SPERRY UNIVAC

conversion technical bulletin

Basic Systems

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SERIES 90 MIGRATION TO OS/3 7.1

ABSTRACT

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COMPANY CONFIDENTIAL "C"

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- The user can convert from COBOL68 to COBOL74. There is a conversion routine available to convert from OS/3 COBOL68 to COBOL74 (COBTRN303).

- The compile-time parameters that were normally available under COBOL68 have changed. They are easier to use and understand. They can be specified at the time of the compile or defaults my be taken instead. These defaults are changable at supervisor generation time (see System Installation manual).

- If a file is to be extended, it must be specified at OPEN time. (i.e. OPEN EXTEND filename). The use of the job control statement: // LFD filename,,EXTEND is no longer valid in COBOL.

- COBOL74 supports the RCB (Record Control Byte).

- Multiple keys and duplicate keys are supported in COBOL74.

- When a print file is OPENed in COBOL74, it automatically skips to the head of the form. In COBOL68, it was the users responsibility to advance the form. This condition will cause blank test pages if programs are not converted properly.

- COBOL68 (Extended COBOL) is supported on a Series 90 machine under Release 7.1.

3). Any IMS request to a MIRAM file with ACCESS=SADD specified will cause the previous data management lock to be released and, potentially, a new lock established (this is true even when the request is for a different MIRAM file declared with the ACCESS=SADD), therefore, updating action programs should issue the getup function request immediately prior to the PUT or DELETE function request (no intervening requests to other ACCESS=SADD files).

4). It is the actions programmer's responsibility to determine if the data record has changed across action program external succession. IMS record locking cannot prevent batch modification of these records inasmuch as there is the possibility that an intervening action program could access a SADD file and defeat the initial lock.

5). Sequential processing of these files may not provide data in the order expected depending upon the insertion functions active by other users of the file.

6). IMS single thread recovery (both on-line and off-line) may not perform correctly depending on the updating functions specified by the various updaters of the file. Specifically, recovery is not aware of updating activity performed outside of the IMS environment, therefore, if the same records are being updated both by IMS action programs and outside programs, recovery could be incomplete depending on who updated the record last. Certain operatons (resulting from insertions or deletions by different updaters) could even cause abnormal termination of IMS during an attempt to perform on-line recovery.

7). Recovery problems encountered with files specified with ACCESS=SADD must be reconstructed without this option for analysis of the problem.

PATCHES CONCERNING IMS:

- Users bringing up a multithread IMS may experience the following error: "OPEN NETWORK ERROR CODE 0001". This problem is corrected by installing correction C075460 which is available through the TRACE system.

- BEM/EDT runs under 7.1. BEM must be used in DTF mode.

- User should run under OS/3 software 7.1E.

OS/3 7 Filelock and Fileshare (FS):

- With release 7 CDM, FILELOCK=SHR (all files are lockable) is the only available option.

- In addition, release 7 data management (DTF and CDM) defaults ACCESS parameters to EXC for write, add and update and to SRDO for read. These are more restrictive than the release 6 defaults.

- To achieve a release 7 share environment comparable to that available with release 6 lockable files, it is necessary to supply the appropriate share parameter in the program's file definition (RIB or DTF) or to supply the appropriate // DD ACCESS=xxx in the JCL at runtime.

- Release 6 use of *LFD resulted in SRD, but release 7 gives SRDO. To achieve release 6 share environment, remove the * and use the // DD ACCESS=SRD job control statement.

- Release 6 (and 7 DTF) data management allow one file to be shared between multiple readers (SRD and SRDO), or between one writer and multiple readers (EXCR and SRD), but never allows more than one writer to the same file. In addition to this, release 7 CDM ACCESS parameter SADD (shared add) will allow multiple writers to the same file.

OS/3 7.1 MIX Supervisor/Interactive/Fileshare Problem (FS):

- A problem exists in 7.1 DTF processing with MIXED supervisor (DTF and CDM support): if INTERACTIVE=YES is specified in the sysgen, the sysgen forces FILELOCK=SHR ignoring the users FILELOCK specification. A DTF user's intent to have non-lockable files (unrestricted use) is denied, and he may get wait-locks where in release 6 he did not. COR's C074899 and C074981, applied in that order allow the user FILELOCK specification independent of the INTERACTIVE=YES parameter.