

conversion technical bulletin

Basic Systems

BULLETIN #18

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SERIES 90 MIGRATION TO OS/3 7.0

ABSTRACT

This bulletin contains concerns and migration incompatibilities going from OS/3 release 6.1.1 and below to OS/3 7.0 and above on Series 90.

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OVERVIEW:

This is an accumulation of data resulting from numerous inquiries by analysts involved in Series 90 conversions and contributions by others who have encountered and solved their own problems. It is intended that the procedures and notations presented will save time and effort for the Series 90 conversion analyst.

Additional information and problem-solving techniques not included in this bulletin are welcome and should be submitted to the address on the front of this document.
The study is broken down into two parts:

I Problems occurring during actual migration

* File Sharing

- Prior OS/3 releases (6.1.1 and downward) provided file sharing facilities through SUPGEN parameters (FILELOCK=NO was default). With release 7.0 and consolidated data management, the default is FILELOCK=SHARED and any FILELOCK=NO specification is ignored. As a result, any two programs may not access the file unless the 'access' statement (// DD ACCESS=SADD) is specified in each job stream, and even then, two programs are not allowed to access the file if both are updating.
- Also, customers who have specified the filelock parameter as FILELOCK=SHARED and have used the DD statement, have encountered a problem. On 6.1.1, the default for 'access' was apparently EXCR allowing the user to share files without specifying the DD statements. On 7.1, the default seems to be ACCESS=EXC allowing no sharing of files without analyzing every job stream for the application of DD statements. Regardless, two programs are not allowed to access a file if both are updating.

- BLKSZE must be a multiple of 256 bytes.
- Data files must be modified to MIRAM to accommodate CDI.
- Action programs must be converted from ANS '68 COBOL to ANS '74 COBOL.
- File type must be changed to MIRAM unless previously IRAM.
- Parameter changes:

The following file parameters must be deleted: LOCK, TRACE, IOREG, IOROUT, KEYLEN, KEYLOC, PCYLOFL, RECFORM, TYPEFILE, UPDATE=YES, WORK1.

The following file parameters must be added: WORK, KEY1, MODE, RCB, PROC, INDAREA.

General parameter INBUFSIZ must be added.

Optional parameters TOMFILE and TOMTRCE must be deleted.

Optional parameters SFS and RECLOCK must be added.

II Application of 7.1 capabilities following migration:

* ESCORT

- Data files created by ESCORT take the default RCB=YES. This causes a problem when using RPG II; the user must supply a // DD RCB=YES parameter card.

* RPG II

- No multi-key support in 7.1
- OS/3 release 7.1 SRD, page 4-44b, section 4.3.2.2 states that only one index for indexed files is allowed, therefore MIRAM contains support for accessing files using only one index. Since COBOL '74 supports multi-key, this creates a problem for RPG II. If a file is created using COBOL '74 and an attempt is made to access that file via RPG II, the RPG II program will terminate with a data management error.

Multi-key support for RPGII will be supported in OS/3 8.0. COBOL74 multi-key files should not be accessed by RPGII under OS/3 Release 7.1.