

FILEID**DSRLIB

D 14

The image displays a large, intricate grid of binary symbols, likely representing a complex algorithm or data structure. The symbols are arranged in a repeating pattern of vertical columns and horizontal rows. The symbols used include 'D', 'S', 'R', 'L', 'I', and 'B', which represent different states or operations. The grid is composed of several distinct sections, each with its own unique pattern of symbols. The overall structure is highly symmetrical and organized.

0001 0
0002 0 Version: 'V04-000'
0003 0
0004 0 *****
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0023 0 *
0024 0 *
0025 0 *****
0026 0
0027 0
0028 0 **
0029 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
0030 0
0031 0 DSRLIB.REQ requires in almost all Require files used by DSR and DSRPLUS.
0032 0 It is used to build both DSRLIB.L-- and DPLLIB.L--, which are used (via
0033 0 a conditionalized LIBRARY statement) by almost all modules in the DSR /
0034 0 DSRPLUS code.
0035 0
0036 0 The remaining REQUIRE statements in the code occur in RNFERM.BLI, which
0037 0 requires MSGTXT.REQ, and in LP1.BLI, which requires RUNTAB.REQ.
0038 0
0039 0 ENVIRONMENT: Transportable BLISS
0040 0
0041 0 AUTHOR: Keith Dawson CREATION DATE: March 1983
0042 0
0043 0 MODIFIED BY:
0044 0
0045 0 008 REM00008 Ray Marshall 4-June-1984
0046 0 Added a SWITCHES declaration to cause the expansion of the
0047 0 .REQ files.
0048 0
0049 0 007 KAD00007 Keith Dawson 9-May-1983
0050 0 Remove support for .DX, .PX.
0051 0
0052 0 006 KAD00006 Keith Dawson 13-Apr-1983
0053 0 Added conditionals on CREFDS, GTOKCC, KEYWORD.
0054 0
0055 0 005 KAD00005 Keith Dawson 7-Apr-1983
0056 0 Added require files GTOKCC, KWTDEF (omitted by accident)
0057 0

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(1)

0058 0 | 004 KAD00004 Keith Dawson 6-Apr-1983
0059 0 | Added require files for cross-referencing (KEYWORD, CREFDS),
0060 0 | final-output modifications (PASS).
0061 0 |
0062 0 | 003 RER00003 Ron Randall 04-Apr-1983
0063 0 | For DSRPLUS: Added topnote require files (TNREC, TOPNOT).
0064 0 |
0065 0 | 002 KAD00002 Keith Dawson 17-Mar-1983
0066 0 | Conditionalized 6 DSRPLUS-only Require files on the DSRPLUS
0067 0 | variant.
0068 0 |
0069 0 | --

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```
0070 0 LIBRARY 'NXPORT:XPORT';
0071 0
0072 0 %IF (%VARIANT/2) %THEN
0073 0 LIBRARY 'REQ:RNODEFDPL';      ! Define /VARIANT macros
0074 0 %ELSE
0075 0 LIBRARY 'REQ:RNODEFDSR';      ! Define /VARIANT macros
0076 0 %FI
0077 0
0078 0 SWITCHES LIST (REQUIRE);      ! This declaration causes the remaining files
0079 0                                to be expanded in the listing
0080 0
0081 0 ! The following files are used by some of the Require files to come.
0082 0
0083 0 REQUIRE 'REQ:MAXIMA.REQ';      ! Maximum values on some DSR / DSRPLUS parameters.
```

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R0085 0 Version: 'V04-000'
R0086 0
R0087 0 *****
R0088 0 *
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R0106 0 *
R0107 0 *
R0108 0 *****
R0109 0
R0110 0
R0111 0 **
R0112 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R0113 0
R0114 0 ABSTRACT:
R0115 0 Maximum values of DSR / DSRPLUS parameters, including the
R0116 0 maximum allowed ranges on numbers.
R0117 0
R0118 0 ENVIRONMENT: Transportable BLISS
R0119 0
R0120 0 AUTHOR: Keith Dawson
R0121 0
R0122 0 CREATION DATE: March 1983
R0123 0
R0124 0 MODIFIED BY:
R0125 0
R0126 0 002 KAD00002 Keith Dawson 21-Mar-1983
R0127 0 Move xp_string_size from KWXYYP.REQ to MAXIMA.REQ.
R0128 0
R0129 0 --
R0130 0
R0131 0 LITERAL
R0132 0 max_levels = 6; !Maximum..
R0133 0 max_page_ranges = 5; !header-level depth.
R0134 0 max_require = 10; !number of /PAGE RANGE specifications.
R0135 0 max_save_depth = 20; !depth of .REQUIRE commands.
R0136 0 max_tabs = 40; !number of simultaneous .SAVE commands.
R0137 0 max_title = 450; !number of tab stops.
R0138 0 max_vr_length = 15; !internal length of titles and subtitles.
R0139 0 max_vr_names = 20; !length of a variable name.
R0140 0 !number of variables.

```
R0141 0 LITERAL
R0142 0     xp_string_size = 50;      !Maximum length of SORT= or APPEND= strings.
R0143 0
R0144 0 MACRO
R0145 0     most_positive =
R0146 0         ABS (most_negative + 1) !Biggest positive number that can be represented.
R0147 0         %,
R0148 0
R0149 0     most_negative =
R0150 0         %BLISS16(%X'8000') %BLISS32(%X'80000000') %BLISS36(%O'400000000000')
R0151 0         %,
R0152 0
R0153 0     most_digits =
R0154 0         %BLISS16(5) %BLISS32(10) %BLISS36(11) !Maximum number of digits in a number.
R0155 0         %,
R0156 0
R0157 0     most_digits_9 =
R0158 0         !(most_digits - 1) !Maximum number of digits in a number of the form 99...
R0159 0         %;
R0160 0
R0161 0     ! End of MAXIMA.REQ
```

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: 0162 0 REQUIRE 'REQ:BPOSITREQ'; ! Macro to return the bit position part of a field definition.

R0163 0
R0164 0 Version: 'V04-000'
R0165 0
R0166 0
R0167 0
R0168 0 *****
R0169 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R0186 0 *
R0187 0 *****
R0188 0
R0189 0
R0190 0
R0191 0 ** FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R0192 0
R0193 0 ABSTRACT:
R0194 0 Defines a macro to return the bit position part of a field definition.
R0195 0 It is intended to be used with the fields defined in LSTBTS, but is
R0196 0 generally applicable.
R0197 0
R0198 0 ENVIRONMENT: Transportable BLISS
R0199 0
R0200 0 AUTHOR: Rich Friday
R0201 0
R0202 0 CREATION DATE: 1978
R0203 0
R0204 0
R0205 0
R0206 0 MODIFIED BY:
R0207 0 004 KAD00004 Keith Dawson 07-Mar-1983
R0208 0 Global edit of all modules. Updated module names, idents,
R0209 0 copyright dates. Changed require files to BLISS library.
R0210 0
R0211 0
R0212 0
R0213 0
R0214 0
R0215 0
MACRO
BPOSIT (S, C, X) = S%:
!
End of BPOSIT.REQ

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: 0216 0 REQUIRE 'REQ:CLIST.REQ'; ! CL_... (counted list) items

R0217 0
R0218 0 Version: 'V04-000'
R0219 0
R0220 0
R0221 0
R0222 0
R0223 0
R0224 0
R0225 0
R0226 0
R0227 0
R0228 0
R0229 0
R0230 0
R0231 0
R0232 0
R0233 0
R0234 0
R0235 0
R0236 0
R0237 0
R0238 0
R0239 0
R0240 0
R0241 0
R0242 0
R0243 0
R0244 0
R0245 0
R0246 0
R0247 0
R0248 0
R0249 0
R0250 0
R0251 0
R0252 0
R0253 0
R0254 0
R0255 0
R0256 0
R0257 0
R0258 0
R0259 0
R0260 0
R0261 0
R0262 0
R0263 0
R0264 0
R0265 0
R0266 0
R0267 0
R0268 0
R0269 0
R0270 0
R0271 0
R0272 0
R0273 0

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++
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
ABSTRACT:
Definitions for counted lists. A counted list carries with it
its own description: current size, first and next character
positions, and maximum size.
ENVIRONMENT: Transportable BLISS
AUTHOR: Rich Friday
CREATION DATE: 1978
MODIFIED BY:
003 KAD00003 Keith Dawson 07-Mar-1983
Global edit of all modules. Updated module names, idents,
copyright dates. Changed require files to BLISS library.
--
LITERAL CL_DEFAULT_SIZE = 15;
STRUCTURE COUNTED_LIST[I:N=CL_DEFAULT_SIZE] =
[%UPVAL*(N + 2)] ! First two elements for control information
(COUNTED_LIST + (1 + I)*%UPVAL);

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: R0274 0
: R0275 0 LITERAL
: R0276 0 CL_MAX_INDEX = -1. ! Maximum allowable 'I' saved at start.
: R0277 0 CL_INDEX = 0; ! Current 'I'
: R0278 0
: R0279 0 ! End of CLIST.REQ

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: 0280 0 REQUIRE 'REG:LSTBTS.REQ'; ! BAR__, CND__, ISQ__, & RIT__

R0281 0
R0282 0 Version: 'V04-000'
R0283 0
R0284 0
R0285 0
R0286 0 COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R0303 0
R0304 0
R0305 0
R0306 0
R0307 0
R0308 0++
R0309 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R0310 0
R0311 0 ABSTRACT:
R0312 0 Defines BAR___, CND___, ISQ___, OSQ___, & RIT___.
R0313 0
R0314 0 ENVIRONMENT: Transportable BLISS
R0315 0
R0316 0 AUTHOR: Rich Friday
R0317 0
R0318 0 CREATION DATE: 1978
R0319 0
R0320 0 MODIFIED BY:
R0321 0
R0322 0 005 REM00005 Ray Marshall 16-May-1984
R0323 0 Added OSQ__ to support outputting of the output line number.
R0324 0
R0325 0 004 KAD00004 Keith Dawson 07-Mar-1983
R0326 0 Global edit of all modules. Updated module names, idents,
R0327 0 copyright dates. Changed require files to BLISS library.
R0328 0
R0329 0--
R0330 0
R0331 0 MACRO
MR0332 0 BAR_%. = 0,1 ! TRUE if user said:
R0333 0 ! /CHANGE
MR0334 0 CND_%. = 1,1 ! /DEBUG:CONDITIONALS
R0335 0
MR0336 0 ISQ_%. = 2,1 ! /SEQUENCE
R0337 0

D 15
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: MR0338 0 RIT-%. = 3,1 ! /RIGHT
: R0339 0
: MR0340 0 OSQ-%: = 4,1 ! /DEC_INTERNAL=OUTPUT_LINE_NUMBERS
: R0341 0

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: 0342 0 REQUIRE 'REQ:NBITSREQ'; ! More "_" bit definitions for a few flags

R0343 0
R0344 0 Version: 'V04-000'
R0345 0
R0346 0
R0347 0
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R0365 0
R0366 0
R0367 0
R0368 0
R0369 0
R0370 0
R0371 0 **
R0372 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R0373 0
R0374 0 ABSTRACT:
R0375 0 Defines BLD___, UND___, BLDUND___, OVR___, IND___, & HYP___.
R0376 0
R0377 0 ENVIRONMENT: Transportable BLISS
R0378 0
R0379 0 AUTHOR: Rich Friday
R0380 0
R0381 0 CREATION DATE: 1978
R0382 0
R0383 0 MODIFIED BY:
R0384 0 004 KAD00004 Keith Dawson 07-Mar-1983
R0385 0 Global edit of all modules. Updated module names, idents,
R0386 0 copyright dates. Changed require files to BLISS library.
R0387 0
R0388 0
R0389 0
R0390 0
MR0391 0 MACRO
R0392 0 BLD_` = 0.1 ! Bolding bit.
MR0393 0 UND_` = 1.1 ! Underlining bit.
R0394 0
MR0395 0 BLDUND__` = 0.2 ! Bolding and underlining together.
R0396 0
MR0397 0 OVR_` = 2.1 ! Overstrike bit.
R0398 0
MR0399 0 IND__` = 3.1 ! Indexing bit.

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R0400 0
MR0401 0
R0402 0
R0403 0

HYP-%:
= 4,1 ! Hyphenation bit.
End of NBITS.REQ

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: 0404 0 REQUIRE 'REQ:PAGEN.REQ'; ! SCT_... and PAGE_DEFINITION macros

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R0405 0
R0406 0
R0407 0
R0408 0
R0409 0
R0410 0
R0411 0
R0412 0
R0413 0
R0414 0
R0415 0
R0416 0
R0417 0
R0418 0
R0419 0
R0420 0
R0421 0
R0422 0
R0423 0
R0424 0
R0425 0
R0426 0
R0427 0
R0428 0
R0429 0
R0430 0
R0431 0
R0432 0
R0433 0
R0434 0
R0435 0
R0436 0
R0437 0
R0438 0
R0439 0
R0440 0
R0441 0
R0442 0
R0443 0
R0444 0
R0445 0
R0446 0
R0447 0
R0448 0
R0449 0
R0450 0
R0451 0
R0452 0
R0453 0
R0454 0
R0455 0
R0456 0
R0457 0
R0458 0
R0459 0
R0460 0
R0461 0

Version: 'V04-000'

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FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

ABSTRACT:

A page number carries with it not only its current value, but also
codes as to how those values are to be displayed when they are finally
output. It was decided to do it this way rather than have a separate
table so that the program TCX would have less trouble.

ENVIRONMENT: Transportable BLISS

AUTHOR: Rich Friday

CREATION DATE: 1978

MODIFIED BY:

004 KAD00004 Keith Dawson 07-Mar-1983
Global edit of all modules. Updated module names, idents,
copyright dates. Changed require files to BLISS library.

--

LITERAL

page_sct_size = 4;

LITERAL

sct_chapt = 1.
sct_index = 2.
sct_append = 3;

Type of section:
Chapter section.
Index section.
Appendix section.

```
R0462 0
R0463 0
R0464 0 LITERAL
R0465 0   sct_low    = 1;           ! Lowest section type key.
R0466 0   sct_high   = 3;           . Highest section type key.
R0467 C MACRO
R0468 0   sct_typ    = 0, 0,      4,      0 %; | Section Type (zero if none).
R0469 0   sct_page_d = 0, 4,      4,      0 %; | Display code for page number.
R0470 0   sct_sub_page= 0, %BPVAL/2, %BPVAL/2, 0 %; | Subpage, if any (zero if none).
R0471 0   sct_number  = 1, 0,      4,      0 %; | Type of section number.
R0472 0   sct_page   = 2, 0,      4,      0 %; | Page number.
R0473 0   sct_subpg_d= 3, 0,      4,      0 %; | Display code for subpages.
R0474 0   sct_chapt_d = 3, 4,      4,      0 %; | Display code for chapters.
R0475 0   sct_appen_d= 3, 8,      4,      0 %; | Display code for appendices.
R0476 0   sct_index_d= 3, 12,     4,      0 %; | Display code if indexes.
R0477 0
R0478 0 MACRO
R0479 0   sct_run_page = 3, %BPVAL/2, %BPVAL/2, 0 %; ! Running page number.
R0480 0
R0481 0 MACRO
R0482 0   page_definition = BLOCK [page_sct_size] %;
R0483 0
R0484 0 !           End of PAGEN.REQ
```

K 15
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15-Sep-1984 22:50:43

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: 0485 0
: 0486 0 REQUIRE 'REQ:ARECCC.REQ'; ! AREC completion codes.

R0487 0
R0488 0 Version: 'V04-000'
R0489 0
R0490 0 *****
R0491 0 *
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R0508 0 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
R0509 0 *
R0510 0 *
R0511 0 *****
R0512 0
R0513 0
R0514 0 **
R0515 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R0516 0
R0517 0 ABSTRACT:
R0518 0 Completion codes returned by AREC.
R0519 0
R0520 0 ENVIRONMENT: Transportable BLISS
R0521 0
R0522 0 AUTHOR: Rich Friday
R0523 0
R0524 0 CREATION DATE: 1978
R0525 0
R0526 0 MODIFIED BY:
R0527 0
R0528 0 002 KAD00002 Keith Dawson 07-Mar-1983
R0529 0 Global edit of all modules. Updated module names, idents,
R0530 0 copyright dates. Changed require files to BLISS library.
R0531 0
R0532 0 !--
R0533 0
R0534 0 LITERAL
R0535 0 END_OF_STRING = 1, ! The uneaten string has been exhausted.
R0536 0
R0537 0 CF_BREAK = 2, ! Special form of the .BREAK command.
R0538 0
R0539 0 CF_CF = 3, ! Two adjacent <CONTROL flag>s.
R0540 0
R0541 0 CF_COMMENT = 4, ! Special form of comment (.;).
R0542 0
R0543 0 CF_LETTER = 5, ! A <CONTROL flag> followed by a letter.

M 15
15-Sep-1984 23:07:40
15-Sep-1984 22:49:24

VAX-11 Bliss-32 v4.0-742
_S255\$DUA28:[RUNOFF.SRC]ARECCC.REQ;1 Page 22
(1)

```
: R0544 0
: R0545 0
: R0546 0
: R0547 0
: R0548 0
: R0549 0
: R0550 0
: R0551 0
: R0552 0
: R0553 0
: R0554 0
: R0555 0
: R0556 0
: R0557 0
: R0558 0
:
:     END_FOOTNOTE = 6,    ! <ENDFOOTNOTE flag>.
:     FIRST_SPACE   = 7,    ! A space or tab.
:     FIRST_SEMI    = 8,    ! A semicolon (';').
:     CF_OTHER      = 9,    ! <CONTROL flag> followed by something else.
:     NOT_SPACE     = 10;   ! None of the other cases.
:
: LITERAL ARECCC_COUNT = 10;  ! Number of completion codes returned by AREC.
:
: !                         End of ARECCC.REQ
```

N 15
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742
_ \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 23 (2)

: 0559 0 REQUIRE 'REQ:ATCODE.REQ': ! ATABLE entry codes.

BUDDEFGHIJKLMNOPQRSTUVWXYZACEDFGHIJKLMNOPQRSTUVWXYZ

R0560 0
R0561 0 Version: 'V04-000'
R0562 0
R0563 0 *****
R0564 0 *
R0565 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R0582 0 *
R0583 0 *
R0584 0 *****
R0585 0
R0586 0
R0587 0 **
R0588 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R0589 0
R0590 0 ABSTRACT:
R0591 0 Names for the actions associated with characters in the action table.
R0592 0
R0593 0 ENVIRONMENT: Transportable BLISS
R0594 0
R0595 0 AUTHOR: Rich Friday
R0596 0
R0597 0 CREATION DATE: 1978
R0598 0
R0599 0 MODIFIED BY:
R0600 0
R0601 0 004 REM00004 Ray Marshall 17-November-1983
R0602 0 Added macro for defining the size and type of ATABLE. Also
R0603 0 defined ATABLE_LENGTH for use where it's length is involved
R0604 0 in other calculations.
R0605 0
R0606 0 003 REM00003 Ray Marshall 7-November-1983
R0607 0 Added A_U_ALPHA & A_L_ALPHA as part of the added support for
R0608 0 DEC multinational character set.
R0609 0
R0610 0 002 KAD00002 Keith Dawson 07-Mar-1983
R0611 0 Global edit of all modules. Updated module names, idents,
R0612 0 copyright dates. Changed require files to BLISS library.
R0613 0
R0614 0 !--%()%
R0615 0
R0616 0 LITERAL ! TRUE if the character is...

```
R0617 0 A_SPACE = 01. ! a space,  
R0618 0 A_TAB = 02. ! a tab,  
R0619 0 A_FLAG = 03. ! a flag,  
R0620 0 A_CONTROL = 04. ! an ASCII control character.  
R0621 0 A_U_LETTER = 05. ! an upper-case letter,  
R0622 0 A_L_LETTER = 06. ! a lower-case letter,  
R0623 0 A_DIGIT = 07. ! a digit,  
P0624 0 A_INT_ESC = 08. ! a RUNOFF internal escape character (RINTES),  
R0625 0 A_PUNCT = 09. ! a punctuation mark;  
R0626 0 A_OTHER = 10. ! ...or anything else not covered above.  
R0627 0 A_U_ALPHA = 11. ! Uppercase multinational character  
R0628 0 A_L_ALPHA = 12. ! Lowercase multinational character  
R0629 0  
R0630 0 LITERAL ACTION_COUNT = 12; ! Number of actions  
R0631 0  
R0632 0  
R0633 0 LITERAL atable_length = 256; ! Number of cells in ATABLE  
R0634 0  
R0635 0  
R0636 0  
MACRO atable_definition =  
      VECTOR [atable_length, BYTE];  
MR0637 0  
R0638 0
```

```
: 0639 0
: U 0640 0
: U 0641 0 %IF DSRPLUS %THEN
: U 0642 0 REQUIRE 'REQ:ATTCC.REQ';      ! Completion codes for routines in ATTRIB
: U 0643 0 %FI
: U 0644 0 REQUIRE 'REQ:BOOL.REQ';      ! TRUE & FALSE literals (only)
```

R0645 0
R0646 0 Version: 'V04-000'
R0647 0
R0648 0 *****
R0649 0 *
R0650 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R0667 0 *
R0668 0 *
R0669 0 *****
R0670 0
R0671 0
R0672 0 ++
R0673 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R0674 0
R0675 0 ABSTRACT:
R0676 0 Definitions of Boolean items TRUE and FALSE.
R0677 0
R0678 0 ENVIRONMENT: Transportable BLISS
R0679 0
R0680 0 AUTHOR: Rich Friday
R0681 0
R0682 0 CREATION DATE: 1978
R0683 0
R0684 0 MODIFIED BY:
R0685 0
R0686 0 002 KAD00002 Keith Dawson 07-Mar-1983
R0687 0 Global edit of all modules. Updated module names, idents,
R0688 0 copyright dates. Changed require files to BLISS library.
R0689 0
R0690 0 --
R0691 0
R0692 0 LITERAL
R0693 0 TRUE = 1;
R0694 0 FALSE = 0;
R0695 0
R0696 0 ! End of BOOL.REQ

F 16
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15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 28
(2)

: 0697 0 REQUIRE 'REQ:BRNRTY.REQ'; ! .BRN-format binary file record def's.

R0698 0
R0699 0 Version: 'V04-COO'
R0700 0
R0701 0
R0702 0
R0703 0 *****
R0704 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R0720 0 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
R0721 0
R0722 0 *****
R0723 0
R0724 0
R0725 0 ++
R0726 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R0727 0
R0728 0 ABSTRACT:
R0729 0 Binary RuNoff file record type definitions
R0730 0
R0731 0 ENVIRONMENT: Transportable BLISS
R0732 0
R0733 0 AUTHOR: J.P. Kellerman
R0734 0
R0735 0 CREATION DATE: January 1982
R0736 0
R0737 0 MODIFIED BY:
R0738 0
R0739 0 003 KAD00003 Keith Dawson 07-Mar-1983
R0740 0 Global edit of all modules. Updated module names, idents,
R0741 0 copyright dates. Changed require files to BLISS [library].
R0742 0
R0743 0 --
R0744 0
R0745 0
R0746 0 File Identification Record Group
R0747 0
R0748 0
R0749 0 LITERAL
R0750 0 BRN_FILE = -1; ! Identifies file as .BRN format
R0751 0 BRN_IDENT = 2; ! .BRN format revision level
R0752 0 INDEX_FORMAT = 2; ! Index record group format revision level
R0753 0 TOC_FORMAT = 3; ! Table of contents record group format revision level
R0754 0 CROSSREF_FORMAT = 1; ! Cross reference record group format revision level

```
R0755 0
R0756 0
R0757 0 | Record Group Header
R0758 0
R0759 0 | A record group header identifies the following record group.
R0760 0 | This allows a utility program to skip record groups pertaining
R0761 0 | to other programs without having to know their structure.
R0762 0
R0763 0
R0764 0 | LITERAL
R0765 0 |   BRN_INDEX = 1,           ! Identifies index record groups
R0766 0 |   BRN_CONTENTS = 2,      ! Identifies table of contents record groups
R0767 0 |   BRN_CROSSREF = 3;     ! Identifies cross reference record groups
R0768 0
R0769 0
R0770 0 | Cross Reference Record groups
R0771 0
R0772 0 | LITERAL
R0773 0 |   NEW_CROSSREF = 1,       ! Identification record group
R0774 0 |   CROSSREF_REFERENCEPOINT = 2; ! Reference point record group
R0775 0
R0776 0 | End of BRNRTY.REQ
```

I 16
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 31
(2)

: 0777 0 REQUIRE 'REQ:CLHCC.REQ'; ! CLH_... status return codes

R0778 0
R0779 0 Version: 'V04-000'
R0780 0
R0781 0 *****
R0782 0 *
R0783 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R0800 0 *
R0801 0 *
R0802 0 *
R0803 0 *
R0804 0 *
R0805 0 **
R0806 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R0807 0
R0808 0 ABSTRACT:
R0809 0 Condition codes returned by CLH.
R0810 0
R0811 0 ENVIRONMENT: Transportable BLISS
R0812 0
R0813 0 AUTHOR: Rich Friday
R0814 0
R0815 0 CREATION DATE: 1978
R0816 0
R0817 0
R0818 0 MODIFIED BY:
R0819 0 002 KAD00002 Keith Dawson 07-Mar-1983
R0820 0 Global edit of all modules. Updated module names, idents,
R0821 0 copyright dates. Changed require files to BLISS library.
R0822 0
R0823 0 !--
R0824 0
R0825 0 LITERAL
R0826 0 CLH_NORMAL = 01. ! Normal for all requests.
R0827 0 CLH_CANT_OPEN = 02. ! For bad CLH_OPEN_INPUT/OUTPUT.
R0828 0 CLH_END_FILE = 02. ! End of file for CLH_READ_INPUT.
R0829 0 CLH_CANT_READ = 03. ! Bad CLH_READ_INPUT.
R0830 0 CLH_TOO_LONG = 04. ! Record too long on CLH_READ_INPUT.

K 16
15-Sep-1984 23:07:40 VAX-11 Bliss-32 v4.0-742
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(1)

R0835 0
R0836 0 CLH_NO_SPACE = 05; ! No memory available.
R0837 0
R0838 0
R0839 0 LITERAL CLH_CC_COUNT = 05; ! Number of condition codes defined.
R0840 0
R0841 0 ! End of CLHCC.REQ

L 16
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

VAX-11 Bliss-32 v4.0-742
_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 34
(2)

: 0842 0 REQUIRE 'REQ:CLHOPS.REQ'; ! CLH_... operation codes

R0843 0
R0844 0 Version: 'V04-000'
R0845 0
R0846 0
R0847 0
R0848 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R0865 0
R0866 0
R0867 0 *****
R0868 0
R0869 0
R0870 0 ++
R0871 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R0872 0
R0873 0 ABSTRACT:
R0874 0 Definition of operations that can be performed by CLH.
R0875 0
R0876 0 ENVIRONMENT: Transportable BLISS
R0877 0
R0878 0 AUTHOR: Rich Friday
R0879 0
R0880 0 CREATION DATE: 1978
R0881 0
R0882 0 MODIFIED BY:
R0883 0
R0884 0 006 KAD00006 Keith Dawson 07-Mar-1983
R0885 0 Global edit of all modules. Updated module names, idents,
R0886 0 copyright dates. Changed require files to BLISS library.
R0887 0
R0888 0
R0889 0
R0890 0 --
R0891 0 LITERAL
R0892 0 CLH_OPEN_INPUT = 1. ! Open primary input file.
R0893 0 CLH_OPEN_OUT = 2. ! Open output file.
R0894 0 CLH_CLOSE_INPUT = 3. ! Close current input file.
R0895 0 CLH_CLOSE_OUT = 4. ! Close output file.
R0896 0 CLH_READ_INPUT = 5. ! Read a record from current input file.
R0897 0 CLH_WRITE_OUT = 6. ! Write a record to output file, add CRLF.
R0898 0 CLH_PUSH = 7. ! Save current input-file status on stack.
R0899 0 CLH_POP = 8. ! Get back previous input-file status.
R0899 0 CLH_OPEN_REQ = 9. ! Open a nested file (.REQUIRE "file-spec").

R0900 0 CLH_CLOSE_REQ = 10; ! Close the top-most .REQUIRE file.
R0901 0 CLH_OUT_NOCRLF = 11; ! Write a record, but don't add CRLF.
R0902 0 CLH_CLOSE_DEL_OUT = 12; ! Close and delete output file.
R0903 0 CLH_OPEN_INIT_OUT = 13; ! Open initialization file.
R0904 0
R0905 0 LITERAL CLH_OPS_COUNT = 13;
R0906 0
R0907 0
R0908 0 !
End of CLHOPS.REQ

F 1
15-Sep-1984 23:07:40 VAX-11 Bliss-32 v4.0-742
15-Sep-1984 22:50:43 _\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 37
(2)

: 0909 0 REQUIRE 'REQ:CONVRT.REQ'; ! TCONVRT_... def's (string conversion codes)

R0910 0
R0911 0 Version: 'V04-000'
R0912 0
R0913 0 *****
R0914 0 *
R0915 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R0932 0 *
R0933 0 *
R0934 0 *****
R0935 0
R0936 0
R0937 0 ++
R0938 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R0939 0
R0940 0 ABSTRACT:
R0941 0 Literals defining names for how to do conversions from binary to the
R0942 0 appropriate string type.
R0943 0
R0944 0 It's not possible to have a display code larger than 15 without
R0945 0 changing the data structures defined in PAGEN.REQ.
R0946 0
R0947 0 OTHER NOTES:
R0948 0 If the definitions of the literals defined here change (except for
R0949 0 additions), look at DSPPAG to be sure nothing has been broken.
R0950 0
R0951 0 ENVIRONMENT: Transportable BLISS
R0952 0
R0953 0 AUTHOR: Rich Friday
R0954 0
R0955 0 CREATION DATE: 1978
R0956 0
R0957 0 MODIFIED BY:
R0958 0
R0959 0 002 KAD00002 Keith Dawson 07-Mar-1983
R0960 0 Global edit of all modules. Updated module names, idents,
R0961 0 copyright dates. Changed require files to BLISS library.
R0962 0
R0963 0 !--
R0964 0
R0965 0 LITERAL
R0966 0 TCONVRT_DEC_NOZ = 0, !Convert to decimal, no leading zeros.

E 1
15-Sep-1984 23:07:40 VAX-11 Bliss-32 v4.0-742
15-Sep-1984 22:50:30 \$255\$DUA28:[RUNOFF.SRC]CONVRT.REQ;1 Page 39 (1)

```
: R0967 0 TCONVRT_DEC_ZER = 1;          Convert to decimal, leading zeros.  
: R0968 0 TCONVRT_LET_UPP = 2;          Convert to letters, all upper-case.  
: R0969 0 TCONVRT_LET_LOW = 3;          Convert to letters, all lower-case.  
: R0970 0 TCONVRT_LET_MIX = 4;          Convert to letters, capitalize first one.  
: R0971 0 TCONVRT_ROM_UPP = 5;          Convert to roman numerals, all upper-case.  
: R0972 0 TCONVRT_ROM_LOW = 6;          Convert to roman numerals, all lower-case.  
: R0973 0 TCONVRT_ROM_MIX = 7;          Convert to roman numerals, capitalize first letter.  
: R0974 0 TCONVRT_OCT_NOZ = 8;          Convert to octal, no leading zeros.  
: R0975 0 TCONVRT_HEX_NOZ = 9;          Convert to hex, no leading zeros.  
: R0976 0  
: R0977 0 LITERAL  
: R0978 0     TCONVRT_LOW    = 0;          Lowest total conversion code.  
: R0979 0     TCONVRT_HIGH   = 9;          Highest total conversion code.  
: R0980 0  
: R0981 0 !  
:           End of CONVRT.REQ
```

F 1
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 40
(2)

: U 0982 0
: U 0983 0 %IF DSRPLUS %THEN
: U 0984 0 REQUIRE 'REQ:CREFDS.REQ'; ! Cross-referencing data structures
: U 0985 0 %FI
: U 0986 0
: U 0987 0 REQUIRE 'REQ:DIGIT.REQ'; . Macro to test if a character is a digit

G 1
15-Sep-1984 23:07:40
15-Sep-1984 22:50:36

VAX-11 Bliss-32 v4.0-742
_S255\$DUA28:[RUNOFF.SRC]DIGIT.REQ;1 Page 41 (1)

R0988 0
R0989 0 Version: 'V04-000'
R0990 0
R0991 0 *****
R0992 0 *
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R1010 0 *
R1011 0 *
R1012 0 *****
R1013 0
R1014 0
R1015 0 **
R1016 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R1017 0
R1018 0 ABSTRACT:
R1019 0 Macro to test if a character is a digit.
R1020 0
R1021 0 ENVIRONMENT: Transportable BLISS
R1022 0
R1023 0 AUTHOR: Rich Friday
R1024 0
R1025 0 CREATION DATE: 1978
R1026 0
R1027 0 MODIFIED BY:
R1028 0
R1029 0 002 KAD00002 Keith Dawson 07-Mar-1983
R1030 0 Global edit of all modules. Updated module names, idents,
R1031 0 copyright dates. Changed require files to BLISS library.
R1032 0
R1033 0 !--
R1034 0
R1035 0 MACRO
MR1036 0 DIGIT(KHAR) =
MR1037 0 (KHAR GEQ XC'0' and KHAR LEQ XC'9')
R1038 0 %;
R1039 0
R1040 0 ! End of DIGIT.REQ

: 1041 0 !! REQUIRE 'REQ:DMDEFS.REQ'; : Dynamic-memory management definitions
: 1042 0 REQUIRE 'REQ:ECC.REQ'; : Definitions for the Entity Counter/Caption Area

R1043 O
R1044 O Version: 'V04-000'
R1045 O
R1046 O *****
R1047 O *
R1048 O * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R1065 O *
R1066 O *
R1067 O * *****
R1068 O
R1069 O
R1070 O **
R1071 O FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R1072 O
R1073 O ABSTRACT:
R1074 O Definitions for the ECC (Entity Counter/Caption area).
R1075 O
R1076 O ENVIRONMENT: Transportable BLISS
R1077 O
R1078 O AUTHOR: Keith Dawson
R1079 O
R1080 O CREATION DATE: 1982
R1081 O
R1082 O MODIFIED BY:
R1083 O
R1084 O 004 KFA00004 Ken Alden 07-Jul-1983
R1085 O Made the counter into a full integer.
R1086 O
R1087 O 003 KAD00003 Keith Dawson 07-Mar-1983
R1088 O Global edit of all modules. Updated module names, idents,
R1089 O copyright dates. Changed require files to BLISS library.
R1090 O
R1091 O --
R1092 O
R1093 O \$FIELD ECC_FIELDS =
R1094 O SET
R1095 O ECC\$V_OPTIONS = [\$SHORT_INTEGER],
R1096 O
R1097 O \$OVERLAY (ECC\$V_OPTIONS)
R1098 O ECC\$V_BOLD = [\$BIT]. !Make entity caption bold.
R1099 O

```

R1100 0      ECC$V_UNDERLINE = [$BIT].           !Underline entity caption.
R1101 0      ECC$V_UNNUMBERED= [$BIT].          !Do not display counter for this entity.
R1102 0      ECC$V_BREAK   = [$BIT].            !Start a new line after entity/CHAPTER/APPENDIX.
R1103 0      ECC$V_TOCPAGE = [$BIT].            !Put a page number in the TOC.
R1104 0      ECC$V_PAGE   = [$BIT].            !Start a new page before CHAPTER or APPENDIX.
R1105 0      ECC$V_STARTODD = [$BIT].           !Start this chapter/appendix on an odd-numbered page.
R1106 0
R1107 0      SCONTINUE
R1108 0
R1109 0      ECC$H_RUNIN     = [$TINY_INTEGER]. !Run in caption with text.
R1110 0
R1111 0      ECC$H_CASE      = [$TINY_INTEGER]. !Case rules for caption (see values below).
R1112 0
R1113 0      ECC$H_POSITION   = [$TINY_INTEGER]. !Placement of header (see values below).
R1114 0
R1115 0      ECC$H_AFTER     = [$SHORT_INTEGER]. !This many blank lines after header.
R1116 0      ECC$H_BEFORE    = [$SHORT_INTEGER]. !Skip this many lines before header.
R1117 0      ECC$H_BETWEEN   = [$SHORT_INTEGER]. !Skip this many lines between 'CHAPTER' and the title.
R1118 0      ECC$H_SPACES    = [$SHORT_INTEGER]. !Number of spaces between counter and caption.
R1119 0      ECC$H_TESTPAGE  = [$SHORT_INTEGER]. !Generate test-page for this many lines.
R1120 0      ECC$H_COUNTER   = [$INTEGER].        !Counter for this entity.
R1121 0      ECC$H_DISPLAY_DESC = [$SHORT_INTEGER]. !RUNOFF display descriptor.
R1122 0      ECC$H_PRE_LEN   = [$SHORT_INTEGER]. !Before-counter text length.
R1123 0      ECC$H_PRE_PTR   = [$POINTER].       !Before-counter text pointer.
R1124 0      ECC$H_POST_LEN  = [$SHORT_INTEGER]. !After-counter text length.
R1125 0      ECC$H_POST_PTR  = [$POINTER].       !After-counter text pointer.
R1126 0
R1127 0      TES:
R1128 0
R1129 0      LITERAL
R1130 0      ECC$K_LENGTH = $FIELD_SET_SIZE;
R1131 0
R1132 0      ! Values for ECC$H_CASE:
R1133 0      LITERAL
R1134 0      ECC$K_LEAVECASE = 0;                !Make entity caption initial-cap.
R1135 0      ECC$K_FIRSTCAP  = 1;                !Make caption all-caps.
R1136 0      ECC$K_ALLCAP   = 2;
R1137 0
R1138 0      ! Values for ECC$H_POSITION:
R1139 0      LITERAL
R1140 0      ECC$K_LEFT     = 0;                !Make the entity caption flush-left.
R1141 0      ECC$K_RIGHT    = 1;                !Make the entity caption flush-right.
R1142 0      ECC$K_CENTER   = 2;                !Center entity caption.
R1143 0      ECC$K_ALTERNATE = 3;                !(nyi) Alternate flush-left, flush-right.
R1144 0
R1145 0
R1146 0      ! Offsets of counters for example, figure, and table in the ECC structure
R1147 0      (Entity Counter / Caption area):
R1148 0
R1149 0      LITERAL
R1150 0      EXAMP_OFFSET = 0;                 ! Examples
R1151 0      FIGUR_OFFSET = 1;                 ! Figures
R1152 0      TABLE_OFFSET = 2;                 ! Tables
R1153 0      HCOLL_OFFSET = 3;                ! Collecting headers
R1154 0      HL1_OFFSET   = 4;                 ! HL 1
R1155 0      HL2_OFFSET   = 5;                 ! HL 2
R1156 0      HL3_OFFSET   = 6;                 ! HL 3

```

K 1
15-Sep-1984 23:07:40
15-Sep-1984 22:50:59

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```
R1157 0
R1158 0      HL4_OFFSET    = 7;
R1159 0      HL5_OFFSET    = 8;
R1160 0      HL6_OFFSET    = 9;
R1161 0      CHAP_OFFSET   = 10;
R1162 0      APPEND_OFFSET = 11;
R1163 0
R1164 0      LITERAL       MAX_ECC_OFFSET = 11;
R1165 0
R1166 0      LITERAL       ! 3 SECC_BLOCKS for example, figure, table;
R1167 0      ! 1 for the Header-collecting block;
R1168 0      ! 6 for the header levels.
R1169 0      ! 1 for Chapters.
R1170 0      ! 1 for Appendix:
R1171 0      MAX_ECC = 3 + 1 + 6 + 1 + 1;
R1172 0
R1173 0
R1174 0      MACRO         SECC_BLOCK =
R1175 0          BLOCK [ECC$K_LENGTH] FIELD (ECC_FIELDS) %;
R1176 0
R1177 0
R1178 0      MACRO         SECC_BLOCKVECTOR =
R1179 0          BLOCKVECTOR [MAX_ECC, ECC$K_LENGTH] FIELD (ECC_FIELDS) %;
R1180 0
R1181 0
R1182 0      !           End of ECC.REQ
```

L 1
15-Sep-1984 23:07:40 VAX-11 Bliss-32 v4.0-742
15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 46
(2)

: 1183 0 REQUIRE 'REQ:FFDEFS.REQ'; ! FOO_... opcodes and status values for FOOFILE

R1184 0
R1185 0 Version: 'V04-000'
R1186 0
R1187 0
R1188 0
R1189 0 * *****
R1190 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R1205 0 * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
R1206 0 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
R1207 0
R1208 0 * *****
R1209 0
R1210 0
R1211 0 **
R1212 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R1213 0
R1214 0 ABSTRACT:
R1215 0 Literals defining FOOFILE operations and return values.
R1216 0
R1217 0 ENVIRONMENT: Transportable BLISS
R1218 0
R1219 0 AUTHOR: Rich Friday
R1220 0
R1221 0 CREATION DATE: 1982
R1222 0
R1223 0 MODIFIED BY:
R1224 0
R1225 0 005 KAD00005 Keith Dawson 07-Mar-1983
R1226 0 Global edit of all modules. Updated module names, idents,
R1227 0 copyright dates. Changed require files to BLISS library.
R1228 0
R1229 0 --
R1230 0
R1231 0 LITERAL
R1232 0 FOO_INIT = 0; !Initialize FOOJOB.
R1233 0 FOO_OPIN = 1; !Open footnote file for input.
R1234 0 FOO_OPOU = 2; !Open footnote file for output.
R1235 0 FOO_READ = 3; !Read a record from footnote file.
R1236 0 FOO_WRIT = 4; !Write a record to the footnote file.
R1237 0 FOO_CLOS = 5; !Close the footnote file.
R1238 0 FOO_DELETE = 6; !Delete the footnote file.
R1239 0 FOO_CLEAN = 7; !Discard footnotes that have been output.
R1240 0 FOO_RHDR = 8; !Read a record header.

R1241 0 FOO_PREAD= 9 !Read a "pass-through" record.
R1242 0 FOO_PWRIT= 10; !Write a "pass-through" record.
R1243 0
R1244 0
R1245 0 LITERAL FFOO_OP = 10; !Highest operation code.
R1246 0
R1247 0 LITERAL FOO_NORMAL = 1; !Operation done ok.
R1248 0 FOO_ENDFIL = 2; !End of file on write.
R1249 0 FOO_BAD = 3; !Couldn't perform operation.
R1250 0
R1251 0
R1252 0 ! End of FFDEFS.REQ

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: 1253 0 REQUIRE 'REQ:FLGT.REQ'; ! FLaG Table items

R1254 0
R1255 0 Version: 'V04-000'
R1256 0
R1257 0 *****
R1258 0 *
R1259 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R1276 0 *
R1277 0 *
R1278 0 *****
R1279 0
R1280 0
R1281 0 **
R1282 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R1283 0
R1284 0 ABSTRACT:
R1285 0 Flag table: values and status of flag characters.
R1286 0
R1287 0 ENVIRONMENT: Transportable BLISS
R1288 0
R1289 0 AUTHOR: Rich Friday
R1290 0
R1291 0 CREATION DATE: 1978
R1292 0
R1293 0 MODIFIED BY:
R1294 0
R1295 0 005 KFA00005 Ken Alden 21-Mar-1983
R1296 0 For DSRPLUS: eliminated the passthrough flag.
R1297 0
R1298 0 004 KFA00004 Ken Alden 15-Mar-1983
R1299 0 For DSRPLUS: added bits for passthrough flag.
R1300 0
R1301 0 003 KAD00003 Keith Dawson 07-Mar-1983
R1302 0 Global edit of all modules. Updated module names, idents,
R1303 0 copyright dates. Changed require files to BLISS library.
R1304 0
R1305 0 --

R1306 0 In the following definitions, 3-character abbreviations are used for the
R1307 0 names of the flags:

abbre- viation	flag	abbre- viation	flag
COM	Comment	BLD	Bold
SUB	Substitute	SPA	Space
EFO	Endfootnote	IND	Index
CON	Control	HYP	Hyphenate
QUO	Accept (ne Quote)	OVR	Overstrike
UPP	Uppercase	SBX	Subindex
LOW	Lowercase	PER	Period
CAP	Capitalize	BRK	Break
UND	Underline	NPX	No-permute-index

R1322 0
R1323 0 LITERAL FLAG_COUNT = 18; ! Number of flags.

R1324 0
R1325 0 LITERAL SUB_FLAG = 0,
R1326 0 EFO_FLAG = 1,
R1327 0 CON_FLAG = 2,
R1328 0 QUO_FLAG = 3,
R1329 0 UPP_FLAG = 4,
R1330 0 LOW_FLAG = 5,
R1331 0 CAP_FLAG = 6,
R1332 0 UND_FLAG = 7,
R1333 0 BLD_FLAG = 8,
R1334 0 SPA_FLAG = 9,
R1335 0 IND_FLAG = 10,
R1336 0 HYP_FLAG = 11,
R1337 0 OVR_FLAG = 12,
R1338 0 SBX_FLAG = 13,
R1339 0 COM_FLAG = 14,
R1340 0 PER_FLAG = 15,
R1341 0 BRK_FLAG = 16,
R1342 0 NPX_FLAG = 17;

R1343 0
R1344 0
R1345 0 LITERAL FLAG_ENABLED = 0,
R1346 0 FLAG_CHARACTER = 1;

R1347 0
R1348 0 ! The FLAG_TABLE structure does not need to use %UPVAL to be on -11s and VAX,
R1349 0 because the information there can be saved in single bytes.
R1350 0 STRUCTURE

R1351 0 FLAG_TABI[[I,J;N=FLAG_COUNT] =
R1352 0 [2 * N * %UPVAL]
R1353 0 (If J eq1 FLAG_ENABLED
R1354 1 then FLAG_TABE + (I * %UPVAL)
R1355 2 else FLAG_TABLE + (FLAG_COUNT + I) * %UPVAL);

R1356 0
R1357 0 MACRO
R1358 0 FLGT_DEFINITION =
R1359 0 FLAG_TABLE[FLAG_COUNT];

MR1360 0
R1361 0
R1362 0

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15-Sep-1984 22:51:14

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; R1363 0 !

End of FLGT.REQ

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15-Sep-1984 22:50:43

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: 1364 0 REQUIRE 'REQ:FLIPCHARS.REQ'; ! FLIPSK_... special characters

R1365 0
R1366 0 Version: 'V04-000'
R1367 0
R1368 0
R1369 0
R1370 0
R1371 0
R1372 0
R1373 0
R1374 0
R1375 0
R1376 0
R1377 0
R1378 0
R1379 0
R1380 0
R1381 0
R1382 0
R1383 0
R1384 0
R1385 0
R1386 0
R1387 0
R1388 0
R1389 0
R1390 0
R1391 0
R1392 0
R1393 0
R1394 0
R1395 0
R1396 0
R1397 0
R1398 0
R1399 0
R1400 0
R1401 0
R1402 0
R1403 0
R1404 0
R1405 0
R1406 0
R1407 0
R1408 0
R1409 0
R1410 0
R1411 0
R1412 0
R1413 0
R1414 0
R1415 0
R1416 0
R1417 0
R1418 0
R1419 0
R1420 0
R1421 0

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++
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

ABSTRACT:
This file contains the definitions of the FLIP special text characters.

ENVIRONMENT: Transportable BLISS

AUTHOR: George Hetrick

CREATION DATE: 19-Feb-1982

MODIFIED BY:
002 KAD00002 Keith Dawson 07-Mar-1983
Global edit of all modules. Updated module names, idents,
copyright dates. Changed require files to BLISS library.
--
+ FLIP special characters, inserted into output file
-

SLITERAL
FLIPSK_START_BOLD = \$DISTINCT,
FLIPSK_START_UNDERLINE = \$DISINCT,
FLIPSK_END_BOLD = \$DISTINCT,
FLIPSK_END_UNDERLINE = \$DISINCT;

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: R1422 0 !

End of FLIPCHARS.REQ

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(2)

: 1423 0 REQUIRE 'REQ:FLIPRECS.REQ'; ! FLIP macro, record, & field definitions and MAX_LEVELS.

R1424 0
R1425 0
R1426 0
R1427 0
R1428 0
R1429 0
R1430 0
R1431 0
R1432 0
R1433 0
R1434 0
R1435 0
R1436 0
R1437 0
R1438 0
R1439 0
R1440 0
R1441 0
R1442 0
R1443 0
R1444 0
R1445 0
R1446 0
R1447 0
R1448 0
R1449 0
R1450 0
R1451 0
R1452 0
R1453 0
R1454 0
R1455 0
R1456 0
R1457 0
R1458 0
R1459 0
R1460 0
R1461 0
R1462 0
R1463 0
R1464 0
R1465 0
R1466 0
R1467 0
R1468 0
R1469 0
R1470 0
R1471 0
R1472 0
R1473 0
R1474 0
R1475 0
R1476 0
R1477 0
R1478 0
R1479 0
R1480 0
TITLE 'FLIPRECS -- FLIP/RUNOFF record formats'

Version: 'V04-000'

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**
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

ABSTRACT:
This file documents the records emitted by RUNOFF for processing by FLIP.

ENVIRONMENT:
DSRPLUS

AUTHOR: George C. Hetrick

CREATION DATE: 1981

MODIFIED BY:

003 KAD00003 Keith Dawson 17-May-1983
Made all - CODEs [\$TINY_INTEGER]'s again. The reason for
having changed to [\$INTEGER]'s in the first place has gone
away: FLIP code is now more tightly conditionalized (for
the benefit of TOPS-20 mainly).

002 KAD00002 Keith Dawson 07-Mar-1983
Global edit of all modules. Updated module names, idents,
copyright dates. Changed require files to BLISS library.

--

!sbttl 'FLIP/RUNOFF record types':

FLIPRECS -- FLIP/RUNOFF record formats
FLIP/RUNOFF record types

K 2
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R1481 0
R1482 0 SLITERAL
R1483 0 FLIP\$K_INIT = \$DISTINCT.
R1484 0 FLIP\$K_RNOTXT = \$DISTINCT.
R1485 0 FLIP\$K_TCXTXT = \$DISTINCT.
R1486 0 FLIP\$K_TCXXTN = \$DISTINCT.
R1487 0 FLIP\$K_TCXINI = \$DISTINCT.
R1488 0 FLIP\$K_TOCRD = \$DISTINCT.
R1489 0 FLIP\$K_TOCTXT = \$DISTINCT.
R1490 0 FLIP\$K_TOCPAG = \$DISTINCT.
R1491 0 FLIP\$K_TOCHLI = \$DISTINCT.
R1492 0 FLIP\$K_TOCHL = \$DISTINCT.
R1493 0 FLIP\$K_NEWPAG = \$DISTINCT;

R1494 0 LITERAL
R1495 0 FLIP\$K_VERSION = 1;

FLIPRECS -- FLIP/RUNOFF record formats
INIT -- initial FLIP record

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```
R1496 0
R1497 0
R1498 0
R1499 0
R1500 0
R1501 0
R1502 0
R1503 0
R1504 0
R1505 0
R1506 0
R1507 0
R1508 0
R1509 0
R1510 0
R1511 0
R1512 0
R1513 0
R1514 0

%sbttl 'INIT -- initial FLIP record';

$FIELD
$FLIPSINIT_FIELDS = SET
INIT_CODE      = [$TINY_INTEGER],          ! record type
INIT_FLAGS     = [$BYTE],                 ! various flags
OVERLAY(INIT_FLAGS)
INIT_CONTENTS   = [$BIT],                  ! was /CONTENTS specified
CONTINUE        = [$WORD]
INIT_LEVEL     = [$SHORT_INTEGER]          ! FLIP version
TES:           ! Size in UNITS
LITERAL
FLIP$K_INIT_LENGTH = $FIELD_SET_SIZE,    ! Size in FULLWORDS
FLIP$K_INIT_SIZE = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS
MACRO
$FLIP_INIT = BLOCK[FLIP$K_INIT_LENGTH] FIELD($FLIPSINIT_FIELDS)%;
```

FLIPRECS -- FLIP/RUNOFF record formats
 RNOTXT -- text record

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```

R1515 0 %sbttl 'RNOTXT -- text record';
R1516 0
R1517 0 $FIELD
R1518 0   $FLIP$RNOTXT_FIELDS1= SET
R1519 0     RNOTXT_CODE      = [$TINY_INTEGER]
R1520 0     RNOTXT_LENGTH    = [$SHORT_INTEGER]      ! record type
R1521 0     TES;           ! length of data portion
R1522 0
R1523 0 LITERAL
R1524 0   FLIP$K_RNOTXT_BASELEN = $FIELD_SET_SIZE, ! Size in FULLWORDS
R1525 0   FLIP$K_RNOTXT_BASESIZ = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS
R1526 0
R1527 0
R1528 0
R1529 0 $FIELD
R1530 0   $FLIP$RNOTXT_FIELDS2= SET
R1531 0     RNOTXT_FILLER   = [$SUB_BLOCK(FLIP$K_RNOTXT_BASELEN)],
R1532 0     RNOTXT_TEXT     = [$SUB_BLOCK(1000)] ! TEXT segment
R1533 0     TES;
R1534 0
R1535 0 LITERAL
R1536 0   FLIP$K_RNOTXT_LENGTH = $FIELD_SET_SIZE, ! Size in FULLWORDS
R1537 0   FLIP$K_RNOTXT_SIZE   = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS
R1538 0
R1539 0 MACRO
MR1540 0   $FLIP_RNOTXT = BLOCK[FLIP$K_RNOTXT_LENGTH] FIELD($FLIP$RNOTXT_FIELDS1,
R1541 0             $FLIP$RNOTXT_FIELDS2)%;
R1542 0
  
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCTXT -- TOC text record

N 2
15-Sep-1984 23:07:40
15-Sep-1984 22:51:29
VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SRC]FLIPRECS.REQ;1 Page 61 (4)

```
R1543 0
R1544 0
R1545 0
R1546 0
R1547 0
R1548 0
R1549 0
R1550 0
R1551 0
R1552 0
R1553 0
R1554 0
R1555 0
R1556 0
R1557 0
R1558 0
R1559 0
R1560 0
R1561 0
R1562 0
R1563 0
R1564 0
R1565 0
R1566 0
R1567 0
R1568 0
R1569 0
MR1570 0
R1571 0
R1572 0

:: R1543 0
:: R1544 0
:: R1545 0
:: R1546 0
:: R1547 0
:: R1548 0
:: R1549 0
:: R1550 0
:: R1551 0
:: R1552 0
:: R1553 0
:: R1554 0
:: R1555 0
:: R1556 0
:: R1557 0
:: R1558 0
:: R1559 0
:: R1560 0
:: R1561 0
:: R1562 0
:: R1563 0
:: R1564 0
:: R1565 0
:: R1566 0
:: R1567 0
:: R1568 0
:: R1569 0
:: MR1570 0
:: R1571 0
:: R1572 0

:: %sbttl 'TOCTXT -- TOC text record';

:: $FIELD
:: $FLIP$TOCTXT_FIELDS1= SET
:: TOCTXT_CODE      = [$TINY_INTEGER],           ! record type
:: TOCTXT_MAJOR     = [$TINY_INTEGER],           ! major code
:: TOCTXT_MINOR     = [$TINY_INTEGER],           ! minor code
:: TOCTXT_LENGTH    = [$INTEGER]                 ! length of data portion
:: TES:

:: LITERAL
:: FLIP$K_TOCTXT_BASELEN = $FIELD_SET_SIZE,      ! Size in FULLWORDS
:: FLIP$K_TOCTXT_BASESIZ = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS

:: $FIELD
:: $FLIP$TOCTXT_FIELDS2= SET
:: TOCTXT_FILLER    = [$SUB_BLOCK(FLIP$K_TOCTXT_BASELEN)],
:: TOCTXT_TEXT      = [$SUB_BLOCK(1000)]           ! TEXT segment
:: TES:

:: LITERAL
:: FLIP$K_TOCTXT_LENGTH = $FIELD_SET_SIZE,        ! Size in FULLWORDS
:: FLIP$K_TOCTXT_SIZE  = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS

:: MACRO
:: $FLIP_TOCTXT = BLOCK[FLIP$K_TOCTXT_LENGTH] FIELD($FLIP$TOCTXT_FIELDS1,
:: $FLIP$TOCTXT_FIELDS2)%;
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCRD -- TOC descriptor

B 3
15-Sep-1984 23:07:40
15-Sep-1984 22:51:29
VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SRC]FLIPRECS.REQ;1 (5)
Page 62

```
R1573 0 %sbtll 'TOCRD -- TOC descriptor';
R1574 0
R1575 0
R1576 0 $FIELD
R1577 0   $FLIP$TOCRD_FIELDS = SET
R1578 0     TOCRD_CODE      = {$TINY_INTEGER},      ! record type
R1579 0     TOCRD_MAJOR     = {$INTEGER},        ! major code
R1580 0     TOCRD_MINOR     = {$INTEGER}          ! minor code
R1581 0   TES:
R1582 0
R1583 0 LITERAL
R1584 0   FLIP$K_TOCRD_LENGTH = $FIELD_SET_SIZE, ! Size in FULLWORDS
R1585 0   FLIP$K_TOCRD_SIZE = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS
R1586 0
R1587 0 MACRO
R1588 0   $FLIP_TOCRD = BLOCK[FLIP$K_TOCRD_LENGTH] FIELD($FLIP$TOCRD_FIELDS)%;
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCPAG -- TOC page record

{ 3
15-Sep-1984 23:07:40
15-Sep-1984 22:51:29

VAX-11 Bliss-32 V4.0-742
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```
R1589 0 %sbttl 'TOCPAG -- TOC page record';
R1590 0
R1591 0 $FIELD
R1592 0   $FLIP$TOCPAG_FIELDS = SET
R1593 0     TOCPAG_CODE    = [$TINY_INTEGER],      ! record type
R1594 0     TOCPAG_PAGENO = [$SUB_BLOCK(PAGE_SCT_SIZE)] ! page number segment
R1595 0
R1596 0   TES;
R1597 0
R1598 0 LITERAL
R1599 0   FLIP$K_TOCPAG_LENGTH = $FIELD_SET_SIZE, ! Size in FULLWORDS
R1600 0   FLIP$K_TOCPAG_SIZE = %UPVAL*$FIELD_SET_SIZE;! Size in UNITS
R1601 0
R1602 0 MACRO
R1603 0   $FLIP_TOCPAG = BLOCK[FLIP$K_TOCPAG_LENGTH] FIELD($FLIP$TOCPAG_FIELDS)%;
R1604 0
R1605 0
```

```
: R1606 0 %sbttl 'TCXXTN -- index';
: R1607 0
: R1608 0
: R1609 0 $FIELD
: R1610 0     $FLIP$TCXXTN_FIELDS = SET
: R1611 0         TCXXTN_CODE    = [$TINY_INTEGER],      ! record type
: R1612 0         $ALIGN(FULLWORD)
: R1613 0         TCXXTN_XTN    = [$INTEGER],          ! transaction type
: R1614 0         TCXXTN_SCT    = [$SUB_BLOCK(PAGE_SCT_SIZE)]
: R1615 0                           ! page number segment
: R1616 0
: R1617 0 TES:
: R1618 0
: R1619 0 LITERAL
: R1620 0     FLIPSK_TCXXTN_LENGTH = $FIELD_SET_SIZE,   ! Size in FULLWORDS
: R1621 0     FLIPSK_TCXXTN_SIZE  = %UPVAL*$FIELD_SET_SIZE;! Size in UNITS
: R1622 0 MACRO
: R1623 0     $FLIP_TCXXTN = BLOCK[FLIPSK_TCXXTN_LENGTH] FIELD($FLIP$TCXXTN_FIELDS)%;
: R1624 0
```

```
R1625 0
R1626 0
R1627 0
R1628 0
R1629 0
R1630 0
R1631 0
R1632 0
R1633 0
R1634 0
R1635 0
R1636 0
R1637 0
R1638 0
R1639 0
R1640 0
R1641 0

    %sbttl 'TOCHLI -- TOC header level info record';

    $FIELD
        $FLIP$TOCHLI_FIELDS = SET
            TOCHLI_CODE      = [$TINY_INTEGER],           ! record type
            TOCHLI_HLLIST   = [$$SUB_BLOCK(2+MAX_LEVELS)], ! header level info
            TOCHLI_HLDSP     = [$$SUB_BLOCK(MAX_LEVELS)]  ! header level display info

    TES:

    LITERAL
        FLIP$K_TOCHLI_LENGTH = $FIELD_SET_SIZE,       ! Size in FULLWORDS
        FLIP$K_TOCHLI_SIZE   = %UPVAL*$FIELD_SET_SIZE;! Size in UNITS

    MACRO
        $FLIP_TOCHLI = BLOCK[FLIP$K_TOCHLI_LENGTH] FIELD($FLIP$TOCHLI_FIELDS)%;
```

FLIPRECS -- FLIP/RUNOFF record formats
TCXINI -- Index Header record

F 3
15-Sep-1984 23:07:40
15-Sep-1984 22:51:29
VAX-11 Bliss-32 V4.0-742
\$_\$255\$DUA28:[RUNOFF.SRC]FLIPRECS.REQ;1 (9)
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```
R1642 0
R1643 0
R1644 0
R1645 0
R1646 0
R1647 0
R1648 0
R1649 0
R1650 0
R1651 0
R1652 0
R1653 0
R1654 0
R1655 0
R1656 0

%sbttl 'TCXINI -- Index Header record';

$FIELD
  $FLIP$TCXINI_FIELDS = SET
    TCXINI_CODE      = [$TINY_INTEGER],          ! record type
    TCXINI_HEADER    = [$INTEGER]                 . TCX format indicator
  TES;

LITERAL
  FLIP$K_TCXINI_LENGTH = $FIELD_SET_SIZE,     ! Size in FULLWORDS
  FLIP$K_TCXINI_SIZE   = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS

MACRO
  $FLIP_TCXINI = BLOCK[FLIP$K_TCXINI_LENGTH] FIELD($FLIP$TCXINI_FIELDS)%;
```

```
R1657 0 %sbttl 'TCXTXT -- Index TEXT record';
R1658 0
R1659 0 $FIELD
R1660 0   $FLIP$TCXTXT_FIELDS1 = SET
R1661 0     TCXTXT_CODE      = [$TINY_INTEGER],           ! record type
R1662 0     SALIGN(FULLWORD)
R1663 0     TCXTXT_ENTRY    = [$INTEGER],            ! ENTRY flag
R1664 0     TCXTXT_LENGTH   = [$INTEGER],            ! length of data
R1665 0     TCXTXT_XTN     = [$INTEGER],            ! transaction number
R1666 0     TCXTXT_BAR     = [$INTEGER]             ! change bar flag
R1667 0   TES;
R1668 0
R1669 0 LITERAL
R1670 0   FLIP$K_TCXTXT_BASELEN = $FIELD_SET_SIZE,   ! Size in FULLWORDS
R1671 0   FLIP$K_TCXTXT_BASESIZ = %UPVAL*$FIELD_SET_SIZE;! Size in UNITS
R1672 0
R1673 0 $FIELD
R1674 0   $FLIP$TCXTXT_FIELDS2 = SET
R1675 0     TCXTXT_DUMMY    = [$SUB_BLOCK(FLIP$K_TCXTXT_BASELEN)],
R1676 0     TCXTXT_TEXT     = [$SUB_BLOCK(1000)]          ! text of entry
R1677 0   TES;
R1678 0
R1679 0 LITERAL
R1680 0   FLIP$K_TCXTXT_LENGTH = $FIELD_SET_SIZE,   ! Size in FULLWORDS
R1681 0   FLIP$K_TCXTXT_SIZE  = %UPVAL*$FIELD_SET_SIZE;! Size in UNITS
R1682 0
R1683 0 MACRO
R1684 0   $FLIP_TCXTXT = BLOCK[FLIP$K_TCXTXT_LENGTH] FIELD($FLIP$TCXTXT_FIELDS1,
R1685 0         $FLIP$TCXTXT_FIELDS2)%;
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

H 3
15-Sep-1984 23:07:40
15-Sep-1984 22:51:29

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_S255\$DUA28:[RUNOFF.SRC]FLIPRECS.REQ;1

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(11)

```
R1686 0
R1687 0
R1688 0
R1689 0
R1690 0
R1691 0
R1692 0
R1693 0
R1694 0
R1695 0
R1696 0
R1697 0
R1698 0

%sbttl 'TOCHL -- HL indicator record';

$F ELD
  $FLIP$TOCHL_FIELDS = SET
    TOCHL_CODE      = [$TINY_INTEGER]      ! record type
    TES;

LITERAL
  FLIP$K_TOCHL_LENGTH = $FIELD_SET_SIZE. ! Size in FULLWORDS
  FLIP$K_TOCHL_SIZE   = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS

MACRO
  $FLIP_TOCHL = BLOCK[FLIP$K_TOCHL_LENGTH] FIELD($FLIP$TOCHL_FIELDS)%;
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

1 3
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

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_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 69
(2)

: 1699 0 REQUIRE 'REQ:FNCT.REQ'; ! Footnote control table

R1700 0
R1701 0 Version: 'V04-000'
R1702 0
R1703 0 *****
R1704 0 *
R1705 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
R1706 0 * DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
R1707 0 * ALL RIGHTS RESERVED.
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R1719 0 *
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R1721 0 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
R1722 0 *
R1723 0 *
R1724 0 *
R1725 0 *
R1726 0 *
R1727 0 **
R1728 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R1729 0
R1730 0 ABSTRACT: Footnote control table.
R1731 0
R1732 0 ENVIRONMENT: Transportable BLISS
R1733 0
R1734 0 AUTHOR: Rich Friday CREATION DATE: 1978
R1735 0

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

K 3
15-Sep-1984 23:07:40
15-Sep-1984 22:51:35

VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SRC]FNCT.REQ;1

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(2)

R1736 0
R1737 0
R1738 0
R1739 0
R1740 0
R1741 0
R1742 0
R1743 0
R1744 0
R1745 0
R1746 0
R1747 0
R1748 0
R1749 0
R1750 0
R1751 0
R1752 0

MODIFIED BY:

004 RER00004 Ron Randall 05-Apr-1983
For DSRPLUS: For footnote numbering, added
fnct_first_line and fnct_number_l/r.

003 RER00003 Ron Randall 27-Mar-1983
For DSRPLUS:
Added fnct_numbering and fnct_number to indicate numbering
of footnotes and to hold the number of the current footnote
on this page.

002 KAD00002 Keith Dawson 07-Mar-1983
Global edit of all modules. Updated module names, idents,
copyright dates. Changed require files to BLISS library.

--

R1753 0

MACRO

Number of unexpanded footnotes waiting to be output.
fnct_count = fnct [0] %,
Number of unexpanded footnotes on or before current page.
fnct_ready = fnct [1] %,
The "n" from .FOOTNOTE n (zero if not given).
fnct_n = fnct [2] %,
Number of expanded footnotes present in these tables.
fnct_old = fnct [3] %,
This many footnotes are attached to lines not yet output.
fnct_waiting = fnct [4] %,
TRUE between .FOOTNOTE and .END FOOTNOTE.
fnct_collecting = fnct [5] %,
TRUE if putting a footnote out onto a page.
fnct_expanding = fnct [6] %,
TRUE if numbering footnotes.
fnct_numbering = fnct [7] %,
TRUE if building first line of a numbered footnote.
fnct_first_line = fnct [8] %,
Left digit of the current footnote in this chapter.
fnct_number_l = fnct [9] %,
Right digit of the current footnote in this chapter.
fnct_number_r = fnct [10] %,
Current footnote in this chapter.
fnct_number = fnct [11] %;

LITERAL

Number of words of control information in these tables.
fnct_control = 12,
Maximum number of footnotes that can be noted in these tables.

```
R1810 0      !  
R1811 0      fnct_max          = 20;  
R1812 0  
R1813 0  
R1814 0  
R1815 0      All footnote control information saved in this vector.  
R1816 0  
R1817 0      fnct_definition = VECTOR [fnct_control] %;  
R1818 0  
R1819 0  
R1820 0  
R1821 0      Sizes of individual footnotes. There are .fnct_count + .fnct_old  
R1822 0      entries, of which only the last .fnct_count are useful; of these,  
R1823 0      it's ok to output at most .fnct_ready of them right now.  
R1824 0      (The extra position allocated as a one-word work area.)  
R1825 0  
R1826 0      fn_ext_size_definition = VECTOR [fnct_max + 1] %;  
R1827 0  
R1828 0  
R1829 0  
R1830 0      Number of TSF/MRA pairs in each saved footnote.  
R1831 0  
R1832 0      fn_int_size_definition = VECTOR [fnct_max + 1] %;  
R1833 0  
R1834 0      ! End of fnct.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

N 3
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742
15-Sep-1984 22:50:43 _\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 74
(2)

: 1835 0 REQUIRE 'REQ:FOOREC.REQ'; ! FOOREC_... items (for FN record headers)

R1836 0
R1837 0 Version: 'V04-000'
R1838 0
R1839 0 *****
R1840 0 *
R1841 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
R1842 0 * DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
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R1858 0 *
R1859 0 *
R1860 0 *****
R1861 0
R1862 0
R1863 0 **
R1864 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R1865 0
R1866 0 ABSTRACT:
R1867 0 FOOREC.REQ defines the format of record headers for records written
R1868 0 during footnote processing to the footnote temporary files, 00%RNO.TMP.
R1869 0 Each record header gives some cursory information about the record that
R1870 0 follows it. Such records are, typically, a TSF, an MRA, or 'pass-
R1871 0 through' information intended for indexing or table of contents.
R1872 0
R1873 0 Note that FOOREC_ADDRESS, although allocated as part of FOOREC, is
R1874 0 never read or written. Instead, FOO_PREAD, on reading a 'pass-
R1875 0 through' record, returns the address of the information there.
R1876 0 FOO_PWRIT uses that to determine where the information to be written
R1877 0 is stored.
R1878 0
R1879 0 ENVIRONMENT: Transportable BLISS
R1880 0
R1881 0 AUTHOR: Rich Friday
R1882 0
R1883 0 CREATION DATE: 1982
R1884 0
R1885 0 MODIFIED BY:
R1886 0
R1887 0 002 KAD00002 Keith Dawson 07-Mar-1983
R1888 0 Global edit of all modules. Updated module names, idents,
R1889 0 copyright dates. Changed require files to BLISS library.
R1890 0
R1891 0
R1892 0 --

FLIPRECS -- FLIP/RUNOFF record formats
10CHL -- HL indicator record

6
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742
15-Sep-1984 22:51:47 \$25\$DUA28:[RUNOFF.SRC]FOOREC.REQ;1 Page 76
(1)

R1893 0 MACRO
R1894 0 FOOREC_MAJOR_TYPE = FOOREC [0]%;
R1895 0 FOOREC_MINOR_TYPE = FOOREC [1]%;
R1896 0 FOOREC_RECORD_SIZE = FOOREC [2]%;
R1897 0 FOOREC_XTN_PTR = FOOREC [3]%;
R1898 0 FOOREC_ADDRESS = FOOREC [4]%;
R1899 0
R1900 0
R1901 0 LITERAL
R1902 0 FOOREC_SIZE = 4; !Number of words in the record header.
R1903 0
R1904 0 MACRO
R1905 0 FOOREC_DEFINITION = VECTOR [FOOREC_SIZE + 1] %;
R1906 0
R1907 0
R1908 0 !Here are the major and minor record types.
R1909 0 LITERAL
R1910 0 FOOREC_MAJ_TSF = 0; !The record is a TSF data structure.
R1911 0 FOOREC_MAJ_MRA = 1; !The record is an MRA data structure.
R1912 0 FOOREC_MAJ_PASS = 2; !"Pass-through" information.
R1913 0 FOOREC_MIN_INDEX = 0; !Indexing information.
R1914 0 FOOREC_MIN_TOC = 1; !Table of contents information.
R1915 0 FOOREC_MIN_TEXT = 2; !Something to do with normal text.
R1916 0
R1917 0 LITERAL
R1918 0 FOOREC_MAX_MAJ = 2; !The largest major record type.
R1919 0 FOOREC_MAX_MIN = 2; !The largest minor record type.
R1920 0
R1921 0 ! End of FOOREC.REQ

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

D 4
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742
15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 77
(2)

: 1922 0 REQUIRE 'REQ:FRMSTK.REQ'; ! Codes for .LS & .NT context save stack

R1923 0
R1924 0 Version: 'V04-000'
R1925 0
R1926 0 *****
R1927 0 *
R1928 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R1944 0 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
R1945 0 *
R1946 0 *
R1947 0 *****
R1948 0
R1949 0
R1950 0 **
R1951 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R1952 0
R1953 0 ABSTRACT:
R1954 0 Definitions related to the data stack on which formatting information
R1955 0 is saved by the .NOTE and .LIST commands. Information is removed by
R1956 0 .END NOTE and .END LIST commands.
R1957 0
R1958 0 ENVIRONMENT: Compatible BLISS
R1959 0
R1960 0 AUTHOR: Rich Friday
R1961 0
R1962 0 CREATION DATE: 1978
R1963 0
R1964 0 MODIFIED BY:
R1965 0
R1966 0 003 KAD00003 Keith Dawson 07-Mar-1983
R1967 0 Global edit of all modules. Updated module names, idents,
R1968 0 copyright dates. Changed require files to BLISS library.
R1969 0
R1970 0 --
R1971 0
R1972 0 LITERAL FRMSTK_LIMIT = CL_DEFAULT_SIZE;
R1973 0 ! Maximum depth of the stack. It is 15 at
R1974 0 this point; but the actual value is kept
R1975 0 ! only in (LIST.REQ).
R1976 0
R1977 0 LITERAL FRMSTK_FILL = 01, ! A copy of SCA_FILL
R1978 0 FRMSTK_JUSTIFY = 02, ! A copy of SCA_JUSTIFY
R1979 0

R1980 0 FRMSTK_RM = 03. ! A copy of SCA_RM
R1981 0 FRMSTK_LM = 04. ! A copy of SCA_LM
R1982 0 FRMSTK_SPACING = 05. ! A copy of SCA_SPACING
R1983 0 FRMSTK_COMMAND = 06. ! The handler code for the command responsible for this entry
R1984 0 FRMSTK_ISEQN = 07. ! The input sequence number for the command
R1985 0 FRMSTK_IPAGEN = 08. ! The input page number for the command
R1986 0 FRMSTK_FSPEC_P = 09. ! A reference to the file-spec in which the command occurred.
R1987 0 FRMSTK_FSPECC = 10. ! The length of the file-spec in which the command occurred.
R1988 0 FRMSTK_REQ_D = 11. ! The .REQUIRE nesting level in effect
R1989 0 FRMSTK_CROCK = 12. ! A copy of SCA_CROCK
R1990 0 FRMSTK_DO_NBITS = 13. ! A copy of SCA_DO_NBITS
R1991 0 FRMSTK_KER = 14. ! A copy of SCA_KER
R1992 0 FRMSTK_INDEX = 15. ! A copy of SCA_INDEX.
R1993 0
R1994 0 LITERAL
R1995 0 FRMSTK_ITEM_CNT = 15; ! Number of pieces of info per entry
R1996 0
R1997 0 !One more entry is allocated than requested so than the routine
R1998 0 !LIT (process literals) can save information.
R1999 0 STRUCTURE
R2000 0 FORM_STACK[I,J:N=FRMSTK_ITEM_CNT,M=FRMSTK_LIMIT] =
R2001 0 [%UPVAL*(N*(M + 1))]
R2002 0 (FORM_STACK + %UPVAL*((I - 1)*N + J - 1));
R2003 0
R2004 0 ! End of FRMSTK.REQ

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

6 4
15-Sep-1984 23:07:40 15-Sep-1984 22:50:43 VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 80
(2)

: 2005 0 REQUIRE 'REQ:FSPACK.REQ'; ! FIXED_STRING structure & FS_... macros

R2006 0
R2007 0 Version: 'V04-000'
R2008 0
R2009 0
R2010 0
R2011 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R2027 0 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
R2028 0
R2029 0
R2030 0
R2031 0
R2032 0
R2033 0
R2034 0 **
R2035 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R2036 0
R2037 0 ABSTRACT:
R2038 0 Macros to manipulate FIXED_STRINGS: transportable, fixed-length
R2039 0 strings.
R2040 0
R2041 0 ENVIRONMENT: Transportable BLISS
R2042 0
R2043 0 AUTHOR: Rich Friday
R2044 0
R2045 0
R2046 0 CREATION DATE: 1978
R2047 0
R2048 0 MODIFIED BY:
R2049 0 002 KAD00002 Keith Dawson 07-Mar-1983
R2050 0 Global edit of all modules. Updated module names, idents,
R2051 0 copyright dates. Changed require files to BLISS library.
R2052 0
R2053 0
R2054 0
R2055 0 +
R2056 0 FIXED STRING is a structure that contains a string of an expected maximum
R2057 0 length, plus additional locations to contain information related to the
R2058 0 status of the string.
R2059 0
R2060 0 STRUCTURE
R2061 0 fixed_string[i;n=1] =
R2062 0 [4*XUPVAL + CH\$ALLOCATION(N*XUPVAL)]
 (fixed_string - XUPVAL*(1-I));

```
R2063 0
R2064 0
R2065 0
R2066 0
R2067 0
R2068 0
R2069 0
R2070 0
R2071 0
R2072 0
R2073 0
R2074 0
R2075 0
R2076 0
MR2077 0
MR2078 0
MR2079 0
MR2080 0
MR2081 0
MR2082 0
R2083 0
R2084 0
R2085 0
R2086 0
R2087 0
R2088 0
MR2089 0
MR2090 0
R2091 0
R2092 0
MR2093 0
MR2094 0
R2095 0
R2096 0
MR2097 0
MR2098 0
R2099 0
R2100 0
MR2101 0
MR2102 0
R2103 0
R2104 0
R2105 0
R2106 0
R2107 0
R2108 0
MR2109 0
MR2110 0
MR2111 0
MR2112 0
MR2113 0
MR2114 0
R2115 0
R2116 0
R2117 0
R2118 0
R2119 0

  + The following literals are names for the fields allocated above. These
  | names are not to be used by a user.
  |
  LITERAL
    FS_FCP      = 01,   ! CH$PTR to first character position.
    FS_NCP      = 02,   ! CH$PTR to next character position.
    FS_MAX      = 03,   ! Capacity of the counted string.
    FS_LEN      = 04;   ! Current length.

  + FS_ALLOCATE is used to allocate and initialize a fixed-length string.
  |
  MACRO
    fs_allocate (fs_name,fs_maxl) =
      fs_name:fixed_string [fs_maxl]
      INITIAL (0,
                0,
                fs_maxl,
                0)
    %

  + Control information is accessed via the following macros.
  |
  MACRO
    fs_start (fs_name) =
      fs_name [fs_fcp]
    %
    fs_next (fs_name) =
      fs_name [fs_ncp]
    %
    fs_maxsize (fs_name) =
      fs_name [fs_max]
    %
    fs_length (fs_name) =
      fs_name [fs_len]
    %

  + FS_INIT initializes a fixed-length string to the null string.
  |
  MACRO
    fs_init (fs_name) =
      BEGIN
        fs_length (fs_name)      = 0;
        fs_start (fs_name)       = CH$PTR (fs_name [5]);
        fs_next (fs_name)        = .fs_start (fs_name);
      END
    %

  + FS_WCHAR puts a character into the fixed-length string.
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

J 4
15-Sep-1984 23:07:40
15-Sep-1984 22:51:57

VAX-11 Bliss-32 V4.0-742

_S255\$DUA28:[RUNOFF.SRC]FSPACK.REQ;1

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```
R2120 0
R2121 0
R2122 0
R2123 0
R2124 0
R2125 0
R2126 0
R2127 0
R2128 0
R2129 0
R2130 0
R2131 0
R2132 0
R2133 0
R2134 0
R2135 0
R2136 0
R2137 0
R2138 0
R2139 0
R2140 0

MACRO
  fs_wchar (fs_name,khar)    =
    BEGIN
      CH$WCHAR_A (khar, fs_next (fs_name));
      fs_length (fs_name) = .fs_length (fs_name) + 1; !Write character and advance pointer.
    END
  %;

!+ FS_RCHAR gets a character from the fixed-length string.
MACRO
  fs_rchar (fs_name,khar)    =
    BEGIN
      khar = CH$RCHAR_A (fs_next (fs_name));
      fs_length (fs_name) = .fs_length (fs_name) - 1; !Read character and advance pointer.
    END
  %;

  ! End of FSPACK.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

K 4
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742
S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

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(2)

: 2141 0 REQUIRE 'REQ:GCA.REQ'; ! GCA (General Control Array) definitions

R2142 0 GCA.REQ Definitions pertaining to the General Control Area (GCA)
R2143 0 IDENT 026

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R2169 0 **
R2170 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

R2171 0 ABSTRACT:
R2172 0 Definitions for the GCA (Global Control Area). Initialized by
R2173 0 DOOPTS from command-line information.

R2174 0 ENVIRONMENT: Transportable BLISS

R2175 0 AUTHOR: Rich Friday

R2176 0 CREATION DATE: 1978

R2177 0 MODIFIED BY:

R2178 0 026 REM00026 Ray Marshall 16-May-1983
R2179 0 Added support for outputting output lines numbers by adding
R2180 0 another macro: GCA_CMD_OSQ

R2181 0 025 REM00025 Ray Marshall 16-November-1983
R2182 0 Added macros so that Ken's SAVRES module can load cells with
R2183 0 them instead of using numeric offsets. They have the string
R2184 0 "_f_" within them.

R2185 0 024 KFA00024 Ken Alden 10-Oct-1983
R2186 0 Put gca_cmd_pages in the right place.

R2187 0 023 KFA00023 Ken Alden 06-Oct-1983
R2188 0 Added gca_cmd_pages to signal the /pages qualifier.

R2199 0	022	KFA00022	Ken Alden	27-Jul-1983
R2200 0		Added gca_flag_cmd to SAVE list.		
R2201 0	021	KFA00021	Ken Alden	15-Jul-1983
R2202 0		Added gca_do_cont_already, gca_do_index_already.		
R2203 0	020	KFA00020	Ken Alden	27-Jun-1983
R2204 0		Added gca_cref_errcnt to the top eight bits of black_box.		
R2205 0	019	KFA00019	Ken Alden	13-Jun-1983
R2206 0		Made use of GCA[45] for flaging /down line skipping. Used in TOPPAG and USKIPL.		
R2207 0	018	KAD00018	Keith Dawson	12-May-1983
R2208 0		Use 16 bits each for page, index, contents, cref counts.		
R2209 0	017	KAD00017	Keith Dawson	21-Mar-1983
R2210 0		Add bits for LN01 output options.		
R2211 0	016	KFA00016	Ken Alden	16-Mar-1983
R2212 0		Save/restore now permitted in DSR.		
R2213 0	015	KAD00015	Keith Dawson	07-Mar-1983
R2214 0		Global edit of all modules. Updated module names, idents, copyright dates. Changed require files to BLISS library.		
R2215 0	--			

MACRO

R2216 0	gca_com_start	= GCA[00]%	A CH\$PTR to the first character of the current command (usually it's a ',')
R2217 0	gca_autopara	= .GCA[01]%	!(SAVEALL)True if user said .AUTOPARAGRAPH
R2218 0	gca_f_autopara	= GCA[01]%	
R2219 0	gca_autosubt	= .GCA[02]%	!(SAVEALL)True if user said .AUTOSUBTITLE
R2220 0	gca_f_autosubt	= GCA[02]%	
R2221 0	gca_autotabl	= .GCA[03]%	!(SAVEALL)True if user said .AUTOTABLE
R2222 0	gca_f_autotabl	= GCA[03]%	
R2223 0	gca_autojust	= .GCA[04]%	!(SAVEALL)True if user said .AUTOJUSTIFY
R2224 0	gca_f_autojust	= GCA[04]%	
R2225 0			
R2226 0	gca_bars	= (GCA[05])<BAR-->%	!GCA_BARS_ENAB & GCA_BARS ON.
R2227 0	gca_bars_enab	= (GCA[06])<BAR-->%	!Controlled by .ENAB[E]/.DISABLE BAR.
R2228 0	gca_bars_on	= (GCA[07])<BAR-->%	!Controlled by .BEGIN/.END BAR.
R2229 0	gca_ever_bars	= (GCA[08])<BAR-->%	!True if change bars ever enabled.
R2230 0	gca_draft_f	= GCA[09]%	If user said /DEBUG, the character to be used as draft flag (from .VARIABLE
R2231 0	gca_chapt	= GCA[10]%	True if document contains chapters/appendices
R2232 0	gca_twidth_36	= GCA[11]%	TOPS-20 terminal wrap width (DSRPLUS only).
R2233 0	gca_concat	= GCA[12]%	True if .NO SPACE is pending.
R2234 0	gca_cmd_msg	= GCA[13]%	Routing code for error messages
R2235 0	gca_lit_count	= GCA[14]%	If a counted literal, the # of lines.
R2236 0	gca_pchax	= GCA[15]%	True if a .NUMBER CHAPTER or .NUMBFR APPENDIX command has already set up NP
R2237 0	gca_tescape_36	= GCA[16]%	TOPS-20 terminal escape characteristics (DSRPLUS only)
R2238 0			
R2239 0	gca_cmd_nbits	= GCA[17]%	Ultimate controls for miscellaneous functions.
R2240 0	gca_lit_flag	= GCA[18]%	status of .GCA_FLAG_CMD during literal processing.
R2241 0	gca_cmd_lstbts	= GCA[19]%	Ultimate controls for misc functions.
R2242 0	gca_literal	= GCA[20]%	True between .LITERAL and .END LITERAL
R2243 0			
R2244 0			
R2245 0			
R2246 0			
R2247 0			
R2248 0			
R2249 0			
R2250 0			
R2251 0			
R2252 0			
R2253 0			
R2254 0			
R2255 0			

R2256 0	gca_xcase	= GCA[21]%, ! (SAVEALL) Case rules for index entries.
R2257 0	gca_f_xcase	= GCA[21]%,
R2258 0		
R2259 0	gca_page_cnt	= GCA[22]%, ! Number of pages generated so far.
R2260 0	gca_contents_cnt	= GCA[23]%, ! Number of table-of-contents entries written to the .BRN file.
R2261 0	gca_index_cnt	= GCA[24]%, ! Number of index entries written to the .BRN file.
R2262 0	gca_old_cref_cnt	= GCA[25]%, ! Number of cross-reference entries read from the old .BRN file.
R2263 0	gca_new_cref_cnt	= GCA[26]%, ! Number of cross-reference entries written to the .BRN file.
R2264 0		
R2265 0	gca_orange_cnt	= GCA[27]%, ! Count of number of page ranges specified on /PAGE_RANGE switch.
R2266 0	gca_skip_out	= GCA[28]%, ! True if skipping output because of a /PAGE_RANGE specification.
R2267 0	gca_debug_index	= (GCA[29])<0,1>%, ! True if debugging the index.
R2268 0	gca_debug_toc	= (GCA[29])<1,1>%, ! True if debugging the table of contents.
R2269 0	gca_debug_cnd	= (GCA[29])<2,1>%, ! True if debugging conditionals (.IF, etc.).
R2270 0	gca_debug_fil	= (GCA[29])<3,1>%, ! True if want file names listed.
R2271 0	gca_debug_cref	= (GCA[29])<4,1>%, ! True if want cross-reference errors flagged inline.
R2272 0	gca_debug_save	= (GCA[29])<5,1>%, ! True if want save/restore information echoed.
R2273 0	gca_max_astn	= GCA[30]%, ! Result of last .AUTOSUBTITLE command. Remembered during .NO AUTOSUBTITLE
R2274 0	gca_btc	= (GCA[31])<0,1>%, ! True if a binary table of contents is wanted.
R2275 0	gca_cmd_btc	= (GCA[31])<1,1>%, ! True iff user said /INTERMEDIATE.
R2276 0	gca_bix	= (GCA[31])<2,1>%, ! True if a binary index is wanted.
R2277 0		
R2278 0	gca_case	= .GCA[32]%, ! (SAVEALL) Set by .UPPER/LOWER CASE
R2279 0	gca_f_case	= GCA[32]%,
R2280 0	gca_flag_cmd	= .GCA[33]%, ! (SAVE) Last .FLAGS ALL/.NO FLAGS ALL command
R2281 0	gca_f_flag_cmd	= GCA[33]%,
R2282 0		
R2283 0	gca_pwidth	= GCA[34]%, ! Physical page width
R2284 0		
R2285 0	gca_lwidth	= .GCA[35]%, ! (SAVE) Logical page width
R2286 0	gca_f_lwidth	= GCA[35]%,
R2287 0		
R2288 0	gca_clit	= GCA[36]%, ! True for counted literals.
R2289 0	gca_note_prim	= GCA[37]%, ! Primary margin adjust for .NOTE
R2290 0	gca_note_alt	= GCA[38]%, ! Alternate margin adjust for .NOTE
R2291 0	gca_skipping	= (GCA[39])<0,1>%, ! True if in the FALSE branch of an .IF command.
R2292 0	gca_nia	= GCA[40]%, ! Count of attempted negative indents.
R2293 0	gca_xmarg	= GCA[41]%, ! Count of crossed margin attempts.
R2294 0	gca_normal_xtn	= GCA[42]%, ! Next transaction number for index entry NOT in a footnote.
P2295 0	gca_foot_xfn	= GCA[43]%, ! Next transaction number for index entry in a footnote.
R2296 0	gca_index_fmt	= GCA[44]%, ! If True, generate dots in index. (Not currently set anywhere in the code.)
R2297 0	gca_down_flag	= (GCA[45])<0,1>%, ! True if the unconditional lines are for /down.
R2298 0	gca_max_require	= GCA[46]%, ! Same as MAX REQUIRE.
R2299 0	gca_req_depth	= GCA[47]%, ! Current depth of .REQUIRE (usually 0, i.e., not a .REQUIRE file).
R2300 0	gca_fehler	= GCA[48]%, ! True if any errors have been found.
R2301 0	gca_errcnt	= GCA[49]%, ! Count of lines of error messages.
R2302 0	gca_err_dir	= GCA[50]%, ! Indicates where errors are to be reported.
R2303 0		
R2304 0	gca_keep	= .GCA[51]%, ! (SAVE) True if user said .KEEP.
R2305 0	gca_f_keep	= GCA[51]%,
R2306 0		
R2307 0	gca_io_flags	= GCA[52]%, ! General I/O control flags.
R2308 0	gca_cmd_quick	= (GCA[52])<0,1>%, ! True if /QUICK or /NOOUTPUT.
R2309 0	termination_log	= (GCA[52])<1,1>%, ! True if /LOG.
R2310 0	gca_flip	= (GCA[52])<2,1>%, ! True if /DEC=FLIP.
R2311 0	gca_s_output	= (GCA[52])<3,1>%, ! True if /OUTPUT was explicitly specified.
R2312 0	gca_op_dev	= (GCA[52])<4,4>%, ! Type of output device (see OPDEV.REQ).

```
R2313 0
R2314 0      gca_ln01_ital_under = (GCA[52])<8,1>%; ! For LN01 output: set=italics, clear=underlining.
R2315 0      gca_ln01_port_lnd = (GCA[52])<9,1>%; ! For LN01 output: set=portrait, clear=landscape.
R2316 0      gca_cmd_pages = (GCA[52])<10,1>%; !True if /PAGES.
R2317 0
R2318 0      gca_diag1 = GCA[ 53 ]%; !First 16 diagnostic control flags.
R2319 0      gca_diag2 = GCA[ 54 ]%; !Second 16 diagnostic control flags.
R2320 0
R2321 0      gca_xp_ever = GCA[ 55 ]%; !True if user gave any .XP/.YP commands since last .DX or .PX.
R2322 0      gca_line_pend = GCA[ 56 ]%; !Used for OUTHDR in determining if the header has been processed and output.
R2323 0
R2324 0      gca_black_box = GCA[ 57 ]%; !True if user said /AUTOMATIC.
R2325 0      gca_cref_errcnt = (GCA[57])<8,8>%; !Number of unresolved cross references.
R2326 0      gca_cross_reference = (GCA[58])<0,1>%; !True if user said /CROSS_REFERENCE (it's the default).
R2327 0      gca_expand_cref = (GCA[58])<1,1>%; !True if cross references should be expanded.
R2328 0      gca_old_brn_exists = (GCA[58])<2,1>%; !True if an old .BRN file exists and was read.
R2329 0      gca_cref_changed = (GCA[58])<3,1>%; !True if any cross-reference changed in the course of this run.
R2330 0      gca_do_cont_already = (GCA[58])<4,1>%; !True if a do contents has been processed in this run.
R2331 0      gca_do_index_already = (GCA[58])<5,1>%; !True if a do index has been processed in this run.
R2332 0      gca_rerun_count = (GCA[59])<0,8>%; !Number of times DSRPLUS must be rerun for complete and correct /AUTOMATIC
R2333 0      gca_pass_count = (GCA[59])<8,8>%; !Number of the current /AUTOMATIC rerun pass.
R2334 0
R2335 0      LITERAL
R2336 0      gca_size = 64; ! Number of cells in GCA. As of version V04-000 there are
R2337 0          ! 5 free cells.
R2338 0
R2339 0      !The following literals define where errors are to be reported
R2340 0      !NOTE: The bit representation of these literals is used by DOOPTS.
R2341 0      LITERAL
R2342 0      report_err_none = 0; !Report no error messages
R2343 0      report_err_file = 1; !Report in output file only.
R2344 0      report_err_std = 2; !Report on standard error log only.
R2345 0      report_err_both = 3; !Report errors in both output file and on standard error device.
R2346 0
R2347 0      !Definition of diagnostic control flags. The names may be later changed,
R2348 0      !but for now, these names will at least provide easy access for initial use.
R2349 0      MACRO
R2350 0      diag1_0 = (GCA_DIAG1)<0,1>%
R2351 0      diag1_1 = (GCA_DIAG1)<1,1>%
R2352 0      diag1_2 = (GCA_DIAG1)<2,1>%
R2353 0      diag1_3 = (GCA_DIAG1)<3,1>%
R2354 0      diag1_4 = (GCA_DIAG1)<4,1>%
R2355 0      diag1_5 = (GCA_DIAG1)<5,1>%
R2356 0      diag1_6 = (GCA_DIAG1)<6,1>%
R2357 0      diag1_7 = (GCA_DIAG1)<7,1>%
R2358 0      diag1_8 = (GCA_DIAG1)<8,1>%
R2359 0      diag1_9 = (GCA_DIAG1)<9,1>%
R2360 0      diag1_10 = (GCA_DIAG1)<10,1>%
R2361 0      diag1_11 = (GCA_DIAG1)<11,1>%
R2362 0      diag1_12 = (GCA_DIAG1)<12,1>%
R2363 0      diag1_13 = (GCA_DIAG1)<13,1>%
R2364 0      diag1_14 = (GCA_DIAG1)<14,1>%
R2365 0      diag1_15 = (GCA_DIAG1)<15,1>%
R2366 0
R2367 0      MACRO
R2368 0      diag2_0 = (GCA_DIAG2)<0,1>%
R2369 0      diag2_1 = (GCA_DIAG2)<1,1>%
```

```
R2370 0 diag2_2 = (GCA_DIAG2)<2,1>%;  
R2371 0 diag2_3 = (GCA_DIAG2)<3,1>%;  
R2372 0 diag2_4 = (GCA_DIAG2)<4,1>%;  
R2373 0 diag2_5 = (GCA_DIAG2)<5,1>%;  
R2374 0 diag2_6 = (GCA_DIAG2)<6,1>%;  
R2375 0 diag2_7 = (GCA_DIAG2)<7,1>%;  
R2376 0 diag2_8 = (GCA_DIAG2)<8,1>%;  
R2377 0 diag2_9 = (GCA_DIAG2)<9,1>%;  
R2378 0 diag2_10 = (GCA_DIAG2)<10,1>%;  
R2379 0 diag2_11 = (GCA_DIAG2)<11,1>%;  
R2380 0 diag2_12 = (GCA_DIAG2)<12,1>%;  
R2381 0 diag2_13 = (GCA_DIAG2)<13,1>%;  
R2382 0 diag2_14 = (GCA_DIAG2)<14,1>%;  
R2383 0 diag2_15 = (GCA_DIAG2)<15,1>%;  
R2384 0
```

MACRO

!

The following are true if user:

```
gca_cmd_bar = (GCA_CMD_LSTBTS)<BAR-->%; did not forbid change bars on the command line.  
gca_cmd_isq = (GCA_CMD_LSTBTS)<ISQ-->%; requested input sequence numbers.  
gca_cmd_osq = (GCA_CMD_LSTBTS)<OSQ-->%; requested output line numbers.  
gca_cmd_rit = (GCA_CMD_LSTBTS)<RIT-->%; said /RIGHT.  
gca_cmd_und = (GCA_CMD_NBITS)<UND--5% said /UNDERLINING.  
gca_cmd_bld = (GCA_CMD_NBITS)<BLD-->%; said /BOLDING.  
gca_cmd_ovr = (GCA_CMD_NBITS)<OVR-->%; said /OVERSTRIKING.  
gca_cmd_ind = (GCA_CMD_NBITS)<IND-->%; said /INDEXING.
```

MACRO

```
gca_definition =  
    VECTOR [gca_size]  
%;
```

```
MR2397 0  
MR2398 0  
R2399 0
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

D 5
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SPC]DSRLIB.REQ;1 Page 90
(2)

: 2400 0 REQUIRE 'REQ:GETQSC.REQ'; ! GETQ_... Completion codes

R2401 0
R2402 0 Version: 'V04-000'
R2403 0
R2404 0 *****
R2405 0 *
R2406 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R2422 0 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
R2423 0
R2424 0
R2425 0 *****
R2426 0
R2427 0
R2428 0 ++
R2429 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R2430 0
R2431 0 ABSTRACT:
R2432 0 Completion codes returned by GETQS
R2433 0
R2434 0 ENVIRONMENT: Transportable BLISS
R2435 0
R2436 0 AUTHOR: Rich Friday
R2437 0
R2438 0 CREATION DATE: 1978
R2439 0
R2440 0 MODIFIED BY:
R2441 0
R2442 0 002 KAD00002 Keith Dawson 07-Mar-1983
R2443 0 Global edit of all modules. Updated module names, idents,
R2444 0 copyright dates. Changed require files to BLISS library.
R2445 0
R2446 0 --
R2447 0
R2448 0 LITERAL
R2449 0 GETQS_NORMAL = 0. !Everything went ok.
R2450 0 GETQS_BAD = 1. !Quoted string ill-formed, etc.
R2451 0 GETQS_TOO_LONG = 2. !Too many characters.
R2452 0 GETQS_NONE = 3. !There was no string to get.
R2453 0
R2454 0 ! End of GETQSC.REQ

FLIPRECS -- FLIP/RUNOFF record formats
TOCML -- HL indicator record

F 5
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 92 (2)

: 2455 0 REQUIRE 'REQ:GNCC.REQ'; ! Completion codes returned by GNAME.

R2456 0
R2457 0 Version: 'V04-000'
R2458 0
R2459 0 *****
R2460 0 *
R2461 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R2478 0 *
R2479 0 *
R2480 0 *****
R2481 0
R2482 0
R2483 0 **
R2484 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R2485 0
R2486 0 ABSTRACT:
R2487 0 Completion codes returned by GNAME.
R2488 0
R2489 0 ENVIRONMENT: Transportable BLISS
R2490 0
R2491 0 AUTHOR: Rich Friday
R2492 0
R2493 0 CREATION DATE: 1978
R2494 0
R2495 0 MODIFIED BY:
R2496 0
R2497 0 002 KAD00002 Keith Dawson 07-Mar-1983
R2498 0 Global edit of all modules. Updated module names, idents,
R2499 0 copyright dates. Changed require files to BLISS library.
R2500 0
R2501 0 --
R2502 0
R2503 0 LITERAL
R2504 0 GNAME_NORMAL = 01; ! All went well.
R2505 0 GNAME_NO_NAME = 02; ! Illegally formed or missing name.
R2506 0 GNAME_TOO_LONG = 03; ! Excess characters have been dropped.
R2507 0
R2508 0 LITERAL
R2509 0 GNAME_CC_COUNT = 03; ! Number of condition codes returned
R2510 0 ! by GNAME.
R2511 0
R2512 0 ! End of GNCC.REQ

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

H 5
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 94 (2)

: 2513 0 REQUIRE 'REQ:GSLUCC.REQ'; ! GSLU_... Completion codes

R2514 0
R2515 0 Version: 'V04-000'
R2516 0
R2517 0 *****
R2518 0 *
R2519 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R2536 0 *
R2537 0 *
R2538 0 *****
R2539 0
R2540 0
R2541 0 **
R2542 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R2543 0
R2544 0 ABSTRACT:
R2545 0 Completion codes returned by GSLU.
R2546 0
R2547 0 ENVIRONMENT: Transportable BLISS
R2548 0
R2549 0 AUTHOR: Rich Friday
R2550 0
R2551 0 CREATION DATE: 1978
R2552 0
R2553 0 MODIFIED BY:
R2554 0
R2555 0 002 KAD00002 Keith Dawson 07-Mar-1983
R2556 0 Global edit of all modules. Updated module names, idents,
R2557 0 copyright dates. Changed require files to BLISS library.
R2558 0
R2559 0 --
R2560 0
R2561 0 LITERAL
R2562 0 GSLU_NORMAL = 01; ! All went well.
R2563 0 GSLU_NONE = 02; ! Missing string.
R2564 0 GSLU_TOO_LONG = 03; ! Excess characters have been dropped.
R2565 0
R2566 0 LITERAL
R2567 0 GSLU_CC_COUNT = 03; ! Number of condition codes returned
R2568 0 ! by GSLU.
R2569 0
R2570 0 ! End of GSLUCC.REQ

FLIPRFCS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

15-Sep-1984 23:07:40 15-Sep-1984 22:50:43 VAX-11 Bliss-32 V4.0-742
S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 96 (2)

: 2571 0
: U 2572 0 %IF DSRPLUS %THEN
: U 2573 0 REQUIRE 'REQ:GTOKCC.REQ'; ! GT_... Completion codes
: 2574 0 %F I
: 2575 0
: 2576 0 REQUIRE 'REQ:HCT.REQ'; ! HCT_... (Heading Control Table) & LAYOUT_...

R2577 0 | HCT.REQ Definitions for Header Control Tables

R2578 0 | Version: 'V04-000'

R2581 0 | *****
R2582 0 | *
R2583 0 | * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R2600 0 | *
R2601 0 | *
R2602 0 | *
R2603 0 | *
R2604 0 | *
R2605 0 | *
R2606 0 | ** FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

R2607 0 | *
R2608 0 | * ABSTRACT:
R2609 0 | * Definitions pertaining to tables that define how headings, etc.
R2610 0 | * are to appear.

R2611 0 | *
R2612 0 | * ENVIRONMENT: Transportable BLISS

R2613 0 | * AUTHOR: Rich Friday

R2614 0 | *
R2615 0 | * CREATION DATE: 16-October-1980

R2616 0 | *

R2617 0
R2618 0
R2619 0
R2620 0 MODIFIED BY:
R2621 0 006 KFA00006 Ken Alden 10-Jul-1984
R2622 0 Number_page and NMPG_NP are now part of SAVE (not saveall).
R2623 0 005 REM00005 Ray Marshall 16-November-1983
R2624 0 Added macros so that Ken's SAVRES module can load cells with
R2625 0 them instead of using numeric offsets. They have the string
R2626 0 "-f_" within them.
R2627 0
R2628 0 004 KFA00004 Ken Alden 16-Mar-1983
R2629 0 SAVE/RESTORE now enabled for DSR
R2630 0
R2631 0 003 KAD00003 Keith Dawson 07-Mar-1983
R2632 0 Global edit of all modules. Updated module names, idents,
R2633 0 copyright dates. Changed require files to BLISS library.
R2634 0
R2635 0
R2636 0
R2637 0
R2638 0 MACRO
R2639 0 !
R2640 0 HCT_FIRST_TITLE = HCT[0]%, ! True if headings wanted on ALL pages.
R2641 0 HCT_DATE = .HCT[1]%, ! (SAVEALL)True if the date is wanted in the subtitle.
R2642 0 HCT_HEADERS = .HCT[2]%, ! (SAVEALL)True if headers are wanted.
R2643 0 HCT_f_HEADERS = .HCT[2]%,
R2644 0 HCT_NUMBER_PAGE = .HCT[3]%, ! (SAVE)True if pages are to be numbered.
R2645 0 HCT_f_NUMBER_PAGE= HCT[3]%,
R2646 0
R2647 0 HCT_ODD_EVEN = HCT[4]%, ! "ODD" or "EVEN"-ness of page.
R2648 0
R2649 0 HCT_HD_CASE = .HCT[5]%, ! (SAVEALL)Case rules for the words PAGE/INDEX
R2650 0 HCT_f_HD_CASE = .HCT[5]%,
R2651 0 HCT_SUBLTITLE = .HCT[6]%, ! (SAVEALL)TRUE if subtitles wanted.
R2652 0 HCT_f_SUBTITLE = .HCT[6]%,
R2653 0
R2654 0 HCT_LAYOUT = HCT[7]%, ! The page layout to be used (see below)
R2655 0 HCT_LAYOUTN = HCT[8]%, ! Blank lines between text and page number at bottom.
R2656 0 HCT_LAYOUT_NP = HCT[9]%, ! The page layout to be used on the next page.
R2657 0 HCT_LAYOUTN_NP = HCT[10]%, ! Same as HCT_LAYOUTN, but for next page.
R2658 0
R2659 0 HCT_NMPG_NP = .HCT[11]%, ! (SAVE)True if pages are to be numbered on the next page.
R2660 0 HCT_f_NMPG_NP = HCT[11]%,
UR2662 0
UR2663 0
R2664 0
R2665 0
R2666 0
UR2667 0
UR2668 0
R2669 0
R2670 0
R2671 0
R2672 0
R2673 0
XIF DSRPLUS XTHEN
HCT_TITLE_ALWAYS= HCT[12]% ! True if titles wanted on ALL pages, including chapter pages.
XF1 ;
LITERAL
XIF DSRPLUS XTHEN
HCT_SIZE = 13;
ELSE HCT_SIZE = 12;
XF1
LITERAL ! Case rules for words PAGE and INDEX

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

M 5

15-Sep-1984 23:07:40
15-Sep-1984 22:52:18

VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SRC]HCT.REQ;1

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(2)

R2674 0 HCT_HD_LOWER = 0,
R2675 0 HCT_HD_UPPER = 1,
R2676 0 HCT_HD_MIXED = 2;
R2677 0
R2678 0 LITERAL
R2679 0 LAYOUT_STANDARD = 0,
R2680 0 LAYOUT_CENTERED = 1,
R2681 0 LAYOUT_FLIP_ODD = 2,
R2682 0
R2683 0 LAYOUT_RUN_BOTC = 3;
R2684 0
R2685 0
R2686 0
MR2687 0 MACRO
R2688 0 HCT_DEFINITION =
 VECTORE[HCT_SIZE]%;

| .HEADERS LOWER
| .HEADERS UPPER
| .HEADERS MIXED

| Names for page layouts
| Standard RUNOFF
| Title, subtitle centered at top, page number at bottom.
| Page number at bottom. Flip title, subtitle at top.
| Start with titles right if odd page.
| Same as LAYOUT_STANDARD, but include the running page
| number centered at the bottom of the page.

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

N 5

15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

Page 100
(2)

: 2689 0 REQUIRE 'REQ:HLC.REQ'; ! HLC_... (Header Level Control) area items

R2690 0
R2691 0 Version: 'V04-000'
R2692 0
R2693 0 *****
R2694 0 *
R2695 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R2712 0 *
R2713 0 *
R2714 0 *****
R2715 0
R2716 0
R2717 0 ++
R2718 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R2719 0
R2720 0 ABSTRACT:
R2721 0 Definitions relating to the HLC (Header Level Control area).
R2722 0
R2723 0 ENVIRONMENT: Transportable BLISS
R2724 0
R2725 0 AUTHOR: Rich Friday
R2726 0
R2727 0 CREATION DATE: 1978
R2728 0
R2729 0 MODIFIED BY:
R2730 0
R2731 0 002 KAD00002 Keith Dawson 07-Mar-1983
R2732 0 Global edit of all modules. Updated module names, idents,
R2733 0 copyright dates. Changed require files to BLISS library.
R2734 0
R2735 0
R2736 0
R2737 0
MR2738 0 MACRO
MR2739 0 HLC_UPPER = HLC[0] !Maximum .HL number for which entire text
R2740 0 !is to be in upper case.
MR2741 0 HLC_CAP = HLC[1] !Maximum .HL number for which to capitalize
MR2742 0 !first character of each word and leave
MR2743 0 !others alone.
R2744 0 HLC_RUNON = HLC[2] !Smallest .HL number for which to generate
MR2745 0 !'-' and leave no break before next text line.
MR2746 0

R2747 0
MR2748 0
MR2749 0
R2750 0
MR2751 0
R2752 0
MR2753 0
R2754 0
MR2755 0
R2756 0
MR2757 0
MR2758 0
R2759 0
MR2760 0
R2761 0
MR2762 0
R2763 0
R2764 0
R2765 0
R2766 0
R2767 0
R2768 0
MR2769 0
R2770 0
MR2771 0
R2772 0
MR2773 0
R2774 0
R2775 0
R2776 0
MR2777 0
R2778 0
R2779 0
R2780 0

HLC_CO_NBITS %.
= HLC[3] !Control carry-over of underlining/bolding/overstriking
!from .HL to subtitle.
HLC_HEADLC %.
= HLC[4] !Leave this many blank lines after the header.
HLC_HEADLT %.
= HLC[5] !Anticipate this many lines (include in test page).
HLC_HEADLB %.
= HLC[6] !Skip this many lines before the header.
HLC_NO_NUMBER %.
= HLC[7] !Smallest .HL number for which to leave the header
!unnumbered.
HLC_HEADSP %.
= HLC[8] !Number of spaces after the section number.
HLC_CENTER %.
= HLC[9] !Smallest .HL number for which to center the header
!(if header is not run-in).
LITERAL HLC_SIZE = 10; !Number of cells in the HLC.
MACRO HLC_CO_BLD = (HLC_CO_NBITS)<BLD__> !Carry over bolding to subtitles.
HLC_CO_UND = (HLC_CO_NBITS)<UND__> !Carry over underlining to subtitles.
HLC_CO_OVR = (HLC_CO_NBITS)<OVR__> !Carry over overstriking to subtitles.
HLC_DEFINITION %.
VECTOR[HLC_SIZE];
!

End of HLC.REQ

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

D 6
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

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(2)

: 2781 0 REQUIRE 'REQ:IFSTK.REQ'; ! IFSTK_... stack for nested .IFs

R2782 0
R2783 0 Version: 'V04-000'
R2784 0
R2785 0
R2786 0
R2787 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R2804 0
R2805 0
R2806 0
R2807 0
R2808 0
R2809 0
R2810 0 *+ FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R2811 0
R2812 0 ABSTRACT:
R2813 0 Definitions related to the IF stack, for nested .IF commands.
R2814 0
R2815 0 ENVIRONMENT: Transportable BLISS
R2816 0
R2817 0 AUTHOR: Rich Friday
R2818 0
R2819 0 CREATION DATE: 1978
R2820 0
R2821 0 MODIFIED BY:
R2822 0
R2823 0 002 KAD00002 Keith Dawson 07-Mar-1983
R2824 0 Global edit of all modules. Updated module names, idents,
R2825 0 copyright dates. Changed require files to BLISS library.
R2826 0
R2827 0
R2828 0
R2829 0 LITERAL
R2830 0 IFSTK_SIZE = 10. | Up to 10 levels of .IFs.
R2831 0 IFSTK_DEPTH = -1. | Index into the IFSTK where the current depth is saved.
R2832 0 IFSTK_VR = 0. | Index to VRxxxx information.
R2833 0 IFSTK_BOOL = 1. | Logical value in effect at this time.
R2834 0 IFSTK_SOURCE = 2. | The handler code of the command that made this entry.
R2835 0 IFSTK_REQ_D = 3. | .REQUIRE depth at which .IT must terminate.
R2836 0 IFSTK_IPAGEN = 4. | Input file page number.
R2837 0 IFSTK_ISEQN = 5. | Input file sequence number.
R2838 0 IFSTK_FLAG = 6. | The /DRAFT flag that was interrupted.

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

F 6
15-Sep-1984 23:07:40
15-Sep-1984 22:52:26

VAX-11 Bliss-32 V4.0-742
\$_255\$DUA28:[RUNOFF.SRC]IFSTK.REQ;1

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(1)

: R2839 0
: R2840 0
: R2841 0
: R2842 0
: R2843 0
: R2844 2
: R2845 2
: R2846 0
: R2847 0
: R2848 0
: IFSTK_ELSE_FLG = 7; ! The /DRAFT flag for the .else branch.

STRUCTURE

 IFSTACK[I,J:N=IFSTK_SIZE] =
 [%UPVAL*(8*N + 1 + 8)]
 (IFSTACK + (If J eql IFSTK_DEPTH
 then 0
 else %UPVAL*(1 + 8*I + J)));

 End of IFSTK.REQ

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

G 6
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742
15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 106
(2)

: 2849 0 REQUIRE 'REQ:INDEX.REQ'; ! Structures used by the indexing command

R2850 O
R2851 O Version: 'V04-000'
R2852 O
R2853 O *****
R2854 O *
R2855 O * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R2872 O *
R2873 O *
R2874 O * *****
R2875 O
R2876 O
R2877 O ++
R2878 O FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R2879 O
R2880 O ABSTRACT:
R2881 O Structures for use by the indexing command.
R2882 O
R2883 O ENVIRONMENT: Transportable BLISS
R2884 O
R2885 O AUTHOR: Rich Friday
R2886 O
R2887 O CREATION DATE: 1978
R2888 O
R2889 O MODIFIED BY:
R2890 O
R2891 O 002 KAD00002 Keith Dawson 07-Mar-1983
R2892 O Global edit of all modules. Updated module names, idents,
R2893 O copyright dates. Changed require files to BLISS library.
R2894 O
R2895 O --
R2896 O
LR2897 O XIF
LR2898 O 2*\$BPADDR LEQ \$BPVAL !Can addresses be packed in a word?
UR2899 O XTHEN
UR2900 O ! Structure of index entry (DECsystem-10/20).
UR2901 O MACRO
UR2902 O X_PREV = 0,0 18,0 %, !Link to previous item (HALF WORD)
UR2903 O X_NEXT = 0,18,18,0 %, !Link to next item (0 => EOL) (HALF WORD)
UR2904 O X_SUBX = 1,0 18,0 %, !Sub index pointer (HALF WORD)
UR2905 O X_SIIBC = 1,18,8,0 %, !Sub index level (BYTE)
UR2906 O X_BARS = 1,26,1,0 %, !Change bar flag (BIT)

```
: UR2907 0      X_REF      = 3,0,18,0 %; !Extra reference pointer      (HALF WORD)
: UR2908 0      X_TEXT     = 2,18,18,0 %; !Pointer to text of index item (HALF WORD)
: UR2909 0
: UR2910 0
: UR2911 0      LITERAL
: UR2912 0      X_ENTRY    = 3;           !Number of words in index entry.
: UR2913 0
: UR2914 0
: UR2915 0      ! Structure of extra reference entry (DECsystem-10/20).
: UR2916 0      MACRO
: UR2917 0      XX_LINK   = 0,0,18,0 %; !Pointer to additional entries.
: UR2918 0      XX_PAGE    = 0,18,18,1 %; !Transaction number.
: UR2919 0
: UR2920 0      LITERAL
: UR2921 0      XX_ENTRY= 1;          !Length of extra reference entry.

: R2922 0      XELSE
: R2923 0      ! Structure of index entry for -11s, VAXes, and -20s with extended addressing.
: R2924 0      MACRO
: R2925 0      X_PREV     = 0,0,%BPVAL,0 %;   !Link to previous item      (WORD)
: R2926 0      X_NEXT     = 1,0,%BPVAL,0 %;   !Link to next item (0 ==> EOL) (WORD)
: R2927 0      X_SUBX    = 2,0,%BPVAL,0 %;   !Sub index pointer        (WORD)
: R2928 0      X_SUBC    = 3,0,8,0 %;       !Sub index level         (BYTE)
: R2929 0      X_BARS    = 3,8,1,0 %;       !Change bar flag         (BIT)
: R2930 0      X_REF     = 4,0,%BPVAL,0 %;   !Extra reference pointer (WORD)
: R2931 0      X_TEXT     = 5,0,%BPVAL,0 %;   !Pointer to text of index item (WORD)
: R2932 0
: R2933 0      LITERAL
: R2934 0      X_ENTRY    = 6;           !Number of words in index entry.
: R2935 0
: R2936 0      ! Structure of extra reference entry (-11s, VAXes, -20 with extended addressing).
: R2937 0      MACRO
: R2938 0      XX_LINK   = 0,0,%BPVAL,0 %;   !Pointer to additional entries.
: R2939 0      XX_PAGE   = 1,0,%BPVAL,1 %;   !Transaction number.
: R2940 0
: R2941 0      LITERAL
: R2942 0      XX_ENTRY= 2;          !Length of extra reference entry.
: R2943 0      XFI
: R2944 0
: R2945 0      !Dummy datasets
: R2946 0      LITERAL
: R2947 0      DS_X_ENTRY=X_ENTRY,
: R2948 0      DS_XX_ENTRY=XX_ENTRY,
: R2949 0      DS_X_STRING=0;
: R2950 0
: R2951 0      !
```

End of INDEX.REQ

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742
15-Sep-1984 22:50:43 _\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 109
 (2)

: 2952 0 REQUIRE 'REQ:IRAC.REQ'; ! IRAC_... structure Macros & literal

R2953 0 IRAC.REQ Macros, literals, and structures defining the IRAC.
R2954 0
R2955 0 Version: 'V04-000'
R2956 0
R2957 0
R2958 0
R2959 0 * *****
R2960 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R2976 0
R2977 0
R2978 0 * *****
R2979 0
R2980 0
R2981 0 ++
R2982 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R2983 0
R2984 0 ABSTRACT:
R2985 0 Macros, literals, and structures defining the IRAC (Input Record
R2986 0 Area).
R2987 0
R2988 0 ENVIRONMENT: Transportable BLISS
R2989 0
R2990 0 AUTHOR: Rich Friday
R2991 0
R2992 0 CREATION DATE: 1978
R2993 0
R2994 0 MODIFIED BY:
R2995 0
R2996 0 004 KAD00004 Keith Dawson 07-Mar-1983
R2997 0 Global edit of all modules. Updated module names, idents,
R2998 0 copyright dates. Changed require files to BLISS library.
R2999 0
R3000 0 --
R3001 0
R3002 0 MACRO
R3003 0 IRAC_BARS = (IRAC[00])<BAR .!TRUE if this line is marked with change bars.
R3004 0 IRAC_SEQN FLAG = IRAC[01]%. !TRUE if ISEQN is an SOS style line number.
R3005 0 IRAC_ISEQN = IRAC[02]%. Input line number or sequence number.
R3006 0 IRAC_IPAGEN = IRAC[03]%. Input page number.
R3007 0 IRAC_FSPEC_P = IRAC[04]%. CH\$PTR to the file-spec
R3008 0 IRAC_FSPEC_C = IRAC[05]%. Number characters in the file-spec
R3009 0 IRAC_DRAFT_FLG = IRAC[06]%. TRUE/FALSE flag for /DRAFT.

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

L⁶
15-Sep-1984 23:07:40
15-Sep-1984 22:52:35

VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SRC]IRAC.REQ;1

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(1)

R3010 0
R3011 0
R3012 0
R3013 0
R3014 0
MR3015 0
R3016 0
R3017 0
R3018 0

LITERAL IRAC_SIZE = 7; !Number of elements in IRAC.
MACRO IRAC_DEFINITION =
 VECTOR[IRAC_SIZE];
 ! End of IRAC.REQ

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

M 6

15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

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(2)

: 3019 0 REQUIRE 'REQ:KC.REQ'; ! Definition of macros: KCNS, KCS, & TISF

R3020 0
R3021 0 Version: 'V04-000'
R3022 0
R3023 0 *****
R3024 0 *
R3025 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R3042 0 *
R3043 0 *
R3044 0 *****
R3045 0
R3046 0
R3047 0 ++
R3048 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R3049 0
R3050 0 ABSTRACT:
R3051 0 Defines macros for reading a single character from input.
R3052 0
R3053 0 ENVIRONMENT: Transportable BLISS
R3054 0
R3055 0 AUTHOR: Rich Friday
R3056 0
R3057 0 CREATION DATE: 1978
R3058 0
R3059 0 MODIFIED BY:
R3060 0
R3061 0 002 KAD00002 Keith Dawson 07-Mar-1983
R3062 0 Global edit of all modules. Updated module names, idents.
R3063 0 copyright dates. Changed require files to BLISS library.
R3064 0
R3065 0 --
R3066 0
R3067 0 KCNS reads a character and advances the cursor. Substitution, as indicated
R3068 0 by the presence of the Substitute flag, is never performed.
R3069 0
R3070 0 MACRO
MR3071 0 kcns() =
MR3072 0 (IF .fs_length (ira) LEQ 0
MR3073 0 THEN
MR3074 0 BEGIN
MR3075 0 EXTERNAL LITERAL
MR3076 0 rintes : UNSIGNED (8);

```
MR3077 0          khar = rintes;
MR3078 0          fs_length (ira) = -1;
MR3079 0          END
MR3080 0          ELSE
MR3081 0          fs_rchar (ira,khar)
R3082 0          %:
R3083 0
R3084 0          ! KCS reads a character; it calls SUBST if the character read is the
R3085 0          ! Substitute flag and recognition of the Substitute flag is enabled.
R3086 0
R3087 0          MACRO
MR3088 0          kcs( )      =
MR3089 0          BEGIN
MR3090 0          EXTERNAL khar;
MR3091 0          EXTERNAL ROUTINE subst;
MR3092 0          kcns();
MR3093 0          !*****Temporarily turned off
MR3094 0          IF tisf (.khar)
MR3095 0          THEN
MR3096 0          subst ();
MR3097 0          !*****End of temporarily turned off
MR3098 0          END
R3099 0          %
R3100 0
R3101 0          ! TISF returns the value TRUE if KHAR contains the Substitute flag, and
R3102 0          ! recognition of the Substitute flag is enabled.
R3103 0
R3104 0          MACRO
MR3105 0          tisf (khar) =
MR3106 0          (.flgt [sub_flag,flag_enabled]           ! Recognition of Substitute flag enabled?
MR3107 0          AND
MR3108 0          .sca_flags                  ! Recognition of all flags enabled?
MR3109 0          AND
MR3110 0          (khar EQL .flgt [sub_flag,flag_character])) ! Right character?
R3111 0          %
R3112 0
R3113 0          !          End of KC.REQ
```

: U 3114 0
: U 3115 0
: U 3116 0
: U 3117 0
: U 3118 0
: 3119 0

```
%IF DSRPLUS %THEN
REQUIRE 'REQ:KEYWORD.REQ';      ! Keyword-table definitions
%FI
REQUIRE 'REQ:KWITEM.REQ';       ! Macros to access command-keyword fields
```

R3120 0
R3121 0 Version: 'V04-000'
R3122 0
R3123 0 *****
R3124 0 *
R3125 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R3143 0 *
R3144 0 *****
R3145 0
R3146 0
R3147 0 **
R3148 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R3149 0 ABSTRACT: Defines macros for fields of key word entries.
R3150 0
R3151 0 ENVIRONMENT: Transportable BLISS
R3152 0
R3153 0
R3154 0 AUTHOR: Rich Friday CREATION DATE: 1978
R3155 0

R3156 0
R3157 0
R3158 0
R3159 0
R3160 0
R3161 0
R3162 0
R3163 0
R3164 0
R3165 0
R3166 0
R3167 0

| MODIFIED BY:

005 RER00005 Ron Randall 17-Mar-1983
Changed iih to iit to better reflect its topnote function.

004 RER00004 Ron Randall 07-Mar-1983
Global edit of all modules. Updated module names, idents,
copyright dates. Changed require files to BLISS [library].
Changed all <macro name>s to kwitem_<macro_name> to avoid
conflict with LP1.BLI.

--

```
R3168 0 MACRO
R3169 0
R3170 0      Length of keyword.
R3171 0
MR3172 0      item_length (item) =
MR3173 0          BEGIN
MR3174 0              BIND x = .item [0]: VECTOR;
MR3175 0              x [0]
R3176 0          END %.
R3177 0
R3178 0      Address of keyword, CHSPTR.
R3179 0
MR3180 0      p_word (item) =
MR3181 0          BEGIN
MR3182 0              BIND x = .item [0]: VECTOR;
MR3183 0              x [1]
R3184 0          END %.
R3185 0
R3186 0      Handler code.
R3187 0
R3188 0      kwitem_handler_code (item)      = item [1] %,
R3189 0
R3190 0      Same field does double duty.
R3191 0
R3192 0      kwitem_next_list (item)        = item [1] %,
R3193 0
R3194 0      All options collectively.
R3195 0
R3196 0      kwitem_actions (item)        = item [2] %,
R3197 0
R3198 0      TRUE if keyword chain continues.
R3199 0
R3200 0      kwitem_chain_continues (item) = (item [2]) <8, 1> %,
R3201 0
R3202 0      TRUE if a defined abbreviation.
R3203 0
R3204 0      kwitem_abbreviation (item)    = (item [2]) <9, 1> %,
R3205 0
R3206 0      TRUE for commands related to .IF.
R3207 0
R3208 0      kwitem_rif (item)           = item <10, 1> %,
R3209 0
R3210 0      TRUE if illegal in a footnote.
R3211 0
R3212 0      kwitem_iif (item)           = item <11, 1> %,
R3213 0
R3214 0      TRUE if waiting text to be forced out.
R3215 0
R3216 0      kwitem_do_outnj (item)     = item <12, 1> %,
R3217 0
R3218 0      TRUE if command has a numerical argument.
R3219 0
R3220 0      kwitem_do_getnum (item)    = item <13, 1> %,
R3221 0
R3222 0      TRUE if illegal in a topnote.
R3223 0
R3224 0      kwitem_iit (item)           = item <14, 1> %,
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

G 7
15-Sep-1984 23:07:40
15-Sep-1984 22:52:44

VAX-11 Bliss-32 V4.0-742
\$255\$DUA28:[RUNOFF.SRC]KWITEM.REQ;1

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: R3225 0 :
: R3226 0 : Minimum number of characters for a match.
: R3227 0 :
: R3228 0 : kwitem_minimum_match (item) = (item [2]) <0, 8> %;
: R3229 0 :
: R3230 0 : End of KWITEM.REQ

```
3231 0
3232 0
3233 0
3234 0
3235 0
3236 0
3237 0
3238 0
3239 0
3240 0

%IF DSRPLUS %THEN
REQUIRE 'REQ:KWS.REQ';
REQUIRE 'REQ:KWSCON.REQ';
REQUIRE 'REQ:KUSTYL.REQ';
REQUIRE 'REQ:KWTDEF.REQ';
REQUIRE 'REQ:KWXPY.P.REQ';
%FI
REQUIRE 'REQ:LETTER.REQ';

! Definitions for the Attribute Keyword Structure
! Definitions for .SEND CONTENTS keywords
! KWS... keyword definitions for .STYLE <elfit:h>
! KWSPDP..., KWSPDM keyword definitions for $$entities
! KWX$... keyword definitions for .XP, .YP, .ENA XP
! Alpha testing and case changing macros
```

R3241 0
R3242 0
R3243 0
R3244 0
R3245 0
R3246 0
R3247 0
R3248 0
R3249 0
R3250 0
R3251 0
R3252 0
R3253 0
R3254 0
R3255 0
R3256 0
R3257 0
R3258 0
R3259 0
R3260 0
R3261 0
R3262 0
R3263 0
R3264 0
R3265 0
R3266 0
R3267 0
R3268 0
R3269 0
R3270 0
R3271 0
R3272 0
R3273 0
R3274 0
R3275 0
R3276 0
R3277 0
R3278 0
R3279 0
R3280 0
R3281 0
R3282 0
R3283 0
R3284 0
R3285 0
R3286 0
R3287 0
R3288 0
R3289 0
MR3290 0
MR3291 0
R3292 0
R3293 0
MR3294 0
MR3295 0
R3296 0
R3297 0

Version: 'V04-000'

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*+
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

ABSTRACT:
Macros to test if a character is an appropriately flavored letter,
and macros to convert between upper and lower case.

ENVIRONMENT: Transportable BLISS

AUTHOR: Rich Friday

CREATION DATE: 1978

MODIFIED BY:

002 KAD00002 Keith Dawson 07-Mar-1983
Global edit of all modules. Updated module names, idents,
copyright dates. Changed require files to BLISS library.

--

MACRO

upper letter (khar) = ! See if upper case letter
(khar GEQ XC'A' AND khar LEQ XC'Z')
%,

lower letter (khar) = ! See if lower case letter
(khar GEQ XC'a' AND khar LEQ XC'z')
%,

: MR3298 0 letter (khar) ! See if any type of letter
: MR3299 0 (upper_letter (khar)) OR lower_letter (khar)
: R3300 0 %:
: R3301 0
: R3302 0
: MR3303 0 MACRO
: MR3304 0 upper_case (khar) = ! Convert to upper case
: R3305 0 (Khar + %C('A' - %C('a'))
: R3306 0 %.
: MR3307 0 lower_case (khar) = ! Convert to lower case
: MR3308 0 (Khar + %C('a' - %C('A'))
: R3309 0 %:
: R3310 0
: R3311 0 !
 End of LETTER.REQ

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

K 7
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742
15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 123
(2)

: 3312 0 REQUIRE 'REQ:LODEFS.REQ'; ! Literal definitions of LSTOPS operations

R3313 0 | LODEFS.REQ Define function literals for LSTOPS.BLI
R3314 0
R3315 0 | Version: 'V04-000'
R3316 0
R3317 0
R3318 0
R3319 0 * *****
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R3337 0
R3338 0
R3339 0
R3340 0
R3341 0
R3342 0 ++
R3343 0 | FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R3344 0
R3345 0 | ABSTRACT:
R3346 0 | This file contains a list of operation codes that control which special
R3347 0 | listing functions are processed by LSTOPS.
R3348 0 | ENVIRONMENT: Transportable BLISS
R3349 0
R3350 0 | AUTHOR: Rich Friday
R3351 0
R3352 0 | CREATION DATE: 1978
R3353 0
R3354 0 | MODIFIED BY:
R3355 0
R3356 0 | 005 REM00005 Ray Marshall 17-May-1984
R3357 0 | Added support for /DEC_INTERNAL:OUTPUT_LINE_NUMBER.
R3358 0 | Removed LSTOPS_BARS because it is no longer referenced.
R3359 0
R3360 0 | 004 KAD00004 Keith Dawson 07-Mar-1983
R3361 0 | Global edit of all modules. Updated module names, idents,
R3362 0 | copyright dates. Changed require files to BLISS library.
R3363 0
R3364 0
R3365 0
R3366 0
R3367 0 |--
R3368 0 | LITERAL LSTOPS_NONE = 0, !Don't do any at all.
R3369 0 | LSTOPS_ALL !Do all requested options.

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

M 7
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742
15-Sep-1984 22:52:53 \$255\$DUA28:[RUNOFF.SRC]LODEFs.REQ;1 Page 125
(1)

```
R3370 0
R3371 0
R3372 0
R3373 0
R3374 0
R3375 0
R3376 0
R3377 0
R3378 0
R3379 0
R3380 0
R3381 0

      = 1^BPOSIT(BAR_) + |Change bars
      1^BPOSIT(CND--) + |/DEBUG:CONDITIONALS
      1^BPOSIT(ISQ--) + |/SEQUENCE
      1^BPOSIT(OSQ--) + |/DEC INTERNAL:OUTPUT_LINE_NUMBER
      1^BPOSIT(RIT--), !/RIGHT

      ! And for blank lines:

LSTOPs_NO_ISEQN = 1^BPOSIT(BAR_) + !Everything except .SEQUENCE
                  1^BPOSIT(CND--) + |Change bars
                  1^BPOSIT(RIT--); |/RIGHT
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

N 7
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 126
(2)

: 3382 0 REQUIRE 'REQ:MSG.REQ'; ! Macros used in error messages

R3383 0
R3384 0 Version: 'V04-000'
R3385 0
R3386 0
R3387 0
R3388 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R3401 0 * CORPORATION.
R3402 0
R3403 0 * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
R3404 0 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
R3405 0
R3406 0
R3407 0
R3408 0
R3409 0
R3410 0
R3411 0 ++ FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R3412 0
R3413 0
R3414 0 ABSTRACT:
R3415 0 Defines macros used by error-message processing.
R3416 0
R3417 0
R3418 0
R3419 0
R3420 0
R3421 0
R3422 0
R3423 0
R3424 0 AUTH: 002 KAD00002 Keith Dawson 07-Mar-1983
R3425 0 Global edit of all modules. Updated module names, idents,
R3426 0 copyright dates. Changed require files to BLISS library.
R3427 0
R3428 0
R3429 0
R3430 0
MR3431 0 MACRO
MR3432 0 msg (l, s) =
MR3433 0 BEGIN
MR3434 0 EXTERNAL ROUTINE
MR3435 0 filout;
MR3436 0 %IF %LENGTH EQL 1
MR3437 0 %THEN filout (-1, %CHARCOUNT(l), CHSPTR(UPLIT(l)))
MR3438 0
MR3439 0 %ELSE

C 8
15-Sep-1984 23:07:40
15-Sep-1984 22:53:08

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(1)

```
: MR3440 0
: MR3441 0      filout (-1, l, s)
: MR3442 0      XFI
: R3443 0      END
: R3444 0      %
: R3445 0
: MR3446 0
: MR3447 0      MACRO
: R3448 0      ermssg (s)=
: R3449 0      CHSPTR ( UPLIT (%STRING(%CHAR(%CHARCOUNT (s)),s)) )
: R3450 0      %
: MR3451 0      MACRO
: MR3452 0      bell =
: R3453 0      %CHAR(%'07')
: R3454 0      %
: MR3455 0      del =
: MR3456 0      %CHAR(%'177')
: R3457 0      %
: R3458 0      %
: R3459 0      %

:           End of MSG.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

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15-Sep-1984 22:50:43 _\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 129
(2)

: 3460 0 REQUIRE 'REQ:NDXRTY.REQ'; ! .BIX-format binary file record definitions

R3461 0
R3462 0
R3463 0
R3464 0
R3465 0
R3466 0
R3467 0
R3468 0
R3469 0
R3470 0
R3471 0
R3472 0
R3473 0
R3474 0
R3475 0
R3476 0
R3477 0
R3478 0
R3479 0
R3480 0
R3481 0
R3482 0
R3483 0
R3484 0
R3485 0
R3486 0
R3487 0
R3488 0
R3489 0
R3490 0
R3491 0
R3492 0
R3493 0
R3494 0
R3495 0
R3496 0
R3497 0
R3498 0
R3499 0
R3500 0
R3501 0
R3502 0
R3503 0
R3504 0
R3505 0
R3506 0
R3507 0
R3508 0
R3509 0
R3510 0
R3511 0
R3512 0
R3513 0
R3514 0
R3515 0
R3516 0
R3517 0

Version: 'V04-000'

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*+
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
ABSTRACT:
This file contains literals and macros defining Index record groups
found in either a .BIX or .BRN file.
ENVIRONMENT: Transportable BLISS
AUTHOR: J.P. Kellerman
CREATION DATE: January 1982
MODIFIED BY:
003 KAD00003 Keith Dawson 07-Mar-1983
Global edit of all modules. Updated module names, idents,
copyright dates. Changed require files to BLISS library.
--
An Index Record Group consists of an identification code stored
in the lower half of the first fullword followed by zero or more
fullwords which make up the rest of the record group.
LITERAL !Index Record Group Identification codes are:
NEW SEQUENCE = 1. ! New File Group.
INDEX_XTN = 2. ! Page Number Transaction Record Group.
INDEX_ENTRY = 3. ! Index Entry Record Group.

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

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: R3518 0 INDEX_ATTRIBUTES = 4; ! XPLUS-YPLUS Index Entry Attributes Record Group
: R3519 0 ! (.BRN files only).
: R3520 0
: R3521 0 ! End of NDXRTY.REQ

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

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(2)

: U 3522 0
: U 3523 0 %IF DSRPLUS %THEN
: U 3524 0 REQUIRE 'REQ:NDXXPL.REQ'; ! .XPLUS attribute-structure record definitions
: U 3525 0 %FI
: U 3526 0 REQUIRE 'REQ:NMLST.REQ'; ! NMLST_..., NM_..., and NUMBER_LIST
:

R3528 0
R3529 0 Version: 'V04-000'
R3530 0
R3531 0
R3532 0
R3533 0 * *****
R3534 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R3550 0 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
R3551 0
R3552 0
R3553 0
R3554 0
R3555 0 ++
R3556 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R3557 0
R3558 0 ABSTRACT:
R3559 0 Definitions pertaining to lists of numbers picked up by GLNM.
R3560 0
R3561 0 ENVIRONMENT: Transportable BLISS
R3562 0
R3563 0
R3564 0
R3565 0
R3566 0
R3567 0 AUTHOR: Rich Friday
R3568 0
R3569 0 CREATION DATE: 1978
R3570 0 MODIFIED BY:
R3571 0 002 KAD00002 Keith Dawson 07-Mar-1983
R3572 0 Global edit of all modules. Updated module names, idents,
R3573 0 copyright dates. Changed require files to BLISS library.
R3574 0
R3575 0 LITERAL
R3576 0 NMLST__COUNT = 1; !The number of numbers found.
R3577 0 NMLST__VALUE = ?; !The values of the numbers.
R3578 0 NMLST__DESCR = ?; !What the numbers looked like.
R3579 0
R3580 0
R3581 0 LITERAL
R3582 0 NMLST_MAXSIZE = 40;
R3583 0
R3584 0 STRUCTURE
 NUMBER_LIST[I,Attribute;Length=NMLST_MAXSIZE] =

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VAX-11 Bliss-32 V4.0-742

_S255\$DUA28:[RUNOFF.SRC]NMLST.REQ;1

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(1)

```
R3585 0
R3586 0
R3587 1
R3588 1
R3589 1
R3590 1
R3591 2
R3592 3
R3593 4
R3594 0
R3595 0
R3596 0
R3597 0
R3598 0
R3599 0
R3600 0
R3601 0
R3602 0
R3603 0
R3604 0
R3605 0
R3606 0
R3607 0
R3608 0
R3609 0
R3610 0

[ %UPVAL*( 2*length + 1 ) ]
( If Attribute eql 'NMLST__COUNT
  then
    NUMBER_LIST
  else
    (NUMBER_LIST + %UPVAL*1 +
     (if Attribute eql NMLST__VALUE
      then %UPVAL*(I - 1)
      else %UPVAL*(I - 1 + Length) )));

! Names for NMLST_DESCRIPTOR things.

LITERAL
  NM_NULL      = 0,      ! No number given.
  NM_UNSIGNED   = 1,      ! Number was unsigned.
  NM_PLUS       = 2,      ! A '+' preceeded the number.
  NM_MINUS      = 3,      ! A '-' preceeded the number.
  NM_BAD        = 4;      ! The number was in error.

MACRO
  NMLST_COUNT    = NMLST [0,NMLST__COUNT]%
  NMLST_VALUE(I) = NMLST [I,NMLST__VALUE]%
  NMLST_DESCR(I) = NMLST [I,NMLST__DESCR]%

!
          End of NMLST.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

15-⁸Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742
15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 135
(2)

; 3611 0 REQUIRE 'REQ:NUMPRM.REQ'; ! NUM_... values returned from GETNUM

R3612 O
R3613 O Version: 'V04-000'
R3614 O
R3615 O *****
R3616 O *
R3617 O * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R3634 O *
R3635 O *
R3636 O *****
R3637 O :
R3638 O :
R3639 O ++
R3640 O FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R3641 O
R3642 O ABSTRACT:
R3643 O This data structure is used to save results picked up by GETNUM.
R3644 O
R3645 O ENVIRONMENT: Transportable BLISS
R3646 O
R3647 O AUTHOR: Rich Friday
R3648 O
R3649 O CREATION DATE: 1978
R3650 O
R3651 O MODIFIED BY:
R3652 O
R3653 C 002 KAD00002 Keith Dawson 07-Mar-1983
R3654 O Global edit of all modules. Updated module names, idents,
R3655 O copyright dates. Changed require files to BLISS library.
R3656 O
R3657 O --
R3658 O
R3659 O MACRO
MR3660 O numprm_define =
MR3661 O VECTOR [4]
R3662 O %.
R3663 O
MR3664 O num_result = !Completion code returned by GETNUM.
MR3665 O numprm [0] !See GETNUM.BLI for a description.
R3666 O %.
R3667 O
MR3668 O num_value =

```
: MR3669 0      numprm [1]      !The value of the number processed.  
: R3670 0      %,  
: R3671 0      num_sign      =  
: MR3672 0      numprm [2]      !TRUE if the number was signed.  
: R3673 0      %,  
: R3674 0      num_length    =  
: MR3675 0      numprm [3]      !Number of digits scanned.  
: R3676 0      %;  
: R3677 0      !  
: R3678 0      End of NUMPRM.REQ  
: R3679 0  
: R3680 0
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

M 8
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(2)

: 3681 0 REQUIRE 'REQ:OPDEV.REQ'; ! OP_DEV_... literals: type of output device

R3682 0
R3683 0 Version: 'V04-000'
R3684 0
R3685 0 *****
R3686 0 *
R3687 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R3704 0 *
R3705 0 *
R3706 0 *****
R3707 0
R3708 0
R3709 0 **
R3710 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R3711 0
R3712 0 ABSTRACT:
R3713 0 Defines the literals used to determine what the target device for the
R3714 0 output file is.
R3715 0
R3716 0 The field these literals are used with (OP_DEVICE) is found in GCA.
R3717 0 Its initial value is captured by the CLI, put into RNOMAC, and picked
R3718 0 up later by DOOPTS to be put into GCA.
R3719 0
R3720 0 ENVIRONMENT: Transportable BLISS
R3721 0
R3722 0 AUTHOR: Ray Marshall
R3723 0
R3724 0 CREATION DATE: 7-January-1983
R3725 0
R3726 0 MODIFIED BY:
R3727 0
R3728 0 004 KAD00004 Keith Dawson 11-May-1983
R3729 0 Made FLIP output stream-format (with <cr><lf>).
R3730 0
R3731 0 003 KAD00003 Keith Dawson 23-Mar-1983
R3732 0 Added support for LN01E; put FLIP here as an output device
R3733 0 type (instead of the bit GCA_FLIP).
R3734 0
R3735 0 002 KAD00002 Keith Dawson 07-Mar-1983
R3736 0 Global edit of all modules. Updated module names, idents,
R3737 0 copyright dates. Changed require files to BLISS library.
R3738 0

```
R3739 0      !--  
R3740 0  
R3741 0      $LITERAL  
R3742 0          op_dev_line_printer = 0,           ! Output device is a...  
R3743 0          op_dev_first = %number($xpo$distinct),    ! line-printer (default).  
R3744 0          op_dev_diablo = $DISTINCT,           ! Diablo-style terminal.  
R3745 0          op_dev_flip = $DISTINCT,            ! "Electronic Book" output.  
R3746 0          op_dev_stream_output = %number($xpo$distinct),  
R3747 0          op_dev_vt100 = $DISTINCT,             ! VT100 terminal.  
R3748 0          op_dev_ln01 = $DISTINCT,              ! LN01 laser printer.  
R3749 0          op_dev_ln01e = $DISTINCT,             ! European-style LN01.  
R3750 0          op_dev_last = %number($xpo$distinct);  
R3751 0  
R3752 0      MACRO  
MR3753 0          op_dev_write_output_line =  
MR3754 0  
MR3755 0          NOTE: the following code depends on the output-device values in  
MR3756 0          OPDEV.REQ: specifically, on the fact that the stream-output,  
MR3757 0          bare-cr-emphasis devices (LP and Diablo) have device numbers  
MR3758 0          smaller than those of the escape-sequence-emphasis devices (LN01,  
MR3759 0          VT100). It is coded this way in the interest of efficiency: only  
MR3760 0          one fetch and compare is needed.  
MR3761 0          BEGIN  
MR3762 0          IF .gca_op_dev LEQ op_dev_stream_output  
MR3763 0          THEN  
MR3764 0          clh (clh_write_out)           ! LP and Diablo (STREAM) devices.  
MR3765 0          ELSE  
MR3766 0          clh (clh_out_nocrlf)        ! LN01 and VT100 (non-STREAM) devices.  
MR3767 0          END  
R3768 0          %:  
R3769 0          !      End of OPDEV.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

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(2)

: 3770 0 REQUIRE 'REQ:OUTOPT.REQ'; ! OUTOPT_... output control vector elements

R3771 0
R3772 0 Version: 'VG4-000'
R3773 0
R3774 0 *****
R3775 0 *
R3776 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R3793 0 *
R3794 0 *
R3795 0 *****
R3796 0
R3797 0
R3798 0 ++
R3799 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R3800 0
R3801 0 ABSTRACT:
R3802 0 Options specifying final output generation.
R3803 0
R3804 0 ENVIRONMENT: Transportable BLISS
R3805 0
R3806 0 AUTHOR: Rich Friday
R3807 0
R3808 0 CREATION DATE: 1978
R3809 0
R3810 0 MODIFIED BY:
R3811 0
R3812 0 003 KAD00003 Keith Dawson 07-Mar-1983
R3813 0 Global edit of all modules. Updated module names, idents,
R3814 0 copyright dates. Changed require files to BLISS library.
R3815 0
R3816 0 --
R3817 0
R3818 0
MR3819 0 MACRO
R3820 0 outopt_und_char = outopt[0] ! Character to be used for underlining.
R3821 0 outopt_und_nosp = outopt[1] ! True if the underlining character is non-spacing.
R3822 0
MR3823 0 outopt_und_sep = outopt[2] ! True if underlining is to be done by
R3824 0 ! putting OUTOPT_UND_CHAR on the next line.
R3825 0
MR3826 0 outopt_back = outopt[3] ! True if the backspace character is to be used.
R3827 0

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

E 9
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742
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(1)

```
: MR3828 0      outopt_over      = outopt[4]      ! TRUE if should do special functions
: R3829 0      %,                      ! by overprinting the same line.
: R3830 0      outopt_bldn      = outopt[5]      ! Amount of overstriking to be done when bolding.
: MR3831 0
: R3832 0
: R3833 0
: R3834 0
: R3835 0      LITERAL          outopt_size = 6;
: R3836 0
: R3837 0
: MR3838 0      MACRO            outopt_define =
: MR3839 0      VECTOR [outopt_size]
: R3840 0      %
: R3841 0
: R3842 0      !                  End of OUTOPT.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

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15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742
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(2)

: 3843 0 REQUIRE 'REQ:PASS.REQ'; ! PASS_..., EMPH_... definitions for final output

R3844 0
R3845 0 Version: 'V04-000'
R3846 0
R3847 0
R3848 0
R3849 0 *
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R3867 0
R3868 0
R3869 0
R3870 0
R3871 0 ++
R3872 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R3873 0
R3874 0 ABSTRACT:
R3875 0 Literals for counting output passes in LOUT1.
R3876 0
R3877 0 ENVIRONMENT: Transportable BLISS
R3878 0
R3879 0 AUTHOR: Keith Dawson
R3880 0
R3881 0 CREATION DATE: March 1983
R3882 0
R3883 0 MODIFIED BY:
R3884 0
R3885 0 001 KAD00001 Keith Dawson 22-Mar-1983
R3886 0 --
R3887 0
R3888 0 +
R3889 0 If no emphasis is present, the line is put out in 1 pass. This is also the
R3890 0 case if we are generating VT100 output or FLIP output, or if the user said
R3891 0 /BACKSPACE. If none of these cases applies, then multiple passes are needed
R3892 0 to generate the built-up output line.
R3893 0
R3894 0 If any emphasis is present, the emphasized copies of the line are put out
R3895 0 first; the "real," entire line is generated last. In this case, pass 1
R3896 0 serves to set up the later passes, but does not produce output.
R3897 0
R3898 0 pass 1 - calculate pass 2 - bold
R3899 0 pass 3 - underline pass 4 - bold-underline
R3900 0 pass 5 - overstrike pass 6 - bold-overstrike

```
: R3901 0      !-      pass 7 - output line, if any emphasis was present
: R3902 0
: R3903 0
: R3904 0      LITERAL
: R3905 0          pass_setup = 1,
: R3906 0          pass_bold = 2,
: R3907 0          pass_underline=3,
: R3908 0          pass_bold_underline=4,
: R3909 0          pass_overstrike = 5,
: R3910 0          pass_bold_overstrike = 6,
: R3911 0          pass_real_text = 7;
: R3912 0
: R3913 0      !+ Arrangement of bits in EMPHASIS_BITS:
: R3914 0
: R3915 0
: R3916 0          emphasized_char
: R3917 0          previous_emphasized
: R3918 0
: R3919 0
: R3920 0
: R3921 0          +-----+-----+-----+-----+
: R3922 0          | bit: | 4 | 3 | 2 | 1 |
: R3923 0          +-----+-----+-----+-----+
: R3924 0
: R3925 0          Previous:Under Bold
: R3926 0
: R3927 0          Current: Under Bold
: R3928 0
: R3929 0
: R3930 0
: R3931 0      !-
: R3932 0      MACRO
: R3933 0          emph_current_bold =      ! TRUE if this character is bolded.
: R3934 0          %,      emphasis_bits<1,1>
: R3935 0          emph_current_underline =    ! TRUE if this character is underlined.
: R3936 0          %,      emphasis_bits<2,1>
: R3937 0
: R3938 0          emph_current_emphasized = ! Both bolding and underlining together.
: R3939 0          %,      emphasis_bits<1,2>
: R3940 0
: R3941 0          emph_previous_bold =      ! TRUE if last character output was bolded.
: R3942 0          %,      emphasis_bits<3,1>
: R3943 0
: R3944 0          emph_previous_underline = ! TRUE if last character output was underlined.
: R3945 0          %,      emphasis_bits<4,1>
: R3946 0
: R3947 0          emph_previous_emphasized = ! Both bits together.
: R3948 0          %,      emphasis_bits<3,2>
: R3949 0
: R3950 0
: R3951 0      !
:               End of PASS.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

I 9
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742
_S255\$DUA28.[RUNOFF.SRC]DSRLIB.REQ;1 Page 147
(2)

: 3952 0 REQUIRE 'REQ:PDT.REQ'; ! PDT_... paragraph definition items

R3953 0
R3954 0 Version: 'V04-000'
R3955 0 *****
R3956 0 *
R3957 0 *
R3958 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
R3959 0 * DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
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R3974 0 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
R3975 0 *
R3976 0 *
R3977 0 *****
R3978 0
R3979 0
R3980 0 **
R3981 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R3982 0
R3983 0 ABSTRACT:
R3984 0 Items that define a paragraph.
R3985 0
R3986 0 ENVIRONMENT: Transportable BLISS
R3987 0
R3988 0 AUTHOR: Rich Friday
R3989 0
R3990 0 CREATION DATE: 1978
R3991 0
R3992 0 MODIFIED BY:
R3993 0
R3994 0 002 KAD00002 Keith Dawson 07-Mar-1983
R3995 0 Global edit of all modules. Updated module names, idents,
R3996 0 copyright dates. Changed require files to BLISS library.
R3997 0
R3998 0 --
R3999 0
R4000 0 MACRO
MR4001 0 pdt_indent = pdt [00] ! Add this to .SCA_RM at start of a paragraph.
R4002 0 %
MR4003 0 pdt_skip = pdt [01] ! Skip this many lines before starting.
R4004 0 %
MR4005 0 pdt_tp = pdt [02] ! Do a test page before starting a paragraph.
R4006 0 %:
R4007 0
R4008 0 LITERAL
R4009 0 pdt_size = 03:

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

K 9
15-Sep-1984 23:07:40
15-Sep-1984 22:53:57

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_S255\$DUA28:[RUNOFF.SRC]PDT.REQ;1

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(1)

: R4010 0
: R4011 0
: MR4012 0 MACRO
: MR4013 0 pdt_definition =
: R4014 0 VECTOR [pdt_size]
: R4015 0 %:
: R4016 0 !

End of PDT.REQ

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

L 9
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 150
(2)

: 4017 0 REQUIRE 'REQ:PHDEF.REQ'; ! PHAN_... macros & literal

R4018 0 | PHDEF.REQ Definitions having to do with the page handler

R4019 0 | Version: 'V04-000'

R4020 0 | *****
R4021 0 | * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R4035 0 | *****
R4036 0 | * FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

R4037 0 | ABSTRACT:

R4038 0 | This require file defines the structure used to control page formatting.
R4039 0 | The basic structure name is PHAN. A macro herein (PHAN_DEFINITION) is used
R4040 0 | when defining the structure as an external. Then, the other macros defined
R4041 0 | by this require file are used to access the PHAN structure.

R4042 0 | This require file also defines any literals related to page formatting.

R4043 0 | ***** NOTE *****
R4044 0 | The items PHAN_LCHAR and PHAN_RCHAR are not yet supported by any routines.

R4045 0 | ENVIRONMENT: Transportable BLISS

R4046 0 | AUTHOR: Rich Friday

R4047 0 | CREATION DATE: 16-October-1980

R4048 0 | MODIFIED BY:

R4049 0 | 007 REM00007 Ray Marshall 16-Nov-1983
R4050 0 | For the fields that need .PHAN[##] references, also added macros
R4051 0 | without the preceding dot so SAVRES can load them. These new
R4052 0 | fields have similar names but with "_f_" within them.

R4053 0 | 006 KFA00006 Ken Alden 15-Mar-1983
R4054 0 | Extended SAVE/RESTORE to DSR.

R4075 0 |
R4076 0 | 005 KAD00005 Keith Dawson 07-Mar-1983
R4077 0 | Global edit of all modules. Updated module names, idents,
R4078 0 | copyright dates. Changed require files to BLISS library.
R4079 0 |
R4080 0 |
R4081 0 |
R4082 0 |
R4083 0 | MACRO
R4084 0 | PHAN_TOP_PAGE = PHAN[00]%, !True, if at top of page. *
R4085 0 | PHAN_LINES = .PHAN[01]%, !(SAVE)Logical lines per page.
R4086 0 | PHAN_f_LINES = PHAN[01]%, !(SAVE)Logical lines per page.
R4087 0 |
R4088 0 | PHAN_LINES = PHAN[02]%, !Physical lines per page.
R4089 0 | PHAN_LINES_TP = PHAN[03]%, !Logical lines so far.
R4090 0 | PHAN_FIGURE = PHAN[04]%, !Count of deferred figure lines
R4091 0 | PHAN_RIGHT = PHAN[05]%, !Amount to shift text right on page.
R4092 0 | PHAN_TOP_FIRST = PHAN[06]%, !TRUE if top of first page *
R4093 0 |
R4094 0 | PHAN_HEADER = .PHAN[07]%, !(SAVEALL)TRUE if headers wanted on pages *
R4095 0 | PHAN_f_HEADER = PHAN[07]%, !(SAVEALL)TRUE if headers wanted on pages *
R4096 0 |
R4097 0 | PHAN_FORM_PEND = PHAN[08]%, !NONZERO if a form feed is waiting. *
R4098 0 | PHAN_S_LINES = PHAN[09]%, !Number of spooled lines per page
R4099 0 |
R4100 0 | PHAN_PAGING = .PHAN[10]%, !(SAVEALL)TRUE if .PAGING was said or implied. *
R4101 0 | PHAN_f_PAGING = PHAN[10]%, !(SAVEALL)TRUE if .PAGING was said or implied. *
R4102 0 |
R4103 0 | PHAN_CMD_PAGING = PHAN[11]%, !TRUE if /NOPAGING was not said or implied. *
R4104 0 | PHAN_DOWN = PHAN[12]%, !Move output down this many lines.
R4105 0 | PHAN_SIMULATE = PHAN[13]%, !TRUE if top of page should be done
R4106 0 | with blank lines rather than a FF. *
R4107 0 | PHAN_BOTTOM = PHAN[14]%, !Number of filled lines when at
R4108 0 | bottom of page.
R4109 0 | PHAN_PAUSE = PHAN[15]%, !TRUE if the user said /PAUSE. *
R4110 0 | PHAN_L_CHAR = PHAN[16]%, !Character to the left of the page number.
R4111 0 | PHAN_R_CHAR = PHAN[17]%, !Character to the right of the page number.
R4112 0 | PHAN_DEPTH = PHAN[18]%; !TRUE if a long .PAGE SIZE can generate
R4113 0 | more than one FF. *
R4114 0 |
R4115 0 | MACRO
MR4116 0 | PHAN_DEFINITION =
R4117 0 | VECTOR[19]%;
R4118 0 |
R4119 0 |
R4120 0 | LITERAL PHAN_MIN_PAGE_LENGTH = 13; !No output page may be defined in any
R4121 0 | way to be smaller than this.

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

B 10
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742
\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 153
(2)

: 4122 0 REQUIRE 'REQ:RNOMAC.REQ'; ! RNOS... command line table items

R4123 0
R4124 0 Version: 'V04-000'
R4125 0
R4126 0 *****
R4127 0 *
R4128 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R4145 0 *
R4146 0 *
R4147 0 *****
R4148 0
R4149 0
R4150 0 ++
R4151 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R4152 0
R4153 0 ABSTRACT:
R4154 0 RUNOFF Command Information. Initialized by the command line interface
R4155 0 and picked up for distribution by DOOPTS.
R4156 0
R4157 0 ENVIRONMENT: Transportable BLISS
R4158 0
R4159 0 AUTHOR: Rich Friday
R4160 0
R4161 0 CREATION DATE: 1978
R4162 0
R4163 0 MODIFIED BY:
R4164 0
R4165 0 012 REM00012 Ray Marshall 5-December-1983
R4166 0 Added RNOSV_LN01_LOAD to indicate that one wishes to load
R4167 0 fonts before printing this file on an LN01.
R4168 0
R4169 0 011 REM00011 Ray Marshall 13-Sep-1983
R4170 0 Added bit RNOSV_LN01_HEADER to support disabling the font
R4171 0 control header information from being put into an .LN1 output
R4172 0 file.
R4173 0
R4174 0 010 KAD00010 Keith Dawson 2-Jun-1983
R4175 0 Added bits RNOSV_S_RIGHT and RNOSV_S_DOWN to tell if the
R4176 0 qualifiers were explicitly given.
R4177 0
R4178 0 009 KAD00009 Keith Dawson 22-Mar-1983
R4179 0 Renamed LN01 italic/underline and portrait/landscape bits.

```
R4180 0 | in order to reflect the default values.  
R4181 0 | Got rid of RNOSV FLIP bit, in favor of (.gca_op_dev  
R4182 0 | EQL cp_dev_flip).  
R4183 0 |  
R4184 0 008 KAD00008 Keith Dawson 07-Mar-1983  
P4185 0 | Global edit of all modules. Updated module names, idents,  
R4186 0 | copyright dates. Changed require files to BLISS library.  
R4187 0 |  
R4188 0 |--  
R4189 0 |  
R4190 0 $FIELD $rno$cmd_fields = SET  
R4191 0 | File specification string descriptors.  
R4192 0 |  
R4193 0 | RNO$T_INPUT = [$DESCRIPTOR(FIXED)] ; Input  
R4194 0 | RNO$T_OUTPUT = [$DESCRIPTOR(FIXED)] ; Output  
R4195 0 | RNO$T_INTERMEDIATE = [$DESCRIPTOR(FIXED)] ; Binary intermediate .BRN type file  
R4196 0 | RNO$T_DROP_REC = [$DESCRIPTOR(FIXED)] ; Drop-record file  
R4197 0 |  
R4198 0 | Miscellaneous other string descriptors.  
R4199 0 |  
R4200 0 |  
R4201 0 | rno$t_program_name = [$DESCRIPTOR(FIXED)] ; Name of program  
R4202 0 | rno$t_program_filename = [$DESCRIPTOR(FIXED)] ; Filename of program  
R4203 0 |  
R4204 0 | rno$t_pages = [$DESCRIPTOR(FIXED)] ; Page range string descriptor:  
R4205 0 | $OVERLAY( $SUB_FIELD( rno$t_pages, STRSH_LENGTH ) )  
R4206 0 | rno$h_pages = [$BYTES(2)] ; Length of page range string  
R4207 0 | $OVERLAY( $SUB_FIELD( rno$t_pages, STRSA_POINTER ) )  
R4208 0 | rno$sa_pages = [$POINTER] ; pointer to page range string  
R4209 0 | $CONTINUE  
R4210 0 |  
R4211 0 | rno$t_variant = [$DESCRIPTOR(FIXED)] ; Variant string descriptor:  
R4212 0 | $OVERLAY( $SUB_FIELD( rno$t_variant, STRSH_LENGTH ) )  
R4213 0 | rno$h_variant = [$BYTES(2)] ; length of variant string  
R4214 0 | $OVERLAY( $SUB_FIELD( rno$t_variant, STRSA_POINTER ) )  
R4215 0 | rno$sa_variant = [$POINTER] ; pointer to variant string  
R4216 0 | $CONTINUE  
R4217 0 |  
R4218 0 | rno$sa_datetime = [$BYTES(12)] ; System date and time  
R4219 0 | $OVERLAY( rno$sa_datetime )  
R4220 0 | rno$h_year = [$BYTES(2)] ;  
R4221 0 | rno$h_month = [$BYTES(2)] ;  
R4222 0 | rno$h_monthday = [$BYTES(2)] ;  
R4223 0 | rno$h_hours = [$BYTES(2)] ;  
R4224 0 | rno$h_minutes = [$BYTES(2)] ;  
R4225 0 | rno$h_seconds = [$BYTES(2)] ;  
R4226 0 | $CONTINUE  
R4227 0 |  
R4228 0 | Three words of switch option bits:  
R4229 0 |  
R4230 0 | rno$sv_options = [$BYTES(8)] ; Command option indicators:  
R4231 0 | $OVERLAY( rno$sv_options )  
R4232 0 | rno$sv_option1 = [$BYTES(2)] ;  
R4233 0 | rno$sv_option2 = [$BYTES(2)] ;  
R4234 0 | rno$sv_option3 = [$BYTES(2)] ;  
R4235 0 | rno$sv_option4 = [$BYTES(2)] ;  
R4236 0 |
```

```

R4237 0
R4238 0
R4239 0
R4240 0
R4241 0
R4242 0
R4243 0
R4244 0
R4245 0
R4246 0
R4247 0
R4248 0
R4249 0
R4250 0
R4251 0
R4252 0
R4253 0
R4254 0
R4255 0
R4256 0
R4257 0
R4258 0
R4259 0
R4260 0
R4261 0
R4262 0
R4263 0
R4264 0
R4265 0
R4266 0
R4267 0
R4268 0
R4269 0
R4270 0
R4271 0
R4272 0
R4273 0
R4274 0
R4275 0
R4276 0
R4277 0
R4278 0
R4279 0
R4280 0
R4281 0
R4282 0
R4283 0
R4284 0
R4285 0
R4286 0
R4287 0
R4288 0
R4289 0
R4290 0
R4291 0
R4292 0
R4293 0

    $OVERLAY ( rno$v_option1 )

    rno$v_2Automatic = [$BITS(2)]  

        $OVERLAY ( rno$v_2Automatic )  

    rno$v_Automatic = [$BIT]  

    rno$v_s_Automatic = [$BIT] ;  

    rno$v_2backspace = [$BITS(2)]  

        $OVERLAY ( rno$v_2backspace )  

    rno$v_backspace = [$BIT]  

    rno$v_s_backspace = [$BIT] ;  

    rno$v_2change = [$BITS(2)]  

        $OVERLAY ( rno$v_2change )  

    rno$v_change = [$BIT]  

    rno$v_s_change = [$BIT] ;  

    rno$v_chng_char = [$BIT] ;  

    rno$v_2cross_reference = [$BITS(2)]  

        $OVERLAY ( rno$v_2cross_reference )  

    rno$v_cross_reference = [$BIT]  

    rno$v_s_cross_reference = [$BIT] ;  

    rno$v_deb_cond = [$BIT] ;  

    rno$v_deb_cont = [$BIT] ;  

    rno$v_deb_cros = [$BIT] ;  

    rno$v_deb_files = [$BIT] ;  

    rno$v_deb_index = [$BIT] ;  

    rno$v_deb_save = [$BIT] ;  

    ;(1 free bit in OPTION1)  

    $OVERLAY ( rno$v_option2 )

    rno$v_2intermediate = [$BITS(2)]  

        $OVERLAY ( rno$v_2intermediate )  

    rno$v_intermediate = [$BIT]  

    rno$v_s_intermediate = [$BIT] ;  

    rno$v_2log = [$BITS(2)]  

        $OVERLAY ( rno$v_2log )  

    rno$v_log = [$BIT]  

    rno$v_s_log = [$BIT] ;  

    rno$v_msg_out = [$BIT] ;  

    rno$v_msg_user = [$BIT] ;  

    rno$v_4_out_format = [$BITS(4)]  

    rno$v_2output = [$BITS(2)]  

        $OVERLAY ( rno$v_2output )  

    rno$v_output = [$BIT]  

    rno$v_s_output = [$BIT] ;  

    rno$v_2overprint = [$BITS(2)]  

        $OVERLAY ( rno$v_2overprint )  


```

: Carries state of /AUTOMATIC to DOOPTS
 : execute multiple passes and utilities as needed
 : /AUTOMATIC explicitly specified
 : backspace on same line
 : backspace on same line
 : /BACKSPACE explicitly specified
 : change bars requested
 : change bars allowed
 : /CHANGE explicitly specified
 : change bar character specified (see below)
 : Carries state of /CROSSREFERENCE to DOOPTS
 : translate cross references
 : /CROSS_REFERENCE explicitly specified
 : go through all paths of .IFs and output draft flags
 : echo toc entries in output file
 : echo .REFs & \$FOOs in output file
 : put file names in the output.
 : echo index entries in output file
 : echo .SAVEs & .RESs in output file

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

F 10
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742
15-Sep-1984 22:54:12 \$255\$DUA28:[RUNOFF.SRC]RNUMAC.REQ;1 Page 157 (1)

```
: R4294 0      rno$v_overprint = [$BIT] ;
: R4295 0      rno$v_s_overprint = [$BIT] ;
: R4296 0
: R4297 0      rno$v_2_pause = [$BITS(2)] ;
: R4298 0      $OVERLAY ( rno$v_2_pause )
: R4299 0      rno$v_pause = [$BIT] ;
: R4300 0      rno$v_s_pause = [$BIT] ;
: R4301 0
: R4302 0      | (NO free bits in OPTION2)
: R4303 0
: R4304 0      | $OVERLAY ( rno$v_option3 )
: R4305 0
: R4306 0      rno$v_quick = [$BIT] ;
: R4307 0
: R4308 0      rno$v_2_sequence = [$BITS(2)] ;
: R4309 0      $OVERLAY ( rno$v_2_sequence )
: R4310 0      rno$v_sequence = [$BIT] ;
: R4311 0      rno$v_s_sequence = [$BIT] ;
: R4312 0
: R4313 0      rno$v_2_simulate = [$BITS(2)] ;
: R4314 0      $OVERLAY ( rno$v_2_simulate )
: P4315 0      rno$v_simulate = [$BIT] ;
: R4316 0      rno$v_s_simulate = [$BIT] ;
: R4317 0
: R4318 0      rno$v_2_underline = [$BITS(2)] ;
: R4319 0      $OVERLAY ( rno$v_2_underline )
: R4320 0      rno$v_underline = [$BIT] ;
: R4321 0      rno$v_s_underline = [$BIT] ;
: R4322 0
: R4323 0      rno$v_2_und_separ = [$BITS(2)] ;
: R4324 0      $OVERLAY ( rno$v_2_und_separ )
: R4325 0      rno$v_und_separ = [$BIT] ;
: R4326 0      rno$v_s_und_separ = [$BIT] ;
: R4327 0
: R4328 0      rno$v_2_und_nonsp = [$BITS(2)] ;
: R4329 0      $OVERLAY ( rno$v_2_und_nonsp )
: R4330 0      rno$v_und_nonsp = [$BIT] ;
: R4331 0      rno$v_s_und_nonsp = [$BIT] ;
: R4332 0
: R4333 0      rno$v_und_char = [$BIT] ;
: R4334 0
: R4335 0
: R4336 0      | (4 free bits in OPTION3)
: R4337 0
: R4338 0      | $OVERLAY ( rno$v_option4 )
: R4339 0
: R4340 0      rno$v_ln01_ital_under = [$BIT] ;
: R4341 0      rno$v_ln01_port_landscape = [$BIT] ;
: R4342 0      rno$v_ln01_header = [$BIT] ;
: R4343 0      rno$v_ln01_load = [$BIT] ;
: R4344 0
: R4345 0      rno$v_s_down = [$BIT] ;
: R4346 0      rno$v_s_right = [$BIT] ;
: R4347 0
: R4348 0      | (11 free bits in OPTION4)
: R4349 0
: R4350 0      | $CONTINUE

:          | overprint on same line
:          | /OVERPRINT explicitly specified
:          | pause at page boundary requested
:          | /PAUSE explicitly specified
:          | do quick processing (for contents, index)
:          | output sequence numbers requested
:          | output sequence numbers requested
:          | /SEQUENCE explicitly specified
:          | simulate printer form feeds
:          | simulate printer form feeds
:          | /SIMULATE explicitly specified
:          | underlining requested
:          | underlining requested: (default)
:          | /UNDERLINE explicitly specified
:          | underlining on separate line
:          | underlining on separate line
:          | /SEPARATE_UNDERLINE explicitly specified
:          | underlining non-spacing inline
:          | non-spacing inline
:          | /NONSPACING explicitly specified
:          | character specified (see below)

:          ! Options for LN01 output:
:          set = italics, clear = underlining
:          set = portrait, clear = landscape
:          set = if header wanted in O/P file
:          set = loading of fonts is desired
:          | /DOWN explicitly specified
:          | /RIGHT explicitly specified
```

```
: R4351 0
: R4352 0     rnoSc_change     = [SBYTE] ;
: R4353 0     rnoSc_underline     = [SBYTE] ;     ! Change bar character (RNOSV_CHNG_CHAR set)
: R4354 0
: R4355 0     rnoSh_bold     = [SSHORT_INTEGER] ;
: R4356 0     rnoSh_dbg1     = [SSHORT_INTEGER] ;     ! Bolding overprint count
: R4357 0     rnoSh_dbg2     = [SSHORT_INTEGER] ;     Debug flags, 1st word
: R4358 0     rnoSh_down     = [SSHORT_INTEGER] ;     Debug flags, 2nd word
: R4359 0     rnoSh_right     = [SSHORT_INTEGER] ;     Down shift count (number of lines)
: R4360 0     rnoSh_form_size     = [SSHORT_INTEGER] ;     Right shift count (number of characters)
: R4361 0
: R4362 0     TES;
: R4363 0
: R4364 0     LITERAL rnoSk_cmd_len     = $FIELD_SET_SIZE ;     ! Length of RUNOFF command block
: R4365 0
: R4366 0     MACRO
: MR4367 0         $rno_cmd =
: MR4368 0         BLOCK [ rnoSk_cmd_len ] FIELD ( $rnoScmd_fields )
: R4369 0         %;
: R4370 0
: R4371 0     !
:                      End of RNOMAC.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

H 10
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

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_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 159
(2)

: 4372 0 REQUIRE 'REQ:RUNHAN.REQ'; ! H_... directive literals

R4373 0 : RUNHAN.REQ - Literal values of each directive.
R4374 0
R4375 0 Version: 'V04-000'
R4376 0 *****
R4377 0 *
R4378 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
R4379 0 * DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
R4380 0 * ALL RIGHTS RESERVED.
R4381 0 *
R4382 0 * THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED
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R4385 0 * COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY
R4386 0 * OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY
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R4389 0 * THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE
R4390 0 * AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT
R4391 0 * CORPORATION.
R4392 0 *
R4393 0 *
R4394 0 * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
R4395 0 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
R4396 0 *
R4397 0 *
R4398 0 *****
R4399 0
R4400 0
R4401 0 ++
R4402 0 : FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R4403 0
R4404 0 ABSTRACT:
R4405 0
R4406 0 : This require file defines the literals used to reference the
R4407 0 : various DSR commands.
R4408 0
R4409 0 ENVIRONMENT: Transportable BLISS
R4410 0
R4411 0 : AUTHOR: Rich Friday CREATION DATE: 1978
R4412 0

R4413 0 | MODIFIED BY:

R4414 0 |
R4415 0 | 014 KFA00014 Ken Alden 04-Aug-1983
R4416 0 | Added H_DISABLE_APPEN, H_PAGE_NOW.
R4417 0 |
R4418 0 | 013 KFA00013 Ken Alden 03-Aug-1983
R4419 0 | Added directive H_ENABLE CHAPTER, H_DISABLE CHAPTER (dsrplus).
R4420 0 |
R4421 0 | 012 RER00012 Ron Randall 17-Mar-1983
R4422 0 | Made topnote-related text consistent with other modules.
R4423 0 |
R4424 0 | 011 KFA00011 Ken Alden 16-Mar-1983
R4425 0 | Made SAVE/RESTORE visible to DSR.
R4426 0 |
R4427 0 | 010 KAD00010 Keith Dawson 07-Mar-1983
R4428 0 | Global edit of all modules. Updated module names, idents,
R4429 0 | copyright dates. Changed require files to BLISS library.
R4430 0 | Made handler codes numerically ascending again through
R4431 0 | their alphabetical order, including both DSR-only and
R4432 0 | DSRPLUS commands. The DSRPLUS commands will still be
R4433 0 | reported as errors for DSR.
R4434 0 |--
R4435 0 |

R4436 0 LITERAL H_APPENDIX = 1:
R4437 0 LITERAL H_AUTOJUSTIFY = 2:
R4438 0 LITERAL H_AUTOPARAGRAPH = 3:
R4439 0 LITERAL H_AUTOSUBTITLE = 4:
R4440 0 LITERAL H_AUTOTABLE = 5:
R4441 0
UR4442 0 %IF DSRPLUS %THEN
UR4443 0 LITERAL H_AUTOTITLE = 6:
R4444 0 %FI
R4445 0
R4446 0 LITERAL H_BEGIN_BAR = 7:
R4447 0
UR4448 0 %IF DSRPLUS %THEN
UR4449 0 LITERAL H_BEGIN_TOPNOTE = 8:
UR4450 0 LITERAL H_BEGIN_PASSTHR = 9:
R4451 0 %FI
R4452 0
R4453 0 LITERAL H_BLANK = 10:
R4454 0 LITERAL H_BREAK = 11:
R4455 0 LITERAL H_CENTER = 12:
R4456 0 LITERAL H_CHAPTER = 13:
R4457 0 LITERAL H_COMMENT = 14:
R4458 0 LITERAL H_CONTROL_CHARA = 15:
R4459 0
UR4460 0 %IF DSRPLUS %THEN
UR4461 0 LITERAL H_REFERENCEPOIN = 16:
R4462 0 %FI
R4463 0
R4464 0 LITERAL H_DATE = 17:
R4465 0
UR4466 0 %IF DSRPLUS %THEN
UR4467 0 LITERAL H_DISABLE_APPEN = 214:
R4468 0 %FI
R4469 0
R4470 0 LITERAL H_DISABLE_BAR = 18:
R4471 0 LITERAL H_DISABLE_BOLD = 19:
R4472 0
UR4473 0 %IF DSRPLUS %THEN
UR4474 0 LITERAL H_DISABLE_CHAPT = 212;! Same as H_no_chapter
R4475 0 %FI
R4476 0
R4477 0 LITERAL H_DISABLE_HYPHE = 20:
R4478 0 LITERAL H_DISABLE_INDEX = 21:
R4479 0 LITERAL H_DISABLE_OVERS = 22:
R4480 0 LITERAL H_DISABLE_TOC = 23:
R4481 0 LITERAL H_DISABLE_UNDER = 24:
R4482 0
UR4483 0 %IF DSRPLUS %THEN
UR4484 0 LITERAL H_DISABLE_XPLUS = 25:
R4485 0 %FI
R4486 0
R4487 0 LITERAL H_DISPLAY_APPEN = 26:
R4488 0 LITERAL H_DISPLAY_CHAPT = 27:
R4489 0
UR4490 0 %IF DSRPLUS %THEN
UR4491 0 LITERAL H_DISPLAY_COUNT = 28:
R4492 0 %FI

R4493 0
R4494 0 LITERAL H_DISPLAY_DAY = 29;
R4495 0 LITERAL H_DISPLAY_ELEME = 30;
R4496 0
UR4497 0 XIF DSRPLUS %THEN
UR4498 0 LITERAL H_DISPLAY_EXAMP = 31;
UR4499 0 LITERAL H_DISPLAY FIGUR = 32;
UR4500 0 LITERAL H_DISPLAY_HEAD = 33;
R4501 0 XFI
R4502 0
R4503 0 LITERAL H_DISPLAY_HOURS = 34;
R4504 0 LITERAL H_DISPLAY_LEVEL = 35;
R4505 0 LITERAL H_DISPLAY_MINUT = 36;
R4506 0 LITERAL H_DISPLAY_MONTH = 37;
R4507 0 LITERAL H_DISPLAY_NUMBE = 38;
R4508 0 LITERAL H_DISPLAY_SECON = 39;
R4509 0 LITERAL H_DISPLAY_SUBPA = 40;
R4510 0
UR4511 0 XIF DSRPLUS %THEN
UR4512 0 LITERAL H_DISPLAY_TABLE = 41;
R4513 0 XFI
R4514 0
R4515 0 LITERAL H_DISPLAY_YEAR = 42;
R4516 0 LITERAL H_DO_INDEX = 43;
R4517 0
UR4518 0 XIF DSRPLUS %THEN
UR4519 0 LITERAL H_DO_CONTENTS = 44;
UR4520 0 LITERAL H_DO_TABLE = 45;
R4521 0 XFI
R4522 0
R4523 0 LITERAL H_ELSE = 46;
R4524 0
UR4525 0 XIF DSRPLUS %THEN
UR4526 0 LITERAL H_ENABLE_APPEND = 213;
R4527 0 XFI
R4528 0
R4529 0 LITERAL H_ENABLE_BAR = 47;
R4530 0 LITERAL H_ENABLE_BOLDIN = 48;
R4531 0
UR4532 0 XIF DSRPLUS %THEN
UR4533 0 LITERAL H_ENABLE_CHAPTE = 211;
R4534 0 XFI
R4535 0
R4536 0 LITERAL H_ENABLE_HYPHEN = 49;
R4537 0 LITERAL H_ENABLE_INDEXI = 50;
R4538 0 LITERAL H_ENABLE_OVERST = 51;
R4539 0
UR4540 0 XIF DSRPLUS %THEN
UR4541 0 LITERAL H_ENABLE_XPLUS = 52;
R4542 0 XFI
R4543 0
R4544 0 LITERAL H_ENABLE_TOC = 53;
R4545 0 LITERAL H_ENABLE_UNDERL = 54;
R4546 0 LITERAL H_ENDIF = 55;
R4547 0 LITERAL H_END_BAR = 56;
R4548 0 LITERAL H_END_FOOTNOTE = 57;
R4549 0

```
UR4550 0 %IF DSRPLUS %THEN
UR4551 0 LITERAL H_END_TOPNOTE = 58;
UR4552 0 %FI
UR4553 0
UR4554 0 LITERAL H_END_LIST = 59;
UR4555 0 LITERAL H_END_LITERAL = 60;
UR4556 0 LITERAL H_END_NOTE = 61;
UR4557 0
UR4558 0 %IF DSRPLUS %THEN
UR4559 0 LITERAL H_END_PASSTHROU = 62;
UR4560 0 %FI
UR4561 0
UR4562 0 LITERAL H_END_SUBPAGE = 63;
UR4563 0 LITERAL H_ENTRY = 64;
UR4564 0 LITERAL H_PICTURE = 65;
UR4565 0 LITERAL H_PICTURE_DEFERR = 66;
UR4566 0 LITERAL H_FILL = 67;
UR4567 0 LITERAL H_FIRST_TITLE = 68;
UR4568 0
UR4569 0 %IF DSRPLUS %THEN
UR4570 0 LITERAL H_FIRST_TITLE_A = 69;
UR4571 0 %FI
UR4572 0
UR4573 0 LITERAL H_FLAGS_ALL = 70;
UR4574 0 LITERAL H_FLAGS_BOLD = 71;
UR4575 0 LITERAL H_FLAGS_BREAK = 72;
UR4576 0 LITERAL H_FLAGS_CAPITAL = 73;
UR4577 0 LITERAL H_FLAGS_COMMENT = 74;
UR4578 0 LITERAL H_FLAGS_CONTROL = 75;
UR4579 0 LITERAL H_FLAGS_ENDFOOT = 76;
UR4580 0 LITERAL H_FLAGS_HYPHEHA = 77;
UR4581 0 LITERAL H_FLAGS_INDEX = 78;
UR4582 0 LITERAL H_FLAGS_LOWERCA = 79;
UR4583 0 LITERAL H_FLAGS_OVERSTR = 80;
UR4584 0
UR4585 0 %IF DSRPLUS %THEN
UR4586 0 LITERAL H_FLAGS_NOPERMU = 81;
UR4587 0 LITERAL H_FLAGS_PASSTHR = 82;
UR4588 0 %FI
UR4589 0
UR4590 0 LITERAL H_FLAGS_PERIOD = 83;
UR4591 0 LITERAL H_FLAGS_QUOTE = 84;
UR4592 0 LITERAL H_FLAGS_SPACE = 85;
UR4593 0 LITERAL H_FLAGS_SUBINDE = 86;
UR4594 0 LITERAL H_FLAGS_SUBSTIT = 87;
UR4595 0 LITERAL H_FLAGS_UNDERLI = 88;
UR4596 0 LITERAL H_FLAGS_UPPERCA = 89;
UR4597 0 LITERAL H_FOOTNOTE = 90;
UR4598 0 LITERAL H_HEADERS_LOWER = 91;
UR4599 0 LITERAL H_HEADERS_MIXED = 92;
UR4600 0 LITERAL H_HEADERS_ON = 93;
UR4601 0 LITERAL H_HEADERS_UPPER = 94;
UR4602 0
UR4603 0 %IF DSRPLUS %THEN
UR4604 0 LITERAL H_HEADER_EXAMPL = 95;
UR4605 0 LITERAL H_HEADER_PICTURE = 96;
UR4606 0 %FI
```

R4607 0
R4608 0 LITERAL H_HEADER_LEVEL = 97;
R4609 0
UR4610 0 %IF DSRPLUS %THEN
UR4611 0 LITERAL H_HEADER_TABLE = 98;
UR4612 0 LITERAL H_TOPNOTE_ON = 99;
R4613 0 %FI
R4614 0
R4615 0 LITERAL H_HYPHENATION = 100;
R4616 0 LITERAL H_IF = 101;
R4617 0 LITERAL H_IFNOT = 102;
R4618 0 LITERAL H_INDENT = 103;
R4619 0 LITERAL H_INDEX = 104;
R4620 0 LITERAL H_JUSTIFY = 105;
R4621 0 LITERAL H_KEEP = 106;
R4622 0 LITERAL H_LAYOUT = 107;
R4623 0 LITERAL H_LEF = 108;
R4624 0 LITERAL H_LEF1_MARGIN = 109;
R4625 0 LITERAL H_LIST = 110;
R4626 0 LITERAL H_LIST_ELEMENT = 111;
R4627 0 LITERAL H_LITERAL = 112;
R4628 0 LITERAL H_LOWER_CASE = 113;
R4629 0 LITERAL H_NOTE = 114;
R4630 0 LITERAL H_NO_AUTOJUSTIF = 115;
R4631 0 LITERAL H_NO_AUTOPARAGR = 116;
R4632 0 LITERAL H_NO_AJTOSUBIT = 117;
R4633 0 LITERAL H_NO_AUTOTABLE = 118;
R4634 0
UR4635 0 %IF DSRPLUS %THEN
UR4636 0 LITERAL H_NO_AUTOTITLE = 119;
UR4637 0 LITERAL H_NO_CHAPTER = 120;
R4638 0 %FI
R4639 0
R4640 0 LITERAL H_NO_CONTROL_CH = 121;
R4641 0 LITERAL H_NO_DATE = 122;
R4642 0 LITERAL H_NO_FILL = 123;
R4643 0 LITERAL H_NO_FLAGS_ALL = 124;
R4644 0 LITERAL H_NO_FLAGS_BOLD = 125;
R4645 0 LITERAL H_NO_FLAGS_BREA = 126;
R4646 0 LITERAL H_NO_FLAGS_CAPI = 127;
R4647 0 LITERAL H_NO_FLAGS_COMM = 128;
R4648 0 LITERAL H_NO_FLAGS_CONT = 129;
R4649 0 LITERAL H_NO_FLAGS_ENDF = 130;
R4650 0 LITERAL H_NO_FLAGS_HYPH = 131;
R4651 0 LITERAL H_NO_FLAGS_INDE = 132;
R4652 0 LITERAL H_NO_FLAGS_LOWE = 133;
R4653 0 LITERAL H_NO_FLAGS_OVER = 134;
R4654 0
UR4655 0 %IF DSRPLUS %THEN
UR4656 0 LITERAL H_NO_FLAGS_NOPE = 135;
UR4657 0 LITERAL H_NO_FLAGS_PASS = 136;
R4658 0 %FI
R4659 0
R4660 0 LITERAL H_NO_FLAGS_PERI = 137;
R4661 0 LITERAL H_NO_FLAGS_QUOT = 138;
R4662 0 LITERAL H_NO_FLAGS_SPAC = 139;
R4663 0 LITERAL H_NO_FLAGS_SUBI = 140;

```
R4664 0 LITERAL H_NO_FLAGS_SUBS = 141;  
R4665 0 LITERAL H_NO_FLAGS_UNDE = 142;  
R4666 0 LITERAL H_NO_FLAGS_UPPE = 143;  
R4667 0 LITERAL H_NO_HEADERS = 144;  
R4668 0 LITERAL H_NO_TOPNOTE = 145;  
R4669 0 LITERAL H_NO_HYPHENATIO = 146;  
R4670 0 LITERAL H_NO_KEEP = 147;  
R4671 0 LITERAL H_NO_JUSTIFY = 148;  
R4672 0 LITERAL H_NO_NUMBER = 149;  
R4673 0  
UR4674 0 %IF DSRPLUS %THEN  
UR4675 0 LITERAL H_NO_NUMBER_FOO = 150;  
R4676 0 %FI  
R4677 0  
R4678 0 LITERAL H_NO_PAGING = 151;  
R4679 0 LITERAL H_NO_PERIOD = 152;  
R4680 0 LITERAL H_NO_SPACE = 153;  
R4681 0 LITERAL H_NO_SUBTITLE = 154;  
R4682 0 LITERAL H_NUMBER_APPEND = 155;  
R4683 0 LITERAL H_NUMBER_CHAPTE = 156;  
R4684 0  
UR4685 0 %IF DSRPLUS %THEN  
UR4686 0 LITERAL H_NUMBER_EXAMPL = 157;  
UR4687 0 LITERAL H_NUMBER FIGURE = 158;  
UR4688 0 LITERAL H_NUMBER_FOOTNO = 159;  
R4689 0 %FI  
R4690 0  
R4691 0 LITERAL H_NUMBER_INDEX = 160;  
R4692 0 LITERAL H_NUMBER_LEVEL = 161;  
R4693 0 LITERAL H_NUMBER_LIST = 162;  
R4694 0 LITERAL H_NUMBER_PAGE = 163;  
R4695 0 LITERAL H_NUMBER_RUNNIN = 164;  
R4696 0 LITERAL H_NUMBER_SUBPAG = 165;  
R4697 0  
UR4698 0 %IF DSRPLUS %THEN  
UR4699 0 LITERAL H_NUMBER_TABLE = 166;  
R4700 0 %FI  
R4701 0  
R4702 0 LITERAL H_PAGE = 167;  
R4703 0  
UR4704 0 %IF DSRPLUS %THEN  
UR4705 0 LITERAL H_PAGE_NOW = 215;  
R4706 0 %FI  
R4707 0  
R4708 0 LITERAL H_PAGE_SIZE = 168;  
R4709 0 LITERAL H_PAGING = 169;  
R4710 0 LITERAL H_PARAGRAPH = 170;  
R4711 0 LITERAL H_PERIOD = 171;  
R4712 0 LITERAL H_PRINT_INDEX = 172;  
R4713 0 LITERAL H_REPEAT = 173;  
R4714 0 LITERAL H_REQUIRE = 174;  
R4715 0 LITERAL H_RESTORE = 175;  
R4716 0 LITERAL H_RIGHT = 176;  
R4717 0 LITERAL H_RIGHT_MARGIN = 177;  
R4718 0 LITERAL H_SAVE = 178;  
R4719 0 LITERAL H_SAVE_ALL = 179;  
R4720 0
```

```
: UR4721 0 %IF DSRPLUS %THEN
: UR4722 0 LITERAL H_SEND_CONTENTS = 180;
: R4723 0 %FI
: R4724 0
: R4725 0 LITERAL H_SEND_TOC = 181;
: R4726 0
: UR4727 0 %IF DSRPLUS %THEN
: UR4728 0 LITERAL H_SET_COUNTER = 182;
: R4729 0 %FI
: R4730 0
: R4731 0 LITERAL H_SET_DATE = 183;
: R4732 0 LITERAL H_SET_LEVEL = 184;
: R4733 0 LITERAL H_SET_PARAGRAPH = 185;
: R4734 0
: UR4735 0 %IF DSRPLUS %THEN
: UR4736 0 LITERAL H_SET_TEXTSTRIN = 186;
: R4737 0 %FI
: R4738 0
: R4739 0 LITERAL H_SET_TIME = 187;
: R4740 0 LITERAL H_SKIP = 188;
: R4741 0 LITERAL H_SPACING = 189;
: R4742 0 LITERAL H_STANDARD = 190;
: R4743 0
: UR4744 0 %IF DSRPLUS %THEN
: UR4745 0 LITERAL H_STYLE_APPENDI = 191;
: UR4746 0 LITERAL H_STYLE_CHAPTER = 192;
: R4747 0 %FI
: R4748 0
: R4749 0 LITERAL H_STYLE_DATE = 193;
: R4750 0
: UR4751 0 %IF DSRPLUS %THEN
: UR4752 0 LITERAL H_STYLE_EXAMPLE = 194;
: UR4753 0 LITERAL H_STYLE_PICTURE = 195;
: R4754 0 %FI
: R4755 0
: R4756 0 LITERAL H_STYLE_HEADERS = 196;
: R4757 0
: UR4758 0 %IF DSRPLUS %THEN
: UR4759 0 LITERAL H_STYLE_TABLE = 197;
: R4760 0 %FI
: R4761 0
: R4762 0 LITERAL H_STYLE_TIME = 198;
: R4763 0 LITERAL H_SUBINDFX = 199;
: R4764 0 LITERAL H_SUBPAGE = 200;
: R4765 0 LITERAL H_SUBTITLE = 201;
: R4766 0 LITERAL H_TAB_STOPS = 202;
: R4767 0 LITERAL H_TEST_PAGE = 203;
: R4768 0 LITERAL H_TITLE = 204;
: R4769 0 LITERAL H_UPPER_CASE = 205;
: R4770 0 LITERAL H_VARIABLE = 206;
: R4771 0 LITERAL H_XLOWER = 207;
: R4772 0
: UR4773 0 %IF DSRPLUS %THEN
: UR4774 0 LITERAL H_XPLUS = 208;
: R4775 0 %FI
: R4776 0
: R4777 0 LITERAL H_XUPPER = 209;
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

D 11
15-Sep-1984 23:07:40
15-Sep-1984 22:54:15

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(3)

: R4778 0
UR4779 0 XIF DSRPLUS %THEN
UR4780 0 LITERAL H_YPLUS = 210:
R4781 0 XFI
R4782 0
R4783 0 LITERAL FIRST_COMMAND = 1:
R4784 0 LITERAL LAST_COMMAND = 215:
R4785 0
R4786 0 ! End of RUNHAN.REQ

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

E 11
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

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_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

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()

: 4787 0 REQUIRE 'REQ:SAVE.REQ'; ! Save and Restore definitions

R4788 0
R4789 0 Version: 'V04-000'
R4790 0
R4791 0 *****
R4792 0 *
R4793 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
R4794 0 * DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
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R4808 0 * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
R4809 0 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
R4810 0 *
R4811 0 *
R4812 0 *****
R4813 0
R4814 0
R4815 0 **
R4816 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R4817 0
R4818 0 ABSTRACT:
R4819 0 This require file defines part of the storage area for the .SAVE
R4820 0 commands. Whole structures that will be saved will remain as they
R4821 0 are; this Require file just defines the additional area for the
R4822 0 single items. Items declared in the SAVE area do not also appear in
R4823 0 the SAVEALL area because the SAVEALL area includes all that is in
R4824 0 the SAVE area.
R4825 0
R4826 0 ENVIRONMENT: Transportable BLISS
R4827 0
R4828 0 AUTHOR: Ken Alden
R4829 0
R4830 0 CREATION DATE: December 1982
R4831 0
R4832 0 MODIFIED BY:
R4833 0
R4834 0 007 REM00007 Ray Marshall 1-June-1984
R4835 0 Completely reworked the definitions of SAVE_LENGTH &
R4836 0 SAVEALL_LENGTH. At least one size was wrong and hard coded
R4837 0 values were used where a %SIZE could have been used. Now
R4838 0 %SIZE is used for most of the items. Also, the XPD_items
R4839 0 are now conditionalized for DSRPLUS.
R4840 0
R4841 0 006 KFA00006 Ken Alden 30-Sep-1983
R4842 0 Moved the HCT items to the .SAVE list and three SCA items to
R4843 0 the .SAVE ALL item block.
R4844 0

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

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15-Sep-1984 23:07:40 VAX-11 Bliss-32 v4.0-742
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(1)

R4845 0	005	KFA00005	Ken Alden	27-Jul-1983
R4846 0		Added gca_flag_cmd to the save list.		
R4847 0	004	KFA00004	Ken Alden	5-Jul-1983
R4848 0		Added SCA_FLAGS to the save list.		
R4849 0	003	KAD00003	Keith Dawson	07-Mar-1983
R4850 0		Global edit of all modules. Updated module names, idents,		
R4851 0		copyright dates. Changed require files to BLISS library.		
R4852 0				
R4853 0				
R4854 0				
R4855 0	--			

```

: R4856 0 SFIELD SAVE_FIELDS =
: R4857 0   SET
: R4858 0     save$g_sca_cc_ok      = [$INTEGER],
: R4859 0     save$g_sca_justify    = [$INTEGER],
: R4860 0     save$g_sca_fill       = [$INTEGER],
: R4861 0     save$g_sca_crock     = [$INTEGER],
: R4862 0     save$g_sca_lm        = [$INTEGER],
: R4863 0     save$g_sca_rm        = [$INTEGER],
: R4864 0     save$g_sca_spacing    = [$INTEGER],
: R4865 0     save$g_sca_ker       = [$INTEGER],
: R4866 0     save$g_sca_autotitle  = [$INTEGER],
: R4867 0     save$g_sca_flags      = [$INTEGER],
: R4868 0     save$g_gca_width      = [$INTEGER],
: R4869 0     save$g_gca_flag_cmd   = [$INTEGER],
: R4870 0     save$g_gca_keep       = [$INTEGER],
: R4871 0     save$g_hct_hd_case    = [$INTEGER],
: R4872 0     save$g_hct_date       = [$INTEGER],
: R4873 0     save$g_hct_headers    = [$INTEGER],
: R4874 0     save$g_hct_nmpg_np    = [$INTEGER],
: R4875 0     save$g_hct_number_pag = [$INTEGER],
: R4876 0     save$g_hct_subtitle   = [$INTEGER],
: R4877 0     save$g_phan_llines    = [$INTEGER],
: R4878 0   TES;
: R4879 0
: R4880 0 LITERAL
: R4881 0   save$k_length = $FIELD_SET_SIZE;
: R4882 0
: R4883 0 MACRO
: MR4884 0   $save_block =
: R4885 0     BLOCK [save$k_length] FIELD (save_fields) %;
: R4886 0
: R4887 0 SFIELD saveall_fields =
: R4888 0   SET
: R4889 0     saveall$g_gca_autojust = [$INTEGER],
: R4890 0     saveall$g_gca_autopara = [$INTEGER],
: R4891 0     saveall$g_gca_autosubt = [$INTEGER],
: R4892 0     saveall$g_gca_autotabl = [$INTEGER],
: R4893 0     saveall$g_gca_case     = [$INTEGER],
: R4894 0     saveall$g_gca_xcase    = [$INTEGER],
: R4895 0     saveall$g_phan_header  = [$INTEGER],
: R4896 0     saveall$g_phan_paging = [$INTEGER],
: R4897 0     saveall$g_sca_cc_ok   = [$INTEGER],
: R4898 0     saveall$g_sca_bar_char = [$INTEGER],
: R4899 0     saveall$g_sca_period   = [$INTEGER],
: R4900 0   TES;
: R4901 0
: R4902 0 LITERAL
: R4903 0   saveall$k_length = $FIELD_SET_SIZE;
: R4904 0
: R4905 0 MACRO
: MR4906 0   $saveall_block =
: R4907 0     BLOCK [saveall$k_length] FIELD (saveall_fields) %;
: R4908 0
: R4909 0 MACRO
: MR4910 0   $XWDS (defined_as) =
: R4911 0     %SIZE(defined_as)/%UPVAL %;
: R4912 0

```

```

: R4913 0
: R4914 0
: R4915 0
: R4916 0
: R4917 0
: R4918 0
: R4919 0
: R4920 0
: R4921 0
: R4922 0
: CR4923 0
: CR4924 0
: CR4925 0
: CR4926 0
: CR4927 0
: R4928 0
: )%
: R4929 0
: R4930 0
: R4931 0
: R4932 0
: R4933 1
: UR4934 1
: UR4935 1
: UR4936 1
: R4937 0
: R4938 0
: CR4939 0
: CR4940 0
: CR4941 0
: R4942 0

LITERAL
    ! Counting %BPVALS (or fullwords) since the size of this literal
    ! is in %BPVALS.

    save_length = $XWDS(flag_table [flag_count]) ! The flag table.
    + $XWDS(COUNTED_LIST [max_tabs]) ! The TAB table
    + $XWDS(atable_definition) ! The Action TABLE
    + $XWDS(VECTOR [pdt_size]) ! paragraph definition tables
    + save$k_length, ! SAVE block

    %(
        save_length = (flag_count * 2) ! Each flag uses Two fullwords
        + max_tabs+2 ! maximum tabs plus two control words
        + CH$ALLOCATION(atable_length)! Each Action TABLE entry is one byte
        + pdt_size ! paragraph definition tables
        + $XWDS($save_block), ! SAVE block
    )%

    saveall_length = save_length ! Size of SAVE structure
    + saveall$k_length ! SAVEALL block
    + 6 ! for DATTIM
    + $xwds(counted_list [max_levels]) ! for HLLIST
    + (max_ecc * ecc$k_length) ! for ECC

%IF DSRPLUS %THEN
    + 1 ! for XPD_FLAGS
    + $xwds(fixed_string [xp_string_size]) ! for XPD_APPEND
%FI
;

%(
    Alternate definitions:
    + max_levels+2 ! for HLLIST
    + (xp_string_size/%UPVAL)+4 ! for XPD_APPEND
)%
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCML -- HL indicator record

J 11
15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

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(2)

: 4943 0 REQUIRE 'REQ:SAVSTK.REQ'; ! Save and Restore stack

R4944 0
R4945 0 Version: 'V04-000'
R4946 0
R4947 0 *****
R4948 0 *
R4949 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
R4950 0 * DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
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R4963 0 *
R4964 0 * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
R4965 0 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
R4966 0 *
R4967 0 *
R4968 0 *****
R4969 0
R4970 0
R4971 0 ++
R4972 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R4973 0
R4974 0 ABSTRACT:
R4975 0 Defines the storage area for the .SAVE commands.
R4976 0
R4977 0 ENVIRONMENT: Transportable BLISS
R4978 0
R4979 0 AUTHOR: Ken Alden
R4980 0
R4981 0 CREATION DATE: December 1982
R4982 0
R4983 0 MODIFIED BY:
R4984 0
R4985 0 002 KAD00002 Keith Dawson 07-Mar-1983
R4986 0 Global edit of all modules. Updated module names, idents,
R4987 0 copyright dates. Changed require files to BLISS library.
R4988 0
R4989 0 !--
R4990 0
R4991 0 LITERAL
R4992 0 stksav_size = 30. ! We store up to 30 .SAVEs to record trans.
R4993 0 savstk_size = 20. ! Up to 20 levels of .SAVEs
R4994 0 savstk_depth = -1. ! Index into the SAVSTK where the current depth is saved.
R4995 0 savstk_address = 0. ! Index to starting address of the save block.
R4996 0 savstk_source = 1. ! The handler code of the command that made this entry.
R4997 0 savstk_req_d = 2. ! REQUIRE depth at which .IF must terminate
R4998 0 savstk_ipagen = 3. ! Input file page number
R4999 0 savstk_iseqn = 4. ! Input file sequence number.
R5000 0 savstk_fspecp = 5. ! A reference to the file spec where the command occurred.

FLIPRECS -- FLIP/RUNOFF record formats
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(1)

```
R5001 0      savstk_fspec = 6;    ! Length of file spec of above.  
R5002 0  
R5003 0      LITERAL  
R5004 0      savstk_item_count = 7;    !Number of pieces of info in SAVSTK.  
R5005 0  
R5006 0      STRUCTURE  
R5007 0      savstack [i,j;n=stksav_size,m=savstk_item_count] =  
R5008 0      [%UPVAL*( m*n + 1 + 8 )]           ! Leave room for the 0th nesting level.  
R5009 2      (savstack + (IF j EQL savstk_depth  
R5010 2          THEN 0  
R5011 0          ELSE %UPVAL*(1 + m*i + j) ) );  
R5012 0  
R5013 0      !  
              End of SAVSTK.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats
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: 5014 0 REQUIRE 'REQ:SCA.REQ';

: ! SCA_... Scanner and translator control items

M 11

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(2)

R5015 0
R5016 0 Version: 'V04-000'
R5017 0
R5018 0 *****
R5019 0 *
R5020 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R5037 0 *
R5038 0 *
R5039 0 *****
R5040 0
R5041 0
R5042 0 ++
R5043 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R5044 0
R5045 0 ABSTRACT:
R5046 0 Definitions having to do with SCA (SCANT control area).
R5047 0
R5048 0 ENVIRONMENT: Compatible BLISS
R5049 0
R5050 0 AUTHOR: Rich Friday
R5051 0
R5052 0 CREATION DATE: 1978
R5053 0
R5054 0 MODIFIED BY:
R5055 0
R5056 0 016 REM00016 Ray Marshall 16-November-1983
R5057 0 Added macros with "f" within their names and defining cells
R5058 0 so they can be loaded by Ken's SAVRES module using macro
R5059 0 names instead of numeric offsets.
R5060 0
R5061 0 015 REM00015 Ray Marshall 7-November-1983
R5062 0 Added 12 more cells to the case rules section to support case
R5063 0 changing within the DEC multinational character set. This
R5064 0 also required renumbering the whole table!
R5065 0
R5066 0 014 KFA00014 Ken Alden 18-Sep-1983
R5067 0 For DSRPLUS: added sca_margin_pad.
R5068 0
R5069 0 013A KFA00013A Ken Alden 30-Sep-1983
R5070 0 Comment changes only; for three items that moved
R5071 0 from save to save all.

R5072 0 |
R5073 0 | 013 KFA00013 Ken Alden 13-Sep-1983
R5074 0 | For DSRPLUS: Added SCA_WRD_PASS to the SCA_PASS word [35]
R5075 0 | and made SCA_PASS into a-bit.
R5076 0 |
R5077 0 | 012 KFA00012 Ken Alden 05-Jul-1983
R5078 0 | added SCA_FLAGS to the save list.
R5079 0 |
R5080 0 | 011 KFA00011 Ken Alden 15-Mar-1983
R5081 0 | For DSRPLUS: added SCA[35] SCA_PASS for flags passthrough
R5082 0 | For DSR: Extended SAVE & RESTORE capability.
R5083 0 |
R5084 0 | 010 KAD00010 Keith Dawson 07-Mar-1983
R5085 0 | Global edit of all modules. Updated module names, idents,
R5086 0 | copyright dates. Changed require files to BLISS library.
R5087 0 |
R5088 0 |--

```

R5089 0 MACRO
R5090 0   SCA_FC_UT    = SCA[00]%
R5091 0   SCA_OC_UT    = SCA[01]%
R5092 0   SCA_FC_LT    = SCA[02]%
R5093 0   SCA_OC_LT    = SCA[03]%
R5094 0   SCA_WRD_FC_UT = SCA[04]%
R5095 0   SCA_WRD_FC_LT = SCA[05]%
R5096 0   SCA_WRD_OC_UT = SCA[06]%
R5097 0   SCA_WRD_OC_LT = SCA[07]%
R5098 0   SCA_FCB_E_UT  = SCA[08]%
R5099 0   SCA_OCB_E_UT  = SCA[09]%
R5100 0   SCA_FCB_E_LT  = SCA[10]%
R5101 0   SCA_OCB_E_LT  = SCA[11]%
R5102 0   SCA_MNFC_UT   = SCA[12]%
R5103 0   SCA_MNOC_UT   = SCA[13]%
R5104 0   SCA_MNFC_LT   = SCA[14]%
R5105 0   SCA_MNOC_LT   = SCA[15]%
R5106 0   SCA_MNW RD_FC_UT = SCA[16]%
R5107 0   SCA_MNW RD_FC_LT = SCA[17]%
R5108 0   SCA_MNW RD_OC_UT = SCA[18]%
R5109 0   SCA_MNW RD_OC_LT = SCA[19]%
R5110 0   SCA_MNF_CBE_UT = SCA[20]%
R5111 0   SCA_MNO_CBE_UT = SCA[21]%
R5112 0   SCA_MNF_CBE_LT = SCA[22]%
R5113 0   SCA_MNO_CBE_LT = SCA[23]%
R5114 0   SCA_WORD_SET   = SCA[24]%, TRUE if case rules set for a word only.
R5115 0 ***** Everything above this point is counted in SCA_CASE_SIZE.
R5116 0
R5117 0
R5118 0   SCA_JUSTIFY   = .SCA[25]%, !(SAVE)TRUE if text should be justified.
R5119 0   SCA_f JUSTIFY = SCA[25]%
R5120 0   SCA_FILL       = .SCA[26]%, !(SAVE)TRUE if filling lines.
R5121 0   SCA_f FILL     = SCA[26]%
R5122 0   SCA_CC_OK     = .SCA[27]%, !(SAVE ALL)TRUE if control characters allowed in input file
R5123 0   SCA_f CC_OK   = SCA[27]%
R5124 0   SCA_CROCR     = .SCA[28]%, !(SAVE)See FJNFNJ for explanation.
R5125 0   SCA_f CROCK   = SCA[28]%
R5126 0   SCA_LM        = .SCA[29]%, !(SAVE)The left margin.
R5127 0   SCA_f LM      = SCA[29]%
R5128 0   SCA_RM        = .SCA[30]%, !(SAVE)The right margin.
R5129 0   SCA_f RM      = SCA[30]%
R5130 0   SCA_SPACING   = .SCA[31]%, !(SAVE)1+number of blank lines between lines of text.
R5131 0   SCA_f SPACING = SCA[31]%
R5132 0   SCA_PERIOD    = .SCA[32]%, !(SAVE ALL)TRUE if double spacing after ".?!;:"
R5133 0   SCA_f PERIOD  = SCA[32]%
R5134 0   SCA_KER       = .SCA[33]%, !(SAVE)TRUE if empty records have significance.
R5135 0   SCA_f KER     = SCA[33]%
R5136 0   SCA_BAR_CHAR  = .SCA[34]%, !(SAVE ALL)Change bar character to be used if enabled.
R5137 0   SCA_f BAR CHAR= SCA[34]%
R5138 0   SCA_AUTOTITLE = .SCA[35]%, !(SAVE)TRUE if .AUTOTITLE is in effect.
R5139 0   SCA_f AUTOTITLE= SCA[35]%
R5140 0   SCA_FLAGS      = .SCA[36]%, !TRUE if flags are enabled.
R5141 0   SCA_f FLAGS   = SCA[36]%
R5142 0
R5143 0   ***** end of save area *****
R5144 0
R5145 0   SCA_FC       = SCA[37]%, !TRUE if first character on the line.

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```

R5146 0      SCA_NBITS      = SCA[38]%,    !SEE BELOW
R5147 0      SCA_X_FLAG     = SCA[39]%,    !TRUE if in the middle of a sequence
R5148 0      SCA_FRC_CASE   = SCA[40]%,    !marked by the <INDEX flag>
R5149 0      SCA_CONT       = SCA[41]%,    !TRUE if case of current
R5150 0      SCA_DO_NBITS   = SCA[42]%,    !word was forced.
R5151 0      SCA_PRESCAN   = SCA[43]%,    !TRUE if user said .NO SPACE
R5152 0      SCA_HEADER     = SCA[44]%,    !SEE BELOW
R5153 0      SCA_SECT_EMPTY = SCA[45]%,    !See SCANT for explanation
R5154 0      SCA_XROUTINE   = SCA[46]%,    !Used by FLIP -- True if
R5155 0      SCA_XROUTINE   = SCA[46]%,    !collecting a header level.
R5156 0      SCA_XROUTINE   = SCA[46]%,    !TRUE if nothing in current section.
R5157 0      SCA_XROUTINE   = SCA[46]%,    !Indicates which routine to call for indexing:
R5158 0      SCA_XROUTINE   = SCA[46]%,    !FALSE ==> XR, TRUE ==> SUBXR.

UR5159 0      %IF DSRPLUS %THEN
UR5160 0          SCA_PASS      = (SCA[47])<0,1>%,
UR5161 0          SCA_WRD_PASS  = (SCA[47])<1,1>%,
UR5162 0          SCA_MARGIN_PAD= (SCA[47])<8,8>%, !TRUE user is passing escape
UR5163 0          SCA_MARGIN_PAD= (SCA[47])<8,8>%, !sequences.
UR5164 0          SCA_MARGIN_PAD= (SCA[47])<8,8>%, !TRUE user is passing escape
UR5165 0          SCA_MARGIN_PAD= (SCA[47])<8,8>%, !sequences along with this word.
UR5166 0          SCA_MARGIN_PAD= (SCA[47])<8,8>%, !Number of spaces added at the
UR5167 0          SCA_MARGIN_PAD= (SCA[47])<8,8>%, !beginning of MRA.

%F1
!    ...
!    ... SCA_WRD_NBITS   = SCA[48]%,    !SEE BELOW
R5168 0    SCA_WRD_CNBITS  = SCA[49]%,    !SEE BELOW
R5169 0    SCA_WRD_ACNBITS = SCA[50]%,    !SEE BELOW
R5170 0    SCA_RSKIPS     = SCA[51]%,    !TRUE if multiple spaces/tabs are to
R5171 0    SCA_FC_CASE     = SCA[52]%,    !be skipped.
R5172 0    SCA_INDEX       = SCA[53]%,    !TRUE if case rules to be used are
R5173 0    SCA_FRC_CHR    = SCA[54]%,    !those for the first character of a word.
R5174 0    SCA_INDENT      = SCA[55]%,    !TRUE if indexing commands are to be obeyed.
R5175 0    SCA_PARA_PND   = SCA[56]%,    !True if current character should not be translated.
R5176 0
R5177 0
R5178 0
R5179 0
R5180 0
R5181 0
R5182 0    ...
R5183 0    Everything below this point refers to the word currently being
R5184 0    scanned.
***** SCA_WRD_PNTR     = SCA[62]%,    !A CHSPTR to the first character of the word.
R5185 0    SCA_WRD_INT_L   = SCA[63]%,    !Internal representation size so far.
R5186 0    SCA_WRD_EXT_L   = SCA[64]%,    !External size (i.e., print positions)
R5187 0    SCA_WRD_ISEQN   = SCA[65]%,    !Input line counter or record number.
R5188 0    SCA_WRD_DRAFT   = SCA[66]%,    !TRUE if word is inside a /DRAFT area.
R5189 0    SCA_WRD_DRAFT_F = SCA[67]%,    !The draft flag for this word.
R5190 0    SCA_WRD_BARS    = (SCA[68])<BAR->%,
R5191 0    SCA_WRD_BAR_CHR = SCA[69]%,    !TRUE if change bars associated with this word.
R5192 0    SCA_WRD_CPERD   = SCA[70]%,    !Use this character as the change bar.
R5193 0    SCA_WRD_SEQN_F  = SCA[71]%,    !Character being worked on.
R5194 0    SCA_WRD_IPGEN   = SCA[72]%,    !TRUE if SCA_WRD_ISEQN is an SOS style record number.
R5195 0    SCA_WRD_FOOTW   = SCA[73]%,    !Input page number.
R5196 0    SCA_WRD_F_XTN   = SCA[74]%,    !The number of footnotes attached to
R5197 0    SCA_WRD_L_XTN   = SCA[75]%,    !this word.
R5198 0
R5199 0
R5200 0
R5201 0    ...
R5202 0    ... SCA_WRD_LST_HYP = SCA[80]%,    !TRUE if word to end with a '-'.
R5202 0    SCA_WRD_HYP_PTR = SCA[81]%,    !If SCA_WRD_LST_HYP is TRUE,
```

R5203 0
R5204 0 SCA_WRD_LC_PNCT = SCA[82]%; !then a CHSPTR to the '-'.
R5205 0 SCA_WRD_LST_SP = SCA[83]%; !TRUE if last character was end-of-sentence punctuation.
R5206 0 SCA_WRD_LST_JUS = SCA[84]%; !Number of spaces after last word.
R5207 0 SCA_WRD_LST_UND = SCA[85]%; !True if justification mark after last word.
R5208 0
R5209 0
R5210 0 LITERAL
R5211 0 SCA_CASE_SIZE = 25; !Number of cells containing case information
R5212 0 SCA_SIZE = 96; !Number of cells in entire SCA
R5213 0 LITERAL
R5214 0 SCA_SAVE_START = 25; !Starting number of the SAVED SCA bits
R5215 0 SCA_SAVE_END = 36; !Ending
R5216 0
R5217 0 !NOTE**** For all fields having to do with underlining, bolding, etc, see ENDCHR, ENDWRD, OUTLIN, and DOFLG
R5218 0 ! to see how these fields get manipulated.
R5219 0
R5220 0 !The bits defined by these macros get set to TRUE if SCANT is supposed
R5221 0 !to BOLD and/or UNDERLINE all characters it encounters. These bits get
R5222 0 !set/unset by things like ^& and \&, and .ENABLE/.DISABLE BOLDING, etc.
R5223 0 MACRO
R5224 0 SCA_BLD = (SCA_NBITS)<BLD-->%;
R5225 0 SCA_UND = (SCA_NBITS)<UND-->%;
R5226 0 SCA_BLDUND = (SCA_NBITS)<BLDUND-->%; ! Bolding and underlining
R5227 0 ! as a set.
R5228 0
R5229 0 !The bits defined by these macros determine whether or not various flags
R5230 0 have any effect. TRUE means that the corresponding function should be
R5231 0 done when the flag is recognized, FALSE not.
R5232 0 These bits get set/cleared by commands such as .ENABLE/.DISABLE BOLDING,
R5233 0 and so on. See FLGSEM, which sets these flags.
R5234 0 There is a difference between SCA_XXX and SCA_DO_XXX. The former
R5235 0 indicates whether or not the XXX type of emphasis has been turned on
R5236 0 by a construct such as ^&. The latter indicates whether or not the
R5237 0 emphasis called for by XXX should really be done. In particular,
R5238 0 consider the following sequence:
R5239 0 00100 .ENABLE UNDERLINING;^&
R5240 0 00200 This text will be underlined because both .ENABLE UNDERLINING and _^&
R5241 0 00300 were specified. But
R5242 0 00400 .DISABLE UNDERLINING; this text (after the ";") will not be underlined
R5243 0 00500 because the .DISABLE UNDERLINING command indicates it should not be
R5244 0 00600 done. Or, perhaps more interesting is the fact that even
R5245 0 00700 Et&h&e&s&b&e Et&w&o Et&b&o&r&d&s will not be underlined whereas
R5246 0 00800 .ENABLE UNDERLINING; these two words\& will be underlined, but nothing
R5247 0 00900 after the _\& sequence.
R5248 0 MACRO !See FLGSEM
R5249 0 SCA_DO_BLD = (SCA_DO_NBITS)<BLD-->%;
R5250 0 SCA_DO_UND = (SCA_DO_NBITS)<UND-->%;
R5251 0 SCA_DO_BLDUND = (SCA_DO_NBITS)<BLDUND-->%; !Bolding and underlining as a set.
R5252 0 SCA_DO_OVR = (SCA_DO_NBITS)<OVR-->%;
R5253 0 SCA_DO_IND = (SCA_DO_NBITS)<IND-->%;
R5254 0 SCA_DO_HYP = (SCA_DO_NBITS)<HYP-->%;
R5255 0
R5256 0 MACRO
R5257 0 ! The fields defined here are accumulated for an entire word.
R5258 0 ! They get cleared at the start of a new word.
R5259 0

```
R5260 0
R5261 0
R5262 0
R5263 0
R5264 0
R5265 0
R5266 0
R5267 0
R5268 0
R5269 0
R5270 0
R5271 0
R5272 0
R5273 0
R5274 0
R5275 0
R5276 0
R5277 0
R5278 0
R5279 0
R5280 0
R5281 0
R5282 0
R5283 0
R5284 0
R5285 0
R5286 0
MR5287 0
R5288 0
R5289 0
R5290 0
R5291 0
R5292 0
R5293 0
R5294 0
R5295 0
R5296 0
R5297 0
R5298 0
R5299 0
R5300 0
R5301 0
R5302 0
R5303 0
R5304 0
R5305 0
R5306 0
R5307 0
R5308 0
R5309 0
R5310 0
R5311 0
MR5312 0
R5313 0
R5314 0
R5315 0
MR5316 0

SCA_WRD_BLD = (SCA_WRD_NBITS)<BLD__>%;
SCA_WRD_UND = (SCA_WRD_NBITS)<UND__>%;
SCA_WRD_BLDUND = (SCA_WRD_NBITS)<BLDUND__>%; !Bolding and underlining as a set
SCA_WRD_OVR = (SCA_WRD_NBITS)<OVR__>%;

MACRO
! The fields defined here get set just before a new character
! is picked up. They are inherited from the global environment
! in effect at that time.

SCA_WRD_C_BLD = (SCA_WRD_NBITS)<BLD__>%;
SCA_WRD_C_UND = (SCA_WRD_NBITS)<UND__>%;
SCA_WRD_C_BLDUND = (SCA_WRD_NBITS)<BLDUND__>%; !Bolding and underlining as a set
SCA_WRD_C_OVR = (SCA_WRD_NBITS)<OVR__>%;

MACRO
! The fields defined here get set as various functions are
requested, on a once-only basis (e.g., single character underline, &x). These fields, together with
the previous three fields, determine what functions have been
requested for a specific character.

SCA_WRD_AC_BLD = (SCA_WRD_ACNBITS)<BLD__>%;
SCA_WRD_AC_UND = (SCA_WRD_ACNBITS)<UND__>%;
SCA_WRD_AC_BLUND = (SCA_WRD_ACNBITS)<BLDUND__>%; !Bolding and underlining as a set
SCA_WRD_AC_OVR = (SCA_WRD_ACNBITS)<OVR__>%;

MACRO
SCA_DEFINITION =
    VECTOR[SCA_SIZE][];

$FIELD H_R_SCA_FIELDS =
SET
H_R_SG_SCA_JUSTIFY      = [$INTEGER],
H_R_SG_SCA_FILL         = [$INTEGER],
H_R_SG_SCA_CC_OK        = [$INTEGER],
H_R_SG_SCA_CROCK        = [$INTEGER],
H_R_SG_SCA_LM            = [$INTEGER],
H_R_SG_SCA_RM            = [$INTEGER],
H_R_SG_SCA_SPACING       = [$INTEGER],
H_R_SG_SCA_PERIOD        = [$INTEGER],
H_R_SG_SCA_KER           = [$INTEGER],
H_R_SG_SCA_BAR_CHAR      = [$INTEGER],
H_R_SG_SCA_AUTOTITLE     = [$INTEGER],
H_R_SG_SCA_FLAGS          = [$INTEGER];
TES;

LITERAL
H_R_SCASK_LENGTH = $FIELD_SET_SIZE;

LITERAL
MAX_H_R_SCA = 3;           !This means there are a maximum of 3 concurrent PUSH_SCAs.

MACRO
SH_R_SCA_BLOCK =
BLOCK [H_R_SCASK_LENGTH] FIELD (H_R_SCA_FIELDS) %;

MACRO
PUSH_SCA =
```

```
MR5317 0
MR5318 0
MR5319 0
MR5320 0
MR5321 0
MR5322 0
MR5323 0
MR5324 0
MR5325 0
MR5326 0
MR5327 0
MR5328 0
MR5329 0
MR5330 0
R5331 0
R5332 0
R5333 0
MR5334 0
MR5335 0
MR5336 0
MR5337 0
MR5338 0
MR5339 0
MR5340 0
MR5341 0
MR5342 0
MR5343 0
MR5344 0
MR5345 0
MR5346 0
MR5347 0
MR5348 0
R5349 0

BEGIN
PP-SCA [ H_R SG SCA JUSTIFY ] = .SCA_JUSTIFY;
PP-SCA [ H_R SG SCA FILL ] = .SCA_FILL;
PP-SCA [ H_R SG SCA_CC_OK ] = .SCA_CC_OK;
PP-SCA [ H_R SG SCA_CROCK ] = .SCA_CROCK;
PP-SCA [ H_R SG SCA_LM ] = .SCA_LM;
PP-SCA [ H_R SG SCA_RM ] = .SCA_RM;
PP-SCA [ H_R SG SCA_SPACING ] = .SCA_SPACING;
PP-SCA [ H_R SG SCA_PERIOD ] = .SCA_PERIOD;
PP-SCA [ H_R SG SCA_KER ] = .SCA_KER;
PP-SCA [ H_R SG SCA_BAR_CHAR ] = .SCA_BAR_CHAR;
PP-SCA [ H_R SG SCA_AUTOTITLE ] = .SCA_AUTOTITLE;
PP-SCA [ H_R SG SCA_FLAGS ] = .SCA_FLAGS
END
%;

MACRO
POP_SCA =
BEGIN
SCA_JUSTIFY = .PP_SCA [ H_R SG SCA JUSTIFY ];
SCA_FILL = .PP_SCA [ H_R SG SCA FILL ];
SCA_CC_OK = .PP_SCA [ H_R SG SCA_CC_OK ];
SCA_CROCK = .PP_SCA [ H_R SG SCA_CROCK ];
SCA_LM = .PP_SCA [ H_R SG SCA_LM ];
SCA_RM = .PP_SCA [ H_R SG SCA_RM ];
SCA_SPACING = .PP_SCA [ H_R SG SCA_SPACING ];
SCA_PERIOD = .PP_SCA [ H_R SG SCA_PERIOD ];
SCA_KER = .PP_SCA [ H_R SG SCA_KER ];
SCA_BAR_CHAR = .PP_SCA [ H_R SG SCA_BAR_CHAR ];
SCA_AUTOTITLE = .PP_SCA [ H_R SG SCA_AUTOTITLE ];
SCA_FLAGS = .PP_SCA [ H_R SG SCA_FLAGS ]
END
%;
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

H 12

15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742
_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

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(2)

: 5350 0 REQUIRE 'REQ:SETCAS.REQ'; ! Case control literals

R5351 0
R5352 0 Version: 'V04-000'
R5353 0
R5354 0
R5355 0
R5356 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R5373 0
R5374 0
R5375 0
R5376 0
R5377 0
R5378 0 **
R5379 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R5380 0
R5381 0
R5382 0 ABSTRACT:
R5383 0 Mnemonics for forcing letters into appropriate case.
R5384 0
R5385 0
R5386 0 ENVIRONMENT: Transportable BLISS
R5387 0
R5388 0
R5389 0 AUTHOR: Rich Friday
R5390 0
R5391 0 CREATION DATE: 1978
R5392 0
R5393 0 MODIFIED BY:
R5394 0 002 KAD00002 Keith Dawson 07-Mar-1983
R5395 0 Global edit of all modules. Updated module names, idents,
R5396 0 copyright dates. Changed require files to BLISS library.
R5397 0
R5398 0 --
R5399 0 LITERAL
R5400 0 force_lower = -1. !Force letters to lower case.
R5401 0 leave_case = 0. !Leave letters in same case as input.
R5402 0 force_upper = 1. !Force letters to upper case.
R5403 0 first_caps = 2. !First letter of each word to upper case, the rest to
R5404 0 one_cap = 3; !First letter of first word to upper case, the rest to lower.
R5405 0
R5406 0
R5407 0 LITERAL
R5408 0 setcase_low = -1. !Lowest numbered translation rule.

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

15-12
15-Sep-1984 23:07:40
15-Sep-1984 22:54:33

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\$_\$255\$DUA28:[RUNOFF.SRC]SETCAS.REQ;1

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(1)

: R5408 0 setcase_high= 3; !Highest numbered translation rule.
: R5409 0
: R5410 0 !
 End of SETCAS.REQ

FLIPRECS -- FLIP/RUNOFF record formats
TOCML -- HL indicator record

K 12

15-Sep-1984 23:07:40

15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742

_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

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: 5411 0 REQUIRE 'REQ:TOCRTY.REQ'; ! TOC record type definitions (MAJ_ & MIN_)

R5412 O
R5413 O Version: 'V04-000'
R5414 O
R5415 O *****
R5416 O *
R5417 O * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R5432 O * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
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R5434 O *
R5435 O *
R5436 O * *****
R5437 O
R5438 O
R5439 O ++
R5440 O FACIL TY: DSR (Digital Standard RUNOFF) / DSRPLUS
R5441 O
R5442 O ABSTRACT:
R5443 O Literals defining the record types found in a .BTC or .BRN file. Each
R5444 O record is preceded by two words, containing the major record type
R5445 O and the minor record type.
R5446 O
R5447 O ENVIRONMENT: Transportable BLISS
R5448 O
R5449 O AUTHOR: Keith Dawson
R5450 O
R5451 O CREATION DATE: May 1982
R5452 O
R5453 O MODIFIED BY:
R5454 O
R5455 O 007 KAD00007 Keith Dawson 07-Mar-1983
R5456 O Global edit of all modules. Updated module names, idents,
R5457 O copyright dates. Changed require files to BLISS library.
R5458 O
R5459 O --
R5460 O
R5461 O LITERAL Major record types.
R5462 O maj_new_toc = 1. !New TOC starting (at start of each file)
R5463 O maj_runoff = 2. !Record is something automatically output by DSR
R5464 O maj_send = 3. !Record is something specified by .SEND TOC
R5465 O maj_send_contents = 4; !Record is something specified by .SEND CONTENTS
R5466 O
R5467 O !The following minor record types apply when the major record type is MAJ_RUNOFF.
R5468 O

```

R5469 0 LITERAL
R5470 0   min_hl_inf = 0;          !Header level information
R5471 0   min_page = 1;           !Page number
R5472 0   min_hl_txt = 2;         !Header level text, numbered
R5473 0   min_chapt = 3;          !Chapter title (BTC files only)
R5474 0   min_append = 4;         !Appendix title (BTC files only)
R5475 0   min_index = 5;          !Start the index.

R5476 0 !
R5477 0   ! min_hl_txt_u = 6;       !Header level text, unnumbered
R5478 0   !
R5479 0   ! min_examp_inf = 7;      !Example information
R5480 0   min_examp_txt = 8;        !Example caption text, numbered
R5481 0   min_examp_txt_u = 9;      !Example caption text, unnumbered
R5482 0   !
R5483 0   ! min_figur_inf = 10;     !Figure information
R5484 0   min_figur_txt = 11;       !Figure caption text, numbered
R5485 0   min_figur_txt_u = 12;     !Figure caption text, unnumbered
R5486 0   !
R5487 0   ! min_table_inf = 13;      !Table information
R5488 0   min_table_txt = 14;       !Table caption text, numbered
R5489 0   min_table_txt_u = 15;     !Table caption text, unnumbered
R5490 0   !
R5491 0   ! min_chapt_inf = 16;      !Chapter information
R5492 0   min_chapt_txt = 17;       !Chapter caption text, numbered
R5493 0   min_chapt_txt_u = 18;     !Chapter caption text, unnumbered
R5494 0   !
R5495 0   ! min_append_inf = 19;     !Appendix information
R5496 0   min_append_txt = 20;       !Appendix caption text, numbered
R5497 0   min_append_txt_u = 21;     !Appendix caption text, unnumbered
R5498 0   !

R5499 0 LITERAL
R5500 0   min_min_type = 0;        !The minimum minor record type.
R5501 0   min_max_type = 21;       !The maximum minor record type.

R5502 0 !
R5503 0 !
R5504 0 ! SEND CONTENTS record group literals.
R5505 0 !
R5506 0 LITERAL
R5507 0   scon_comm = 1;           !Send Contents text is a command
R5508 0   scon_txt = 2;            !Send Contents text is text, numbered
R5509 0   scon_txt_u = 3;          !Send Contents text is text, unnumbered

R5510 0 !
R5511 0 !
R5512 0 ! SEND CONTENTS positioning information.
R5513 0 !
R5514 0 LITERAL
R5515 0   scon_lev = 1;            !Put Send Contents in main part of CONTENTS
R5516 0   scon_exa = 2;            !Put Send Contents in Examples portion
R5517 0   scon_fig = 3;            !Put Send Contents in Figures portion
R5518 0   scon_tab = 4;            !Put Send Contents in Tables portion
R5519 0 !
R5520 0   ! End of TOCRTY.REQ

```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

N 12
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15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 191 (2)

: 5521 0
: U 5522 0 %IF DSRPLUS %THEN
: U 5523 0 REQUIRE 'REQ:TNFDEFS.REQ'; : TN... opcodes and status values for TNFIL
: U 5524 0 REQUIRE 'REQ:TNREC.REQ'; : TNREC... items (for topnote record headers)
: U 5525 0 REQUIRE 'REQ:TOPNOT.REQ'; : Topnote control table
: 5526 0 %FI
: 5527 0
: 5528 0 REQUIRE 'REQ:TPROB.REQ'; : Completion codes returned by TPROBE routine

R5529 O
R5530 O Version: 'V04-000'
R5531 O
R5532 O
R5533 O
R5534 O * *****
R5535 O * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R5552 O
R5553 O * *****
R5554 O
R5555 O
R5556 O *+
R5557 O FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R5558 O
R5559 O ABSTRACT:
R5560 O Condition codes returned by the routine TPROBE in its binary search.
R5561 O
R5562 O ENVIRONMENT: Transportable BLISS
R5563 O
R5564 O AUTHOR: Rich Friday
R5565 O
R5566 O CREATION DATE: 1978
R5567 O
R5568 O MODIFIED BY:
R5569 O
R5570 O 002 KAD00002 Keith Dawson 07-Mar-1983
R5571 O Global edit of all modules. Updated module names, idents.
R5572 O copyright dates. Changed require files to BLISS library.
R5573 O
R5574 O --
R5575 O
R5576 O LITERAL
R5577 O give_up = 0; | Keyword cannot possibly be in list.
R5578 O found = 1; | This entry is the one you want.
R5579 O try_above = 2; | Keyword has to be above this entry.
R5580 O try_below = 3; | Keyword has to be below this entry.
R5581 O
R5582 O ! End of TPROB.REQ

FLIPRECS -- FLIP/RUNOFF record formats
TOCCHL -- HL indicator record

C 13
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15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 193
(2)

: 5583 0 REQUIPE 'REQ:TSF.REQ'; ! TSF_ (Text so far) macro definitions

Th
ME

R5584 0
R5585 0 Version: 'V04-000'
R5586 0
R5587 0 *****
R5588 0 *
R5589 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R5606 0 *
R5607 0 *
R5608 0 *****
R5609 0
R5610 0
R5611 0 **
R5612 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R5613 0
R5614 0 ABSTRACT:
R5615 0 Definitions defining TSF (text so far). The information describes
R5616 0 what is to happen to the line being built up.
R5617 0
R5618 0 ENVIRONMENT: Transportable BLISS
R5619 0
R5620 0 AUTHOR: Rich Friday
R5621 0
R5622 0 CREATION DATE: 1978

R5623 0
R5624 0
R5625 0
R5626 0
R5627 0
R5628 0
R5629 0
R5630 0
R5631 0
R5632 0
R5633 0
R5634 0
R5635 0
R5636 0

MODIFIED BY:

007 KFA00007 Ken Alden 30-Jun-1983
 Added TSF_CREF_COUNT.
006 REM00006 Ray Marshall 1-June-1983
 Added TSF_CREF_DATA.
005 KAD00005 Keith Dawson 07-Mar-1983
 Global edit of all modules. Updated module names, idents,
 copyright dates. Changed require files to BLISS library.
--

R5637 0 MACRO
MR5638 0 tsf_int_hl = tsf [0] !Number of characters, internal representation.
R5639 0 tsf_ext_hl = tsf [1] !Resulting number of print positions, external.
MR5640 0 tsf_nbts = tsf [2] !Notes about underlining, etc.
R5641 0 tsf_footw = tsf [3] !The number of footnotes attached to this line.
MR5642 0 tsf_seqn_flag = tsf [4] !TRUE if ISEQN is an SOS style line number.
R5643 0 tsf_index = tsf [5] !TRUE if this belongs in the index.
MR5644 0 tsf_int_vl = tsf [6] !Number of characters representing carriage control.
R5645 0 tsf_bar_char = tsf [7] !The character to be used as the change bar.
MR5646 0 tsf_jus_cnt = tsf [8] !Number of justification marks.
R5647 0 tsf_justify = tsf [9] !True if the line is to be justified.
MR5648 0 tsf_adjust = tsf [10] !Move text this number of positions right.
R5649 0 tsf_btc = tsf [11] !TRUE if this goes to the .BTC file.
MR5650 0 tsf_draft_flag = tsf [12] !The draft flag for this line.
R5651 0 tsf_lines = tsf [13] !If this record is part of a footnote, the number of lines it generates.
MR5652 0 tsf_first_xtn = tsf [14] !First transaction number associated with this text.
R5653 0 tsf_major = tsf [14] !If TSF_BTC is true, the major record type.
MR5654 0 tsf_last_xtn = tsf [15] !Last transaction number associated with this text.
R5655 0 tsf_minor = tsf [15] !If TSF_BTC is true, the minor record type.
MR5656 0 tsf_padding = tsf [16] !Number of spaces needed to justify line.
R5657 0 tsf_iseq = tsf [17] !TRUE if the input sequence number is wanted.
MR5658 0 tsf_iseqn = tsf [18] !The input sequence number for this line.
R5659 0 tsf_ipagen = tsf [19] !The input page number for this line.
MR5660 0 tsf_filespec = tsf [20] !A CHSPTR to the file-spec.
R5661 0 tsf_oseq = tsf [21] !TRUE if the output sequence number is wanted.
MR5662 0 tsf_oseqn = tsf [22] !The output line number for this line
R5663 0 tsf_bold_depth = tsf [23] !Number of times bolded characters should be overstruck. Zero is
MR5664 0 equivalent to no bolding.
R5665 0 tsf_text = tsf [24] !True, if TSF contains some text.
MR5666 0 tsf_just_alg = tsf [25] !Justification algorithm to be used on this line.
R5667 0
MR5668 0
R5669 0
MR5670 0
R5671 0
MR5672 0
R5673 0
MR5674 0
R5675 0
MR5676 0
R5677 0
MR5678 0
R5679 0
MR5680 0
R5681 0
MR5682 0
R5683 0
MR5684 0
R5685 0
MR5686 0
R5687 0
MR5688 0
MR5689 0
R5690 0
MR5691 0
R5692 0
MR5693 0

R5694 0
MR5695 0
R5696 0
MR5697 0
R5698 0
MR5699 0
R5700 0
R5701 0
R5702 0
R5703 0
R5704 0
MR5705 0
R5706 0
MR5707 0
R5708 0
MR5709 0
R5710 0
MR5711 0
R5712 0
MR5713 0
R5714 0
R5715 0
R5716 0
R5717 0
R5718 0
R5719 0
R5720 0
R5721 0
MR5722 0
R5723 0
R5724 0
MR5725 0
R5726 0
R5727 0
MR5728 0
R5729 0
R5730 0
R5731 0
MR5732 0
R5733 0
R5734 0
R5735 0
MR5736 0
R5737 0
R5738 0
R5739 0

%.
tsf_xyplus = tsf [26] !True if this line is an XPLUS/YPLUS indexing command.
%.
tsf_cref_data = tsf [27] ! Pointer to linked list of CREF BRN records.
%.
tsf_cref_count = (tsf [28])<0,8> !Number of pending crefs.
!! tsf_free_cell = tsf [29] !Free cell
!! tsf_free_cell = tsf [30] !Free cell
%.
tsf_aux_bits = tsf [31] !Do specified special functions.
%.
tsf_h_bars = (tsf [32])<BAR__> !TRUE if change bars apply to the items described by TSF_xxx_HL.
%.
tsf_aux_aloc = tsf [33] !How TSF_AUX_SPAC is allocated.
%.
tsf_next_reg = tsf [34] !Indicates next free "pseudo-register."
%.
tsf_phregs = tsf [35] !Five "pseudo-registers".
%:
LITERAL
tsf_nregs = 5; !Number of "pseudo-registers" available.
LITERAL
tsf_size = 40; !Total size of TSF.
MACRO
tsf_bld = (TSF_NBITS)<BLD__>
%.
tsf_und = (TSF_NBITS)<UND__>
%.
tsf_ovr = (TSF_NBITS)<OVR__>
%:
MACRO
tsf_bars = (TSF_AUX_BITS)<BAR__> !True if change bars apply to the items described by TSF_xxx_VL.
%:
MACRO
tsf_definition =
REF VECTOR [tsf_size];
!
End of TSF.REQ

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

H 13

15-Sep-1984 23:07:40
15-Sep-1984 22:50:43

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_S255\$DUAL.S:[RUNOFF.SRC]DSRLIB.REQ;1

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: S740 0 REQUIRE 'REQ:VR.REQ': ! VR_... & VR*_DEF for .VR and conditionals

R5741 0
R5742 0 Version: 'V04-000'
R5743 0
R5744 0
R5745 0
R5746 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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R5763 0
R5764 0
R5765 0
R5766 0
R5767 0
R5768 0 ++
R5769 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
R5770 0
R5771 0 ABSTRACT:
R5772 0 Tables and definitions used for .VARIABLE, .IF, .IFNOT, .ELSE, and
R5773 0 .ENDIF. The tables all contain space for an extra entry, so that various
R5774 0 other pieces of code need not continually check to see if there is an
R5775 0 entry in the tables.
R5776 0
R5777 0 ENVIRONMENT: Transportable BLISS
R5778 0
R5779 0 AUTHOR: Rich Friday
R5780 0
R5781 0 CREATION DATE: 1978
R5782 0
R5783 0
R5784 0 MODIFIED BY:
R5785 0 002 KAD00002 Keith Dawson 07-Mar-1983
R5786 0 Global edit of all modules. Updated module names, idents,
R5787 0 copyright dates. Changed require files to BLISS library.
R5788 0
R5789 0 --
R5790 0
R5791 0 LITERAL
R5792 0 vr_table_count = 5, !Number of tables that are vectors.
R5793 0
R5794 0 vr_tab_size = !Total BPVALS needed to save this information.
R5795 0 !Space for tables that are vectors.
R5796 1 (max_vr_names + 1) * (vr_table_count)
R5797 0

```
R5798 0
R5799 0
R5800 0
R5801 0
MR5802 0
MR5803 0
R5804 0
R5805 0
MR5806 0
MR5807 0
R5808 0
R5809 0
MR5810 0
MR5811 0
R5812 0
R5813 0
MR5814 0
MR5815 0
R5816 0
R5817 0
MR5818 0
MR5819 0
R5820 0
R5821 0
MR5822 0
MR5823 0
MR5824 0
R5825 0
R5826 0
R5827 0

        !Space for names.
        (max_vr_names + 1) * ch$allocation (max_vr_length);

MACRO
    vrtflg_def =
        VECTOR [max_vr_names + 1]      ! TRUE flag.
    %,
    vrfflg_def =
        VECTOR [max_vr_names + 1]      ! FALSE flags.
    %,
    vrbool_def =
        VECTOR [max_vr_names + 1]      ! TRUE/FALSE setting.
    %,
    vrsrc_def =
        VECTOR [max_vr_names + 1]      ! How variable got defined.
    %,
    ! 0 means /VARIANT, 1 means .VARIABLE.
    vrlnq_def =
        VECTOR [max_vr_names + 1]      ! Lengths of variable names.
    %,
    vrname_def =
        BLOCKVECTOR [max_vr_names + 1
                    ,ch$allocation (max_vr_length)]
    %:

        ! The variable names.

        End of VR.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats
TOCHL -- HL indicator record

K 13

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15-Sep-1984 22:50:43

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\$_255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

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: 5828 0 !! REQUIRE 'REQ:XTNTAB.REQ'; ! In-core index table & entry definitions
: 5829 0 ! End of DSRLIB.REQ

Library Statistics

File	Total	Symbols Loaded	Symbols Percent	Pages Mapped	Processing Time
\$_255\$DUA28:[SYSLIB]XPORT.L32;1	590	41	6	252	00:00.2
\$_255\$DUA28:[RUNOFF.SRC]RNODEFDSR.L32;1	6	1	16	5	00:00.1

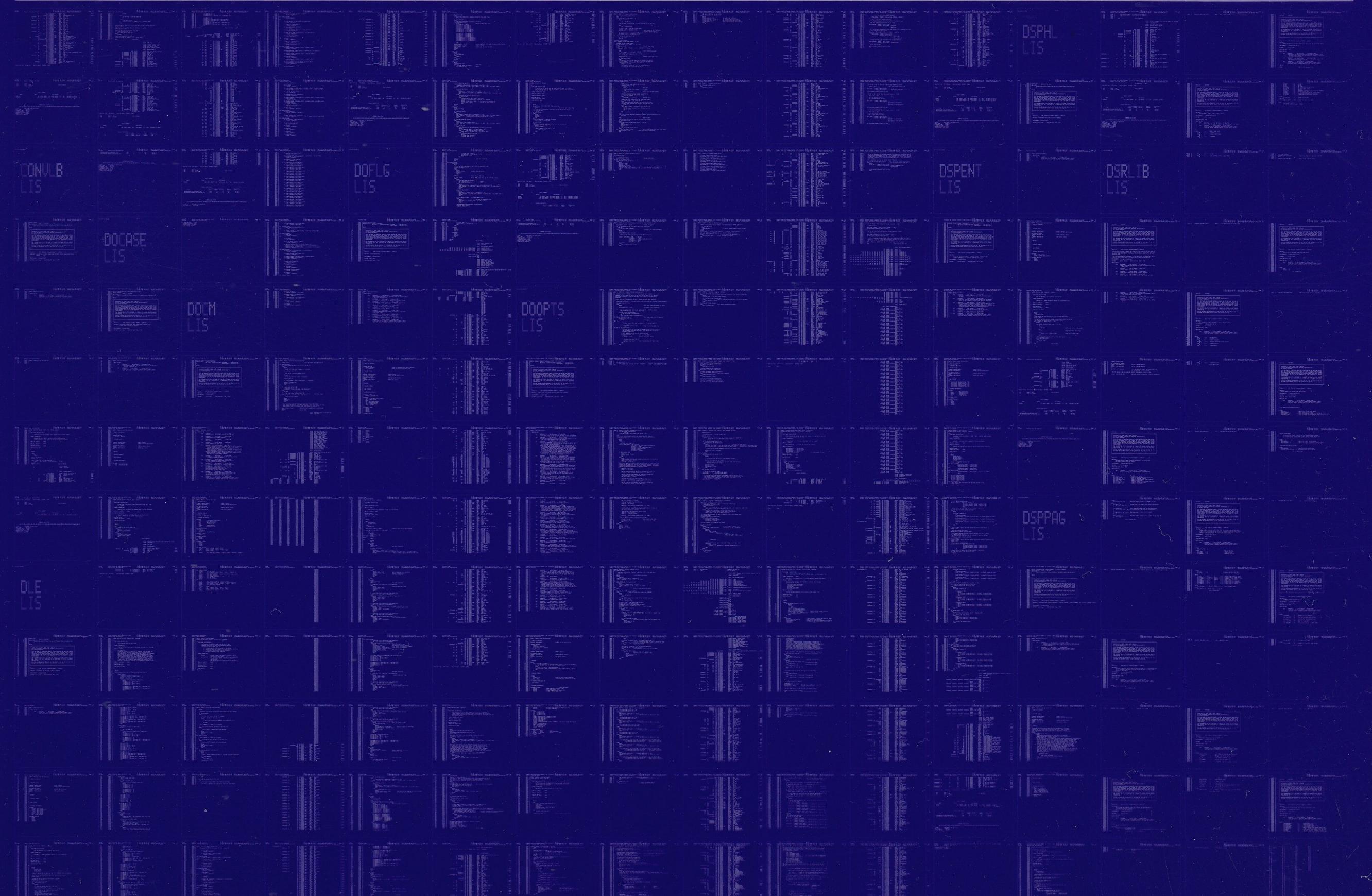
COMMAND QUALIFIERS

: BLISS/LIBRARY=SRC\$:/LIST=LIS\$: SRC\$:DSRLIB.REQ

: Run Time: 01:17.4
: Elapsed Time: 01:46.7
: Lines/CPU Min: 4520
: Lexemes/CPU-Min: 67306
: Memory Used: 284 pages
: Library Precompilation Complete

0339 AH-BT13A-SE
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