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000001 Identification division.
000002 Program-id. TestCurr.
000003 Environment division.
000004 Configuration section.
000005 Special-Names.
000006 currency sign is 'EUR' ← 3 characters
000007 with picture symbol 'U' ← 1 character
000008 decimal-point is comma.
000009 Data division.
000010 Working-storage section.
000011 01 WORK-AMOUNT PIC S9(13)V99 PACKED-DECIMAL. BLW=00001+3E0 8P
000012 01 WORK-BALANCE PIC S9(13)V99 PACKED-DECIMAL VALUE 0. BLW=00001+3E8 8P
000013 01 EDIT1-LINE. BLW=00001+3F0 0CL93
000014 02 PIC X(25) VALUE 'FIXED LEFT 1'. BLW=00001+3F0,000000 25C
000015 02 PIC X(9) VALUE 'AMOUNT : '. BLW=00001+409,0000019 9C
000016 02 EDIT1-AMOUNT PIC U---.---.---.---.---9,99. BLW=00001+412,0000022 24C = 22 + (3 - 1)
000017 02 PIC X(11) VALUE ' BALANCE : '. BLW=00001+42A,000003A 11C
000018 02 EDIT1-BALANCE PIC U---.---.---.---.---9,99. BLW=00001+435,0000045 24C = 22 + (3 - 1)
000019 *01 EDIT2-LINE.
000020 * 02 PIC X(25) VALUE 'FIXED LEFT 2'.
000021 * 02 PIC X(9) VALUE 'AMOUNT : '.
000022 * 02 EDIT2-AMOUNT PIC UUU---.---.---.---.---9,99. ← syntax error, cs can't be repeated...
000023 * 02 PIC X(11) VALUE ' BALANCE : '.
000024 * 02 EDIT2-BALANCE PIC UUU---.---.---.---.---9,99.
000025 * IGYDS1162-E "PICTURE" string character "-" was out of sequence
000026 * or was invalid with the preceding "PICTURE" string characters.
000027 * "PICTURE" string "S9(1)" was assumed.
000028 01 EDIT3-LINE. BLW=00001+450 0CL93
000029 02 PIC X(25) VALUE 'FIXED LEFT 3'. BLW=00001+450,000000 25C
000030 02 PIC X(9) VALUE 'AMOUNT : '. BLW=00001+469,0000019 9C
000031 02 EDIT3-AMOUNT PIC U*.***.***.***.***9,99-. BLW=00001+472,0000022 24C = 22 + (3 - 1)
000032 02 PIC X(11) VALUE ' BALANCE : '. BLW=00001+48A,000003A 11C
000033 02 EDIT3-BALANCE PIC U*.***.***.***.***9,99-. BLW=00001+495,0000045 24C = 22 + (3 - 1)
000034 01 EDIT4-LINE. BLW=00001+4B0 0CL91
000035 02 PIC X(25) VALUE 'FLOATING LEFT'. BLW=00001+4B0,0000000 25C
000036 02 PIC X(9) VALUE 'AMOUNT : '. BLW=00001+4C9,0000019 9C
000037 02 EDIT4-AMOUNT PIC U.UUU.UUU.UUU.UU9,99-. BLW=00001+4D2,0000022 23C = 21 + (3 - 1)
000038 02 PIC X(11) VALUE ' BALANCE : '. BLW=00001+4E9,0000039 11C
000039 02 EDIT4-BALANCE PIC U.UUU.UUU.UUU.UU9,99-. BLW=00001+4F4,0000044 23C = 21 + (3 - 1)
000040 *01 EDIT5-LINE.
000041 * 02 PIC X(25) VALUE 'FIXED RIGHT 1'.
000042 * 02 PIC X(9) VALUE 'AMOUNT : '.
000043 * 02 EDIT5-AMOUNT PIC Z.ZZZ.ZZZ.ZZZ.ZZ9,99BU. ← syntax error, cs can't be right position ?
000044 * 02 PIC X(11) VALUE ' BALANCE : '.
000045 * 02 EDIT5-BALANCE PIC Z.ZZZ.ZZZ.ZZZ.ZZ9,99BU.
000046 * IGYDS1162-E "PICTURE" string character "-" was out of sequence
000047 * or was invalid with the preceding "PICTURE" string characters.
000048 * "PICTURE" string "S9(1)" was assumed.
000049 Procedure division.
000050 Main.
000051 display 'positive values'
000052 move 123456789 to WORK-AMOUNT 11
000053 perform Edit-lines 61
000054 display 'negative values'
000055 move -987654321 to WORK-AMOUNT 11
000056 perform Edit-lines 61
000057 .

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000058      Bye.
000059      Goback
000060      .
000061      Edit-lines.
000062      add WORK-AMOUNT to WORK-BALANCE 11 12
000063      *
000064      move WORK-AMOUNT to EDIT1-AMOUNT 11 16
000065      move WORK-BALANCE to EDIT1-BALANCE 12 18
000066      display EDIT1-LINE 13
000067      * move WORK-AMOUNT to EDIT2-AMOUNT
000068      * move WORK-BALANCE to EDIT2-BALANCE
000069      * display EDIT2-LINE
000070      move WORK-AMOUNT to EDIT3-AMOUNT 11 31
000071      move WORK-BALANCE to EDIT3-BALANCE 12 33
000072      display EDIT3-LINE 28
000073      move WORK-AMOUNT to EDIT4-AMOUNT 11 37
000074      move WORK-BALANCE to EDIT4-BALANCE 12 39
000075      display EDIT4-LINE 34
000076      * move WORK-AMOUNT to EDIT5-AMOUNT
000077      * move WORK-BALANCE to EDIT5-BALANCE
000078      * display EDIT5-LINE
000079      display ' '
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==000079==> IGYSC0209-W DSNH053I DSNHPSRV NO SQL STATEMENTS WERE FOUND
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000080      .
000081      End program TestCurr. 2
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Data Division Map

Data Definition Attribute codes (rightmost column) have the following meanings:

D = Object of OCCURS DEPENDING      G = GLOBAL      S = Spanned file  
 E = EXTERNAL      O = Has OCCURS clause      U = Undefined format file  
 F = Fixed-length file      OG= Group has own length definition      V = Variable-length file  
 FB= Fixed-length blocked file      R = REDEFINES      VB= Variable-length blocked file

Source LineID	Hierarchy and Data Name	Base Locator	Hex-Displacement Blk	Structure	Asmblr Data Definition	Data Type	Data Def Attributes
2	PROGRAM-ID TESTCURR-----						*
11	1 WORK-AMOUNT . . . . .	BLW=00001	3E0		DS 8P	Packed-Dec	
12	1 WORK-BALANCE. . . . .	BLW=00001	3E8		DS 8P	Packed-Dec	
13	1 EDIT1-LINE. . . . .	BLW=00001	3F0		DS 0CL93	Group	
14	2 FILLER. . . . .	BLW=00001	3F0	0 000 000	DS 25C	Display	
15	2 FILLER. . . . .	BLW=00001	409	0 000 019	DS 9C	Display	
16	2 EDIT1-AMOUNT. . . . .	BLW=00001	412	0 000 022	DS 24C	Disp-Num-Edit	
17	2 FILLER. . . . .	BLW=00001	42A	0 000 03A	DS 11C	Display	
18	2 EDIT1-BALANCE . . . . .	BLW=00001	435	0 000 045	DS 24C	Disp-Num-Edit	
28	1 EDIT3-LINE. . . . .	BLW=00001	450		DS 0CL93	Group	
29	2 FILLER. . . . .	BLW=00001	450	0 000 000	DS 25C	Display	
30	2 FILLER. . . . .	BLW=00001	469	0 000 019	DS 9C	Display	
31	2 EDIT3-AMOUNT. . . . .	BLW=00001	472	0 000 022	DS 24C	Disp-Num-Edit	
32	2 FILLER. . . . .	BLW=00001	48A	0 000 03A	DS 11C	Display	
33	2 EDIT3-BALANCE . . . . .	BLW=00001	495	0 000 045	DS 24C	Disp-Num-Edit	
34	1 EDIT4-LINE. . . . .	BLW=00001	4B0		DS 0CL91	Group	
35	2 FILLER. . . . .	BLW=00001	4B0	0 000 000	DS 25C	Display	
36	2 FILLER. . . . .	BLW=00001	4C9	0 000 019	DS 9C	Display	
37	2 EDIT4-AMOUNT. . . . .	BLW=00001	4D2	0 000 022	DS 23C	Disp-Num-Edit	
38	2 FILLER. . . . .	BLW=00001	4E9	0 000 039	DS 11C	Display	
39	2 EDIT4-BALANCE . . . . .	BLW=00001	4F4	0 000 044	DS 23C	Disp-Num-Edit	

CONSTANT GLOBAL TABLE BEGINS AT LOCATION 000130 FOR 000219 BYTES  
LITERAL POOL MAP FOR LITERALS IN THE CGT:

000144	(LIT+0)	FFFFFFFF	00001000	FFFFFFFF	00000020	00000010	00000008	00000002	00000001	!.....!
000164	(LIT+32)	00000000	0003002C	F2F0F1F8	60F0F960	F2F460F1	F54BF3F1	4BF0F84B	F5F5F1F3	!.....2018-09-24-15.31.08.5513!
000184	(LIT+64)	F7F20000	00000000	00000000	00000000	00000000	95858781	A389A585	40A58193	!72.....negative val!
0001A4	(LIT+96)	A485A297	96A289A3	89A58540	A58193A4	85A2C6D3	D6C1E3C9	D5C740D3	C5C6E3C6	!uespositive valuesFLOATING LEFTF!
0001C4	(LIT+128)	C9E7C5C4	40D3C5C6	E340F3C6	C9E7C5C4	40D3C5C6	E340F140	C2C1D3C1	D5C3C540	!IXED LEFT 3FIXED LEFT 1 BALANCE !
0001E4	(LIT+160)	7A40C1D4	D6E4D5E3	407A40E3	C5E2E3C3	E4D9D9E2	D8D3C4C1	404040C9	D5E3E3E2	!: AMOUNT : TESTCURRSQLDA INTTS!
000204	(LIT+192)	E34040E2	E8E2D6E4	E34040C9	C7E9E2D9	E3C3C4E5	C5D94BC5	E4D90000	98765432	!T SYSOUT IGZSRDVER.EUR..q...!
000224	(LIT+224)	100D0000	12345678	900C0000	00000000	012C0000	00020000	01340000	00010000	!.....!
000244	(LIT+256)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	!.....!
000264	(LIT+288)	00008000	000040C5	E4D94040	40204B20	20204B20	20204B20	20204B20	21206B20	!..... EUR .....
000284	(LIT+320)	20402040	40404B20	20204B20	20204B20	20204B20	21206B20	20605C	204B	!.....- *EUR..!
0002A4	(LIT+352)	2020204B	2020204B	2020204B	2021206B	202060	40	00000000	00000000	!.....- .....
0002C4	(LIT+384)	00000000	00000000	00000000	00000040	00000000	25C00001	C0000808	00002C00	!.....!
0002E4	(LIT+416)	BF014000	00010800	002C00CC	FF014000	005B0900	013004B0	FF014000	005D0900	!.. ..\$. ..)..!
000304	(LIT+448)	01300450	FF014000	005D0900	013003F0	FF014000	000F0800	002C0068	FF014000	!...&.. ..).....0.. ..!
000324	(LIT+480)	000F0800	002C0077	FF400000	000040C0	00014000	08080000	2C00BF02	C0000808	!.....!
000344	(LIT+512)	00002C00	BF							!.....!

0004D4 START EQU \* TESTCURR

000050 \*
000050 \*MAIN

000061 \*EDIT-LINES
000062 ADD

000064 move WORK-AMOUNT to EDIT1-AMOUNT (PIC U---.---.---.---9,99)

00062E D21A D130 A13A MVC 304(27,13),314(10) TS2=0 PGMLIT AT +294
000634 4110 D147 LA 1,327(0,13) TS2=23
000638 DF1A D130 83E0 EDMK 304(27,13),992(8) TS2=0 WORK-AMOUNT

000264 (LIT+288) 00008000 000040C5 E4D94040 40204B20 20204B20 20204B20 20204B20 21206B20 !..... EUR .....!
000284 (LIT+320) 20402040 40404B20 20204B20 20204B20 20204B20 21206B20 20605CC5 E4D9204B !. . . . . ,--\*EUR..!

Picture = U---.---.---.---9,99 length=24 (15 digits, 4 separators, 1 decimal mark, 1 floating minus, 3 for currency sign)
Used Mask = bEURbbbd.ddd.ddd.ddd.d(d,dd length=27 2 extra 'b' after 'EUR'
Expected mask = bEURbd.ddd.ddd.ddd.d(d,dd length=25 (fill byte space, only one space after 'EUR' for floating minus)
Alternative mask = bbbbd.ddd.ddd.ddd.d(d,dd length=25 (fill byte space, only one space after 'EUR' for floating minus)

00063E 0610 BCTR 1,0
000640 9260 1000 MVI 0(1),X'60' = minus
000644 4740 B300 BC 4,768(0,11) GN=27(00064C)
000648 9240 1000 MVI 0(1),X'40' = space (usefull for point separator ?)
00064C GN=27 EQU \*
00064C D202 D131 A0EB MVC 305(3,13),235(10) TS2=1 PGMLIT AT +215 EUR spaced by EDMK

000204 (LIT+192) E34040E2 E8E2D6E4 E34040C9 C7E9E2D9 E3C3C4E5 C5D94B C5 E4D9 0000 98765432 !T SYSOUT IGSRTCDVER. EUR..q...!

000652 GN=24 EQU \*
000652 D217 8412 D133 MVC 1042(24,8),307(13) EDIT1-AMOUNT TS2=3

2 1 2 1
+....0....+....0....+.... +....0....+....0....+....
FIXED LEFT 1 AMOUNT : EUR 123.456.789,00 BALANCE : EUR 123.456.789,00
FIXED LEFT 1 AMOUNT : EUR -987.654.321,00 BALANCE : EUR -864.197.532,00

000065 move WORK-BALANCE to EDIT1-BALANCE

000066 display EDIT1-LINE

000070 move WORK-AMOUNT to EDIT3-AMOUNT

00068C D218 D130 A16E MVC 304(25,13),366(10) TS2=0 PGMLIT AT +346
000692 F877 D150 83E0 ZAP 336(8,13),992(8,8) TS2=32 WORK-AMOUNT
000698 DE18 D130 D150 ED 304(25,13),336(13) TS2=0 TS2=32

000284 (LIT+320) 20402040 40404B20 20204B20 20204B20 20204B20 21206B20 20605CC5 E4D9 204B !. . . . . ,--\*EUR..!
0002A4 (LIT+352) 2020204B 2020204B 2020204B 2021206B 20206040 00000000 00000000 00000040 !..... ,--\*EUR..!

Picture = U\*.\*\*\*.\*\*\*.\*\*\*.\*\*9,99- length=24 (15 digits, 4 separators, 1 decimal mark, 1 fixed minus, 3 for currency sign)
Used Mask = \*EURd.ddd.ddd.ddd.d(d,dd- length=25 ok
Alternative mask = \*bbbd.ddd.ddd.ddd.d(d,dd- length=25 (fill byte \*)

00069E 4740 B35A BC 4,858(0,11) GN=37(0006A6)
0006A2 9240 D148 MVI 328(13),X'40' TS2=24

0006A6 GN=37 EQU \*  
0006A6 D202 D131 A0EB MVC 305(3,13),235(10) TS2=1 PGMLIT AT +215 EUR spaced by ED

000204 (LIT+192) E34040E2 E8E2D6E4 E34040C9 C7E9E2D9 E3C3C4E5 C5D94B C5 E4D9 0000 98765432 !T SYSOUT IGZSRTCDVER. EUR..q...!

0006AC GN=34 EQU \*  
0006AC D217 8472 D131 MVC 1138(24,8),305(13) EDIT3-AMOUNT TS2=1

2 1 2 1  
+....0....+....0....+.... +....0....+....0....+....  
FIXED LEFT 3 AMOUNT : EUR\*\*\*\*\*123.456.789,00 BALANCE : EUR\*\*\*\*\*123.456.789,00  
FIXED LEFT 3 AMOUNT : EUR\*\*\*\*\*987.654.321,00- BALANCE : EUR\*\*\*\*\*864.197.532,00-

000071 move WORK-BALANCE to EDIT3-BALANCE

000072 display EDIT3-LINE

000073 move WORK-AMOUNT to EDIT4-AMOUNT

0006E2 D218 D130 A155 MVC 304(25,13),341(10) TS2=0 PGMLIT AT +321  
0006E8 D207 D150 83E0 MVC 336(8,13),992(8) TS2=32 WORK-AMOUNT  
0006EE 940F D150 NI 336(13),X'0F' TS2=32 ← suppress leftmost digit of WORK-AMOUNT (left trunc 1 digit)  
0006F2 F877 D150 D150 ZAP 336(8,13),336(8,13) TS2=32 ← ??? TS2=32  
0006F8 4110 D144 LA 1,324(0,13) TS2=20  
0006FC DF18 D130 D150 EDMK 304(25,13),336(13) TS2=0 TS2=32

000284 (LIT+320) 20402040 40404B20 20204B20 20204B20 20204B20 21206B20 20605CC5 E4D9204B !. . . . .,--\*EUR..!

Picture = U.UUU.UUU.UUU.UU9,99- length=23 (14 digits, 4 separators, 1 decimal mark, 1 fixed minus, 3 for currency sign)  
Used Mask = bdbbb.ddd.ddd.ddd.d(d,dd- length=25 is this optimum ?  
Expected mask = bdbbb.ddd.ddd.ddd.d(d,dd- length=25 (fill byte space, 3 for floating cs, 14+1 digits, 4 separators, 1 dp, 1 fixed sign)

Note : picture should be UU.UUU.UUU.UUU.UU9,99- for S9(13)V99 value, missing one U.

000702 GN=45 EQU \*  
000702 4B10 A038 SH 1,56(0,10) PGMLIT AT +36 R1 = R1 - length of 'EUR'

000164 (LIT+32) 00000000 0003002C F2F0F1F8 60F0F960 F2F460F1 F54BF3F1 4BF0F84B F5F5F1F3 !.....2018-09-24-15.31.08.5513!

000706 D202 1000 A0EB MVC 0(3,1),235(10) PGMLIT AT +215 EUR spaced by EDMK

000204 (LIT+192) E34040E2 E8E2D6E4 E34040C9 C7E9E2D9 E3C3C4E5 C5D94B C5 E4D9 0000 98765432 !T SYSOUT IGZSRTCDVER. EUR..q...!

00070C GN=44 EQU \*  
00070C D216 84D2 D132 MVC 1234(23,8),306(13) EDIT4-AMOUNT TS2=2

2 1 2 1  
+....0....+....0....+.... +....0....+....0....+....  
FLOATING LEFT AMOUNT : EUR123.456.789,00 BALANCE : EUR123.456.789,00  
FLOATING LEFT AMOUNT : EUR987.654.321,00- BALANCE : EUR864.197.532,00-

000074 move WORK-BALANCE to EDIT4-BALANCE

000075 display EDIT4-LINE

000079 DISPLAY