

LongRealConversions

COLLABORATORS

	<i>TITLE :</i> LongRealConversions		
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REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

1	LongRealConversions	1
1.1	LongRealConversions	1
1.2	TMP:Modula-2/LongRealConversions.def	1

Chapter 1

LongRealConversions

1.1 LongRealConversions

Prozeduren

RealToStr

StrToReal

1.2 TMP:Modula-2/LongRealConversions.def

```
DEFINITION MODULE LongRealConversions; (* jr/28mai87 *)
(*$ LargeVars:=FALSE NameChk:=FALSE *)
```

```
PROCEDURE StrToReal(VAR s: ARRAY OF CHAR;
                    VAR r: LONGREAL;
                    VAR err: BOOLEAN);
```

(* Converts input string 's' to a real number 'r'.

Possible error conditions:

- 's' has a syntactical error
- 'r' would be too large for a LONGREAL

*)

```
PROCEDURE RealToStr(r: LONGREAL; VAR s: ARRAY OF CHAR;
                   m, n: INTEGER; expo: BOOLEAN;
                   VAR err: BOOLEAN);
```

(* Converts the real number 'r' to output string 's'. The output string will have a length of EXACTLY 'm' characters (or length of 's' if 'm' is too large). 'n' is the number of places behind the decimal point. If 'n' is too large in respect to 'm' it will be shortened to the maximum possible. If 'n' is zero then the decimal point will be omitted. With 'expo' you can choose the exponential mode of output.

A few examples:

```
      r=12.976   m   n   expo   s
```

```
          5  2  FALSE  '12.98'
          4  2  FALSE  '13.0'
3  2  FALSE  ' 13'
2  2  FALSE  '13'
1  2  FALSE  # err #
    -8  2  FALSE  '12.98  '
    10  2   TRUE  ' 1.30E+01'
```

Possible error conditions:

- 'm' is zero OR 'n' is negative
- 's' is too small to hold the string representing 'r'

*)

END LongRealConversions.