

0001 0
0002 0
0003 0
0004 0
0005 0
0006 0
0007 0
0008 0
0009 0
0010 0
0011 0
0012 0
0013 0
0014 0
0015 0
0016 0
0017 0
0018 0
0019 0
0020 0
0021 0
0022 0
0023 0
0024 0
0025 0
0026 0
0027 0
0028 0
0029 0
0030 0
0031 0
0032 0
0033 0
0034 0
0035 0
0036 0
0037 0
0038 0
0039 0
0040 0
0041 0
0042 0
0043 0
0044 0
0045 0
0046 0
0047 0
0048 0
0049 0
0050 0
0051 0
0052 0
0053 0
0054 0
0055 0
0056 0
0057 0

RPGII Run-Time Library specific macros and symbols
File: RPLIB.REQ, Edit: DG1001

```
*****  
*  
* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
* DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.  
* ALL RIGHTS RESERVED.  
*  
* THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED  
* ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE  
* INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER  
* COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY  
* OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY  
* TRANSFERRED.  
*  
* THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE  
* AND SHOULD NOT BE CONSTRU_D AS A COMMITMENT BY DIGITAL EQUIPMENT  
* CORPORATION.  
*  
* DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS  
* SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.  
*  
*****
```

Author: Debess Grabazs, 24-May-1983

1-001 - Original. DG 24-May-1983

*
This file is the master source for RPLIB.L32.
It contains definitions for macros and symbols used internally to the
RPGII Run-Time Library.

LINKAGE

```
JSB_STR= JSB  
        (REGISTER = 0, REGISTER = 1 , REGISTER = 2):  
        NOTUSED (9, 10, 11),  
  
JSB_D= JSB  
        (REGISTER = 0, REGISTER = 1 ; REGISTER = 0, REGISTER = 1):  
        NOTUSED (6, 7, 8, 9, 10, 11),  
  
JSB_67= JSB  
        (REGISTER = 6, REGISTER = 7):  
        NOPRESERVE (2, 3, 4, 5, 6, 7)  
        NOTUSED (8, 9, 10, 11),  
  
JSB_678= JSB  
        (REGISTER = 6, REGISTER = 7, REGISTER = 8):  
        NOPRESERVE (2, 3, 4, 5, 6, 7, 8)  
        NOTUSED (9, 10, 11),  
  
JSB_6789= JSB
```

R
S
R

P
-
.
-
P
I
C
P
S
P
S
P
C
A
T
2
T
1
0

M
-
I
-
O
T
M

I 15
16-Sep-1984 02:08:58
15-Sep-1984 22:49:32

VAX-11 Bliss-32 V4.0-742
_S255SDUA28:[RPGRTL.SRC]RPGLIB.REQ;1 Page 2 (1)

: 0058 0
: 0059 0
: 0060 0
: 0061 0
: 0062 0
: 0063 0
: 0064 0

(REGISTER = 6, REGISTER = 7, REGISTER = 8, REGISTER = 9):
NOPRESERVE (2, 3, 4, 5, 6, 7, 8, 9)
NOTUSED (10, 11);

LIBRARY 'RTLSTARLE'; ! SYSSLIBRARY:STARLET.L32
REQUIRE 'RTLIN:RPGDEF'; . Context area definitions

R0065 0
 R0066 0
 R0067 0
 R0068 0
 R0069 0
 R0070 0
 R0071 0
 R0072 0
 R0073 0
 R0074 0
 R0075 0
 R0076 0
 R0077 0
 R0078 0
 R0079 0
 R0080 0
 R0081 0
 R0082 0
 R0083 0
 R0084 0
 R0085 0
 R0086 0
 R0087 0
 R0088 0
 R0089 0
 R0090 0
 R0091 0
 R0092 0
 R0093 0
 R0094 0
 R0095 0
 R0096 0
 R0097 0
 R0098 0
 R0099 0
 R0100 0
 R0101 0
 R0102 0
 R0103 0
 R0104 0
 R0105 0
 R0106 0
 R0107 0
 R0108 0
 R0109 0
 R0110 0
 R0111 0
 R0112 0
 R0113 0
 R0114 0
 R0115 0
 R0116 0
 R0117 0
 R0118 0
 R0119 0
 R0120 0
 R0121 0

File: RPGDEF.REQ, Edit:LPT1015

```

*****
*
* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
* DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
* ALL RIGHTS RESERVED.
*
* THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED
* ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE
* INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER
* COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY
* OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY
* TRANSFERRED.
*
* THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE
* AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT
* CORPORATION.
*
* DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
* SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
*
*****

```

++

FACILITY: VAX RPG II

ABSTRACT:

This is a common definition file for VAX RPG II. All definitions of data structures that must be known by the compiler and the generated code and RTL support should be included here. This file should be required in COMLIB.REQ.

ENVIRONMENT: VAX/VMS user mode

AUTHOR: D. Braffitt, CREATION DATE: 12-Nov-1982

MODIFIED BY:

1-001	Original	DJB 12-Nov-1983
1-002	Add RPG\$ <u>L</u> _CTX_ERROR	LPT 14-Feb-1983
1-003	Add program control block macros	LPT 18-Mar-1983
1-004	Add RPG\$ <u>K</u> _ERR_SUBSC	LPT 24-Mar-1983
1-005	Add support for record control/sequence check blocks; add RPG\$ <u>IO</u> EXCEPTION error location constants; add current CTX area ID	DJB 11-Apr-1983
1-006	RPG\$ <u>S</u> _CTX_PRINTER should be 32.	DJB 12-Apr-1983
1-007	Add RPG\$ <u>V</u> _CTX_RNF.	DJB 14-Apr-1983
1-008	Change RPG\$ <u>A</u> _RCB_EXTFL to RPG\$ <u>A</u> _RCB_EXTFLD	LPT 25-Apr-1983
1-009	Add RPG\$ <u>V</u> _RCB_MATCH	LPT 10-Jun-1983
1-010	Fix offset of some RCB fields	LPT 10-Jun-1983
1-011	Add RPG\$ <u>V</u> _RCB_CNTRLF	LPT 22-Jun-1983

R0122 0
 R0123 0
 R0124 0
 R0125 0
 R0126 0
 R0127 0
 R0128 0
 R0129 0
 R0130 0
 R0131 0
 R0132 0
 R0133 0
 R0134 0
 R0135 0
 R0136 0
 R0137 0
 R0138 0
 R0139 0
 R0140 0
 R0141 0
 R0142 0
 R0143 0
 R0144 0
 R0145 0
 R0146 0
 R0147 0
 R0148 0
 R0149 0
 R0150 0
 R0151 0
 R0152 0
 R0153 0
 R0154 0
 R0155 0
 R0156 0
 R0157 0
 R0158 0
 R0159 0
 R0160 0
 R0161 0
 R0162 0
 R0163 0
 R0164 0
 R0165 0
 R0166 0
 R0167 0
 R0168 0
 R0169 0
 R0170 0
 R0171 0
 R0172 0
 R0173 0
 R0174 0
 R0175 0
 R0176 0

```

1-012 Add RPG$V_CTX_OVPEND LPT 5-Jul-1983
1-013 Correct PRINTER context area offsets DJB 05-Jul-1983
1-014 Add RPG$B_SCB_FLAGS DJB 20-Jul-1983
1-015 Delete RPG$A_CTX_MATCHAREA LPT 21-Nov-1983
  
```

--

+
 Definitions for the RPG II file context area.
 This area is allocated in PSECT \$LOCAL by the compiler
 for each file immediately preceding the RAB. The actual size allocated
 depends on the file type.

MACRO

RPG\$W_CTX_FLAGS=	-4,0,16,0 %	Flag bits
RPG\$V_CTX_UOFF=	-4,0,1,0 %	TRUE only if file is conditioned by an external indicator which is off
RPG\$V_CTX_EOF=	-4,1,1,0 %	TRUE only if file is at end of file
RPG\$V_CTX_LOOKAH=	-4,2,1,0 %	TRUE only if file is an input file which contains look-ahead fields
RPG\$V_CTX_RNF=	-4,3,1,0 %	TRUE only if last attempt to read from file resulted in record not found
RPG\$B_CTX_ID=	-1,0,8,0 %	Version number
RPG\$L_CTX_ERROR=	-8,0,32,0 %	Error number for RPG detected errors
RPG\$A_CTX_SCB=	-12,0,32,0 %	Address of current entry in the sequence control block
RPG\$A_CTX_READ=	-16,0,32,0 %	Address of the READ routine
RPG\$A_CTX_CRCB=	-20,0,32,0 %	Address of the current record control block
RPG\$A_CTX_OVIND=	-12,0,32,0 %	Address of the overflow indicator for this PRINTER file
RPG\$W_CTX_FL=	-14,0,16,0 %	# of lines on logical page (1-112)
RPG\$W_CTX_OL=	-16,0,16,0 %	Overflow line # (1-112)
RPG\$W_CTX_LINE=	-18,0,16,0 %	Current line on printed page
RPG\$W_CTX_PFLAGS=	-20,0,16,0 %	Flags for print control
RPG\$V_CTX_FIRST=	-20,0,1,0 %	TRUE only before first write to file
RPG\$V_CTX_1PFORMS=	-20,1,1,0 %	TRUE only if first page forms positioning has been requested
RPG\$V_CTX_OVLINE=	-20,2,1,0 %	TRUE is this is an overflow line
RPG\$V_CTX_OVPEND=	-20,3,1,0 %	TRUE if overflow is pending
RPG\$W_CTX_SKIPB=	-22,0,16,0 %	# of lines to space before printing (0-3)
RPG\$W_CTX_SKIPA=	-24,0,16,0 %	# of lines to space after printing (0-3)
RPG\$W_CTX_SPACEB=	-26,0,16,0 %	Line number to skip to before printing (1-112)
RPG\$W_CTX_SPACEA=	-28,0,16,0 %	Line number to skip after printing (1-112)

LITERAL

RPG\$K_CTX_ID=	1,	Current CTX area id
RPG\$S_CTX_OUTPUT=	8,	Size of context area for output files
RPG\$S_CTX_PRINTER=	28,	Size of context area for printer files
RPG\$S_CTX_INPUPD=	20;	Size of context area for input and update files

R0177 0
 R0178 0
 R0179 0
 R0180 0
 R0181 0
 R0182 0
 R0183 0
 R0184 0
 R0185 0
 R0186 0
 R0187 0
 R0188 0
 R0189 0
 R0190 0
 R0191 0
 R0192 0
 R0193 0
 R0194 0
 R0195 0
 R0196 0
 R0197 0
 R0198 0
 R0199 0
 R0200 0
 R0201 0
 R0202 0
 R0203 0
 R0204 0
 R0205 0
 R0206 0
 R0207 0
 R0208 0

```

+
Definitions for the RPGII file record control and sequence check blocks.
This area is allocated in PSECT $LOCAL by the compiler
for each input and update file immediately following the record buffer.
-

MACRO
  RPG$A_RCB_RECID=      0.0,32.0 %,  ! Addr of record identifying indicator
  RPG$A_RCB_EXTFLD=     4.0,32.0 %,  ! Addr of extract field routine
  RPG$A_RCB_MATCH_RTN=  8.0,32.0 %,  ! Addr of match field compare and
                                   ! extract code
  RPG$A_RCB_CFR=       12.0,32.0 %, ! Addr of control field compare routine
  RPG$W_RCB_FLAGS=    16.0,16.0 %,  ! Record control block flag bits
  RPG$V_RCB_SEQ=      16.0,1.0 %,   ! TRUE if record type is seq checked
  RPG$V_RCB_MATCH=    16.1,1.0 %,   ! TRUE if record type has match fields
  RPG$V_RCB_CNTRLF=   16.2,1.0 %,   ! TRUE if record type has control fields

  RPG$A_SCB_RCB=      0.0,32.0 %,  ! Address of the RCB of the record which
                                   ! is the current record in the sequence
  RPG$B_SCB_FLAGS=    4.0,8.0 %,   ! Sequence control block flag bits
  RPG$V_SCB_OPT=      4.0,1.0 %,   ! TRUE if record type is optional
  RPG$V_SCB_NO=       4.1,1.0 %,   ! TRUE if more than one of this record
                                   ! type may be present
  RPG$V_SCB_1SEEN=    4.2,1.0 %,   ! TRUE if one of the current record type
                                   ! has been seend
  RPG$V_SCB_LAST=     4.3,1.0 %,   ! TRUE if this is the end of the table
                                   ! and RPG$A_SCB_RCB contains the
                                   ! address of the 1st element in the SCB

LITERAL
  RPG$$RCB=           18,          ! Size of record control block
  RPG$$SCB=            5,          ! Size of sequence check block
  
```

```
R0209 0      !+
R0210 0      ! Definitions for RPG error handling.
R0211 0      ! The address of the program control block is found in RPG$A_PCB
R0212 0      ! which is found offset from the frame pointer.
R0213 0      ! For version 1, the only field in the program control block
R0214 0      ! is the internal version number.
R0215 0      !-
R0216 0
R0217 0      MACRO
R0218 0      RPG$A_PCB=          -4,0,32,0 %;  ! Address of program control block
R0219 0      RPG$B_PCB_ID=       0,0,8,0 %;  ! Version number
R0220 0
R0221 0      !+
R0222 0      ! Definitions of first parameter to RPG$IOEXCEPTION to describe where
R0223 0      ! to find IO error.
R0224 0      !-
R0225 0
R0226 0      LITERAL
R0227 0      RPG$K_ERR_RAB=       1;          ! Condition value in RAB field
R0228 0      RPG$K_ERR_FAB=       2;          ! Condition value in FAB field
R0229 0      RPG$K_ERR_FILE_CNTXT= 3;          ! Condition value in file context area
R0230 0
R0231 0      !+
R0232 0      ! Definition of literal for error passed to RPG$ERROR
R0233 0      !-
R0234 0
R0235 0      LITERAL
R0236 0      RPG$K_ERR_SUBSC=      5;          ! Same as COBOL for now
```


