

APPLICATION		REVISIONS		
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RELEASE INFORMATION, DNOS TI PASCAL,
RELEASE 1.8.0-990

TEXAS INSTRUMENTS	drawing number
INCORPORATED	2276498-9901
DATA SYSTEMS GROUP	
	REV. *A SHEET 1 OF 5

SECTION 1

INTRODUCTION

TI Pascal release 1.8.0 is for installation on a DNOS operating system. Installation instructions are given in the "DNOS TI Pascal Object Installation" manual, dated January, 1984 (part number 2276550-9701*B). Operating instructions are in the "DNOS TI Pascal Programmer's Guide" (part number 2270517-9701*A) dated January, 1984.

This document is composed of the following sections:

1. Introduction.
2. Identifies the known problems in this release.

SECTION 2

PROBLEM REPORT

Following is a list of problems which are known as of Jan. 18, 1984.

2.1 COMPILER PROBLEMS

1. If the result of the TB function is assigned to a BOOLEAN variable and the CKSUB option is on, CODEGEN will abort. (STR 5200)
2. Overflow may occur when comparing two real numbers. The compiler generates code to subtract one number from the other and then compares that result to zero. This may cause overflow and incorrect results when the numbers are very large and one number is positive and the other is negative. (STR 5482)
3. A call to an EXTERNAL FORTRAN routine with 'LOCATION(FLD)' as a parameter where FLD is a field in a record under a with statement causes an ASSERT ERROR in the the compiler's optimizer pass. (STR 9454)
4. When the GLOBALS option is on, the main program does not have access to the predefined identifiers INPUT or OUTPUT. Therefore if the statements RESET(INPUT) or REWRITE(OUTPUT) appear in the main program the compiler will incorrectly give the error "ACCESS NOT DECLARED". (STR 10348)
5. The statement $X := -Y - 1$ will not work correctly if the value of Y is 32767 and both the CKOVER and OPTIMIZE options are on. In this case, the compiler generates an increment and then a negate instruction which causes overflow. (STR 11790)

6. When using the UB function in its 2 parameter format (array variable and constant indicating the dimension), the compiler gives error #222 "INCORRECT NUMBER OF PARAMETERS IN STANDARD FUNCTION CALL" when the function references a one-dimensional packed array of type CHAR (STR 13290). For example:

```
PROGRAM TEST;
VAR
  A: PACKED ARRAY[1..40] OF CHAR;
  N: INTEGER;
BEGIN
  N := UB(A,1);
  **** ERROR # 222 ****
END.
```

7. The compiler will not detect that the array index is out of bounds when a [1..?] array parameter is indexed by a constant index of 0 in a function or procedure. This may cause bad code to be generated. The CKINDEX option will detect the error at runtime. (STR 14082)

2.2 RUNTIME PROBLEMS

1. If the text file being read has one or more blank lines preceding the end-of-file, a program which is reading free-format numbers cannot detect end-of-file by using the EOF function. (STR 2980)
2. The run-time routines associated with the PROBES option may get stack overflow or hang in a run loop if there are more than about 60 probe points in a routine. (STR 4103)
3. A DECODE of a real number that is too large aborts execution with a floating point overflow error instead of returning an error status to the user. (STR 5131)
4. The CKOVER option does not detect overflow on a DECIMAL multiply. (STR 5481)

2.3 PASCAL DOCUMENTATION PROBLEMS

2.3.1 TI PASCAL CONFIGURATION PROCESSOR TUTORIAL.

1. On page iv, the part number of the TI Pascal Reference Manual is incorrect. The correct part number is 2270519-9701.
2. In the Configuration Tutorial the user is asked to perform several config commands and to check the listing by issuing the "*DISPLAY ALL" command. The output from this command is listed in the manual so that the user can check to see that the proper results are achieved. The first line of the output from the "*DISPLAY ALL" command is incorrect throughout the manual. It appears in the manual as follows:

```
TCONFIG          <LIBRARY,TCONFIG>
```

The first output line should be:

```
TCONFIG          <LIBRARY,TCONFI>
```

The letter "G" should not appear in the second listing of the module TCONFIG because the CONFIGURATION PROCESSOR uses only 6 character names.