ADAS Subroutine check_pipe

```
          SUBROUTINE CHECK_PIPE
C-------------------------------------------------------------------
C
C  ******************* FORTRAN77 PROGRAM: CHECK_PIPE ********************
C
C  VERSION:  1.0
C
C  PURPOSE:  DIAGNOSTIC CHECK ON THE STATE OF THE FORTRAN-IDL PIPE
C
C  NOTES:   THE EQUIVALENT IDL CHECK_PIPE PROCEDURE MUST BE PUT IN
C           THE IDL CODE TO COMMUNICATE WITH THIS FORTRAN SUBROUTINE.
C           BOTH ROUTINES WRITE A STRING, READ A STRING AND THEN CHECK
C           WHETHER THAT STRING IS AS EXPECTED. A MESSAGE IS THEN
C           OUTPUT INDICATING WHETHER THE PIPE WAS EMPTY BEFORE THE CALLS
C           WERE MADE, SO TELLING THE USER WHETHER PIPE COMMUNICATIONS
C           BETWEEN THE IDL AND FORTRAN HAD BEEN SUCCESSFUL UP TO THAT
C           POINT.
C
C           RATHER THAN GIVING THE 'ERROR' MESSAGE, THE FORTRAN MAY CRASH
C           INDICATING THAT THE IDL HAS WRITTEN TOO MUCH DATA TO THE PIPE
C           BEFORE THIS CALL AND THAT THE DATA WAS NOT A STRING.
C
C           IF THE FORTRAN OR IDL HANGS IN THIS ROUTINE THEN THERE IS A
C           MAJOR (>129 CHARACTER) BLOCKAGE IN THE PIPE.
C
C  PROGRAM:
C     (I*4)  PIPEIN   =  PIPE INPUT STREAM FROM IDL
C     (I*4)  PIPEOU   =  PIPE OUTPUT STREAM TO IDL
C     (C*129) A       =  OUTPUT STRING
C     (C*129) B       =  INPUT STRING
C
C  ROUTINES:
C          ROUTINE    SOURCE    BRIEF DESCRIPTION
C          ------------------------------------------------------------
C          XXFLSH     ADAS      FLUSHES I/O BUFFER
C          I4UNIT     ADAS      STANDARD ERROR OUTPUT (SET UP IN XX0000)
C
C-------------------------------------------------------------------
C AUTHOR:  WILLIAM OSBORN (TESSELLA SUPPORT SERVICES PLC)
C
C DATE:    5TH JULY 1996
C
C VERSION: 1.1                        DATE: 05-07-96
C MODIFIED: WILLIAM OSBORN
C              - FIRST VERSION.
C-------------------------------------------------------------------
C
```