

# Parser/TP

$$\sqrt[5]{\sin(\alpha * \log \lambda)}$$

Parser/TP is a recursive decent expression parser unit for Turbo-Pascal, this unit includes the 5 basic math. operators (+ - \* / ^), and some basic mathematical functions (sin, exp, cos, ln, log10, log2, abs, arctan, sqr, sqrt, tan, cotan, arcsin, arccos) and 2 constants (pi, e). Parser can be used to receive formula input from the user, and perform the necessary calculations during program runtime. Parser/TP supports a dynamic symbol table, that is created and maintained during the parser's execution. New variables are created when they are referenced for the first time, and receive the initial value of 0.0 . Variables values can be set by using the = operator (e.g. myvar = sin(anotherVar)\*35 ), and used in user formulas.

## Related Topics :

[Registration](#)

[File List](#)

[Operation](#)

[Warranty](#)

[Contact](#)

## Credits :

Parser/TP was created by Ron Loewy.  
Turbo Pascal is a Trademark/Copyright of Borland International.

# ***Why Register and Registration Instructions***

Parser/TP is a shareware product, if you find this product valuable, please register it. This section describes the reasons you should register.

By registering Parser/TP you will receive the complete source code to the parser symbol table manager, and will be able to compile parser for inclusion in your protected mode and windows programs.

Your registration will help us to create the next versions of Parser/TP, that will include more options, and features, some of them might even be your enhancement requests!.

Registered Parser/TP users get full no-rotality usage permission.

## **Related Topics :**

[Contact](#)

# ***File List***

This package contains the following files :

PARSER .PAS - Parser Turbo Pascal Source file.  
PARSER .DOC - Parser/TP documentation file.  
PARSER .REG - Registration File.  
PROGRAMS.TXT - ISoft D&M shareware products description.  
CALC .PAS - Simple Parser Turbo Pascal test sample.  
PARSEDB.TPU - Parser Symbol Table manager Module.  
DBENGBAS.TPU - Parser Symbol Table manager Module.  
DBENGMEM.TPU - Parser Symbol Table manager Module.  
TBLBASE.TPU - Parser Symbol Table manager Module.  
QUICKSORT.TPU - Parser Symbol Table manager Module.  
COMBSORT.TPU - Parser Symbol Table manager Module.  
MERGSORT.TPU - Parser Symbol Table manager Module.  
DATEUNIT.TPU - Parser Symbol Table manager Module.  
MEMTBOBJ.TPU - Parser Symbol Table manager Module.  
PARSER .TPH - Parser/TP online help file in THELP/IDE format.  
PARSER .HLP - Parser/TP online help file in WINHELP format.

## **Related Topics :**

[Contact](#)

# ***Operation - Usage of Parser/TP in your programs.***

Simply use parser unit in your program using the USES clause, when ever you want to parse a string formula do :

```
myResult := getExpr(formulaString, validity);
if (validity = false) then
    tellError { the formula has an error at the errAt byte }
else
    tellResult(myResult);
```

Please notice - the source code for the CALC program is provided, so you will probably find it easy to understand that example after you will look into the code.

## **Related Topics :**

[Calc Example](#)

# Calc Example

```
(*****  
*                                     calc                                     *  
* ISoft D&M CALC - Parser demo program.                                     *  
* (c) 1992, Loewy Ron.                                                   *  
* Version 2.0, Oct. 1993.                                               *  
*****)  
program calc;  
  
uses  
    parser  
    ;  
  
var  
    exitFlag,  
    validity : boolean;  
    s       : string;  
    result  : real;  
  
(*****  
*                                     makeUpper                             *  
* receive a string, and convert it to upper-case                         *  
*****)  
function makeUpper(s : string) : string;  
var  
    i : byte;  
begin  
    for i := 1 to length(s) do  
        if (s[i] in ['a' .. 'z']) then  
            s[i] := upCase(s[i]);  
    makeUpper := s;  
end; {makeUpper}  
  
begin  
    writeln('CALC V2.0, ISoft D&M, Parser demo program');  
    writeln;  
    writeln('Enter mathematical expression, or QUIT/EXIT to DOS');  
    writeln;  
    exitFlag := false;  
    repeat  
        write('CALC> ');  
        readln(s);  
        s := makeUpper(s);  
        if ((copy(s, 1, 4) = 'QUIT') or (copy(s, 1, 4) = 'EXIT')) then  
            exitFlag := true  
        else begin  
            result := getExpr(s, validity);  
            if (not validity) then  
                writeln('Error in expression, at position ', errAt)  
            else  
                writeln('RSLT> ', result);  
        end; { not a QUIT command }
```

```
until (exitFlag);  
writeln;  
writeln('Thank you for using CALC, ISoft D&M');  
writeln;  
end.
```

**Related Topics :**

[Operation](#)

# ***Warranty***

**There is no warranty what so ever, This software package is supplied as is, The distributor (ISoft D&M), or the author (Loewy Ron), are not, and will not be responsible for any damages, lost profits, or inconveniences caused by the use, or inability to use this package. The use of the package is at your own risk. By using (or attempting to use) the package you agree to this.**

# **Contact**

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## **Related Topics :**

[Registration](#)



