run</p>
<p>in 140K bytes of memory. All documentation, including installation instructions,</p>
<p>are machine readable.</p>
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<p> </p>
<p>(Please attach additional pages if necessary) Total pages attached _____</p>

An "Acknowledgement of Assistance" statement must be attached to this Submittal Form.

Permission to Publish

"I hereby give the SHARE Program Library Agency permission to reprint, reproduce, and distribute this program"

(15) Signature of Submitter and Date John L. Ilgen (HDK) 5 October 78

(15) Signature of Installation Addressee _____

Installation Instructions

LPPFREE

Version 1.0

Tape Contents

The installation tape is a 9-track, OS-standard-labeled tape, VOL=SER=LPPFREE. It contains the following data sets:

<u>LABEL</u>	<u>DSN</u>	<u>CONTENTS</u>
1	LPPFREE.INSTRUCT	Installation instructions.
2	LPPFREE.INSTALL	Installation JCL. All JCL in this installation guide is contained in this file.
3	LPPFREE.STRUCT	LPPFREE's structure source code in IEBUPDTE form.
4	LPPFREE.SOURCE	Source code for LPPFREE with the exception of procedure LPRSIZE.
5	LPPFREE.LPRSIZE	Source code for procedure LPRSIZE.
6	LPPFREE.DOCUMENT	LPPFREE Documentation/Users Guide.
7	LPPFREE.TEST1	Test cases number 1.
8	LPPFREE.TEST2	Test cases number 2.
9	LPPFREE.OUTPUT1	Output from test cases number 1.
10	LPPFREE.OUTPUT2	Output from test cases number 2.
11	LPPFREE.COMPILE	Compile listing of LPPFREE.

To obtain another copy of this documentation, LPPFREE Installation Instructions, run the following job.

```
//INSTRUCT (job card) ,MSGLEVEL=1
// EXEC PGM=IEBGENER
//SYSPRINT DD SYSOUT=A
//SYSUT1 DD UNIT=2400,DSN=LPPFREE.INSTRUCT,VOL=SER=LPPFREE,
// LABEL=1,DISP=OLD
//SYSUT2 DD SYSOUT=A,DCB=(RECFM=VA,LRECL=137,BLKSIZE=141)
//SYSIN DD DUMMY
```

10 November 78

LPFREE - Corrigenda

Symptom: Regardless of the region size, LPPFREE issues the error message:
"Available storage exceeded."

Solution: Recompile the source code for procedure LPPRSIZE and relinkedit the resulting object code with the distributed load module. In procedure LPPRSIZE, the variable, REGION, is spelled incorrectly in the statement REGION=280. The zero must be changed to capital O; that is, REGION=... .

JLI