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RRRRRRRR      NN      NN      000000      VV      VV      RRRRRRRR      SSSSSSSS
RRRRRRRR      NN      NN      000000      VV      VV      RRRRRRRR      SSSSSSSS
RR      RR      NN      NN      00      00      VV      VV      RR      RR      SS
RR      RR      NN      NN      00      00      VV      VV      RR      RR      SS
RR      RR      NNNN     NN      00      00      VV      VV      RR      RR      SS
RR      RR      NNNN     NN      00      00      VV      VV      RR      RR      SS
RRRRRRRR      NN      NN      NN      00      00      VV      VV      RRRRRRRR      SSSSSS
RRRRRRRR      NN      NN      NN      00      00      VV      VV      RRRRRRRR      SSSSSS
RR      RR      NN      NNNN     00      00      VV      VV      RR      RR      SS
RR      RR      NN      NNNN     00      00      VV      VV      RR      RR      SS
RR      RR      NN      NN      00      00      VV      VV      RR      RR      SS
RR      RR      NN      NN      00      00      VV      VV      RR      RR      SS
RR      RR      NN      NN      00      00      VV      VV      RR      RR      SS
RR      RR      NN      NN      000000      VV      VV      RR      RR      SSSSSSSS
RR      RR      NN      NN      000000      VV      VV      RR      RR      SSSSSSSS

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LL      IIIIII      SSSSSSSS
LL      IIIIII      SSSSSSSS
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LL      II          SS
LLLLLLLLLL IIIIII      SSSSSSSS
LLLLLLLLLL IIIIII      SSSSSSSS

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```

1 0001 0 %TITLE 'Main module -- DIGITAL Standard Runoff'
2 0002 0 MODULE rnovrs ( MAIN = dsr,
3 U 0003 0 %IF %VARIANT/2 %THEN
4 U 0004 0 IDENT = 'V04-000' ! Version for DSRPLUS
5 0005 0 %ELSE
6 0006 0 IDENT = 'V3.0' ! Version for RUNOFF
7 0007 0 %FI
8 0008 0 %BLISS36[, VERSION = '3(0)']
9 P 0009 0 %BLISS32[, ADDRESSING_MODE (EXTERNAL = long_relative,
10 0010 0 NONEXTERNAL = long_relative)]
11 0011 0 ) =
12 0012 1 BEGIN
13 0013 1
14 0014 1
15 0015 1 *****
16 0016 1 *
17 0017 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
18 0018 1 * DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS. *
19 0019 1 * ALL RIGHTS RESERVED. *
20 0020 1 *
21 0021 1 * THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED *
22 0022 1 * ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE *
23 0023 1 * INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER *
24 0024 1 * COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY *
25 0025 1 * OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY *
26 0026 1 * TRANSFERRED. *
27 0027 1 *
28 0028 1 * THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE *
29 0029 1 * AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT *
30 0030 1 * CORPORATION. *
31 0031 1 *
32 0032 1 * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS *
33 0033 1 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL. *
34 0034 1 *
35 0035 1 *
36 0036 1 *****
37 0037 1
38 0038 1
39 0039 1 ++
40 0040 1 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
41 0041 1
42 0042 1 ABSTRACT:
43 0043 1
44 0044 1 Defines the version number for -11 and VAX/VMS versions.
45 0045 1 Contains no executable code.
46 0046 1
47 0047 1 VERSION PREFIX CHARACTER CONVENTIONS:
48 0048 1
49 0049 1 While building a new version: X
50 0050 1 DEC-internal product E
51 0051 1 Final link: V
52 0052 1
53 0053 1 ENVIRONMENT: Transportable
54 0054 1
55 0055 1 AUTHOR: R.W.Friday CREATION DATE: August, 1979
56 0056 1

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58 0057 1 |
59 0058 1 | MODIFIED BY:
60 0059 1 |
61 0060 1 | 3.0 REM00082 Ray Marshall 16-July-1984
62 0061 1 | Incremented version to be that documented in VMS V4.0.
63 0062 1 | Made sight change in DSRLIB.REQ to cause it to expand in the
64 0063 1 | listing all of the require files it compiles.
65 0064 1 |
66 0065 1 | 2.8-06 REM00081 Ray Marshall 17-May-1984
67 0066 1 | Fixed bug where the .DOV directive wasn't recognized. A minor
68 0067 1 | change to RUNTAB.REQ solved this one.
69 0068 1 | Added support for the outputting the output line number at the
70 0069 1 | left of each line of text in the output file. This was needed
71 0070 1 | by (and implemented for) the ANSI committee. At this point in
72 0071 1 | time, we never plan to document or support this "feature."
73 0072 1 | The files modified were: GCA.REQ, LODEFS.REQ, LSTBTS.REQ,
74 0073 1 | LSTOPS.BLI, DOOPTS.BLI, & RNOVMS.B32. This feature is turned
75 0074 1 | on by DBG2 bit 15 (alternately set by /DEC=0). In addition,
76 0075 1 | if DBG2 bit 14 is set, the page number followed by a dot will
77 0076 1 | prefix the output line number.
78 0077 1 | Fixed a bug where SAVE/RESTORE would sometimes corrupt its own
79 0078 1 | stack -- and occasionally other items, too! Changes were
80 0079 1 | made in GLBDAT.BLI & SAVE.REQ.
81 0080 1 | Fixed a DSRPLUS bug where when /AUTO is used, it could issue
82 0081 1 | an error message saying that it couldn't find the input file.
83 0082 1 | It turned out that multiple calls were being made to
84 0083 1 | LIB$FIND_FILE. The fix was implemented in RUNOFF.BLI
85 0084 1 | Fixed a bug in GNAME.BLI. It seems that for DSRPLUS, GNAME
86 0085 1 | would return normal on encountering a null input string.
87 0086 1 | This meant that the .IF and its related directives would
88 0087 1 | not know when a null parameter was given and attempt to
89 0088 1 | process it. If the user did two .ENDIFs for which there
90 0089 1 | were no .IF[NOT]s, an ACCVIO resulted.
91 0090 1 |
92 0091 1 | 2.8-05 REM00080 Ray Marshall 5-Apr-1984
93 0092 1 | Added even more logic to support foreign language support to
94 0093 1 | several modules. The languages that can now be searched for
95 0094 1 | are German, French, & Italian. Some more work has been done
96 0095 1 | on the German translations, too. The modules modified are:
97 0096 1 | OUTHDR.BLI, PACK.BLI, PARSEP.BLI, RNFERM.BLI, TOPPAG.BLI,
98 0097 1 | CNVDAT.BLI, RSDERM.BLI, SUBST.BLI, & RNODEF.REQ.
99 0098 1 | Fixed the call to LIB$FIND_FILE in RUNOFF.BLI.
100 0099 1 | Fixed the definition of LIB$FIND_FILE_END in RNOVMS.B32.
101 0100 1 | Made many more changes to the LNO1 support logic in DOOPTS.BLI.
102 0101 1 | For one thing, it now forces the output of a <FF> after all
103 0102 1 | of the LNO1 control lines have been output. This will cause
104 0103 1 | the print symbiont and the hardware to reset their line
105 0104 1 | counters and prevents them from creating premature page breaks
106 0105 1 | when processing the file. One fault with this technique is
107 0106 1 | that it also causes a blank page to be output between the
108 0107 1 | flag page and the first real page of the user's listing.
109 0108 1 | Other logic changes were to allow the NOHEAD parameter (on
110 0109 1 | the /DEVICE qualifier) to suppress just the OSC lines and
111 0110 1 | not the page definition sequences.
112 0111 1 | Made invalid parameters on the /DEVICE qualifier issue a fatal
113 0112 1 | error message. Changed in RNOVMS.B32.
114 0113 1 | In DOOPTS.BLI where it generates the OSC sequence to load fonts
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115 0114 1 | for LN01 support, the reference to module ST has been changed
116 0115 1 | to now reference ANSI$ST.
117 0116 1 |
118 0117 1 | + 2.8-04 REM00079 Ray Marshall 18-Mar-1984
119 0118 1 | + E3.0-05 Added logic to support VMS's new search-list feature. Made
120 0119 1 | changes to CLH.BLI, RNOVMS.B32, RUNOFF.BLI, & GLBDAT.REQ
121 0120 1 | Made conditional changes to TOPPAG to support a German version
122 0121 1 | of DSR/PLUS. MSGTXT.REQ has also been translated by Erik
123 0122 1 | Rosdol of SWS/Vienna. Its name is MSGTXTGA.REQ -- the GA
124 0123 1 | stands for German-Austria. Other modules that will need
125 0124 1 | translation are: OUTHDR.BLI, PACK.BLI, & PARSEP.BLI.
126 0125 1 |
127 0126 1 | + 2.8-03 REM00078 Ray Marshall 23-Feb-1984
128 0127 1 | + E3.0-04 Added revision history text to the E3.0-01 entry.
129 0128 1 | Added support for the new VMS V4 search list feature. It seems
130 0129 1 | that if a utility plans on supporting multiple input file, it
131 0130 1 | must use the LIB$FIND_FILE RTL routine in order to allow it
132 0131 1 | to rescan the whole search list for successive input files
133 0132 1 | after the first one. This work moved the input file verifica-
134 0133 1 | tion into a new routine in RUNOFF.BLI which is now called
135 0134 1 | before the input file's IOB is initialized. This also
136 0135 1 | required work be done within CLH.BLI since for VMS this logic
137 0136 1 | is now done in RUNOFF.BLI. Also, the tables of input and
138 0137 1 | output filetypes have been moved into GLBDAT since they are
139 0138 1 | now needed from both RUNOFF and CLH; and I didn't want to
140 0139 1 | add any parameter(s) to the calling sequence for CLH.
141 0140 1 |
142 0141 1 | + E3.0-03 KFA00077 Ken Alden 13-Feb-1984
143 0142 1 | No changes were made, just a full build since one
144 0143 1 | was not done after change #76. This build was done
145 0144 1 | to correct GLBDAT alignment problems.
146 0145 1 |
147 0146 1 | + 2.8-02 REM00076 Ray Marshall 10-Nov-1983 to 18-Nov
148 0147 1 | + E3.0-02 Implented the the DEC Multinational Character Set. DEC
149 0148 1 | Standard 169 was used as a standard for how to implement
150 0149 1 | the upper half of this character set. This was a rather
151 0150 1 | masive update to RUNOFF (& DSRPLUS, too) -- 24 files had
152 0151 1 | to be modified?
153 0152 1 |
154 0153 1 | The require files affected were: ATCODE.REQ, GCA.REQ,
155 0154 1 | HCT.REQ, PHDEF.REQ, SAVE.REQ, & SCA.REQ.
156 0155 1 |
157 0156 1 | The source files affected were: DOCASE.BLI, DOFLG.BLI,
158 0157 1 | ENDCHR.BLI, ENDWRD.BLI, GETONE.BLI, GLBDAT.BLI, MAKNDX.BLI,
159 0158 1 | NATE.BLI, NEWSUB.BLI, OPT.BLI, OUTXHR.BLI, RINIT.BLI,
160 0159 1 | RSKIPS.BLI, SAVRES.BLI, SCANT.BLI, SENCON.BLI, STC.BLI, &
161 0160 1 | XPLUS.BLI
162 0161 1 |
163 0162 1 | Found that RUNOFF's .MSG file had been replaced by DSRPLUS's
164 0163 1 | form of the same file. This has been rectified.
165 0164 1 |
166 0165 1 | Corrected the action taken by the NOHEADER parameter to the
167 0166 1 | /DEVICE qualifier. Now it suppresses all records inclusive
168 0167 1 | and between the two OCS records.
169 0168 1 |
170 0169 1 | Also added another parameter: [NO]LOAD. This one, in its
171 0170 1 | negative form, suppresses the font load OCS. Its default
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is LOAD.

Modules modified: RNOVMS.B32, DOOPTS.BLI, & RNOMAC.REQ.

Added conditional in the heading of this module so that we can get a different IDENT for DSRPLUS then for RUNOFF.

E3.0-01 KFA00075 Ken Alden 18-Oct-1983

Added init for GCA_CMD_PAGES in RINIT.BLI.

Added logic to DOOPTS.BLI to set GCA_CMD_PAGES to true if the user issues a /PAGES qualifier. (These changes were done in two steps with the second one being done at IDENT 57 but not noted in DOOPTS' revision history.)

RNFIPF would still get output if the last page of the file was the one selected by the /PAGES qualifier. This has been corrected by adding PHAN_LINES_IP to the test to see if the error message should be issued. The way it stands now, if /PAGES was issued, the page counter is still at zero, and no output lines have been processed; then the RNFIPF error message is generated. This is done in RTERM.BLI.

Made changes in the LNO1 logic in DOOPTS.BLI needed because of ROM changes in the LNO1 itself. Basically, the default left and top margins are now set to 1, and the right margin is now set to 65536 (the largest valid setting).

Due to operator malfunction, the fixed version of SCA.REQ did not get re-inserted into CMS and so a major cref fix did not take place. This version has sca_margin pad added.

GCA_CMD_PAGES was in the wrong position within GCA. Moved it. Reworded RNFIPF error message in MSGTXT.REQ to make it clearer.

E3.0 KFA00074 Ken Alden 06-Oct-1983

This edit level is also the release version for Doc Tools E2.0.

A few more bugs were fixed in this version. Mostly relating to cross-referencing. The problem was handling consecutive header levels with a CREF in between them. Actually the problem only occurred when the user had a pending indent or the left margin something other than zero. A new bit, sca_margin pad was added to make a note of just how much the MRA was padded so that LOUT1 could be avoided if at all possible to process the CREF. Anytime processing goes to LOUT1, a crlf will be output.

A new error message was added to aid users with a warning if they issued a string on the /PAGES qualifier and no pages matched the given string. Also in MSGTXT.REQ, a spelling error was corrected with the PNA error.

The save/restore items were adjusted since some of the original 'spec'd' items had never been included. In addition, some of the save all items got moved to save and vice versa.

MODULES/REQUIRES AFFECTED:

DOOPTS.bli, LOVERT.bli, FCIMRA.bli, SAVRES.bli, RTERM.bli
MSGTXT.req, DPLMSG.msg, GLBDAT.bli, SCA.req, GCA.req, SAVE.req

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229 0228 1 2.8-01 KFA00073 Ken Alden 16-Sep-1983
230 0229 1 This edit level marks almost the end of field test for
231 0230 1 Doc Tools E2.0 (DSRPLUS). These edits are for three
232 0231 1 bugs (really two plus one alteration). Modules affected
233 0232 1 were:
234 0233 1
235 0234 1 RNOMAC.REQ:
236 0235 1 Added bit RNO$V_LN01_HEADER to support disabling the font
237 0236 1 control header information from being put into an .LN1 output
238 0237 1 file.
239 0238 1
240 0239 1 RNOVMS.B32:
241 0240 1 Increase the logical name buffer size from 64 to 256 to
242 0241 1 accommodate the larger file specifications for VMS V4.0.
243 0242 1 Add [NO]HEADER parameter to the /DEVICE qualifier and make it
244 0243 1 related to the LN01[E] parameter.
245 0244 1
246 0245 1 DOOPTS.BLI:
247 0246 1 Added functionality to LN01 output since the user
248 0247 1 may now elect to suppress the ln01 header output(symbiont
249 0248 1 information).
250 0249 1
251 0250 1 ENDWRD, ENDCHR.BLI:
252 0251 1 Added functionality for pass-through escape sequences.
253 0252 1
254 0253 1 DOFLG.BLI:
255 0254 1 For DSRPLUS: Added sca_wrd_pass for ENDWRD cooperation.
256 0255 1
257 0256 1 OUTCHA.BLI:
258 0257 1 Added emphasis support for autotitle if user used STCH or
259 0258 1 STAX for emphasis. This is for DSRPLUS only.
260 0259 1 Removed eight lines of code that are only needed for
261 0260 1 autosubtitle. These lines were left over from OUTHDR
262 0261 1 and prevented autotitle from carrying over any emphasis
263 0262 1 the user may have given with the chapter/appendix directives.
264 0263 1
265 0264 1 SCA.REQ:
266 0265 1 For DSRPLUS: Added SCA_WRD_PASS to the SCA_PASS word [35]
267 0266 1 and made SCA_PASS info a bit.
268 0267 1
269 0268 1 GETDD.BLI:
270 0269 1 Changed the error message to RNFIDD "Illegal display descriptor"
271 0270 1 and made the error call ERMS to pass the given display
272 0271 1 descriptor back to the user.
273 0272 1
274 0273 1
275 0274 1 2.8 KFA00072 Ken Alden 18-Aug-1983
276 0275 1 More bug fixes. This version is a release version.
277 0276 1 Fixes were to CNTTXT.BLI, LOOKEY.BLI and DOOPTS.BLI.
278 0277 1 this was to fix a logical name translation bug in creating
279 0278 1 brn files. Loockey and cnttxt were edited to fix a User-
280 0279 1 defined macro naming problem.
281 0280 1
282 0281 1 2.7-05 KFA00071 Ken Alden 05-Aug-1983
283 0282 1 A few bug fixes. Not as many this time. Added five new
284 0283 1 directives for DSRPLUS: .DIS/ENABLE APPENDIX/CHAPTER,
285 0284 1 .PAGE NOW. Below is an annotated listing of the cms histories.

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286 0285 1 SAVRES.BLI "Added gca_flag_cmd to SAVE list"
287 0286 1 OUTCHA.BLI "fixed flip compiletime bug"
288 0287 1 OUTCHA.BLI "fixed the flip bit again"
289 0288 1 DSPENT.BLI "fixed bug with dsp appendix"
290 0289 1 HEADER.BLI "added enable chapt,append"
291 0290 1 DOCM.BLI "added enable chapt,append"
292 0291 1 HEADER.BLI "Made enable chapt/append to act like a phony chapter"
293 0292 1 HEADER.BLI "One more time to prevent user from enabling an enabled section"
294 0293 1 NEWSUB.BLI "fixing $$entit. logic for chapters"
295 0294 1 DOCM.BLI "adding disable appendix"
296 0295 1 CARAGE.BLI "Adding .page now"
297 0296 1
298 0297 1 GCA.REQ "Added gca_flag_cmd to SAVE list"
299 0298 1 SAVE.REQ "Added gca_flag_cmd to SAVE list"
300 0299 1 RUNHAN.REQ "added enable chapt,append"
301 0300 1 RUNTAB.REQ "added enable chapt,append"
302 0301 1 RUNTAB.REQ "adding disable appendix, PAGE NOW"
303 0302 1 RUNHAN.REQ "adding disable appendix, PAGE NOW"
304 0303 1
305 0304 1 The following modules were changed for the -20:
306 0305 1
307 0306 1 DSRLIB.REQ:1
308 0307 1 GETNUM.BLI:2
309 0308 1 GLBDAT.BLI:1
310 0309 1 GTOKEN.BLI:1
311 0310 1 JSYSDEF.R36:1
312 0311 1 MSGTXT.REQ:1
313 0312 1 REPEAT.BLI:1
314 0313 1 RTERM.BLI:1
315 0314 1 RUNOFF.BLI:1
316 0315 1 STYLE.BLI:1
317 0316 1 CLITST.BLI:4
318 0317 1 RNOT20.B36:1
319 0318 1 TTY.B36:1
320 0319 1
321 0320 1
322 0321 1 2.7-04 KFA00070 Ken Alden 21-Jul-1983
323 0322 1 More bug fixes since 2.7-03. Small bugs only.
324 0323 1 Below is an annotated listing of the cms history.
325 0324 1 CREF.BLI "Added handling for FCIMRA and fixed tsf_int_hl problem"
326 0325 1 PUTTOC.BLI "Fixed flip interaction with /auto"
327 0326 1 PUTNDX.BLI "Fixed flip interaction with /auto"
328 0327 1 RTERM.BLI "fixed /pages bug"
329 0328 1 CLH.BLI "fixed input file wild card interaction with /auto"
330 0329 1 ATTRIB.BLI "extended fs02 to xp_string_size"
331 0330 1
332 0331 1
333 0332 1 2.7-03 KFA00069 Ken Alden 13-Jul-1983
334 0333 1 This version is another bug fix since 2.7-02.
335 0334 1 Most of the bugs were small. The following is an
336 0335 1 annotated listing of the cms history for this class.
337 0336 1
338 0337 1 RINIT.BLI "Added sca_flags to the SAVE list"
339 0338 1 SAVRES.BLI "Added sca_flags to the SAVE list"
340 0339 1 STD.BLI "Added sca_flags to the SAVE list"
341 0340 1 /SUPERSEDE RINIT.BLI "Added topnote length init."
342 0341 1 TOPPAG.BLI "Fixed null topnote bug"

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ELSEN.BLI 'Make default after-note spacing 1, not 2.'
CNTTXT.BLI 'removed a call to erm for location of error'
PAGE.BLI 'No number fo .rm eqs 70'
LOHORI.BLI 'fixed cref noout logic'
CNVDAT.BLI 'no more leading zero'
LOVERT.BLI 'cref stuff no longer seen by DSR'
DOAUTO.BLI 'Corrected spelling error'
/SUPERSEDE CNTTXT.BLI 'Fixed $$resolution problem with chap/app'
GETNUM.BLI 'Added two routines to handle $$stuff'
NM.BLI 'Added call to GETLET to resolve string numbers'
DPLMSG.MSG 'Replaced pc6 with crc'
/SUPERSEDE EMSG.B32 'Removed reference to rnfpc6'
RTERM.BLI 'Changed some message output'

The require files that changed were:

SCA.REQ(3) 'Added sca_flags to the SAVE list'
SAVE.REQ(2) 'Added sca_flags to the SAVE list'
ECC.REQ(2) 'counter area is now a full integer'
MSGTXT.REQ(20) 'many changes'
CREFDS.REQ(4) 'Updated counter size to reflect change made to ECC'

2.7-02 KFA00068 Ken Alden 28-Jun-1983
This version is a minor bug fix since 2.7-01. In this version
expansion of tabs now works beyond the page size to the
right margin, if further. This affected XTAB.BLI.
OUTCHA.BLI was altered so unnumbered chapters now turn the
book 'chapter-oriented'. It also resets the page numbering
to 1.
BARS.BLI was restored to its pre-dsrplus state so that when
the user issues disable bar, it does not restore the left
margin.
DOAUTO.BLI and DOOPTS.BLI were changed with respect to the
routine SETQUICK. SETQUICK is now located in DOOPTS.BLI and
DOOPTS.BLI calls SETQUICK when processing the /QUICK mode.
RINIT.BLI got a new line to initialize the forward unresolved
cross reference counter. This value is ouput only when
the user indicated /log or if there were errors. This affected
RUNOFF.BLI as well since it handles the output of the message.
DPLMSG.MSG, MSGTXT.REQ, GCA.REQ were also changed.

CREF.BLI, LOVERT.BLI, LOHORI.BLI are the three problem modules
in dealing with Cross referencing. However I sincerely feel
that this edit level will prove satisfactory with crefs.

2.7-01 KFA00067 Ken Alden 23-Jun-1983
This version is a bug fix version, the biggest of which
was the cross reference timing problem. This affected modules
LOHORI, LOVERT, CREF, CREFSUB, NEWSUB, GETNUM. Most of the
work was done to CREF which split to become CREF and CREFSUB.
In CREF.BLI, a new rintes sequence is now written to the MRA
which is picked up in the routine BUILD_LINE in LOHORI.
LOVERT no longer calls OUTCREF, instead BUILD_LINE now makes
the call.
NEWSUB had its ENDWRD calls deleted since it was found not

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400 0399 1 ideal to always call ENDWRD. The call was initially inserted
401 0400 1 for the benefit of GETNUM. Now GETNUM calls it immediately
402 0401 1 after calling NEWSUB.
403 0402 1
404 0403 1 XPLUS.bli had a change to the routine CHSSTR to prevent an
405 0404 1 access violation that occurred when checking sort strings.
406 0405 1
407 0406 1 DOOPTS.bli logic was altered so the input brn error messages
408 0407 1 were a little more informative and logically output.
409 0408 1
410 0409 1 REABRN.bli is now a little more intelligent when it sees that
411 0410 1 an old BRN file is completely empty.
412 0411 1
413 0412 1 RSDERM.bli now closes literals if the user forgot to end the
414 0413 1 last one. This prevented the problem of producing garbage
415 0414 1 if the user said /auto.
416 0415 1
417 0416 1 The last four modules were altered by Ray Marshall.
418 0417 1
419 0418 1 2.7 KAD00066 Keith Dawson 13-Jun-1983
420 0419 1 Gather changes since 9 June for Engineering Test version.
421 0420 1 Changes include: bugs fixed in /AUTO and Cref processing.
422 0421 1 Defaults changed for .PS, .RM. Note behavior modified.
423 0422 1 /DOWN behavior modified. Many bugs fixed, including the
424 0423 1 infamous "bug no. 1." Comments from CMS follow:
425 0424 1
426 0425 1 MSGTXT.REQ Change wording of RNFCR1. Removed '/INTERMEDIATE' from CR1
427 0426 1 message. Moved 3 secondary Cref-changed messages 2 spaces right.
428 0427 1 Remove messages relating to old /DOWN behavior (DTL, DVR, PSI)
429 0428 1 GCA.REQ adding a flag bit that is set for /DOWN line skipping.
430 0429 1
431 0430 1 CLH.BLI Improved error handling of improper wildcarding.
432 0431 1 CREF.BLI Added reference to RNOIOB[IOBSV OPEN] to all references to
433 0432 1 DIAG1 0 Modified the DUMP_FIELD MACRO so that the text it outputs
434 0433 1 will be columnated that same as that output by DUMP_REF_DATA.
435 0434 1 DOFLG.BLI Fixed the bolded/underlined tab bug.
436 0435 1 DPLMSG.MSG Remove messages relating to old /DOWN behavior (DTL, DVR, PSI).
437 0436 1 DSPENT.BLI Fix bug: .DISPLAY <any> was overwriting NPAGEN.
438 0437 1 DSRMSG.MSG Remove messages relating to old /DOWN behavior (DTL, DVR, PSI).
439 0438 1 GETNUM.BLI Added processing_entity flag used by NEWSUB.
440 0439 1 GLBDAT.BLI Added processing_entity flag.
441 0440 1 HEADER.BLI Fixed .No chapter bug.
442 0441 1 NEWSUB.BLI Uses new processing_entity flag to prevent ENDCHR from
443 0442 1 being called.
444 0443 1 NOTE.BLI Fix margins for notes.
445 0444 1 RINIT.BLI Default .RM, .PS (width) changed to 70 from 60. Fix margins
446 0445 1 for notes.
447 0446 1 RTERM.BLI Final .REF record written to .BRN if one remains. Does not
448 0447 1 bump rerun-count unless /AUTO. Fix oscillating edge condition.
449 0448 1 Suppressed one unneeded extra run if /AUTO and no .BRN
450 0449 1 existed.
451 0450 1 RUNOFF.BLI Don't generate .MEM on intermediate /AUTO runs.
452 0451 1 SKIPL.BLI /DOWN skipped lines no longer are counted.
453 0452 1 TOPPAG.BLI No counting of /DOWN lines. Removed error messages for /DOWN.
454 0453 1
455 0454 1 2.6-02 KAD00065 Keith Dawson 9-Jun-1983
456 0455 1 Clean-up edit level to consolidate changes made since May

```

19. New features include: FLIP output rejuvenated. Fixes, enhancements to cross-ref, including checks for oscillation. LN01 tweaks. Many bugs fixed, including .FGD. The list of modules and comments below is taken from the CMS library.

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457 0456 1
458 0457 1
459 0458 1
460 0459 1
461 0460 1
462 0461 1 CREFDS.REQ Added another field to test for pass in which structure was built.
463 0462 1 FLIPRECS.REQ Revive FLIP .BFL output.
464 0463 1 MSGTXT.REQ Added CRO, CR3 messages for oscillating CREF's.
465 0464 1 RNOMAC.REQ For LN01, made user's /DOWN and /RIGHT values override.
466 0465 1 TSF.REQ Added TSF_CREF_DATA.
467 0466 1
468 0467 1 ALINE.BLI .CENTER now centers between text left margin and right margin.
469 0468 1 CREF.BLI Added INCREf and OUTCREf routines. Caused CREF to load KHAR
470 0469 1 before exiting so we can process text and commands after a .REF. Also
471 0470 1 added the new backup value parameter to the call to GTOKEN. Clean up
472 0471 1 .REF error messages Fix bug to prevent duplicate records from being
473 0472 1 written to the BRN. Enhance junk-in-token testing and reporting; add
474 0473 1 OUTCREf() to output buildup .BRN records. Modified the DUMP_FIELD
475 0474 1 MACRO so that the text it outputs will be columnated that same as that
476 0475 1 output by the DUMP_REF_DATA routine.
477 0476 1 DOAUTO.BLI Fixed bug which caused .do table to fail if /NOAUTO was specified.
478 0477 1 DOOPTS.BLI Revive FLIP .BFL output. For LN01, made user's /DOWN and /RIGHT
479 0478 1 values override. Modified LN01 output (font Assignment escape sequence).
480 0479 1 DPLMSG.MSG Add CRO, CR3 -- oscillating cref's.
481 0480 1 FIGURE.BLI Reduced maximum FGD lines to the room on one page.
482 0481 1 GTOKEN.BLI Corrected problems handling trailing white space after quoted
483 0482 1 text. Fix still another bug where the white_space counter is sometimes
484 0483 1 incorrectly decremented.
485 0484 1 Also, added literals to identify the parsing states (or phases).
486 0485 1 Improve white space counting; check for mismatched quotes.
487 0486 1 HEADER.BLI Revive FLIP .BFL output. Fixed .NO CHAPTER bug.
488 0487 1 LOVERT.BLI Make sure cref record gets written even if Quick is set.
489 0488 1 NEWPAG.BLI Revive FLIP .BFL output.
490 0489 1 NEWSUB.BLI Handles new $$-entities. Removed one KCNS() after GTOKEN change
491 0490 1 Fix spacing problem with $$entities.
492 0491 1 OUTCHA.BLI Revive FLIP .BFL output.
493 0492 1 OUTHDR.BLI Revive FLIP .BFL output. For FLIP, do not write Exa/fig/Tab
494 0493 1 headers to TOC.
495 0494 1 PUTNDX.BLI Revive FLIP .BFL output.
496 0495 1 REABRN.BLI Initialize CREF_V_STATUS1, too.
497 0496 1 RNOVMS.B32 For LN01, made user's /DOWN and /RIGHT values override. To
498 0497 1 modify it so that if one of several input files fails, an error
499 0498 1 return will be taken to VMS.
500 0499 1 RSKIPS.BLI Fixed capitalize flag bug.
501 0500 1 RTERM.BLI Add cref-changed check so /AUTO knows if it has to run again.
502 0501 1 Added code that checks for need to output deferred figures.
503 0502 1 RUNOFF.BLI Revive FLIP .BFL output. Add check and quit after 4 reruns --
504 0503 1 oscillating cref's. For /AUTO, cref-changed reruns should not generate
505 0504 1 .MEM.
506 0505 1 SKIPL.BLI Improved algorithm that checks for space available on page.
507 0506 1 TNOUT.BLI Improve algorithm that tests for space available on page.
508 0507 1
509 0508 1 2.6-01 KAD00064 Keith Dawson 18-May-1983
510 0509 1 Revived FLIP .BFL output, which has been broken since
511 0510 1 before DSRPLUS E2.1-02. The proximate cause was
512 0511 1 altered record definitions in FLIPRECS.REQ; but many
513 0512 1 other changes were needed. Some code for writing to

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514 0513 1 the .BFL file had been lost along the way (and was
515 0514 1 resurrected via the old CMS library). Other code had
516 0515 1 apparently never been used, and was flawed. Modules
517 0516 1 affected:
518 0517 1
519 0518 1         FLIPRECS.REQ
520 0519 1         DOOPTS.BLI  HEADER.BLI  NEWPAG.BLI  OUTCHA.BLI
521 0520 1         OUTHDR.BLI  PUTNDX.BLI  RNOVRS.BLI  RUNOFF.BLI
522 0521 1
523 0522 1 2.6 KAD00063      Keith Dawson      9-May-1983
524 0523 1 Deleted support for .DX and .PX in both DSR and DSRPLUS.
525 0524 1 Error messages DX1 and DX2 (with slightly different text
526 0525 1 for DSR / DSRPLUS) inform the user that the commands are
527 0526 1 no longer supported. (For DSRPLUS, only .PX generates the
528 0527 1 messages, as .DX is used for automatic processing.) Error
529 0528 1 message XFL is gone; DWF was removed (no longer used).
530 0529 1
531 0530 1 The following module is new: NODOPX.BLI
532 0531 1
533 0532 1 The following modules were edited: DOCM.BLI  DPLMSG.MSG
534 0533 1 DSRMSG.MSG  GLBDAT.BLI  LOVERT.BLI  OUTLIN.BLI  RINIT.BLI
535 0534 1 RNFERM.BLI  RUNOFF.BLI  DSRLIB.REQ  MSGTXT.REQ
536 0535 1
537 0536 1 The following modules are no longer used in DSR or DSRPLUS:
538 0537 1 DOPX.BLI  PAGMRG.BLI  POOL.BLI  XOFLOW.BLI  XOUT.BLI  XPRT.BLI
539 0538 1 XTN.BLI  DMDEFS.REQ  XTNTAB.REQ
540 0539 1
541 0540 1 2.5-11 KFA00062      Ken Alden        02-May-1983
542 0541 1 This edit level completed the STYLE CHAPTER/APPENDIX
543 0542 1 keyword: STARTODD. Changes were made to LOVERT.BLI &
544 0543 1 OUTCHA.BLI.
545 0544 1 /AUTO features were completed and semi-tested. Modules affected
546 0545 1 were DOAUTO.BLI & REABRN.
547 0546 1 Counters and Textstrings were implemented. Changes were made
548 0547 1 to NEWSUBS.BLI, CNTTXT.BLI, and CREFDS.REQ.
549 0548 1
550 0549 1 2.5-10 KAD00061      Keith Dawson      26-Apr-1983
551 0550 1 Clean-up edit level to consolidate changes made since April
552 0551 1 12. New features include full support for cross-referencing,
553 0552 1 $Entities, and /DEBUG=(CROSS,SAVE). Many bug-fixes are
554 0553 1 included as well. The list of modules and comments below is
555 0554 1 taken from the CMS library.
556 0555 1
557 0556 1 CLH.BLI      FLIP output was never being opened, after V2.5-05
558 0557 1 CNVDAT.BLI   Dates now have fully spelled months and 4-digit years
559 0558 1 CREF.BLI     Adjustments to cross-ref error messages. Fixed logic
560 0559 1             oversight in handling changed references
561 0560 1 DOCM.BLI     Correct DSRPLUS conditionals on DOPX/DINDEX. Footnote
562 0561 1             numbering
563 0562 1 DOOPTS.BLI   Adjustments to cross-ref command-line action. Fix one LN01
564 0563 1             conditional (should be DSRPLUS). Minor tweaks to LN01 output
565 0564 1 DPLMSG.MSG   Add IDD message. Adjustments to cross-ref error messages
566 0565 1 DSPENT.BLI   Fixed entity string bug
567 0566 1 DSRMSG.MSG   Add IDD message
568 0567 1 FCIMRA.BLI   Fixed left margin indentation bug. Footnote numbering
569 0568 1 FNONLY.BLI   Fix footnote numbering bug. Footnote numbering
570 0569 1 FOOBOT.BLI   Footnote numbering

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571 0570 1 : FOOTOUT.BLI Fixed bug with numbered footnotes. Footnote numbering
572 0571 1 : GLBDAT.BLI Fix punctuation error. Make $keyword_table's conditional on
573 0572 1 : DSRPLUS
574 0573 1 : GTOKEN.BLI Added support for GT$V SIGNED
575 0574 1 : LOHORI.BLI Correct DSRPLUS conditionals on emphasis routines
576 0575 1 : NUMFOO.BLI Footnote numbering
577 0576 1 : PAGE.BLI Decoupled .RM from .PS
578 0577 1 : RINIT.BLI Added new termination error messages for .BRN files. Slight
579 0578 1 : change to footnote number initialization
580 0579 1 : RNOVMS.B32 Support /DEVICE=FLIP
581 0580 1 : RUNOFF.BLI Fix conditional to let DSR use LN01
582 0581 1 : SAVRES.BLI Fixed first saved word bug
583 0582 1 : UNPUS.BLI Added support for SEND CONTENTS
584 0583 1 :
585 0584 1 : DSRLIB.REQ Add DSRPLUS conditionals for cross-ref modules
586 0585 1 : GTOKCC.REQ Added GT$V_SIGNED
587 0586 1 : KWTDEF.REQ A few adjustments of ordering
588 0587 1 : MSGTXT.REQ Fix alphebitization of NCS message. Fixed misalignment
589 0588 1 : Adjustments to cross-ref error messages
590 0589 1 : RNODEF.REQ Make LN01 output visible to vanilla, released DSR
591 0590 1 : RUNTAB.REQ Made refoints legal in footnotes
592 0591 1 : Rationalize abbreviations on new DSRPLUS commands
593 0592 1 :
594 0593 1 : 2.5-09 KAD00060 Keith Dawson 12-Apr-1983
595 0594 1 : Added support for new termination error messages for
596 0595 1 : information written to .BRN file. Modules affected:
597 0596 1 :
598 0597 1 : CREF.BLI DOOPTS.BLI DPLMSG.MSG DSRMSG.MSG EMSG.B32
599 0598 1 : ERROR.BLI PUTNDX.BLI PUTTOC.BLI REABRN.BLI RINIT.BLI
600 0599 1 : RTERM.BLI MSGTXT.REQ
601 0600 1 :
602 0601 1 : Also added error messages for $$entities and cross-referencing.
603 0602 1 : New messages in toto:
604 0603 1 :
605 0604 1 : BCR, CND, CRU, CR1, CR2, CVM, FCR, IIB, IVB, NCD, NIB, NPN,
606 0605 1 : NRN, PC2, PC3, PC4, PC5, PNA, PND, PNV, RMS, RND
607 0606 1 :
608 0607 1 : Only PC2 and PC3 were added for DSR.
609 0608 1 :
610 0609 1 : 2.5-08 RER00059 Ron Randall 12-Apr-1983
611 0610 1 : The following changes are all for DSRPLUS:
612 0611 1 : Added code to output user and "internal" topnotes after
613 0612 1 : title/subtitle. If not enough room is available on the
614 0613 1 : page, the user is notified.
615 0614 1 : Changed iih to iit to better reflect its topnote function.
616 0615 1 :
617 0616 1 : Added code to produce numbered footnotes. Number is reset
618 0617 1 : to 1 at the start of each chapter. When output, numbered
619 0618 1 : footnotes are preceded with a dashed line and separated with
620 0619 1 : blank lines.
621 0620 1 :
622 0621 1 : Deleted reference to the passthrough flag.
623 0622 1 :
624 0623 1 : New files related to topnotes:
625 0624 1 : TNFIL.BLI TNOUT.BLI
626 0625 1 : TNFDFS.REQ TNREC.REQ TOPNOT.REQ
627 0626 1 :

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628 0627 1 Files modified by the above changes:
629 0628 1 CARAGE.BLI DOCM.BLI DPLMSG.MSG FIGURE.BLI
630 0629 1 GCODE.BLI GLBDAT.BLI LP1.BLI NUMFOO.BLI
631 0630 1 FCIMRA.BLI FNONLY.BLI FOOBOT.BLI FOOOUT.BLI
632 0631 1 OUTCHA.BLI OUTLIN.BLI RINIT.BLI RNFERM.BLI
633 0632 1 RTERM.BLI TOPPAG.BLI DSRLIB.REQ FNCT.REQ
634 0633 1 KWITEM.REQ MSGTXT.REQ RUNHAN.REQ RUNTAB.REQ
635 0634 1
636 0635 1 2.5-07 KAD00058 Keith Dawson 7-Apr-1983
637 0636 1 Added support for /CROSSREFERENCE and /AUTOMATIC. Broke up
638 0637 1 NOUT.BLI into 3 modules (LOXXXX.BLI). Modules affected:
639 0638 1 DOOPTS.BLI LOEMPH.BLI LOHORI.BLI LOVERT.BLI
640 0639 1 RUNOFF.BLI PASS.REQ GCA.REQ
641 0640 1
642 0641 1
643 0642 1 2.5-06 REM00057 Ray Marshall 6-April-1983
644 0643 1 Added cross-ref support. This logic builds and maintains the
645 0644 1 internal data structures that contain the text that will be
646 0645 1 used by the $$ entities that perform cross referencing. The
647 0646 1 'old' modules involved are: GLBDAT.BLI, DOOPTS.BLI & CREF.BLI.
648 0647 1 (The latter was, previous to this work, just a 'stub'.) The
649 0648 1 'new' files are: GTOKEN.BLI, REABRN.BLI, CREFDS.REQ,
650 0649 1 GTOKCC.REQ, & KWDEF.REQ. There are also two files used from
651 0650 1 the TABLE utility: KEYWORD.REQ & LOOKEY.BLI. (And the list
652 0651 1 goes on...) As a debugging aid, KEYTEST.BLI was taken from
653 0652 1 the TABLE utility development work and modified to use GTOKEN.
654 0653 1
655 0654 1 2.5-05 KAD00056 Keith Dawson 27-Mar-1983
656 0655 1 Added LN01 support. Got rid of /OVERPRINT. Removed LN01
657 0656 1 conditionals and all references to .BIX and .BTC files.
658 0657 1 Changed GCA_FLIP bit to (.gca_op_dev EQL op dev flip). Added
659 0658 1 support for non-STREAM output (for LN01, VTT00) -- call to
660 0659 1 macro OP_DEV_WRITE_OUTPUT_LINE instead of to clh (clh_write-
661 0660 1 _output). Modules affected in toto:
662 0661 1 CLH.BLI DOOPTS.BLI MAKNDX.BLI NOUT.BLI PUTTOC.BLI
663 0662 1 PUTNDX.BLI RNOVMS.B32 RUNOFF.BLI SKIPL.BLI UNPUS.BLI
664 0663 1 GCA.REQ OPDEV.REQ RNODEF.REQ RNOMAC.REQ
665 0664 1
666 0665 1 Breakdown of modules affected for each feature:
667 0666 1 LN01 support (CLH.BLI DOOPTS.BLI NOUT.BLI GCA.REQ
668 0667 1 OPDEV.REQ)
669 0668 1 Got rid of /OVERPRINT (DOOPTS.BLI RNOVMS.B32 RNOMAC.REQ)
670 0669 1 Removed LN01 conditionals, references to .BIX/.BTC files
671 0670 1 (DOOPTS.BLI PUTTOC.BLI RNOVMS.B32)
672 0671 1 Changed GCA_FLIP bit (MAKNDX.BLI PUTNDX.BLI PUTTOC.BLI
673 0672 1 RNOVMS.B32 RUNOFF.BLI GCA.REQ OPDEV.REQ)
674 0673 1 Non-STREAM output (NOUT.BLI SKIPL.BLI UNPUS.BLI)
675 0674 1
676 0675 1 2.5-04 KAD00055 Ken Alden 24-Mar-1983
677 0676 1 No edit-level, just bug fixes.
678 0677 1
679 0678 1 2.5-03 KAD00054 Keith Dawson 20-March-1983
680 0679 1 Pulled back LN01 conditionalization; LN01 no longer depends
681 0680 1 on old-syntax DSR and no longer generates .BTC, .BIX files.
682 0681 1 Modules affected: DOOPTS.BLI GLBDAT.BLI OUTLIN.BLI
683 0682 1
684 0683 1

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: 685 0684 1 1
: 686 0685 1
: 687 0686 1
: 688 0687 1
: 689 0688 1
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: 697 0696 1
: 698 0697 1
: 699 0698 1
: 700 0699 1
: 701 0700 1
: 702 0701 1
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: 735 0734 1
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PUTNDX.BLI PUTTOC.BLI RINIT.BLI
 Removed old error messages that were used for .BTC, .BIX
 files (COT,COX). Remove old error messages that were not
 referenced anywhere (ITS,LOM,MD1,NFS,SPO,VVZ). Added topnote
 messages (CRT,CTN,CWT,ETD,IIF,ITN,TLÉ).
 Modules affected: MSGTXT.REQ DPLMSG.MSG DSRMSG.MSG
 RNODEF.REQ
 Added CLI support for LN01E, the European-style LN01.
 Modules affected: RNOVMS.B32 OPDEV.REQ

2.5-02 KFA00053 Ken Alden 18-Mar-1983
 This edit level is mostly the work involved to make
 SAVE/RESTORE visible to DSR.
 Also this edit level includes FLAGS PASSTHROUGH for DSRPLUS.
 Requires affected: FLGT, GCA, SCA, MSGTXT, PHDEF, RUNHAN,
 RUNTAB, SCA.
 Modules affected:
 ALINE.BLI CHAPT.BLI DOCM.BLI DOFLG.BLI
 DOFLG.BLI DPLMSG.MSG DPLMSG.MSG DSRMSG.MSG
 ENDCHR.BLI FNONLY.BLI FNONLY.BLI GETLIN.BLI
 GLBDAT.BLI MAKNDX.BLI OFT.BLI OUTCHA.BLI
 OUTHDR.BLI OUTTXT.BLI PUTTOC.BLI RINIT.BLI
 RSDERM.BLI SCANT.BLI SENCON.BLI STC.BLI
 STC.BLI STYLE.BLI TITLES.BLI

2.5-01 KFA00052 Ken Alden 18-Mar-1983
 This edit level was a bug-fix level of 2.5. Bugs
 that were found were not necessarily caused by the
 editing orgy but were found since 2.5 underwent severe
 and exhaustive testing. Quite a few of the bugs were 'write-
 to-Brn' stuff. Another was a bug with .KEEP not working.
 Chapters and hll's will now also write emphasized text to
 the BRN if 'AUTOed'.
 Files affected:
 MAKNDX.BLI OFT.BLI
 OUTCHA.BLI OUTHDR.BLI
 PUS.BLI XPLUS.BLI

2.5 KAD00051 Keith Dawson 07-Mar-1983
 Global edit of all modules. Updated module names, idents,
 copyright dates. Changed require files to BLISS library.

2.4 KAD00050 Keith Dawson 2-March-1983
 Try 2 for V2.4 baselevel -- no changes from V2.3-06.

2.3-06 KAD00049 Keith Dawson 2-March-1983
 Pull back from PAGEN change. Modules affected:
 CHAPT.BLI, MAKNDX.BLI, NM.BLI, OUTCHA.BLI,
 OUTHDR.BLI, PACK.BLI, RINIT.BLI, RNOVRS.BLI
 PAGEN.REQ

2.4(a) KAD00048 Keith Dawson 2-March-1983
 For V2.4 baselevel -- no changes from V2.3-05.

2.3-05 KAD00047 Keith Dawson 2-March-1983
 Changes to allow RUNOFF to generate .BRN files, while still
 generating .BIX, .BTC files from the LN01 version. To

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742 0741 1      this end, added a new /VARIANT conditional, LN01. Modules
743 0742 1      affected: GLBDAT.BLI, OUTLIN.BLI, PUTNDX.BLI,
744 0743 1      PUTTOC.BLI, RINIT.BLI, RNOVMS.B32, DSRMSG.MSG
745 0744 1      RNODEF.REQ, MSGTXT.REQ
746 0745 1      Bolding and underlining now happen before the line is put out,
747 0746 1      not before. The LOUT module was substantially rewritten,
748 0747 1      resulting in a new module, NOUT.BLI. From here on, LOUT.BLI
749 0748 1      is obsolete and will not be used. Modules affected:
750 0749 1      NOUT.BLI
751 0750 1
752 0751 1      2.3-04  RER00046      Ron Randall      1-March-1983
753 0752 1      Added DSRPLUS logic to process initialization files.
754 0753 1      Added CLH function to open initialization files:
755 0754 1      CLH_OPEN_INIT.
756 0755 1
757 0756 1      Removed ":" from the character set defined as A_PUNCT.
758 0757 1      This causes only one space to be placed after a semicolon
759 0758 1      when text is unjustified (packed).
760 0759 1
761 0760 1      For DSRPLUS:
762 0761 1      Made .NUMBER APPENDIX and .NUMBER CHAPTER set different
763 0762 1      new variables in NPAGEN (SCT_NUMBER_A and SCT_NUMBER_C) instead
764 0763 1      of the same one (SCT_NUMBER, which is now used only to store
765 0764 1      the index number). Also made .NMAX and .NMCH set new
766 0765 1      variables in ECC.
767 0766 1
768 0767 1      For DSRPLUS:
769 0768 1      Decoupled the right margin setting of .PAGE SIZE from
770 0769 1      that of .RIGHT MARGIN. Now .PS affects the right margin
771 0770 1      of headings only.
772 0771 1      (Because user files now exist in which the right margin is
773 0772 1      pulled back by means of .PS, we have added code so as not to
774 0773 1      break such files. If the user gives a command of the form
775 0774 1      ".RM+n", the value n is saved. The saved value is zeroed if
776 0775 1      the user afterward gives either ".RM-m" or ".PS,-m". In the
777 0776 1      second case, and if n = m, then RM only is reset (not PS).)
778 0777 1
779 0778 1      For DSRPLUS:
780 0779 1      Changed code so that .PARAGRAPH works like .AUTOPARAGRAPH
781 0780 1      (on the advice of Rich Friday).
782 0781 1      Deleted redundant .PARAGRAPH test-page code (already provided
783 0782 1      in module FCIMRA).
784 0783 1      Deleted reference to CPP and NOT CPP bits everywhere.
785 0784 1      They were redundant with DO OUTNJ and DONT OUTNJ.
786 0785 1      Replaced MK_n symbols in RUNTAB.REQ with their literal values.
787 0786 1
788 0787 1      Cosmetic changes.
789 0788 1
790 0789 1      2.3-03  KFA00045      Ken Alden      28-February-1983
791 0790 1      For dsrplus: XPLUS may now use the attribute SORT=
792 0791 1      to specify sorting for each sublevel. This affected
793 0792 1      the modules:
794 0793 1      XPLUS  MAKNDX  STYLE and KWSTYL.REQ
795 0794 1      Fixed bug in OUTHDR for captions that are centered,break.
796 0795 1      Chapters and Appendixes & Headers are now produced the same
797 0796 1      way as the entities. This eliminated the module HL.BLI.
798 0797 1      A new module OUTCHA.BLI now replaces CHAPT.BLI in DSRPLUS.

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799 0798 1 | Similarly, DSPPAG will only affect page display in DSRPLUS
800 0799 1 | and DISPLAY CHAPTER is handled by DSPENT. All attributes
801 0800 1 | of the CHAPTER and APPENDIX are stored in the ECC structure.
802 0801 1 | With the change to chapter and appendix, the binary file
803 0802 1 | record for these two directives has been changed to a similar
804 0803 1 | design of the entities.
805 0804 1 |
806 0805 1 |
807 0806 1 | 2.3-02 REM00044 Ray Marshall 18-February-1983
808 0807 1 | Several new qualifiers were added to the CLI: /AUTOMATIC,
809 0808 1 | /CROSS REFERENCE, /DEVICE, & /INTERMEDIATE.
810 0809 1 | Also, two new parameters were added to the /DEBUG qualifier:
811 0810 1 | CROSS REFERENCES & SAVE RESTORE. With the addition of the
812 0811 1 | new /DEVICE qualifier, DSR now supports more devices than we
813 0812 1 | were prepared to handle before. Part of this support
814 0813 1 | involved changes in the way a device is indicated internally.
815 0814 1 | Another "feature" of this CLI is that it retains support of
816 0815 1 | the /INDEX & /CONTENTS qualifiers -- inspite of the conflicts
817 0816 1 | this created with the new /INTERMEDIATE qualifier.
818 0817 1 |
819 0818 1 | Files changed for this effort are: RNOVMS.B32, RNOMAC.REQ,
820 0819 1 | GCA.REQ (already picked up by Ken for a previous edit level),
821 0820 1 | CLH.BLI, LOU.T.BLI, DOOPTS.BLI, & RUNOFF.BLI. There is also
822 0821 1 | an new file: OPDEV.REQ. An still more -- CLITST.BLI has had
823 0822 1 | many modifications made to support testing of this new CLI.
824 0823 1 |
825 0824 1 | 2.3-01 JPK00043 J.P. Kellerman 15-Feb-1983
826 0825 1 | Modified TOCRTY.REQ. Updated copyright date. Removed
827 0826 1 | conditional code so that both DSRPLUS-CONTENTS and DSRTOC
828 0827 1 | can process any BRN file.
829 0828 1 |
830 0829 1 | 2.3 KAD00042 Keith Dawson 4-FEB-1983
831 0830 1 | No changes from X2.2-02; baselevel build.
832 0831 1 |
833 0832 1 | 2.2-02 KFA00041 Ken Alden 4-FEB-1983
834 0833 1 | The changes listed below are for DSRPLUS only.
835 0834 1 | In the latest DSRPLUS all legal .STYLE { header ; example ;
836 0835 1 | figure ; table } keywords can be negated. The following new
837 0836 1 | keywords have been added to save users from the extra work
838 0837 1 | of having to issue DEFAULTS and then resetting the desired
839 0838 1 | attributes:
840 0839 1 |
841 0840 1 | NOBOLD NOUNDERLINE NUMBERED LEFT
842 0841 1 |
843 0842 1 | New keyword [NO]BREAK
844 0843 1 | This keyword controls whether to issue a break (start a new
845 0844 1 | line) between the counter and the caption. Default is
846 0845 1 | NOBREAK.
847 0846 1 | The keywords ALLCAP, FIRSTCAP, and LEAVECASE now apply to
848 0847 1 | the counter as well as to the caption. That is, the
849 0848 1 | keywords will also control the case of the words Example and
850 0849 1 | Figure and Table. Module: STYLE.BLI, KWSTYL,KWS.REQ
851 0850 1 | Before, the ":" character in figure (and example and table)
852 0851 1 | captions was hard-coded into DSRPLUS. Module: OUTHDR.BLI
853 0852 1 | The Before- and After-strings of the .DISPLAY FIGURE
854 0853 1 | (example, table) commands allow the user to specify strings
855 0854 1 | to precede and follow the figure (example, table) number.

```

```

: 856 0855 1 | If an after-string other than ":" is used, no ":" will
: 857 0856 1 | appear.
: 858 0857 1 | Underlining of headers(header levels, entities) used to
: 859 0858 1 | underline from the beginning of the header through the first
: 860 0859 1 | word of the caption, including spaces. The spaces are no
: 861 0860 1 | longer underlined.
: 862 0861 1 | Captions for centered ENTITIES will now wrap within the
: 863 0862 1 | caption margins and not the page margins. The last line of
: 864 0863 1 | the caption(if other than the first) will now be
: 865 0864 1 | left-justified to the caption left margin.
: 866 0865 1 | Level one headers will now display just the integer value with no ".0"
: 867 0866 1 | A bug was fixed since V2.2-01 that incorrectly displayed page numbers
: 868 0867 1 | due to an improperly built MRA. This was caused by improper initialization
: 869 0868 1 | of the SCA before SCANT in the module: OUTTXT.BLI
: 870 0869 1 | DISABLE BARS will now restore the left margin as it
: 871 0870 1 | was before a BEGIN/ENABLE BAR sequence. Module: BARS.BLI.
: 872 0871 1 |
: 873 0872 1 |
: 874 0873 1 | 2.2-01 KFA00040 Ken Alden 11-January-1983
: 875 0874 1 | The following changes have been made for DSRPLUS only.
: 876 0875 1 | Below is a list of the new commands that DSRPLUS will handle:
: 877 0876 1 |
: 878 0877 1 | AUTOTITLE
: 879 0878 1 | BEGIN { TOPNOTES ; PASSTHROUGH }
: 880 0879 1 | DISPLAY COUNTER
: 881 0880 1 | DO { CONTENTS ; TABLE }
: 882 0881 1 | END { TOPNOTES ; PASSTHROUGH }
: 883 0882 1 | FLAG PASSTHROUGH
: 884 0883 1 | TOPNOTES [ON]
: 885 0884 1 | NO { AUTOTITLE ; CHAPTER }
: 886 0885 1 | NO { TOPNOTES ; NUMBER FOOTNOTE }
: 887 0886 1 | REFERENCEPOINT
: 888 0887 1 | RESTORE
: 889 0888 1 | SAVE { ALL }
: 890 0889 1 | SEND CONTENTS
: 891 0890 1 | SET {COUNTER ; TEXTSTRING}
: 892 0891 1 | STYLE { APPENDIX ; CHAPTER }
: 893 0892 1 | TITLE ALWAYS
: 894 0893 1 |
: 895 0894 1 | Not all of these commands are operational but are accepted as
: 896 0895 1 | input and handled accordingly. Changes were made to:
: 897 0896 1 |
: 898 0897 1 | RUNHAN.REQ RUNTAB.REQ
: 899 0898 1 | to insert the new commands.
: 900 0899 1 |
: 901 0900 1 | TITLES.BLI was altered to handle AUTOTITLE and its inverse.
: 902 0901 1 | This command controls SCA_AUTOTITLE and is initialized as "on".
: 903 0902 1 | When turned off, it prevents chapter titles from becoming the
: 904 0903 1 | title on the succeeding pages. This module was also altered
: 905 0904 1 | for the TITLE ALWAYS command. This feature controls HCT TITLE_
: 906 0905 1 | ALWAYS and once turned on, may not be turned off. This bit is
: 907 0906 1 | checked in CHAPT.BLI before calling TOPPAG.
: 908 0907 1 | CHAPT.BLI was also altered for the command NO CHAPTER. This
: 909 0908 1 | feature turns off "Chapter-orientedness" of the document and
: 910 0909 1 | returns the page number format to normal. "Chapter" format is
: 911 0910 1 | produced from the NPAGEN [SCT_TYPE] bit and is either off,
: 912 0911 1 | "chapter", or "appendix".

```

```

: 913 0912 1 |
: 914 0913 1 |
: 915 0914 1 |
: 916 0915 1 |
: 917 0916 1 |
: 918 0917 1 |
: 919 0918 1 |
: 920 0919 1 |
: 921 0920 1 |
: 922 0921 1 |
: 923 0922 1 |
: 924 0923 1 |
: 925 0924 1 |
: 926 0925 1 |
: 927 0926 1 |
: 928 0927 1 |
: 929 0928 1 |
: 930 0929 1 |
: 931 0930 1 |
: 932 0931 1 |
: 933 0932 1 |
: 934 0933 1 |
: 935 0934 1 |
: 936 0935 1 |
: 937 0936 1 |
: 938 0937 1 |
: 939 0938 1 |
: 940 0939 1 |
: 941 0940 1 |
: 942 0941 1 |
: 943 0942 1 |
: 944 0943 1 |
: 945 0944 1 |
: 946 0945 1 |
: 947 0946 1 |
: 948 0947 1 |
: 949 0948 1 |
: 950 0949 1 |
: 951 0950 1 |
: 952 0951 1 |
: 953 0952 1 |
: 954 0953 1 |
: 955 0954 1 |
: 956 0955 1 |
: 957 0956 1 |
: 958 0957 1 |
: 959 0958 1 |
: 960 0959 1 |
: 961 0960 1 |
: 962 0961 1 |
: 963 0962 1 |
: 964 0963 1 |
: 965 0964 1 |
: 966 0965 1 |
: 967 0966 1 |
: 968 0967 1 |
: 969 0968 1 |

```

Perhaps the biggest change of this edit level is the addition of the command SAVE (ALL) & RESTORE. To accomplish this, the following require files were altered:

GCA.REQ SCA.REQ PHDEF.REQ HCT.REQ

From close examination of these require files, one will see that several of the items are now "dotted" so that the item is stored in an address location determined by the bit's value. This value is the address of another location located somewhere within the \$\$SAVE_BLOCK or \$\$SAVEALL_BLOCK. These are defined in a new require file:

SAVE.REQ

In addition another require file was made to define the stack structure of the .SAVES and .RESTORES. This is the file:

SAVSTK.REQ

GLBDAT.BLI was altered by addition of the \$\$SAVE_BLOCK and \$\$SAVEALL_BLOCK but just as importantly, the order in which certain SAVED structures are globally allocated was shuffled such to move all the SAVED items together to simplify the SAVE and RESTORE process.

SAVE.BLI is the main module for the SAVE/RESTORE command handling.

RSDEEM.BLI is the module that tests for unclosed nested items at the termination of files. This module now has a new routine called TSTRES to check for the proper balance of SAVES & RESTORES.

RINIT.BLI initializes the SAVSTK (SAVE stack).

CLH.BLI has been altered so wildcarding is now accepted for file extensions. .RNO is looked for first followed by .RTB, .RNT, .RNX, etc.

STYLE.BLI has some new code to temporarily handle the new STYLE commands.

FJNFNJ.BLI handles the command NO AUTOJUSTIFY which also now controls an "autofill" action in accordance with the FILL-JUSTIFY crock. This is also reflected by changes in HEADER.BLI since headers will no longer affect fill,justify if the NO AUTO.. is in effect.

New modules that have been added to the CMS library are listed below. They have been written to handle the remainder of the currently unsupported commands.

SAVRES.BLI	!For SAVE and REStore.
SENCON.BLI	!For SEND CONtents.
DSPCNT.BLI	!For DiSPlay CouNTer.
TPNOTE.BLI	!For ToPNOTE commands.
REF.BLI	!For REFErencpoint.
NUMFOO.BLI	!For NUMber FOOtnote.
DTABLE.BLI	!For Do TABLE.
DOCONT.BLI	!For DO CONtents.
FLGPAS.BLI	!For FLaG PASsthrough.

```

970 0969 1
971 0970 1
972 0971 1
973 0972 1
974 0973 1
975 0974 1
976 0975 1
977 0976 1
978 0977 1
979 0978 1
980 0979 1
981 0980 1
982 0981 1
983 0982 1
984 0983 1
985 0984 1
986 0985 1
987 0986 1
988 0987 1
989 0988 1
990 0989 1
991 0990 1
992 0991 1
993 0992 1
994 0993 1
995 0994 1
996 0995 1
997 0996 1
998 0997 1
999 0998 1
1000 0999 1
1001 1000 1
1002 1001 1
1003 1002 1
1004 1003 1
1005 1004 1
1006 1005 1
1007 1006 1
1008 1007 1
1009 1008 1
1010 1009 1
1011 1010 1
1012 1011 1
1013 1012 1
1014 1013 1
1015 1014 1
1016 1015 1
1017 1016 1
1018 1017 1
1019 1018 1
1020 1019 1
1021 1020 1
1022 1021 1
1023 1022 1
1024 1023 1
1025 1024 1
1026 1025 1

```

2.2 KAD00039 Keith Dawson 9-December-1982
Modifications to get DSRPLUS running on TOPS-20. Many of the modules listed below were changed only by the tightening of conditionalization for FLIP -- which is now never compiled in on TOPS-20. Modules affected:

```

DOOPTS.BLI  GLBDAT.BLI  LOUT.BLI  OUTHDR.BLI
PUTNDX.BLI  PUTTOC.BLI  RTERM.BLI  STC.BLI
TOPPAG.BLI  XPLUS.BLI  STYLE.BLI

```

Added condition-handling and save-restore of TOPS-20 terminal characteristics, to support /DEC_INTERNAL=VT100. Modules: TTY.B36 JSYSDEF.R36

Fixed a long-standing DSRPLUS bug: .YPLUS (NOPERMUTE) was not recognized. Modules: ATTRIB.BLI KWXPYP.REQ

Fixed a bug where a blank line inside a list, if .KEEP was in effect, would cause 3x RNFIL(LOUT) and 1x RNFIL(LOUT1). Module: PUS.BLI

Modified RNOVMS.B32 to pickup the default physical page length (/FORM_SIZE value) from the operating system. [REM]

Changed .ENABLE BAR to .ENABLE BARS (note the plural). This change also resulted in .DISABLE BARS, .BEGIN BARS, and .END BARS. The file modified for this was RUNTAB.REQ. [REM]

2.1-03 REM00038 Ray Marshall 17-September-1982
As per requirements from VMS-land, renamed three require files:

```

FOOFIL.REQ to FFDEFS.REQ
LSTOPS.REQ to LODEFS.REQ
POOL.REQ to DMDEFS.REQ

```

Other files requiring modification as a result were: FNONLY.BLI, FOOFIL.BLI, FOOOUT.BLI, OUTLIN.BLI, LOUT.BLI, LSTOPS.BLI, SKIPL.BLI, POOL.BLI, & XTN.BLI

BPOSIT.REQ, LSTBTS.REQ, & NBITS.REQ are usually only needed by several other require files. Therefore, they have been modified to include conditionalization so they can be REQUIRED more than once within any given MODULE. There are many source files that currently bring them in directly, but that can now be changed. So far, the only source files that have had their REQUIRES of these .REQ files removed are: CLH.BLI, LOUT.BLI, LSTOPS.BLI, OUTLIN.BLI, RINIT.BLI, & SKIPL.BLI. This process also required that the require files needing BPOSIT, LSTBTS, & NBITS be modified accordingly; they are: GCA.REQ, IRAC.REQ, LODEFS.REQ, SCA.REQ, & TSF.REQ.

JPK fixed a bug in TCX.BLI where the wrong message was given when an empty .BIX file is processed. REM also made some alterations in some of the comments, paging, & updated the copyright.

JPK also fixed another bug in TCX.BLI where if one gave it more than one input file, it might not put any index entries into the resulting output file. (Two input files always generated an empty output file.)

Fixed bugs where errors detected opening any file would cause several XPORT error messages and then one of our own. The XPORT messages have been suppressed. Our own message was incomplete in that it didn't identify the file in question -- it now does. We also not pickup the primary reason for the open failure from XPORT and hand it off to the users follow-

```

: 1027 1026 1 |
: 1028 1027 1 |
: 1029 1028 1 |
: 1030 1029 1 |
: 1031 1030 1 |
: 1032 1031 1 |
: 1033 1032 1 |
: 1034 1033 1 |
: 1035 1034 1 |
: 1036 1035 1 |
: 1037 1036 1 |
: 1038 1037 1 |
: 1039 1038 1 |
: 1040 1039 1 |
: 1041 1040 1 |
: 1042 1041 1 |
: 1043 1042 1 |
: 1044 1043 1 |
: 1045 1044 1 |
: 1046 1045 1 |
: 1047 1046 1 |
: 1048 1047 1 |
: 1049 1048 1 |
: 1050 1049 1 |
: 1051 1050 1 |
: 1052 1051 1 |
: 1053 1052 1 |
: 1054 1053 1 |
: 1055 1054 1 |
: 1056 1055 1 |
: 1057 1056 1 |
: 1058 1057 1 |
: 1059 1058 1 |
: 1060 1059 1 |
: 1061 1060 1 |
: 1062 1061 1 |
: 1063 1062 1 |
: 1064 1063 1 |
: 1065 1064 1 |
: 1066 1065 1 |
: 1067 1066 1 |
: 1068 1067 1 |
: 1069 1068 1 |
: 1070 1069 1 |
: 1071 1070 1 |
: 1072 1071 1 |
: 1073 1072 1 |
: 1074 1073 1 |
: 1075 1074 1 |
: 1076 1075 1 |
: 1077 1076 1 |
: 1078 1077 1 |
: 1079 1078 1 |
: 1080 1079 1 |
: 1081 1080 1 |
: 1082 1081 1 |
: 1083 1082 1 |

```

ing our primary error message. Files modified: CLH.BLI, DOOPTS.BLI, ERROR.BLI, FOOFIL.BLI, GLBDAT.BLI, REQUIR.BLI, RUNOFF.BLI, & MSGTXT.REQ.

Conditionalize all FLIP related code additionally on BLISS32. Actually, this version only partially implements this -- the next version will complete it. The files done for this pass are: CLH.BLI, RINIT.BLI, GCA.REQ, & RNODEF.REQ.

2.1-02 REM00037 Ray Marshall 12-August-1982
Increased the limits on nesting depths for .LIST and .NOTE from 7 to 15. The changed module was FRMSTK.REQ, which is used by: GLBDAT.BLI RINIT.BLI RSDERM.BLI STKFRM.BLI Updated the VMS command line interface (RNOVMS.B32) to make it work again. VMS added two more return values to their CLISPRESNT system service call.
Added several fields to RNOMAC.REQ to support futures. It is used by: DOOPTS.BLI GLBDAT.BLI RNOVMS.B32 RUNOFF.BLI Fixed problem where an attempt to delete the output file when it is either NL:, TT:, or TTY: caused many XPORT messages that didn't mean anything to the user. Changes were made to CLH.BLI.
Added top level logic for DSR16. Previously (and previous to the logic implemented in 2.0-015), the module RUNTOP.B16 was compiled and linked in as the MAIN routine. Its logic has been moved into this routine (RNOVRS) and conditionalized on BLISS16.
RNORSX.B16 has been substantially modified to allow support for the new switches /[NO]LOG and /DEC_INTERNAL. The switches that had been implemented to support the various options of the /MESSAGES and /DEBUG qualifiers have been removed because the above switches are now properly implemented and take parameters the same as in DSR32 and DSR20.

2.1-01 KAD00036 Keith Dawson 30-June-1982
Fixed 3 bugs:
(1) dsr/dsrplus, .nmpg-.nmspg acted differently than .nmspg-.nmpg: module NM.
(2) dsrplus, .sth [lev=n, defaults] gave RNFINM '0' message: module STYLE.
(3) dsrplus, .flag <any> k failed to disable a previous flag character, which was recognized but not effective: module OFF.

2.1 KAD00035 Keith Dawson 13-May-1982
Added DSRPLUS support:
- .XPLUS / .YPLUS
- .FLAGS NOPERMUTE
- .ENABLE XPLUS
- .HEADER <example/figure/table>
- .DISPLAY <e/f/t>, .NUMBER <e/f/t>, .STYLE <e/f/t>
- keyworded .STHL syntax
Modified this module to identify RUNOFF as V2.1 and DSRPLUS as X2.1. Also, all of the above "support" items have been merged into the RUNOFF sources, but conditionalized to only compile in when compiling DSRPLUS.

```

: 1084 1083 1 |
: 1085 1084 1 |
: 1086 1085 1 |
: 1087 1086 1 |
: 1088 1087 1 |
: 1089 1088 1 |
: 1090 1089 1 |
: 1091 1090 1 |
: 1092 1091 1 |
: 1093 1092 1 |
: 1094 1093 1 |
: 1095 1094 1 |
: 1096 1095 1 |
: 1097 1096 1 |
: 1098 1097 1 |
: 1099 1098 1 |
: 1100 1099 1 |
: 1101 1100 1 |
: 1102 1101 1 |
: 1103 1102 1 |
: 1104 1103 1 |
: 1105 1104 1 |
: 1106 1105 1 |
: 1107 1106 1 |
: 1108 1107 1 |
: 1109 1108 1 |
: 1110 1109 1 |
: 1111 1110 1 |
: 1112 1111 1 |
: 1113 1112 1 |
: 1114 1113 1 |
: 1115 1114 1 |
: 1116 1115 1 |
: 1117 1116 1 |
: 1118 1117 1 |
: 1119 1118 1 |
: 1120 1119 1 |
: 1121 1120 1 |
: 1122 1121 1 |
: 1123 1122 1 |
: 1124 1123 1 |
: 1125 1124 1 |
: 1126 1125 1 |
: 1127 1126 1 |
: 1128 1127 1 |
: 1129 1128 1 |
: 1130 1129 1 |
: 1131 1130 1 |
: 1132 1131 1 |
: 1133 1132 1 |
: 1134 1133 1 |
: 1135 1134 1 |
: 1136 1135 1 |
: 1137 1136 1 |
: 1138 1137 1 |
: 1139 1138 1 |
: 1140 1139 1 |

```

2.0-016 REM00034 Ray Marshall 4-May-1982
Fixed bug where too large a /DOWN value caused RUNOFF to go into an infinite loop outputting blank pages. The modules modified were TOPPAG.BLI & PHDEF.REQ. Also, one warning and two informational messages were added to MSGTXT.REQ and to DSRMSG.MSG.
In the above fix a literal was added to PHDEF defining the minimum page length that can be defined. PAGE.BLI has been modified to use the new literal instead of the value being hard coded (as it formally was).
Fixed a bug where un-numbered header levels had problems properly dealing with the left margin. The only module modified for this fix was HL.BLI.
Fixed bug in RNOT20.B36: When an input filespec was specified with a logical and without using filename completion, the logical was used as the default filename for the output filespec.
Modified MSGTXT.REQ to allow RNFGFC to identify itself in DSR36 as it currently does in DSR32.
Fixed bug where very large .RIGHT and .CENTER values gave DSR a bad case of argita -- overwriting work and code memory space and causing misc. failures depending on the size of the values. The fix for both was in ALINE.BLI.
There was a condition where .RPT # '.' was considered an illegal command because it was planned to eventually allow directives to be repeated. Well, the time is now. REPEAT.BLI has been modified to allow RUNOFF directives to be repeated. Also, PUS in module PUS.BLI was modified to require a parameter and the call to it within RUNOFF.BLI was updated. The only caveat is that the .REPEAT directive can only be nested to level two (2). This is because there are only two valid delimiter characters: single and double quotes.
Fixed a bug where subindex entries too deeply nested would cause unfriendly reactions from both RUNOFF and TCX. For RUNOFF, the fix is in XPRT.BLI. For TCX, it's in XPASSA.BLI.
Modified TOPS-20 command line interface (RNOT20.B36) to allow a ^Z to cause an exit from RUNOFF.
Fixed a bug in CNVDAT.BLI where a year value less than 10 would include a garbage character when translated for output.
Added to the TOPS-20 command line interface (RNOT20.B36) a /HELP switch that will type out HLP:RUNOFF.HLP if it exists.

2.0-015 REM00033 Ray Marshall 26-April-1982
Modified this module and all command line interface modules (RNOVMS.B32, RNOT20.B36, & RNOT10.B36). Now, this module contains the MAIN routine (DSR) for RUNOFF. It calls the command line interface routine (RNOCLI). By doing this, the version identification is automatically setup for all implementations. It also removed the need for RNOVRS.MAC on TOPS10 & TOPS20. Therefore, RUNOFF is now 100% BLISS sources for the first time.
Fixed bug in FNONLY.BLI where RNFAAA was reported instead of RNFTMF. This was not exhibited on VMS because of the different method of passing parameters used on that system.
Fixed bug where /PAGES:"- " caused ACCVIO in DSR32 and garbage to be output in DSR36. DCOPTS.BLI was modified.

```
1141 1140 1 |
1142 1141 1 |
1143 1142 1 |
1144 1143 1 |
1145 1144 1 |
1146 1145 1 |
1147 1146 1 |
1148 1147 1 |
1149 1148 1 |
1150 1149 1 |
1151 1150 1 |
1152 1151 1 |
1153 1152 1 |
1154 1153 1 |
1155 1154 1 |
1156 1155 1 |
1157 1156 1 |
1158 1157 1 |
1159 1158 1 |
1160 1159 1 |
1161 1160 1 |
1162 1161 1 |
1163 1162 1 |
1164 1163 1 |
1165 1164 1 |
1166 1165 1 |
1167 1166 1 |
1168 1167 1 |
1169 1168 1 |
1170 1169 1 |
1171 1170 1 |
1172 1171 1 |
1173 1172 1 |
1174 1173 1 |
1175 1174 1 |
1176 1175 1 |
1177 1176 1 |
1178 1177 1 |
1179 1178 1 |
1180 1179 1 |
1181 1180 1 |
1182 1181 1 |
1183 1182 1 |
1184 1183 1 |
1185 1184 1 |
1186 1185 1 |
1187 1186 1 |
1188 1187 1 |
1189 1188 1 |
1190 1189 1 |
1191 1190 1 |
1192 1191 1 |
1193 1192 1 |
1194 1193 1 |
1195 1194 1 |
1196 1195 1 |
1197 1196 1 |
```

At this point, RUNOFF V2.0-015 is now available on VMS, TOPS10,
& TOPS20 (native!). All systems are now in sync. with each
other.

2.0-014 REM00032 Ray Marshall 12-March-1982
Changed DOOPTS.BLI to allow the underline character received
when the /NOUNDERLINE qualifier is issued. This fixes the
VMS QAR # 01162.

2.0-013 REM00031 Ray Marshall 3-March-1982
Made changes to RNOVMS.B32 to pickup character parameters as
octal, decimal, or hexadecimal values as well as the
specified character. Also corrected bug where /DEBUG would
set all the change character flags and one of the contents
flags. Also corrected bug where some numeric parameters
would overlay adjacent fields within RNOMAC.
Made changes to DOOPTS to do range checking for all qualifiers
that can take numeric parameters.
With the above changes, it is now much easier to cause a
condition where an attempt is made to delete the output file
(mainly because it has been opened, but can't be used). If
the output is actually being sent to a terminal, XPORT
reports and exits ungracefully! Therefore, CLH.BLI has been
modified to now check before deleting and if the output is
going to a terminal, it isn't deleted -- just closed.
Made changes to MSGTXI.REQ to fix some gramatical errors in
several of the messages.
Keith made still another change to HL.BLI to fix another bug
in the processing of header levels.
Fixed bug in LOUT.BLI that caused register dump under certain
conditions.

2.0-012 REM00030 Ray Marshall 25-January-1982
Made changes to command line interface to correct for changes
VMS-land made to CLI. Also added code to put additionally
available information into RNOMAC.REQ. Modified RNOVMS.B32.

2.0-011 REM00029 Ray Marshall 13-January-1982
Keith fixed a bug where if one issued a .FOOTNOTE directive and
forgot to terminate it with a .END FOOTNOTE directive, RUNOFF
would go into an infinite loop trying to find a page to on
which to put the footnote when it tried to terminate. This
only involved a change in RTERM.BLI.
At the same time, Keith also fixed a bug newly re-introduced
where a .PAGE directive as the late thing in the input file
forgot how to put a <ff> at the end of the output file. This
too involved a change in RTERM.BLI.

2.0-010 REM00028 Ray Marshall 30-December-1981
Fix mistake made in CLH.BLI. To save much room in the CMS
library, the corrected CLH was saved in version 009. So this
version is only to record that something did happen. The
mistake was that not all of the related-require logic was
removed from CLH when we went to 009 and as that version had
already been made available to many users, it was not fair to
just change it (in a way that was from their point of view a
bug fix) and say nothing. Therefore, this new version. In

```

: 1198      1197  1 |
: 1199      1198  1 |
: 1200      1199  1 |
: 1201      1200  1 |
: 1202      1201  1 |
: 1203      1202  1 |
: 1204      1203  1 |
: 1205      1204  1 |
: 1206      1205  1 |
: 1207      1206  1 |
: 1208      1207  1 |
: 1209      1208  1 |
: 1210      1209  1 |
: 1211      1210  1 |
: 1212      1211  1 |
: 1213      1212  1 |
: 1214      1213  1 |
: 1215      1214  1 |
: 1216      1215  1 |
: 1217      1216  1 |
: 1218      1217  1 |
: 1219      1218  1 |
: 1220      1219  1 |
: 1221      1220  1 |
: 1222      1221  1 |
: 1223      1222  1 |
: 1224      1223  1 |
: 1225      1224  1 |
: 1226      1225  1 |
: 1227      1226  1 |
: 1228      1227  1 |
: 1229      1228  1 |
: 1230      1229  1 |
: 1231      1230  1 |
: 1232      1231  1 |
: 1233      1232  1 |
: 1234      1233  1 |
: 1235      1234  1 |
: 1236      1235  1 |
: 1237      1236  1 |
: 1238      1237  1 |
: 1239      1238  1 |
: 1240      1239  1 |
: 1241      1240  1 |
: 1242      1241  1 |
: 1243      1242  1 |
: 1244      1243  1 |
: 1245      1244  1 |
: 1246      1245  1 |
: 1247      1246  1 |
: 1248      1247  1 |
: 1249      1248  1 |
: 1250      1249  1 |
: 1251      1250  1 |
: 1252      1251  1 |
: 1253      1252  1 |
: 1254      1253  1 |

```

the future it will not be possible to generate 009 with the bug back in it because the buggy version of CLH has been destroyed!

RNOMAC.REQ was modified (by Keith Dawson) to provide two bits of information for most of the qualifiers (or switches). This information is currently unused in DSR, but for future expansion. The information now provided is NEGATED, DEFAULTED, ASSERTED, or 'none of the above'. All of this information is provided by the VMS command line interface, it just isn't currently used. To pickup the changed format, 4 modules were recompiled, but not yet changed: DOOPTS.BLI, GLBDAT.BLI, RUNOFF.BLI, and RNOVMS.B32.

2.0-009 REM00027 Ray Marshall 12-December-1981
Fixed bug where if the current INDEX and SUBINDEX flags are different and one tried to set to SUBINDEX to the current INDEX flag character, an error would result and the new flag would not be set. This required treating the .FLAGS SUBINDEX directive as a special case. The modules modified are GETONE and OFT.

Rolled back the related require file work to be compatible with RMS's definition of what should happen. Left in the require file extension defaulting to .RNO as it seems a fair thing to do. The only file involved in this change is CLH.BLI.

Fixed problem where a fatal error on the qualifier (switch) parameters parsed by DOOPTS would leave around an empty output (.MEM or as user specified) file. The file is now removed. The files involved in this fix are CLH.BLI, CLHOPS.REQ, GCA.REQ;, & RUNOFF.BLI.

2.0-008 REM00026 Ray Marshall 18-December-1981
Folded in Rich Friday's re-write of footnote processing. The modules involved are:

NO CHANGES:
STC.BLI WAS RECOMPILED TO PICKUP CHANGED REQUIRE FILE(S).

MODIFIED:
AREC.BLI, CARAGE.BLI, DOCM.BLI, ELSEN.BLI, ENDWRD.BLI
FIGURE.BLI, FNONLY.BLI, FOOFIL.BLI, FOOFIL.REQ, FOOOUT.BLI
GCA.REQ, GCODE.BLI, GLBDAT.BLI, LOUT.BLI, MAKNDX.BLI
MSGTXT.REQ, NEWPAG.BLI, OUTLIN.BLI, OUTXHR.BLI, RINIT.BLI
RNFERM.BLI, RNOVRS.BLI, RTERM.BLI, SCA.REQ, SKIPL.BLI
TITLES.BLI, TPR.BLI, TSF.REQ

NEW FILES:
BOTPAG.BLI, FNCT.REQ, FOOBOT.BLI, PANPA.BLI, TOPPAG.BLI

Folded in Rich Friday's "change bars bug fix". The modules affected are:

ENDWRD.BLI, FCIMRA.BLI, LSTOPS.BLI, OUTLIN.BLI, TSF.REQ

2.0-007 REM00025 Ray Marshall 21-November-1981
Added /[NO]LOG and /DEC_INTERNAL qualifiers to RNOVMSV3.BLI and made appropriate changes to DOOPTS.BLI and GCA.REQ. Also modified RTERM.BLI to take appropriate action on the /NOLOG qualifier. Now, the termination message will only


```

: 1255      1254  1  |
: 1256      1255  1  |
: 1257      1256  1  |
: 1258      1257  1  |
: 1259      1258  1  |
: 1260      1259  1  |
: 1261      1260  1  |
: 1262      1261  1  |
: 1263      1262  1  |
: 1264      1263  1  |
: 1265      1264  1  |
: 1266      1265  1  |
: 1267      1266  1  |
: 1268      1267  1  |
: 1269      1268  1  |
: 1270      1269  1  |
: 1271      1270  1  |
: 1272      1271  1  |
: 1273      1272  1  |
: 1274      1273  1  |
: 1275      1274  1  |
: 1276      1275  1  |
: 1277      1276  1  |
: 1278      1277  1  |
: 1279      1278  1  |
: 1280      1279  1  |
: 1281      1280  1  |
: 1282      1281  1  |
: 1283      1282  1  |
: 1284      1283  1  |
: 1285      1284  1  |
: 1286      1285  1  |
: 1287      1286  1  |
: 1288      1287  1  |
: 1289      1288  1  |
: 1290      1289  1  |
: 1291      1290  1  |
: 1292      1291  1  |
: 1293      1292  1  |
: 1294      1293  1  |
: 1295      1294  1  |
: 1296      1295  1  |
: 1297      1296  1  |
: 1298      1297  1  |
: 1299      1298  1  |
: 1300      1299  1  |
: 1301      1300  1  |
: 1302      1301  1  |
: 1303      1302  1  |
: 1304      1303  1  |
: 1305      1304  1  |
: 1306      1305  1  |
: 1307      1306  1  |
: 1308      1307  1  |
: 1309      1308  1  |
: 1310      1309  1  |
: 1311      1310  1  |

```

be output if /LOG is explicitly stated or errors occur. The most important use of the /DEC_INTERNAL qualifier is two 16 bit flag words to be used for builtin diagnostic coding -- Basic syntax: /DEC=(DBG1=#,DBG2=#) where # is a hex value or something like %0777 or %D1048 or %X2B0A. The /DEC_INTERNAL is supported by using LIB\$PARSE. This means that the keywords do not appear in the command line definition file, but are buried in RNOVMSV3.BLI. It also means that RUNOFF's DCL command table does not have to be changed to add more keywords to THIS qualifier!

Over 50 modules had to be recompiled to pickup the new GCA.REQ because it is now 64 storage units long. Only the ones specifically named were modified.

Another several (making a total of 61) modules had to be recompiled to pickup bugfixes to XPORT.

I modified the references (in RNOVMSV3.BLI) to the values returned by CLIS\$PRESENT. This module now uses the VMS defined literals: CLIS\$ABSENT, CLIS\$DEFAULTED, CLIS\$NEGATED, and CLIS\$PRESENT. Input file concatenation will not be supported until VMS land supports it.

2.0-006 REM00024 Ray Marshall 11-November-1981
Fixed bug in NEWPAG where very small page widths caused crash. Corrected RNOVMSV3 for changes to return value of CLIS\$PRESENT VMS system service implemented in VMS V3A.

2.0-005 REM00023 Ray Marshall 3-November-1981
Fix bug where hyphenate and break flags caused next character to be upcased in headers. DOFLG.BLI was modified for this.

Two fixes made to HL.BLI:

- 1 A run-in header ending with a space caused a program crash with a register-dump.
- 2 Justification was set to the gender of the AUTOJUSTIFICATION. Now it also takes the JUSTIFICATION flag into account.

In RNOVMSV3.B32, we were referencing INFIL to get the input filename. Unfortunately, in RUNOFFV3A.CLD the label was called P1. For now, RNOVMSV3.B32 has been modified to refer to P1, but in the future, it should be changed back to INFIL and the P1 entry in RUNOFFV3A.CLD should have LABEL=INFIL added to it.

2.0-004 REM00022 Ray Marshall 16-October-1981
Keith modified CLH & GLBDAT.BLI to make files specified in the .REQUIRE directive related to directory location of the file containing the directive.
Keith modified HL.BLI, TITLES.BLI, and NEWPAG.BLI to support long header level text. It now wraps in the .MEM file. Also, if its being .AUTOSUBTITLED into the subtitle field, it will be truncated to fit between the left of the page and the right margin (or date field if being output).
Changes made to MSGTXT.REQ to cleanup more message strangness'.
Changes made to EMSG.B32 and ERROR.BLI to cleanup some

```

: 1312
: 1313
: 1314
: 1315
: 1316
: 1317
: 1318
: 1319
: 1320
: 1321
: 1322
: 1323
: 1324
: 1325
: 1326
: 1327
: 1328
: 1329
: 1330
: 1331
: 1332
: 1333
: 1334
: 1335
: 1336
: 1337
: 1338
: 1339
: 1340
: 1341
: 1342
: 1343
: 1344
: 1345
: 1346
: 1347
: 1348
: 1349
: 1350
: 1351
: 1352
: 1353
: 1354
: 1355
: 1356
: 1357
: 1358
: 1359
: 1360
: 1361
: 1362
: 1363
: 1364
: 1365
: 1366
: 1367
: 1368

```

```

1311 1
1312 1
1313 1
1314 1
1315 1
1316 1
1317 1
1318 1
1319 1
1320 1
1321 1
1322 1
1323 1
1324 1
1325 1
1326 1
1327 1
1328 1
1329 1
1330 1
1331 1
1332 1
1333 1
1334 1
1335 1
1336 1
1337 1
1338 1
1339 1
1340 1
1341 1
1342 1
1343 1
1344 1
1345 1
1346 1
1347 1
1348 1
1349 1
1350 1
1351 1
1352 1
1353 1
1354 1
1355 1
1356 1
1357 1
1358 1
1359 1
1360 1
1361 1
1362 1
1363 1
1364 1
1365 1
1366 1
1367 1
1368 1

```

```

inconsistancies with the MRC & NIC messages and remove
special casing of LOM message.
Changes made to RUNOFF.BLI and RNFERM.BLI to check that both
MSGTXT.REQ & DSRMSG.MSG define the same number of errors.
Modified RSDERM.BLI to get the MRC error message to correctly
report the number of unreported MRG errors.
In DSRMSG.MSG, changed MRC & NIC from informational to warning.
Added another control sequence to message processing. Now a XX
will cause the insertion of a lower case 's' if the passed
numeric parameter's value is other than 1. Changes were made
to MSGTXT.REQ and ERROR.BLI to support this. Then to make
use of this new sequence, RTERM.BLI was modified to eliminate
the ERR & PCI messages and the logic which use to print them
instead of ERD & PCI respectively.

2.0-003 REM00021      Ray Marshall      9-October-1981
I modified error count reporting to indicate number of errors/
warnings instead of count on error lines output. To do
this, I modified MSGTXT.REQ, ERROR.BLI & RTERM.BLI.
For DSR-32, error messages now use the VMS $PUTMSG facility.
This involved changes in ERROR.BLI & MSGTXT.REQ, and the
creation of EMSG.B32 and DSRMSG.MSG. The later file must
be used as input to the VMS utility MESSAGE -- the output
of which is an object file to be put in the object library.
I made many textual changes to messages in MSGTXT.REQ.
Added check in RUNOFF.BLI to see that DSRMSG.MSG and MSGTXT.REQ
both define the same number of messages. I don't see an
efficient way of doing a full compatability check within DSR.
However, a future effort will be to write a small program to
use both files and see that they are synchronized.

2.0-002 REM00020      Ray Marshall      28-September-1981
New edit level to accomplish the following:
Change edit level identification to 3 digit value.
Changes made to MSGTXT.REQ: JEC error message is more
diplomatic, new require file header, and cleanup history.
Change to FNOPLY to make footnotes respond to /[NO]AUTOJUSTIFY.
Cosmetic changes to DOOPTS, LOUT, RNOMAC.REQ, & OUTOPT.REQ. So
the .BLIs were recompiled with new version numbers.

2.0-1 REM00019      Ray Marshall      14-September-1981
Now using the new V3A command line interface.
Fixed the problem where /NOCHANGES and /CHANGES=0 have no
effect. A change was made to the new V3A form of RNOVMS.B32
to fix this one.
Rich Friday modified NM.BLI & GLNM.BLI so that the .NMLS [#],#
directive now is .NMLS [#],#. NOTE that the comma is no
longer required. Its being required till now has been the
cause of some confusion and several internal bug reports
(which, I should point out, were not really bugs, but user
confusion!). His changes have been included in this version.

2.0 REM00018      Ray Marshall      26-August-1981
No changes to any other modules. The only changes are in this
module causing it to now identify DSR as V2.0.

1.126k REM00017      Ray Marshall      26-August-1981

```

```

: 1369      1368  1 |
: 1370      1369  1 |
: 1371      1370  1 |
: 1372      1371  1 |
: 1373      1372  1 |
: 1374      1373  1 |
: 1375      1374  1 |
: 1376      1375  1 |
: 1377      1376  1 |
: 1378      1377  1 |
: 1379      1378  1 |
: 1380      1379  1 |
: 1381      1380  1 |
: 1382      1381  1 |
: 1383      1382  1 |
: 1384      1383  1 |
: 1385      1384  1 |
: 1386      1385  1 |
: 1387      1386  1 |
: 1388      1387  1 |
: 1389      1388  1 |
: 1390      1389  1 |
: 1391      1390  1 |
: 1392      1391  1 |
: 1393      1392  1 |
: 1394      1393  1 |
: 1395      1394  1 |
: 1396      1395  1 |
: 1397      1396  1 |
: 1398      1397  1 |
: 1399      1398  1 |
: 1400      1399  1 |
: 1401      1400  1 |
: 1402      1401  1 |
: 1403      1402  1 |
: 1404      1403  1 |
: 1405      1404  1 |

```

Fixes in NM.BLI, PAGE.BLI, RUNTAB.REQ, & TITLE.BLI. LP1.BLI
has been recompiled to pickup the changes to RUNTAB.
The changes have the following effects:
1) .NUMBER RUNNING will no longer turn on paging.
2) .PAGING now invokes GCPAGE thereby forcing a new page
3) .RM with a null parameter will now pickup the current
page width and use it to set the new right margin.

1.126j KAD00016 Keith Dawson 25-August-1981
Cleaned up bugs introduced by /QUICK.

1.126i KAD00015 Keith Dawson 21-August-1981
Add support for /QUICK switch, and for /UNDERLINE_CHARACTER,
/SEPARATE_UNDERLINE, and /NONSPACING_UNDERLINE.

1.126h REM00014 Ray Marshall 14-August-1981
Re-fix a bug in SUBPAG.BLI that somehow got lost. (KAD)
Some minor rework of messages in MSGTXT.REQ. (KAD)
Modify RUNOFF.BLI to return appropriate values in \$STATUS
when in the VMS environment. (REM)
Modified revision history of this module to match VMS
standards. (REM)

1.126g REM00013 Ray Marshall 14-July-1981
Revamped the way error messages are generated and eliminated the
need for MSG.REQ. Major changes made to: MSGTXT.REQ,
RNFERM.BLI, DOOPTS.BLI, & CLH.BLI.

1.126f REM00012 Ray Marshall 14-July-1981
Bug Fixes. See the following source file: NM.BLI

1.126e REM00011 Ray Marshall May 1981
Recompile and relink using the new XPORT V1.0.

1.126d KAD00010 K. A. Dawson July 1980

```
: 1407      1405 1 %SBTTL 'module level definitions'
: 1408      U 1406 1 %IF %BLISS(BLISS16) %THEN
: 1409      UU 1407 1 LIBRARY 'NXPORT:XPORT';
: 1410      UU 1408 1 REQUIRE 'REQ:RNOMAC';
: 1411      UU 1409 1
: 1412      UU 1410 1 LITERAL
: 1413      UU 1411 1     eof = 2;
: 1414      UU 1412 1
: 1415      UU 1413 1 OWN
: 1416      UU 1414 1     exit_flag : INITIAL (0),      ! Exit status of RNORSX
: 1417      UU 1415 1     iteration : INITIAL (0),    ! Count of times RNORSX is called
: 1418      UU 1416 1     status;                          ! Exit status of RUNOFF
: 1419      UU 1417 1
: 1420      UU 1418 1 EXTERNAL
: 1421      UU 1419 1     r_cmd : $RNO_CMD;                ! RUNOFF's command tables
: 1422      UU 1420 1
: 1423      UU 1421 1 BIND
: 1424      U 1422 1     dsc = r_cmd [rno$t_input] : $STR_DESCRIPTOR ();
: 1425      1423 1 %FI
: 1426      1424 1
: 1427      1425 1 EXTERNAL ROUTINE
: 1428      1426 1
: 1429      U 1427 1 %IF %BLISS(BLISS16) %THEN
: 1430      UU 1428 1     bl$xit,                          ! Used to return to the operating system
: 1431      U 1429 1     runoff,                          ! Start of the work detail
: 1432      1430 1 %FI
: 1433      1431 1
: 1434      1432 1     rnocli;                            ! Picks up the command line information
: 1435      1433 1
: 1436      1434 1 FORWARD ROUTINE
: 1437      1435 1     dsr;
: 1438      1436 1
: 1439      1437 1 !
: 1440      1438 1 ! INCLUDE FILES:
: 1441      1439 1 !
: 1442      1440 1
: 1443      1441 1 LIBRARY 'NXPORT:XPORT';                ! XPORT Library
: 1444      1442 1 REQUIRE 'REQ:RNODEF';                ! RUNOFF variant definitions
: 1445      1573 1
: 1446      U 1574 1 %IF DSRPLUS %THEN
: 1447      U 1575 1 LIBRARY 'REQ:DPLLIB';                ! DSRPLUS BLISS Library
: 1448      1576 1 %ELSE
: 1449      1577 1 LIBRARY 'REQ:DSRLIB';                ! DSR BLISS Library
: 1450      1578 1 %FI
: 1451      1579 1
: 1452      1580 1 !
: 1453      1581 1 ! GLOBAL STORAGE:
: 1454      1582 1 !
: 1455      1583 1 GLOBAL
: 1456      U 1584 1 %IF DSRPLUS %THEN
: 1457      UU 1585 1     rnovrp : INITIAL (CH$PTR (UPLIT ('E3.0-06'))), ! Version # string
: 1458      U 1586 1     rnovrl : INITIAL (7);              ! Length of version string
: 1459      1587 1 %ELSE
: 1460      1588 1     rnovrp : INITIAL (CH$PTR (UPLIT ('V3.0'))), ! Version # string
: 1461      1589 1     rnovrl : INITIAL (4);              ! Length of version string
: 1462      1590 1 %FI
```

```

: 1464      1591 1 %SBTTL 'DSR -- Main routine for RUNOFF'
: 1465      1592 1 ROUTINE dsr
: 1466      1593 1
: 1467      U 1594 1 %IF %BLISS(BLISS36) %THEN
: 1468      U 1595 1
: 1469      U 1596 1 %IF %SWITCHES(TOPS10) %THEN
: 1470      U 1597 1 (p1, p2, p3, p4, ccl_offset)
: 1471      U 1598 1 %FI
: 1472      U 1599 1
: 1473      U 1600 1 %FI
: 1474      U 1601 1
: 1475      U 1602 1 =
: 1476      U 1603 1
: 1477      U 1604 1 %IF %BLISS(BLISS16) %THEN
: 1478      U 1605 1 BEGIN
: 1479      U 1606 1 iteration = .iteration + 1;
: 1480      U 1607 1
: 1481      U 1608 1 DO
: 1482      U 1609 1 BEGIN
: 1483      U 1610 1
: 1484      U 1611 1 | Call the command-line scanner to pick up files and options.
: 1485      U 1612 1 |
: 1486      U 1613 1 | exit_flag =
: 1487      U 1614 1 %FI
: 1488      U 1615 1
: 1489      U 1616 1 RNOCLI (
: 1490      U 1617 1
: 1491      U 1618 1 %IF %BLISS(BLISS36) %THEN
: 1492      U 1619 1 %IF %SWITCHES(TOPS10) %THEN
: 1493      U 1620 1 .p1, .p2, .p3, .p4, .ccl_offset
: 1494      U 1621 1 %FI
: 1495      U 1622 1
: 1496      U 1623 1 %FI
: 1497      U 1624 1
: 1498      U 1625 1 %IF %BLISS(BLISS16) %THEN
: 1499      U 1626 1 .iteration
: 1500      U 1627 1 %FI
: 1501      U 1628 1
: 1502      U 1629 1 );

```

```

.TITLE RNOVRS Main module -- DIGITAL Standard Runoff
.IDENT \V3.0\
.PSECT $PLITS,NOWRT,NOEXE,2
30 2E 33 56 0000 P.AAA: .ASCII \V3.0\
.PSECT $GLOBALS,NOEXE,2
00000000' 0000 RNOVRP::.ADDRESS P.AAA
00000004 0004 RNOVRL::.LONG 4
.EXTRN RNOCLI
.PSECT $CODE$,NOWRT,2

```

00000000G EF 0000 00000 DSR: .WORD Save nothing
 00 FB 00002 CALLS #0, RNOCLI
 04 00009 RET

: 1600
: 1616
: 1629

: Routine Size: 10 bytes, Routine Base: \$CODE\$ + 0000

```

: 1503           1630 1
: 1504    U 1631 1 %IF %BLISS(BLISS16) %THEN
: 1505    U 1632 1
: 1506    U 1633 1                    : If there is an input file and a ^Z hasn't been detected in the
: 1507    U 1634 1                    : command input, call RUNOFF to process the command line.
: 1508    U 1635 1
: 1509    U 1636 1                    IF .dsc[.str$h_length] NEQ 0
: 1510    U 1637 1                    THEN
: 1511    U 1638 1                    status = RUNOFF (r_cmd);
: 1512    U 1639 1                    END
: 1513    U 1640 1
: 1514    U 1641 1                    UNTIL .exit_flag GTR 0;
: 1515    U 1642 1
: 1516    U 1643 1                    BL$XIT ()                    ! Return to the system.
: 1517    U 1644 1
: 1518    U 1645 1                    END;                         ! End of routine DSR.
: 1519           1646 1 %FI
: 1520           1647 1
: 1521           1648 1 END                                         ! End of module RNOVRS.
: 1522           1649 0 ELUDOM

```

PSECT SUMMARY

Name	Bytes	Attributes
\$SPLITS	4	NOVEC,NOWRT, RD ,NOEXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)
\$GLOBALS	8	NOVEC, WRT, RD ,NOEXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)
\$CODE\$	10	NOVEC,NOWRT, RD , EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)

Library Statistics

File	Symbols		Pages Mapped	Processing Time
	Total	Loaded Percent		
_\$255\$DUA28:[SYSLIB]XPORT.L32;1	590	0 0	252	00:00.1
_\$255\$DUA28:[RUNOFF.SRC]DSRLIB.L32;1	1248	0 0	86	00:00.3

RNOVRS
V3.0

Main module -- DIGITAL Standard Runoff
DSR -- Main routine for RUNOFF

C 11
16-Sep-1984 01:39:38
14-Sep-1984 13:07:55

VAX-11 Bliss-32 V4.0-742
[RUNOFF.SRC]RNOVRS.BLI;1

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(4)

RSI
VO

COMMAND QUALIFIERS

BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS\$:RNOVRS/OBJ=OBJ\$:RNOVRS MSRC\$:RNOVRS/UPDATE=(ENH\$:RNOVRS)

: Size: 10 code + 12 data bytes
: Run Time: 00:10.3
: Elapsed Time: 00:27.1
: Lines/CPU Min: 9587
: Lexemes/CPU-Min: 3046
: Memory Used: 17 pages
: Compilation Complete

0348

AH-BT13A-SE
VAX/VMS V4.0

DIGITAL EQUIPMENT CORPORATION
CONFIDENTIAL AND PROPRIETARY

A grid of 15 columns and 15 rows of small terminal window screenshots. Each window displays text-based data, including headers like 'RNODEF LIS', 'RSDERM LIS', 'RTERM LIS', 'RNOFF LIS', 'RNOUMS LIS', 'RNO DAT LIS', 'RNOURS LIS', 'RNFERM LIS', 'RSKIPS LIS', and 'SAURES LIS'. The content within these windows consists of lists, tables, and status information typical of a VAX/VMS system interface.