

Linear functions by the piece

A typical example of this are motor characteristics. These do not follow a single mathematical formula, but must be based on corresponding diagrams in the data sheets.

The functions are created according to the following principle:

- Define a new "function envelope" in the initialization part
- Add value pairs one after the other in the initialization part of the function
- Use function anywhere

In concrete terms, these steps are carried out as follows:

First, a global integer variable must be defined, which is used to identify the function:

```
Test function: integer;
```

With the function `LinFuncNew` you can now create a new function in the initialization part:

```
Testfunction := LinFuncNew;
```

You can now pass the necessary value pairs to this function by calling `LinFuncAddPair(id, x, y)` several times. **The order is important!** X must always be increasing!

Code

1. `LinFuncAddPair(Testfunction, 2, 6);`
2. `LinFuncAddPair(Testfunction, 6, 5);`
3. `LinFuncAddPair(Testfunction, 7, 8);`
4. `LinFuncAddPair(Testfunction, 8, 2);`

After all, you can use the function with `LinFuncGetValue(id, x)` at any point (after the definition, of course):

```
Result := LinFuncGetValue(Testfunction, 4); // Result = 5.5
```