DIGITAL SOFTWARE NEWS

FOR THE

PDP-8 & PDP-12

Software Information Service Digital Equipment Corporation Maynard, Massachusetts 01754

		Ý
		ŭ
3 7		
		ţ
		=

DIGITAL SOFTWARE NEWS FOR THE PDP-8 AND THE PDP-12

Digital Software News for the PDP-8 & PDP-12 is designed to provide users of PDP-8 and PDP-12 software with up to date information on software problems, programming notes, and new and revised software. Each article, other than announcements and documentation corrections, is coded sequentially by system program in the lower right corner for ease in maintaining a quick reference file. The original material for such a file is supplied in the Software Performance Summary for the PDP-8 & PDP-12. This publication which is placed in each basic software kit, is a collection of all current information on known software problems, patches, and programming notes. new versions correct software problems and obsolete patches, and reprinted manuals include programming notes and manual corrections, new articles in the Digital Software News will announce the revised software and specify by code which article should be removed from your Software Performance Summary file. Articles may also be replaced when new information becomes available; such as, procedure to circumvent a problem may replace the original report of the problem. All articles in the Digital Software News which should be added to your file will be appropriately coded.

Any questions or problems on the articles contained in these publications or concerning the use of Digital's software should be reported to the Software Specialist or Sales Engineer at your nearest Digital Office.

Additional copies of the current <u>Software Performance Summary</u> and updated issues of the PDP-8 and PDP-12 software price lists are available at no charge upon request from the Software Distribution Center. As with usual orders for software, the Software Distribution Center will accept orders received directly from U.S. customers. All other customer orders must be routed through the nearest Digital Representative.

			b
			ī
			٠

PDP-8 & 12 DIGITAL SOFTWARE NEWS

SEPTEMBER 1972

TABLE OF CONTENTS

PDP-8 NEW AND REVISED SOFTWARE			
LAB-8E ADVANCED AVERAGER Patch to correct Digital I/O IOT to disable interrupt	LAB	8/E	5
LAB-8E AUTO CORRELATION (DEC-LB-U41B-PB) Programming Note concerning batch mode	LAB	8/E	6
LAB-8E BASIC AVERAGER (DEC-LB-U6ØB-PB) Patch to correct Digital I/O IOT to disable interrupt	LAB	8/E	7
PST and LATENCY HISTOGRAM (DEC-LB-U4ØB-PB) Patches to correct display errors	LAB	8/E	8
LAB-8E ADVANCED AVERAGER (DEC-LB-U63B-PB) (DEC-LB-U61B-PB) Note to avoid trigger section crash	LAB	8/E	9
LAB-8E BASIC AVERAGER (DEC-LB-U6ØB-PB) Patch to enable program to run	LAB	8/E	10
LAB-8E TIME INTERVAL HISTOGRAM (DEC-LB-U42C-PB) Patches to correct display errors	LAB	8/E	11
LAB-8E ADVANCED AVERAGER Patch for section II of (DEC-LB-U62A-PB) (DEC-LB-U63B-PB2 (DEC-LB-U64A-PB) (DEC-LB-U61B-PB)	.=	8/E	1 2
LAB-8E BASIC R/T (DEC-LB-U7ØB-PB) Patch to clear schmitt trigger	LAB	8/E	13
LAB-8E ADVANCED AVERAGER Patch to correct trend plot	LAB	8/E	14

				e
				4

PDP-8 NEW SOFTWARE

FLAP (Floating Point Processor Assembler)

This Floating Point Processor Assembler for the Family of "8" computers is intended to be used in conjunction with FPP-12 hardware.

OS-8 is a prerequisite for running this software.

Customers may order the following software for the applicable fee:

Gl	Paper-Tape Binary	DEC-S8-UFPPA-A-PB	\$ 5.00
Gl	Write-Up	DEC-S8-UFPPA-A-D	\$10.00

FLAP and FPP-FLAP Support Library

The Floating Point Processor Math Support Library is now available.

Customers may order this software for the applicable fee.

G1	Source Tape #1	DEC-S8-UMTHA-A-PA1	\$ 5.00
	Source Tape #2	DEC-S8-UMTHA-A-PA2	\$ 5.00
GĻ	Source DECtape	DEC-S8-UFPDA-A-UC	\$50.00
GI	Document	DEC-S8-UMTHA-A-D	\$10.00

FOCAL-8 Programming Language Manual Change Notice (DEC-08-LFCNA-A-DN)

This change notice for <u>Programming Languages</u> pertains to the section describing <u>LIBRA</u> and <u>FNEW</u>.

Customers may order this document for no charge.

Gl Write-Up DEC-Ø8-CFCNA-A-DN

PDP-8 NEW SOFTWARE (continued)

NOTE: The following FOCAL-8 software is Category II supportsoftware products that receive support for a fee. Customer's may order these programs for the applicable fee.

FOCAL-8 Overlay for Family of 8

This overlay to FOCAL-8 allows it to be used on other models in the PDP-8 Family.

G2 Paper Tape Binary DEC-Ø8-LFOCA-A-PB \$10.00 R2 Listing DEC-Ø8-LFOCA-A-LA \$15.00

FOCAL-8 and INIT

This FOCAL-8 runs on PDP-8E only and incorporates most of the published patches to FOCAL '69.

An advantage of the new teletype IOT is to eliminate input buffer overflow.

G2 Paper Tape Binary DEC-8E-LFOCA-A-PB \$15.00 R2 Listing DEC-8E-LFOCA-A-LA \$30.00

FOCAL-8 Sources

All the sources for FOCAL-8 are contained on this one tape.

R2 DECtape ASCII DEC-Ø8-LFCLA-A-UA \$600.00

PDP-8 NEW SOFTWARE (continued)

The following two programs are 8K overlays to allow for more user program.

FOCAL-8 8K Overlay for Family of 8

G2 Paper Tape Binary DEC-08-LF8KA-A-PB \$ 5.00 R2 Listing DEC-08-LF8KA-A-LA \$10.00

FOCAL-8 8K Overlay for PDP-8E

G2 Paper Tape Binary DEC-8E-LF8KA-A-PB \$ 5.00 R2 Listing DEC-8E-LF8KA-A-LA \$10.00

The following three programs give four users access to FOCAL-8.

FOCAL-8 QUAD for Family of 8 with PTØ8 interface

Paper Tape Binary DEC-08-LQPTA-A-PB \$10.00 DEC-08-LQPTA-A-LA \$20.00

FOCAL-8 QUAD for Family of 8 with DCO2

Paper Tape Binary DEC-08-LQDCA-A-PB \$10.00 R2 Listing DEC-08-LQDCA-A-LA \$20.00

FOCAL-8 QUAD for PDP-8E with KL8E

G2 Paper Tape Binary DEC-08-LQUDA-A-PB \$10.00 R2 Listing DEC-08-LQUDA-A-LA \$20.00

FOCAL-8 REPLACE and REMOVE

This program allows users to replace or remove FOCAL's extended functions.

G2 Paper Tape Binary DEC-08-LFRRA-A-PB \$10.00 R2 Listing DEC-08-LFRRA-A-LA \$10.00

PDP-8 REVISED SOFTWARE

MI8E BOOTSTRAP DIAGNOSTIC (MAINDEC-8E-D110)

"Starting Address", as specified throughout the documentation, was changed to and will be specified as "Initial Address".

Customers may order this software for the applicable fee:

Paper Tape Binary	MAINDEC-8E-D11B-PB1 MAINDEC-8E-D11B-PB2	\$5.00 \$5.00
Write-Up	MAINDEC-8E-D1 IB-D	\$5.00

MACRO-8 (DEC- \emptyset 8-LMACA-A)

The MACRO-8 Assembler for a basic PDP-8 Family computer now contains the 8/E symbol table:

G2	Paper Tape Binary	DEC-Ø8-LMACA-A	\$ 5.00
R2	Listing	DEC-Ø8-LMACA-A-LA	\$20.00

Documented in Programming Languages 1972

Customers may order this software for the applicable fee.

LAB-8E ADVANCED AVERAGER

Patch to correct Digital I/O IOT to disable interrupt

The following patches will disable the Digital I/O as required at the end of a section.

Use this patch for DEC-LB-U63B-PB1

DEC-LB-U63B-PB2

DEC-LB-U63B-PB3

DEC-LB-U63B-PB4

and DEC-LB-U64A-PB

LOCATION

NEW CONTENTS

7571

65ØØ

Use this patch for all sections of DEC-LB-U61B-PB

and DEC-LB-U62A-PB

LOCATION

NEW CONTENTS

7566

65ØØ

				4
			,	

LAB-8E AUTO CORRELATION (DEC-LB-U41B-PB)

Programming note concerning batch mode

Users should be aware that the program may "hang up" in batch mode if the sampling rate is too fast.

		4
		•
		4

LAB-8E BASIC AVERAGER (DEC-LB-U6ØB-PB)

Patch to correct Digital I/O IOT to disable interrupt

FIELD Ø

LOCATION

NEW CONTENTS

7566

65ØØ

		•

PST and LATENCY HISTOGRAM (DEC-LB-U4ØB-PB)

Patches to correct display errors

1. The first point of the display is wrong and the last point is not shown. Use the following patch to correct this.

FIELD	Ø	LOCATION	NEW CONTENTS
		1134	7000
		1141	5774
		1174	773
		773	6052
		774	5373
		775	6055
		776	5777
		777	1175
		1175	7200
		1176	5342

2. Typeout and expansion between cursors adds 1 extra point. Use the following patch to correct this.

FIELD	Ø	LOCATION	NEW CONTENTS
		1421	7000
		1432	7000
		1507	7750

3. The initial display should show only a point display. Use the following patch to correct this.

FIELD Ø	LOCATION	NEW CONTENTS
	1601	7201
	1602	3047
	1603	3046

,
•
¢
,

LAB-8E ADVANCED AVERAGER (DEC-LB-U63B-PB1) (DEC-LB-U61B-PB) Note to avoid trigger section crash

The trigger section of section 1 can be destroyed by data block links if the program is run from section 1. If the channel selection, and size cause the data block links to be stored over the trigger section, the trigger section will crash when entered.

If this happens create a control tape and run from it.

			*
			ę
			à

LAB-8E BASIC AVERAGER (DEC-LB-U6ØB-PB)

Patch to enable program to run

The necessary patch for proper running is:

 $FIELD = \emptyset LOCATION$

NEW CONTENTS

72Ø3

6531

28 microseconds is the maximum running time for the basic averager, any faster and the data will be distorted.

				•
			,	
				,

LAB-8E TIME INTERVAL HISTOGRAM (DEC-LB-U42C-PB)

Patches to correct display errors

1. The first point of the display is wrong and the last point is not shown. Use the following patch to correct this.

FIELD	Ø	LOCATION	NEW CONTENTS
		1134	7000
		1141	5775
		1175	773
		773	6ø52
		774	5373
		775	6Ø55
		776	5777
		777	1142

2. Typeout and expansion between cursors adds 1 extra point. Use the following patch to correct this.

${ t FIELD}$	Ø	LOCATION	NEW CONTENTS
		1421	7ØØØ
		1432	7ØØØ
		15 % 7	7750

3. Mintime adds to the total number of points displayed. Use the following patch to correct this.

FIELD	Ø	LOCATION	NEW CONTENTS
		3215	7ØØØ
		3216	7ØØØ
		3217	7000
		322Ø	7000

4. The initial display should show only a point display. Use the following patch to correct this.

FIELD Ø	LOCATION	NEW CONTENTS
	16Ø1	72Ø1
	16Ø2	3,047
	16,03	3,046

			4
			ť
		·	

LAB-8E ADVANCED AVERAGER

Patch for section II of (DEC-LB-U62A-PB) (DEC-LB-U63B-PB2) (DEC-LB-U64A-PB) (DEC-LB-U61B-PB)

The following patch corrects section II when a Schmitt trigger input is not present at startup.

LOCATION

NEW CONTENTS

6661

17

		s
		,
		t
		å.

LAB-8E BASIC R/T (DEC-LB-U7ØB-PB)

Patch to clear schmitt trigger

There is a non-critical patch that can be incorporated to clear the schmitt trigger when it is initialized.

$FIELD = \emptyset$	LOCATION	NEW CONTENTS
	344	5376
	376	3003
	377	5740

			·
			į
			A
			а
			a
			a

LAB-8E ADVANCED AVERAGER

Patch to correct trend plot

The trend plot is not plotted over the trend grid lines correctly. Use the following to correct this condition in DEC-LB-U63B-PB4 and section IV of DEC-LB-U61B-PB and DEC-LB-U62A-PB.

$FIELD = \emptyset$	6512	NEW CONTENTS 7ØØØ
	6545 6546	377 7ØØ3

<i>5</i> *					
					1
					1
					\$ t
					de la constante