Programming Languages

EZ IDE

Documentation

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Overview:

Welcome to EZ IDE! EZ IDE is a programming environment which enables the users to code easily by just pressing the commands that they need for the correct execution of their programs. The program structure follows the style of java, requiring programs to have a main method and method ending. Other functions are from the combinations of different IDEs which are designed to make the syntax of the commands easier to follow. (Display a text): The SAY button have two uses, 1st is to print any inputs from the user. This can be done by pressing say and typing the text you want to enter. 2nd is to print values from a variable. This can be done by pressing say and typing "$" before the the variable that you want to print. The next button is called the get button, it has the feature of the foxpro command get. Get invokes the user to input values and assign it into a variable. On the right pane beside the standard function, math functions are located. Mathfunctions provides the 4 fundamental mathematical operations, power, square root, increment, and decrement The IDE Supports 3 basic data types, namely; INTEGER, PHRASE and DECIMAL. Now lets go to the looping function. The idea of looping is the repetition of a single or group of commands until a certain condition is fulfilled The ide provides a built in For loop function, which needs a terminator called Endfor. Just like a method, for loop will not function correctly unless a terminator will be specified. The ide supports method calling scheme, so you can access data from other methods. This feature supports the idea of structured programming. You can also add and insert some comments on any line on your program, by just pressing the comment button and typing the arguments you want to specify. Are you worried that it will be hard to make some corrections from the commands you have made, well worry no more, because the EZ IDE made it easy for you. There are 2 button groups which changes the position of a certain line of your code. The 1st one is the pre-type buttons which enables you to select a line and add the next line of your code into any location you want to put it, but it should be adjacent to a line of the same method. The 2nd group is for moving the lines which are already displayed on the screen. Also there is delete button which directly deletes a line that is currently selected

History:

Our very own Integrated Development Environment, EZ IDE, is an IDE which has its own programming language, EZ, derived from Microsoft Visual Foxpro, Assembly 8086, Perl, and Python, is a rather high level programming language. The following are the parts we got from different languages.

Microsoft Visual Foxpro:

* If
* Else
* Endif
* For
* Endfor

Assembly 8086:

* Function – “proc” from assembly, define a procedure (function in EZ)
* Endfunc – “endp” from assembly, to end a procedure
* Call – to call a procedure in assembly
* Assign – “mov” from assembly, to assign a value to a register (variable in EZ)

Perl:

* The use of ‘$’ when using a variable

Python:

* Return – to return a value

File extension:

.ez

Character coding is UTF-8 so it can be read using notepad

Example:

ProgramName.ez

Type of Language:

EZ is a high-level programming language derived from a lot of programming languages

Sample Command and Syntax

|  |  |
| --- | --- |
| Command | Syntax |
| Say | Say Hello World  An input will prompt when the say button is pressed gathering what to say. Syntax error is impossible in this command |
| Get | Get $variable  An input will prompt when the get button is pressed gathering the variable to put value to. Syntax error is only to appear when the variable after the ‘get’ command doesn’t exist |
| Add | Add 5 + 3 to $variable  An input will prompt when the add button is pressed gathering values to be added and the variable to put sum to. Syntax error is only to appear when the variable used doesn’t exist |
| Integer | Integer $variable = 0  An input will prompt when the integer button is pressed gathering variable identifier and its value. Syntax error that is possible to occur: Data type mismatch, Is already declared, Naming error |
| Function,  Sends,  Receives,  Call,  Return,  Endif | Function main  Integer $x = 0  Call method sends 1 receives $x  Endfunc  Function method receives $y  Return $y  Endfunc  Function:  An input will prompt when the function button is pressed gathering function name and if it is to receive any value from its caller  Call:  An input will prompt when the call button is pressed gathering function name to call and if it is to send and/or receive any value to the function called  Return:  A confirmation prompt will appear when the return button is pressed asking if it is to return an value from the caller  Endfunc:  To end a function |
| If,  Else,  Endif | If 1 == 1  Say ok  Else  Say not ok  Endif  If:  An input will prompt when the If button is pressed gathering the condition  Else:  Executes when the condition of the preceding ‘If’ is false  Endif:  To exit an If block |
| For,  Endfor | For $var = 1 to 5 step 1  Say $var  Endfor  For:  An input will prompt when the For button is pressed gathering variable to be iterated during the loop, The value for the iterating variable to reach to end the loop, and the step  Endfor:  To repeat the whole for loop block or to end the for loop |
| Comment | Comment: EZ is the Best!  Adds a comment to the program, Definitely no syntax error |

Sample Programs:

Basic mathematical operations

Local and global variables

Function main

Integer x = 5

Integer y = 2

Integer z = 0

Add $x + $y to z

Say $z

Sub $x - $y to z

Say $z

Mul $x \* $y to z

Say $z

Div 4 / 2 to z

Say $z

Endfunc

Integer $x = 5

Function main

Integer $y = 4

Say $x

LineBreak

Call runAway

Endfunc

Function runAway

Say $x

LineBreak

Say $y

Endfunc

Contributions

Bacal, Johnrey C.

* Main Programmer
* Built-in functions
* Function, Endfunc
* Call, Return
* If, Else, Endif
* For, Endfor
* Indentions
* Update (fixing indentions)
* Data type: Phrase
* Lexical analysis
* Tokenizing

Francisco, Felipe Paulo P.

* Math fundamental functions
* Subtract
* Multiply
* Divide
* Radio Buttons: Insert, Edit, Insert Below, Insert Above
* Errors

Payod, Renzo F.

* Square root
* Drag and Drop (unfinished)

Piquero, Nathaniel Cornelius A.

* LineBreak
* Pow
* Add
* About
* Help
* Close Program
* Loading Screen

Tuvieron, Christian

* Johnrey’s right arm
* Menu bar
* File: Open, New, Save
* Edit: Cut, Copy, Paste
* Move up
* Move down
* Delete line
* Data type: Decimal
* Increment
* Decrement

Sena, John Mark L.

* Comment
* Color coding
* Icon
* Design