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TECHNICAL INFORMATION EXCHANGE

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COMBINING ALL TYPE I 1400 DISK COMPILERS

ON A SINGLE SYSTEM PACK

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This paper describes a technique for building a single system pack
which contains Autocoder, COBOL, FORTRAN, RPG and their
associated libraries on disk. The work areas for the compilers
(and the loaderfile in FORTRAN) are assigned to a second drive.
The following programs were consolidated on a single pack on both
a 12K 1440 and a 12K 1401:

1401-AU-008 AUTOCODER on disk, 1440-CB-073 COBOL for
             1440/or/60,
1401-FO-051 FORTRAN IV on disk, 1401-01. 1. 051 PALE OR
             1440-01. 0. 001 PALE,
1401-IO-068 1401/60 I DCS on disk OR 1440-IO-010 IOCS,
1401-RG-032 1401/1311 RPG on disk OR 1440-RG-020 1440/1311 RPG,
1401-UT-053 1401/1311 disk file organization OR 1440-UT-040 disk
file orgs.

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Introduction

The announcement of the special educational allowance for the 1401 gave considerable impetus to marketing disk systems for academic usage allowing for instruction in RPG, COBOL, FORTRAN, as well as Autocoder/IOCS and File Organization Routines.

Under present techniques, in order to provide the above language capabilities, a customer might need to generate and reserve as many as four systems packs.

For those 1401/1440/1460 users who have a two or more disk drive system and multi-language requirements, the technique discussed in this paper may offer an avenue for efficient disk pack usage.

The technique used for consolidation was to change the standard system assignments so that the system area was expanded, the libraries (FORTRAN & Autocoder/COBOL/IOCS/File Organization) were extended to cover the rest of the systems pack. Work Area and Loader File assignments were made to the second drive.

Procedure

Use the directions for "Building a ...System" in SRL Manuals C24-3242 and C24-3259 as a guide with the following modifications.

1. Clear Disk Utility Program parameters.

Mode	Address
MOVE	000000-000199
LOAD	000200-000259
MOVE	000260-000299
LOAD	000300-008599
MOVE	008600-19979

2. Run the Write File-Protected Addresses Deck. The Control Card of the Deck should be modified to read:

1-15	File-Protect on
17-20	1311
22	0
24-42	From Normal Address
44-49	002500
51-52	To
54-59	008600

3. Run the Autocoder System Control Card Build Deck as indicated in C24-3259.

4. Run the Autocoder Update Deck without the Macros.

5. Do a System Control Modification Run as specified in C24-3242 using the deck shown in Fig. 1 instead of the supplied deck.

6. Run the COBOL Update Deck without the Macros.

7. Make the FORTRAN Update Run. As noted in C24-3322, this includes a FORTRAN Librarian Run loading the standard subprograms.

8. Do the File Organization Pre Phase Run if applicable.

9. Collate the Autocoder, COBOL, File Organization and IOCS Macros by alphabetic name as listed in Appendix I.

10. Do the Librarian Run as directed in A/C Manual C24-3259. The control cards are:

    Autocoder Run
    Initialize Option
    Autocoder Run
    Library Option
    ALERT INSER (First Card from the "ACEPT" Macro)

    All Macros from Step 9.

    End Card

Note: Be sure there is only one end card at very end of all the Macros.

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PUNCHING INSTRUCTIONS

| JOB | | | WRITTEN AS: | | | | | | | | | | |
| BY | | DATE | PUNCH AS: | | | | | | | | | | |

NOTES:

FIELD IDENTIFICATION

| | 1-10 | 11-20 | 21-30 | 31-40 | 41-50 | 51-60 | 61-70 | 71-80 |

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1      SYSTM      UPDATI ØP,PATCH
2 82755 000  DMP          3843 2686 0 0026 2541 002                                    0 20
3      SYSTM      UPDATSEL,PATCH
4 W165 8X16 L69 MK8 4L01  MG22 3 64  MG28 590  B33 4  BT87  12900 2010 400  11200 200 480
5 W7 4590  124 002 011200  129 0020 12400  9 380 00105 0 500 000 86  00 7800  00 8400 200 7
6 X3 361800  0089 002 008400  M0094 00 20089 0 0002  M0 099 0020 09400 002  M010 4002 009
7      SYSTM      UPDAT FHW,PATCH
8 24261 FILE          WK1 M01 1200 2004 800 0 02 WK 2M01 2400 2011 200 0002 WK 4             Ø
9 30361 M1T      WK3M0 1290 02 01240 0 002  2010 400 001 WK5         ØMIT         CT
10 36462 L      READER  1   CRD         ØMIT         LDRM01 200020 104 00001 TABL
11 42662 E      LST         PRINTER  2   MSG         PRINTER  2   LIBM0193 80001 050
12
14      CØBØL      UPDAT DM2,PATCH
15 U4202 ‡2
16 K1901 M
17              HALT          END ØF SYSTEM CØNTRØL UPDATE...CØNSØLIDATED
18
19
20
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FIGURE 1

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11. Modify the RPG System Card Deck (1440-RG-024 or 1401-RG-032)

as follows:

    Change column 35 of card 0011RPG I (identified in Cols

    72-80) from Ø to 2.

    Change columns 36 & 37 of card 2933A5900 (identified in

    Cols 72-80) from 91 to 76.

12. LOAD the entire RPG Deck as instructed in C24-3300.

13. PACE (a type III program). May be loaded in the area indicated

    in Figure 2.

    All standard assignments for the work files and loader files as

    listed in the respective language manuals will have exactly the

    same sector addresses. They will, however, be assumed on device #2.

    See figure 44 in C24-3322 and figure 32 in C24-3259 for work area,

    and loader area assumed sector assignments. A careful perusal of the

    manuals and the cards listed in Figure I will allow any assumed

    assignments desired to be made.

CONSOLIDATED SYSTEMS PACK
DISK MAP

File	Range
Autocoder Preprocessor	000000 - 000899
RPG	000900 - 002499
Autocoder, FORTRAN, COBOL and System Control	002500 - 008599
FORTRAN Library	008600 - 010499
Autocoder, COBOL, IOCS, File Organization Library	010500 - 019380
PACE may be loaded at	019400 - 019799

FIGURE 2

APPENDIX 1

MACROS IN ALPHABETIC ORDER
FOR CONSOLIDATED SYSTEM PACK

ACEPT	IOCS
ADD	LDRCL
ALCOM	LOOP
CALL	MA
CLOSE	MACOP
COMPR	MLTPY
CSADD	MPYMC
CSDL1	MULTY
CSDL2	MVALL
CSLOD	MVFTR
CSUNL	OPEN
DCLOS	OVLAY
DIVDE	PASS1
DIVID	PASS4
DIVMC	PUT
DSPLY	RDLIN
DTFF1	RELSE
DTFTP	RNDEL
EDIT1	RNUNL
EXPIN	SCAN
EXPNI	SEEK
FEDRL	SKIP
FGCOM	SPACE
FILE	SPLIT
FILE1	SUB
FILE2	SUBS1
FILE3	SUBS2
FILE4	SUBS3
FILE5	SYSCL
FILE6	TRAIL
GET	XAMIN
GOTOD	18000
IFALP	9000F
IFNUM	9000I
INDIX	