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2012

IBM 370.

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1.

1

1,

'
1,

:

```

EXAMP: PROC OPTIONS (MAIN);
      DCL A BIN FIXED (31) INIT ( 11B );
      DCL B BIN FIXED (31) INIT ( 100B );
      DCL C BIN FIXED (31) INIT ( 101B );
      DCL D BIN FIXED (31);
      D = A + B - C;
END EXAMP;

```

1,

1.1.

/

1.1.1.

PROCEDURE

PROCEDURE

PROC:

•

•

```

_      : PROCEDURE OPTIONS (MAIN);          /*      */
_      : PROCEDURE(  _1, ... ,  _N ); /*      */
:
_1, ... ,  _N -

```

1.1.2.

END

END:

•

•

END _ ;

PROCEDURE.

1.2.

1.2.1.

1

1

- : .
- : 1, +1, 10, -27 . . ,
- : 1B, 1011B, -110B . . ,
- : 1, 3, 7 . . ,
- : 'ABC', 'AAAA', (4)'A' . . ,
- : '101'B, '1111'B, (4)'1'B . . ,
- : LABEL: , METKA1: . .

1.2.2.

1

DECLARE DCL :

-
- DCL CELDEC DECIMAL FIXED (3)

[INIT (15)];

-
- DCL CELDVO BINARY FIXED (15)

[INIT (1010B)];

-
- DCL CELZON PICTURE '99...9'

[INIT (187)];

'9'

CELZON

•

DCL METKA LABEL

[INIIT (L1)]; _

•

DCL SYMSTR CHARACTER (36)

[INIT ((36)'A')];

•

DCL BITSTR BIT (40)

[INIT ('101 ... 1'B)];

1.2.3.

1

```

DCL 1 ANKETA, /* */
    2 FAMIL CHAR (20), /* */
    2 IMJA CHAR (20), /* */
    2 OTCH CHAR (25), /* */
    2 GODR DEC FIXED (4), /* */
    2 BEC BIN FIXED (15); /* */

```

1.2.4.

1

```

DCL 1 ANKET_S (25), /* */
    2 FAMIL CHAR (20), /* */
    2 IMJA CHAR (20), /* */
    2 OTCH CHAR (25), /* */
    2 GODR DEC FIXED (4), /* */
    2 BEC BIN FIXED (15); /* */

```

1.2.5.

```

DCL BUF_ANKETA CHAR (70); /* */
/* */

```

```

DCL 1 ANKETA DEFINED BUF_ANKETA, /* */
    2 FAMIL CHAR (20), /* */
    2 IMJA CHAR (20), /* */
    2 OTCH CHAR (25), /* */
    2 GODR DEC FIXED (4), /* */
    2 BEC BIN FIXED (15); /* */

```

1.3.

1.3.1. ()

:

•

•

_ = ;

1.3.2.

:

•

•

IF THEN _1; ELSE _2;

1.3.3.

:

•

•

DO; _1; ... _N; END;

1.3.4.

:

•

•

GOTO _ ;

1.3.5.

:

•

()

•

:


```
DO _ = _1 [ BY _2 ] TO _3;
    ;
```

END;

```
_ , _1, _2 (
).
_ _3.
```

1.3.6. SUBSTR

SUBSTR:

- , ()
- ,

```
• :
SUBSTR ( _ , _1, _2 )
:
```

- _1 - (1),
- _2 - .

1.4.

```
• , , ,
. . . . .
. . . . . ( )
. . . . .
. : 1
:
```

1.4.1.

```

...
DCL A BIT (n);
DCL B CHAR (m);
...
A = B;

```

```

'0' '1'.

```

```

i- A :

```

- '0'B, i- '0',
- '1'B, i- '1'.

1.4.2.

```

...
DCL B BIT (n);
DCL A CHAR (m);
...
A = B;

```

```

i- A :

```

- '0', i- '0' ,
- '1', i- '1' .

1.4.3.

```

...
DCL B BIT (n);
DCL A BIN FIXED (n-1);
...
A = B;

```

```

n = 16      32.

          i-          .          i-
          .          ,          '1011'B,
1011 .

CHAR)      (          BIT          BIN FIXED
          DEC FIXED      PIC          DEC FLOAT).

```

1.4.4.

```

...
DCL BIT (n);
DCL BIN FIXED (n-1);
...
A = B;

```

```

n = 16      32.

          i-          .          i-
          .          ,          1011B,
'1011' .

          (          BIN          FIXED
          DEC FIXED      PIC          DEC FLOAT)
(          BIT          CHAR).

```

1.4.5.

```

(          ):

```

CHAR	BIT	BIN FIXED	DEC FIXED	PIC
				DEC FLOAT

1.4.6.

():

PIC	DEC FIXED	BIN FIXED	BIT	CHAR
DEC FLOAT				

2.

```

EXAMP   START 0
        BALR  RBASE, 0
        USING *, RBASE
        L    RRAB, A
        A    RRAB, B
        S    RRAB, C
        ST   RRAB, D
        BCR  15, 14
A       DC   F'3'
B       DC   F'4'
C       DC   F'5'
D       DC   F'0'
RBASE   EQU  15
RRAB    EQU  5
        END   EXAMP
    
```

- 1.
- 2.

-
-

2.1.

START END

```

(          ) ,          (          ) ,
:          START          END ,
:
    
```

START

----"---- END

:

,

.

.

(

)

-

-

,

,

:

,

EXAMPL START 0
END

2.2.

USING

USING:

•

•

,

(

,

),

,

,

(

),

•

:

USING v,r

:
 v - ,
 r - ,
 v.

" , " " r
 USING
 .

2.3. BALR

BALR:

-
-
-

BALR R1,R2

:
 R1 - ;
 R2 - (,
 R2=0 ,
 BALR) .

2.4. EQU

EQU:

-
-
-

EQU v

EQU

:

v -

2.5.

BR

BR:

-
-
-

BR R

:

R -

2.6.

L

L:

-
-
-

()

L R,m

R

:

R - , ' ,
M - , ' , R.

2.7. ST

ST:

- ,
- () ,
- :

ST R,m R

:

R - , ' ,
m - , ' , R.

2.8. A

A:

- ,
- () ,
- :

A R,m R m

:

R - , ,

m - , ,

2.9. S

S:

-
-
-

S R,m R m

:

R - , ,
m - , ,

2.10. DC

DC:

-
-
-

DC TV

:

T - (: F - , X -
. .),

V -
. . .).

(: '3', 'F3',

2.11.

DS

DS:

- ; ' ,
- ' , ,
- : ' ,

DS

T

:

T -

(: F -
. . .).

, X -

3.

IBM-370.

IBM PC.

3.1.

1	8	
2	16	2
4	32	4
8	64	8

16 . : 0 $2^{24}-1$, . .

3.2.

(), 16 . .
()

3.3.

0 1 15 .

0 1 31 .

1 - 16

D D
0 3 4 7 8

D S

1 - 16

Z D Z D
0 3 4 7 8

Z D S D

1 - 256

0 7 8 15 16

3.4.

-

IBM-370:

- -
 -
- SI, SS),

2, 4 6 ,
 , 2- ,
 5-

(RR, RX, RS,
 :

4

.
. 2

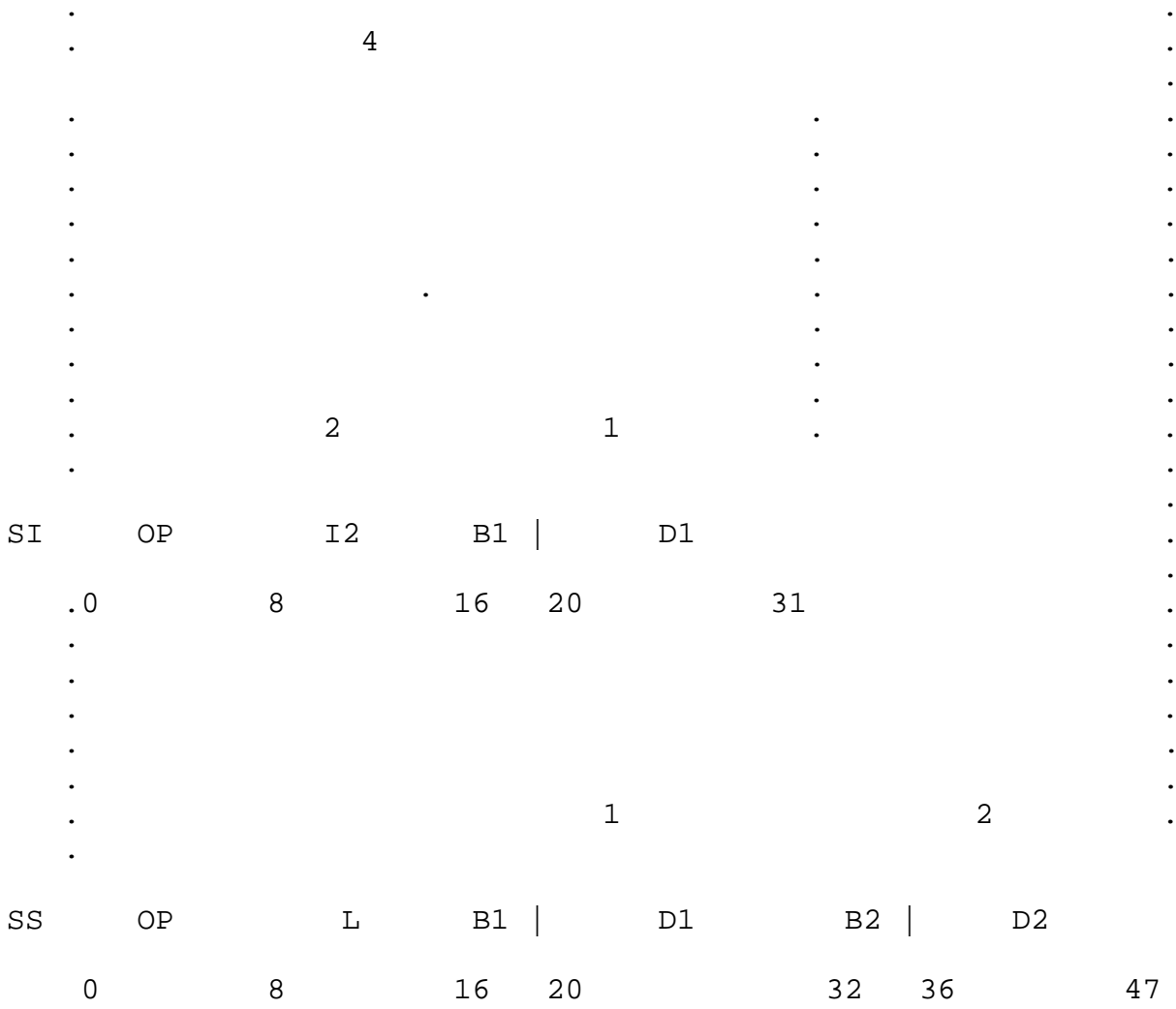
.
. .
. .
() .
. 1 2 .

RR	OP	R1 R2
.0		8 12 15
.		.
.		-
.		
.		1 2
.		

RX	OP	R1 X2	B2	D2
.0		8 12 16 20		31.
.				.
.				.
.				.
.		1 3		2 .
.				.

RS	OP	R1 R3	B2	D2
.0		8 12 16 20		31.

6



:

OP - () ,
 Ri - , i,
 Xi - ,
 i- ,
 Bi - ,
 i- ,
 Di - i-
 Bi,
 Ii - () i-
 ,
 L - .