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SOFTWARE MODULES OF THE COMPUTER PROGRAM OF REURSION ALGORITHM IMPLEMENTATION FOR THE CASE OF VARIABLE INPUT INPUT PARAMETERS

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When determining the tension of a single thread, we assume that there is a functional relationship between the values (tension at different diameters of the spool) and x (coil diameter) [5-8]. In this case, the function $y = f(x)$ unknown, but based on experimental studies, practical data have been established. The task is to: find a function that is as simple as possible from a computational point of view, which represented an unknown function $y = f(x)$ accurate or approximate; determine the intermediate values of the function $y = f(x_i^*)$, де $x_i < x_i^* < x_{i+1}$.

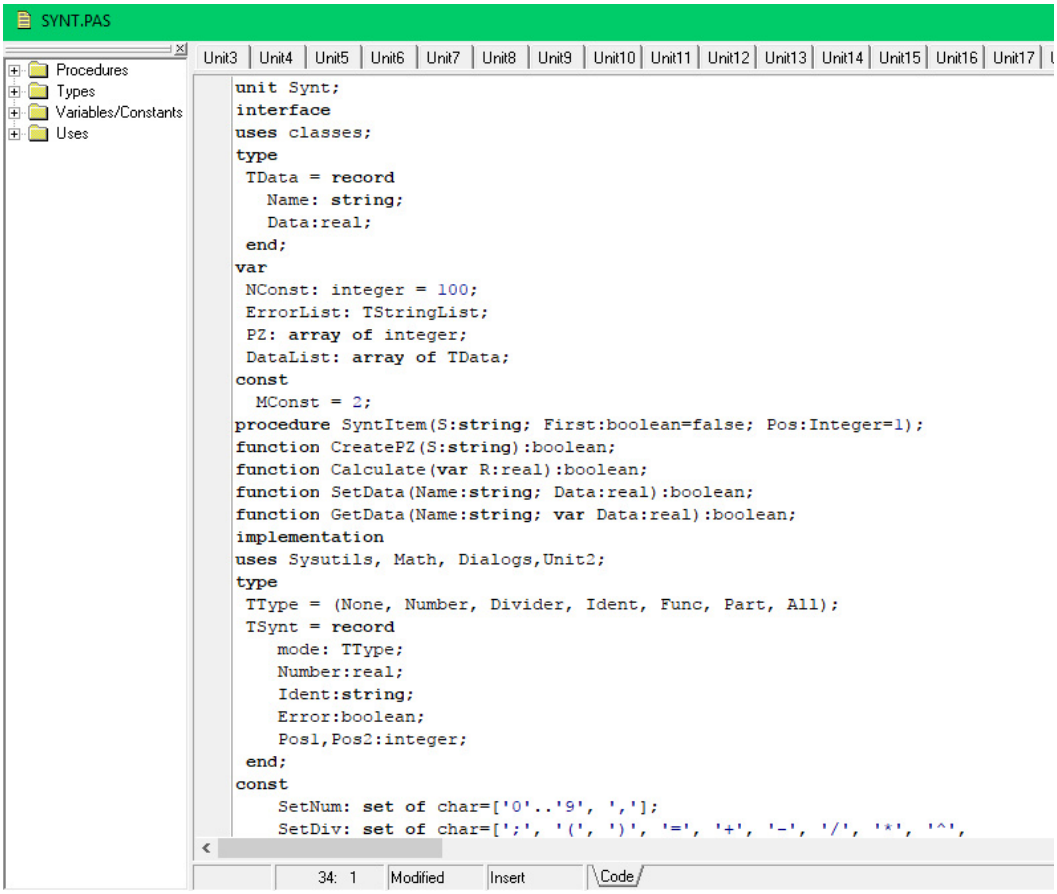

Figure 1 - Computer module of the translator based on reverse Polish records

Since the difference between adjacent values of the argument is different, the problem of interpolation will be reduced to finding the polynomial $P(x)$

degree $\leq n$ using Lagrange and Newton interpolation formulas (distributed difference method) [1-6].

In interpolation nodes $P(x_i) = f(x_i) = y_i (i = 1,2,...n)$ because the final member in them $R(x) = (x - x_0)(x - x_1)...(x - x_n) f(x, x_0, x_1, ...x_n) = 0$.

Analysis of the graph dependence shows that trigonometric or algebraic polynomials can be used to approximate it.

In the development of software modules used the law of change of input voltage is presented in the form of a harmonic function or in the form of an arbitrary user function using inverse Polish records [1].

To set the law of change of input tension $P_0 = P_0(t)$ the unit Unit23 module was used. For the law of change of input tension $P_0 = P_0(t)$ the Synt module based on the developed translator using inverse Polish records was used as an arbitrary user function (Figure 1).

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