IBM.

IBM DB2 for i: Code example

Before Update Trigger

```
*==========================================================*
* This program is intended to illustrate a before update *
* trigger specified with ALWREPCHG(*YES) where the       *
* trigger will update the buffer image of the record     *
* prior to the update.                                   *
*                                                         *
* The capability to update the before trigger image      *
* is only supported on V3R2 and V3R7.                    *
*                                                         *
*                                                         *
*  CRTBNDRPG PGM(CORPDATA/TRG01) SRCFILE(MJASRC/RPG)      *
*            DFTACTGRP(*NO) ACTGRP(*CALLER)               *
*            DBGVIEW(*SOURCE) ALWNULL(*YES)               *
*            USRPRF(*OWNER)                               *
*                                                         *
*  ADDPFTRG FILE(CORPDATA/EMPLOYEE)                       *
*            TRGTIME(*BEFORE) TRGEVENT(*UPDATE)           *
*            PGM(CORPDATA/TRG01) ALWREPCHG(*YES)          *
*                                                         *
*                                                         *
*==========================================================*
*
*==========================================================*
* Definition of the structure passed as the first        *
* parameter from database to the trigger program.        *
* The include is used so that any additional fields      *
* in the interface template in the future will be        *
* brought into the program if it is recompiled.          *
*                                                         *
* The includes in the QSYSINC library must be on         *
* your system to compile this program. Option 13 of      *
* the OS/400 install will install them.                  *
*                                                         *
*==========================================================*
D/COPY QSYSINC/QRPGLESRC,TRGBUF
*
*==========================================================*
* This is an overlay used to set addressability          *
* to the various sections of the interface buffer        *
* such as the before and after record images.            *
*==========================================================*
D INTARR          S              1A   BASED(INTPTR) DIM(32767)
D INTPTR          S               *
*
*==========================================================*
* Definition of the trigger buffer length passed as      *
* the second parameter from database to the trigger      *
* program.                                               *
*==========================================================*
D PARM2           DS
D  LENG                   1      4B 0
*
*==========================================================*
* These pointers are used to point to the before         *
* and after images. The before and after images         *
* are passed in the first parameter structure.           *
*==========================================================*
D BIMAGE          S               *
D AIMAGE          S               *
*
```

```
      *=========================================================*
      * These based structures provide the subfields of         *
      * the record images. Externally defined data              *
      * structures are used so a recompile of the               *
      * program will always pick up the latest field            *
      * defintions.                                             *
      *=========================================================*
D BEMP            E DS                    EXTNAME(EMPLOYEE)
D                                         BASED(BIMAGE)
D                                         PREFIX(B)
D AEMP            E DS                    EXTNAME(EMPLOYEE)
D                                         BASED(AIMAGE)
D                                         PREFIX(A)
 *
C     *ENTRY         PLIST
C     QDBTB         PARM                      QDBTB
C     PARM2         PARM                      PARM2
      *=========================================================*
      * Set the basing pointers for the interface               *
      * structure and the before and after images               *
      *=========================================================*
C                   EVAL      INTPTR = %ADDR(QDBTB)
C                   EVAL      BIMAGE = %ADDR(INTARR(QDBORO+1))
C                   EVAL      AIMAGE = %ADDR(INTARR(QDBNRO+1))
 *
      *=========================================================*
      * Change the value of SALARY so it is used instead of     *
      * the value specified by the application program.         *
      *=========================================================*
C     AEMPNO        IFEQ      '111111'
C*                  EVAL      ASALARY = ASALARY + 1000
C                   ENDIF
 *
C                   RETURN
```