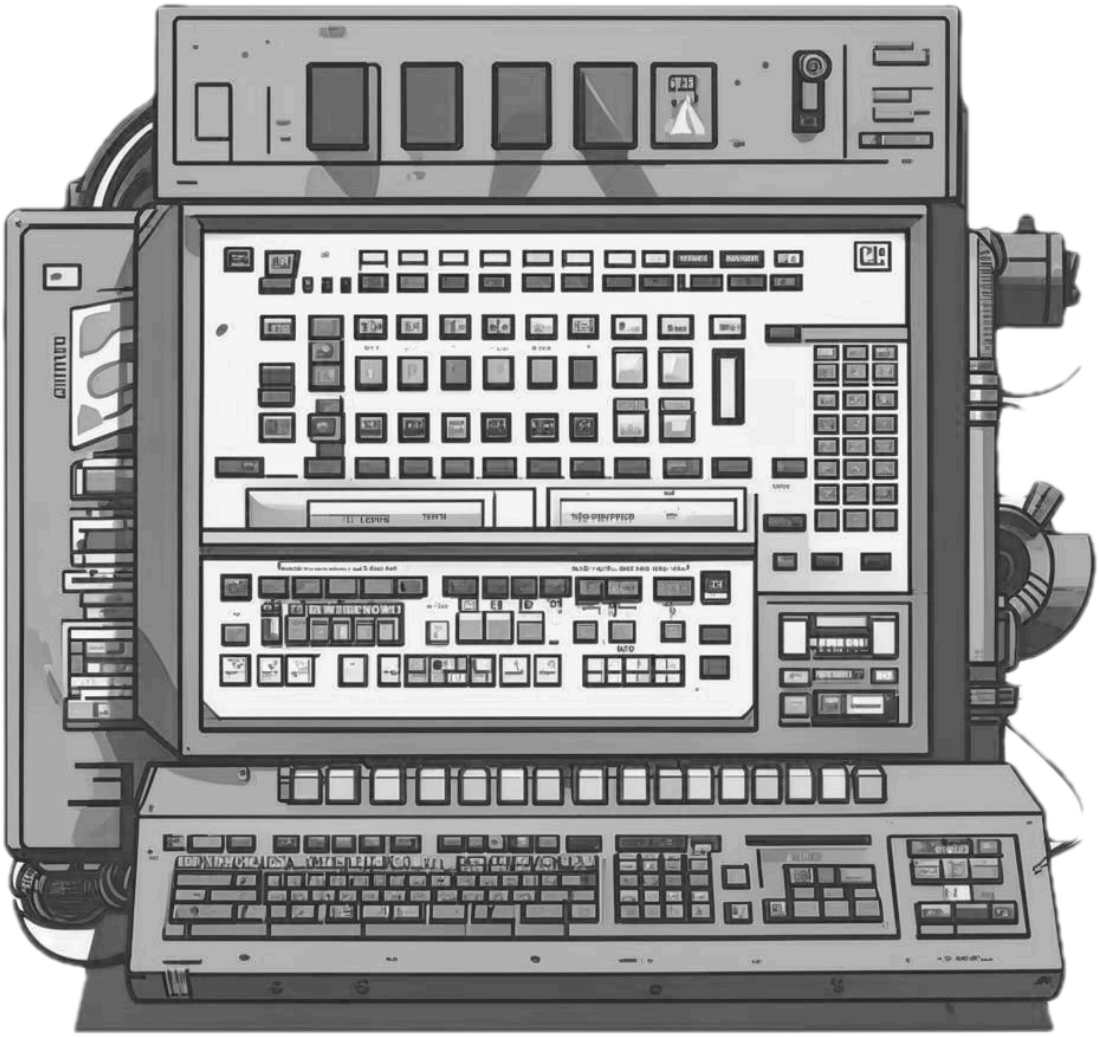


Composed by Vladimir Ulogov

BUND standard library reference

This book serves as a reference guide for the BUND functions (or “words”) defined in standard library.

Referencing 32 functions.

I want to thank my first teacher, who imparted the knowledge and guidance necessary to develop my first programs for the PDP-11 computer.

Introduction

I will introduce a new concatenative programming language called BUND in this work. What is a concatenative language, and how does it differ from the programming languages you're likely familiar with? You're likely acquainted with applicative programming languages like Python, C, or Java. Alternatively, you may have discovered functional programming languages such as Lisp, Haskell, or ML, other examples of applicative programming languages. This category is defined by the way functions are viewed and handled. In applicative languages, a function is treated as a mathematical primitive that computes based on passed arguments and returns a value. In contrast, concatenative programming languages pass a data context from one function to another, external to the function itself. While the stack is the most common method for passing such context, there are concatenative languages that don't utilize a stack. Passing data context enables the concatenation of data processing. Concatenative languages are less known in the software development communities, but you might have heard of languages such as Forth, PostScript, and Factor.

The stack is utilized in many but not all concatenative languages, while applicative languages often use stack structures internally to aid computation. Stacks are indispensable for recursive computation, passing return values computed by functions and storing references to an execution context. What distinguishes concatenative stack-based languages from applicative counterparts is the use of the stack for input data, computational context, and result storage. In essence, everything in concatenative stack-based languages is stored in the stack. In some cases, computational instructions are also stored alongside data on the stack. Since everything, including the context for functions, is stored on

the stack, functions in concatenative stack-based languages do not have conventional arguments. Although they function as such, they are often referred to as “words,” as was defined in one of the first concatenative languages to gain popularity - Forth. Another characteristic of concatenative stack-based languages is their reliance on the stack’s Last In, First Out (LIFO) nature. They often employ Reverse Polish Notation (RPN).

So, what will might surprise you in concatenative stack-based language?

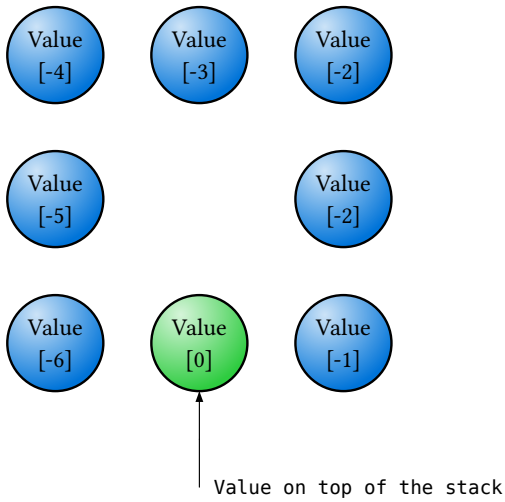
- We already mentioned that the functions do not have arguments and no dedicated return value. All input and output data passed to and from the function are passed through the stack.
- You are responsible for ensuring the correct order of the values passed in the data context to the function, as this context is on the stack.
- You are also responsible for interpreting return data placed on the stack. Unlike in the functional language paradigm, there could be more than one return value, depending on your function (or “word”).
- There are no variables. All data are stored on the stack.
- There are no global constants, variables, or values. Everything is on the stack.
- Due to the LIFO nature of the stack, you will deal with RPN, although BUND offers you an ability to creae a stack with FIFO policy.

What exactly is a Bund?

The BUND programming language is a member of the concatenative language family. A notable characteristic of concatenative languages is the presence of a computational context external to the code itself. All computations carried out by the functions, referred to as "words" in concatenative language terminology, are performed over this external context. This differs from the concepts commonly encountered in applicative languages, where function parameters are part of the function context. The computational context is typically structured as a Last In, First Out (LIFO) stack in concatenative languages. However, BUND distinguishes itself from most concatenative languages by having a more sophisticated concept of the computational context.

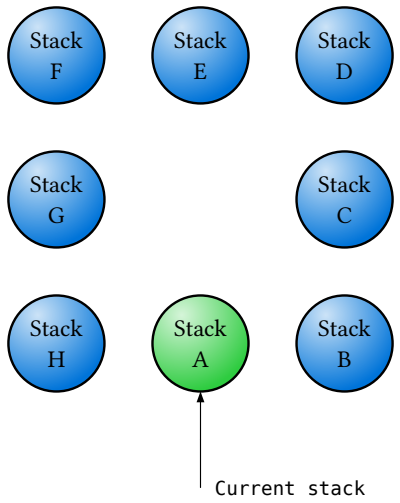
Circular data stack

Instead of using simple LIFO stacks, BUND stores data in multiple named circular buffers, also known as stacks. When you push data to the stack, the circular buffer expands, and when you pull or consume data from the stack, the buffer contracts. While the data buffer is circular, there is always a pointer that refers to the value located on top of the stack. Although you can rotate the buffer in the left or right direction, data is consumed in a single direction only.



Stack-of-stacks references

The next level of abstraction is a circular stack that refers to named data stacks while functioning just like a standard data stack in all other aspects. The stack referred to by the "top of the stack" reference is considered the "current stack," and all operations are by default performed within this data context. When creating a new stack, the reference moves to the top of the stack. When positioning a named stack to become the current stack, the buffer rotates to bring the required stack to the proper position at the "top of the stack."



Workbench

The workbench, an integral component of the BUND virtual machine, is a circular stack that temporarily holds and transfers values between computations conducted in various data contexts. Despite its functional significance, this circular stack does not carry a specific name.

What does the word “bund” mean?

The term “*Bund*”[1] comes from German or Yiddish and can be translated as *“association,” “bundle,”* or *“bunch.”* Throughout history, this word has been utilized in various contexts. In the context of the multi-stack concatenative programming language, “Bund” refers to the ability of the BUND language to integrate distinct, originally separate data and computation contexts into a unified computational process aimed at achieving a common goal.

[1] singular *Bundes*, plural *Bunde*

How to use the reference?

Generally, the reference does not require details on how you present information about your topic, but I still feel obligated to explain the structure of the function reference page.

- [ ] At the top of the page, you will find an optional warning indicating that using this function requires additional caution from the developer.
- [ ] Next, a list will provide details about where the function is implemented.
- [ ] Following that, there is a description of the operations performed by the function.
- [ ] Afterward, you will see a concise outline of the function's algorithm, highlighting how it interacts with the stack or workbench, including its inputs and outputs.
- [ ] Finally, a code snippet will demonstrate how to utilize the function effectively.

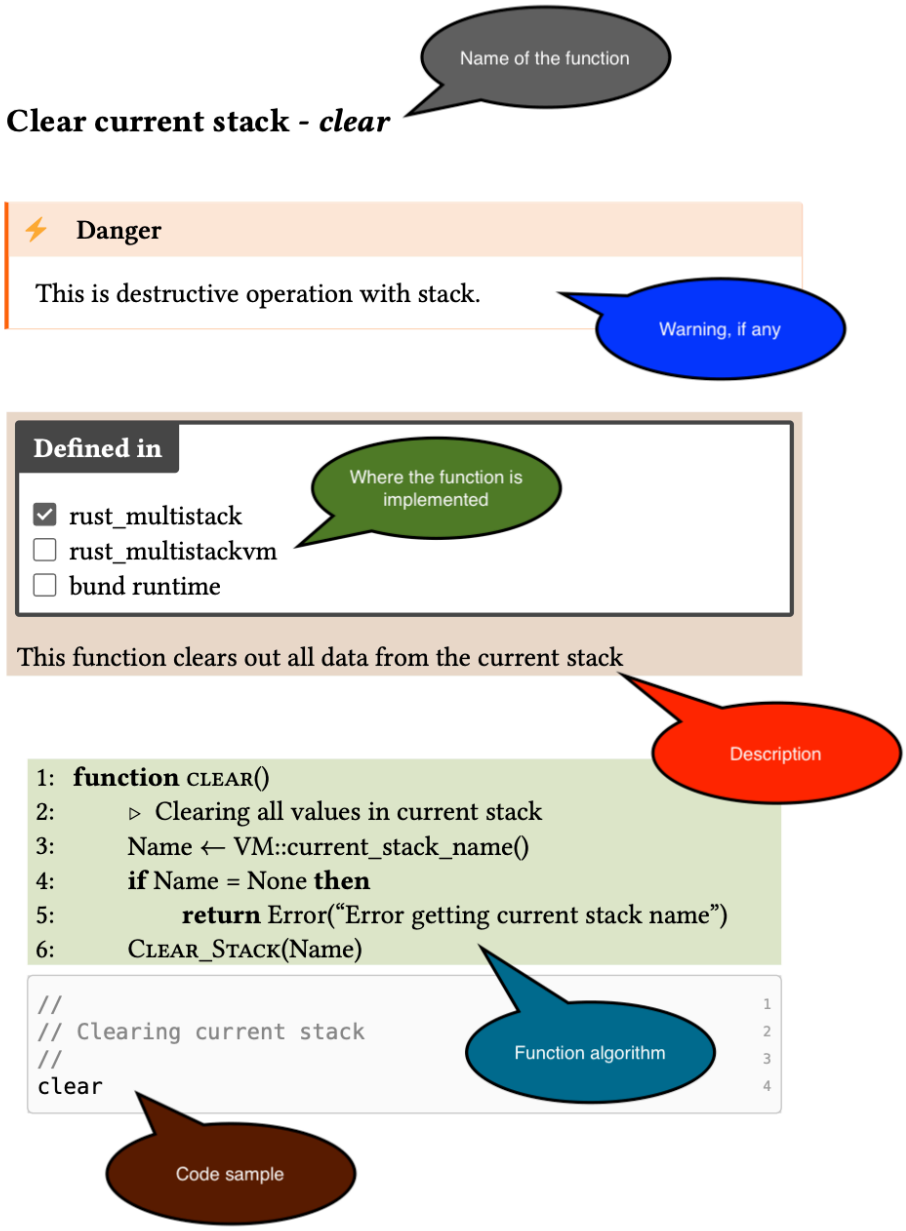


Figure 1: Here is your guide to the common Standard Library reference page.

BUND Standard library reference

Although language design is often simple, elegant, and thoughtfully executed, there is room for greater practicality. A language's core becomes truly functional and valuable to developers only when accompanied by a standard library of useful functions. These functions provide essential tools for performing operations and manipulating data effectively. Moreover, BUND shares several characteristics with other concatenative languages.

> **! Memorize**
>
> All run-time functionality of the BUND implemented in standard library.

When I say "all," I mean that every aspect of the functionality extends beyond just implementing the BUND parser and core logic. The BUND standard library is situated across multiple locations. Although this may initially be a design flaw, I had deliberate reasons for structuring the standard library this way.

Info

- [ ] The Rust crate *rust_multistack* encompasses all the logic associated with stack operations. Additionally, it incorporates elements of the standard library that pertain specifically to these operations. Features include data swapping on the stack, data duplication, removal of data, stack rotation, creation of stacks, and other related functionalities.
- [ ] The Rust crate *rust_multistackvm* is a foundational implementation of the BUND virtual machine. Although different tools and interpreters may facilitate access to BUND, the core logic of the BUND language remains intact within this crate. This encompasses data manipulation and conversion, application logic, mathematical operations, lambda function processing, and all other essential features.
- [ ] The Bund runtime serves as the interpreter for the Bund programming language. It encompasses implementing all standard library functions and facilitating user-related features and controls.

Clear current stack - *clear*

> ⚡ **Danger**
>
> This is destructive operation with stack.

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

This function clears out all data from the current stack

```
1: function CLEAR()
2:         ▷ Clearing all values in current stack
3:         Name ← VM::current_stack_name()
4:         if Name = None then
5:                 return Error("Error getting current stack name")
6:         CLEAR_STACK(Name)
```

```
//
// Clearing current stack
//
1 2 3 clear
// After calling clear stack is going to be empty
```

Clear named stack - *clear_in*

> ⚡ **Danger**
>
> This is destructive operation with stack.

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

This function clears out all data from the named stack, taking the name of the stack from current stack

```
1:  function CLEAR_IN()
2:          ▷ Clearing named stack
3:          Name ← current stack
4:          if Name = None then
5:                  return Error("Stack is too shallow")
6:          CLEAR_STACK(Name)
```

```
//
// Remove all data from named stack
//
@main
@StackName
  1 2 3
@main
  :StackName clear_in
// After calling clear_in, stack with name "StackName"
// will have no data
```

Taking value from stack and convert it to boolean - *convert.to_bool*

Defined in

- [ ] rust_multistack
- [x] rust_multistackvm
- [ ] bund runtime

Taking value from the stack, converting to the BOOL and pushing result to the stack

```
1:  function Convert_To_Bool()
2:          ▷ Converting Value to Boolean
3:          Value ← current stack
4:          if Value = None then
5:                  return Error("Stack is too shallow")
6:          current stack ← Value::conv(BOOL)
```

```
//
// Converting data in stack to string
//
:TRUE convert.to_bool
TRUE == {
  "Conversion is succesful"
  println
} if
```

Taking value from workbench and convert it to boolean - *convert.to_bool.*

Defined in

- [ ] rust_multistack
- [x] rust_multistackvm
- [ ] bund runtime

Taking value from the workbench, converting to the BOOLEAN and pushing result to the workbench

```
1:  function Convert_To_Bool_In_Workbench()
2:          ▷ Converting Value to Boolean
3:          Value ← workbench
4:          if Value = None then
5:                  return Error("Workbench is too shallow")
6:          workbench ← Value::conv(BOOL)
```

```
1 . convert.to_bool take
TRUE == {
  "Conversion is succesful"
  println
} if
```

Taking value from stack and convert it to float - *convert.to_float*

Defined in

- [ ] rust_multistack
- [x] rust_multistackvm
- [ ] bund runtime

Taking value from the stack, converting to the FLOAT and pushing result to the stack

```
1: function CONVERT_TO_FLOAT()
2:         ▷ Converting Value to Float
3:         Value ← current stack
4:         if Value = None then
5:                 return Error("Stack is too shallow")
6:         current stack ← Value::conv(FLOAT)
```

```
//
// Converting data in stack to string
//
42 convert.to_float
42.0 == {
  "Conversion is succesful"
  println
} if
```

Taking value from workbench and convert it to float - *convert.to_float.*

Defined in

- [ ] rust_multistack
- [x] rust_multistackvm
- [ ] bund runtime

Taking value from the workbench, converting to the FLOAT and pushing result to the workbench

```
1: function Convert_To_Float_In_Workbench()
2:         ▷ Converting Value to String
3:         Value ← workbench
4:         if Value = None then
5:                 return Error("Workbench is too shallow")
6:         workbench ← Value::conv(FLOAT)
```

```
42 . convert.to_string take
42.0 == {
  "Conversion is succesful"
  println
} if
```

Taking value from stack and convert it to string - *convert.to_string*

Defined in

- [ ] rust_multistack
- [x] rust_multistackvm
- [ ] bund runtime

Taking value from the stack, converting to the STRING and pushing result to the stack

```
1: function Convert_To_String()
2:         ▷ Converting Value to String
3:         Value ← current stack
4:         if Value = None then
5:                 return Error("Stack is too shallow")
6:         current stack ← Value::conv(STRING)
```

```
//
// Converting data in stack to string
//
42 convert.to_string
"42" == {
  "Conversion is succesful"
  println
} if
```

Taking value from workbench and convert it to string - *convert.to_string*.

Defined in

- [ ] rust_multistack
- [x] rust_multistackvm
- [ ] bund runtime

Taking value from the workbench, converting to the STRING and pushing result to the workbench

```
1: function Convert_To_String_In_Workbench()
2:     ▷ Converting Value to String
3:     Value ← workbench
4:     if Value = None then
5:         return Error("Workbench is too shallow")
6:     workbench ← Value::conv(STRING)
```

```
42 . convert.to_string take
"42" == {
  "Conversion is succesful"
  println
} if
```

Return name of current stack to current stack - *current*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Returns the name of current stack to current stack

```
1: function CURRENT()
2:         ▷ Returns the name of current stack to stack
3:         Name ← VM::current_stack_name()
4:         if Name = None then
5:             return Error("Can not detect current stack name")
6:         current stack ← Name
```

```
//
// Prints the name of current stack
//
current println
```

Drop element from the stack - *drop*

> ⚡ **Danger**
>
> This is destructive operation with data.

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

This function takes a single value from the top of current stack and discards it.

```
function DROP()
        ▷ Dropping value that is on top of the stack
        Name ← VM::current_stack_name()
        if Value = None then
                return Error("Stack is too shallow")
        DROP(Name)
```

```
//
// Calling this function will remove
// and discard a value
//
42 drop
```

Drop the last value in the named stack - *drop_in*

> ⚡ **Danger**
>
> This is destructive operation with data.

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Drop the last value in the named stack

```
1:  function DROP_IN()
2:      ▷ Drop the value in the named stack
3:      Name ← VM::current_stack_name()
4:      if Name = None then
5:          return Error("Stack is too shallow")
6:      DROP(Name)
```

```
//
// Drop the last value from stack "A"
//
"A" drop_in
```

Remove stack with all data - *drop_stack*

> ⚡ **Danger**
>
> This is destructive operation with stack.

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Drop named stack.

```
1:  function DROP_STACK()
2:          ▷ Drop the stack
3:          Name ← current stack
4:          if Value = None then
5:                  return Error("Stack is too shallow")
6:          DROPSTACK(Name)
```

```
//                                                  1
// Drop stack "TheStack"                            2
//                                                  3
:TheStack drop_stack                                4
// Now stack _TheStack_ doesn't exists              5
```

Duplicate multiple values in the current stack - *dup_many*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Duplicate multiple values in current stack

```
1: function DUP_MANY()
2:         ▷ Duplicate multiple values
3:         N ← current stack
4:         Name ← VM::current_stack_name()
5:         while N >= 0 do
6:                 Value ← current stack
7:                 current stack ← Call("Dup", [N, Name, Value])
8:                 N ← N - 1
```

```
//
// Duplicate data in stack
//
42 41 2 dup_many
// Now we have 42, 42, 41, 41 in stack
```

Duplicate multiple values in the named stack - *dup_many_in*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Duplicating multiple items in the named stack

```
1:  function Dup_Many_In()
2:          ▷ Duplicate multiple items in the named stack
3:          Name ← current stack
4:          Name ← current stack
5:          if Name = None then
6:                  return Error("Stack is too shallow")
7:          if N = None then
8:                  return Error("Stack is too shallow")
9:          while N >= 0 do
10:                 Value ← Name stack
11:                 Name stack ← Call("Dup", [N, Name, Value])
12:                 N ← N - 1
```

```
@main
@StackName
  1 2 3
@main
  :StackName 3 dup_many_in
// Duplicate all three values in
// stack "StackName"
```

Duplicate single value in the current stack - *dup_one*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Duplicate single value in current stack

```
1: function Dup_One()
2:         ▷ Duplicate value
3:         Value ← current stack
4:         Name ← VM::current_stack_name()
5:         current stack ← Call("Dup", [1, Name, Value])
```

```
//
// Duplicate data in stack
//
42 dup_one
// Now we have 42, 42 in stack
```

Duplicate single value in the named stack - *dup_one_in*

Defined in

- [ ] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Description of function

Duplicate single value in the named stack, when name of the stack is reading from current stack

1: **function** DUP_ONE_IN()
2: ▷ Duplicate value
3: Name ← *current stack*
4: Value ← *current stack*
5: *stack Name* ← Call("Dup", [1, Name, Value])

```
//
// Duplicating single value from stack "A"
//
@A 42
@main
  :A dup_one_in
// Now in stack A we have 42, 42
```

Make named stack current, create if stack doesn't exists - *ensure_stack*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Make named stack current, create if stack does not exists

```
1:  function Ensure_Stack()
2:          ▷ Make stack current, create if not exists
3:          Name ← current stack
4:          if Name = None then
5:                  return Error("Stack is too shallow")
6:          if Not Call(Stack_Exists, [Name]) then
7:                  Create_Stack(Name)
8:          To_Stack(Name)
```

```
//                                                  1
// Set stack "StackName" current                    2
//                                                  3
"StackName" ensure_stack                            4
```

Make named stack with set capacity current, create if stack doesn't exists. - *ensure_stack_with_capacity*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Make named stack current, create if stack does not exists with defined capacity

```
1:  function Ensure_Stack_With_Capacity()
2:          ▷ Make stack current, create if not exists
3:          Name ← current stack
4:          N ← current stack
5:          if Name = None then
6:                  return Error("Stack is too shallow")
7:          if Not Call(Stack_Exists, [Name]) then
8:                  Create_Stack_With_Capacity(Name, N)
9:          To_Stack(Name)
```

```
//
// Set stack "StackName" current
// and set stack capacity to not more than
// 128 values
//
128 "StackName" ensure_stack
```

Folding all values in the current stack - *fold*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

The *fold* function is designed to extract either all values stored in the stack or just the values that precede the *nodata* entry in the current stack. These extracted values will be compiled into a list and added back to the current stack.

```
1:  function Fold()
2:          ▷ Folding data in the current stack
3:          Result ← []
4:          for Current Stack not Empty do
5:                  Value ← current stack
6:                  if Value = NODATA then
7:                          Break()
8:                  Result ← Value
9:          current stack ← Result
```

```
//
// Folding stack values into list
//
1 2 3 none 4 5 6 fold
// Calling fold will leave
// 1 2 3 and [ 4 5 6 ]
// in the current stack
```

Folding all values in the named stack - *fold_stack*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

The *fold_stack* function is designed to extract either all values stored in the named stack or just the values that precede the *nodata* entry again, in the named stack. These extracted values will be compiled into a list and added back to the named stack.

```
1:  function Fold()
2:          ▷ Folding data in the named stack
3:          Result ← []
4:          Name ← current stack
5:          for Name not Empty do
6:                  Value ← Name stack
7:                  if Value = NODATA then
8:                          Break()
9:                  Result ← Value
10:         Name stack ← Result
```

```
//
// Folding data in the stack with name "A"
@main
@A
  1 2 3 nodata 4 5 6
@main
  :A fold_stack
// Result of the executing of this
// function will be 1 2 3 [4 5 6]
// in the stack "A"
```

Moving value from current stack to named stack - *move*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Moving value from current stack to named stack

```
1:  function FUNCTION-NAME()
2:          ▷ Move value from current stack
3:          Name ← current stack
4:          if Name = None then
5:              return Error("Stack is too shallow")
6:          Value ← current stack
7:          if Value = None then
8:              return Error("Stack is too shallow")
9:          Name stack ← Value
```

```
//                                                                  1
//                                                                  2
//                                                                  3
@A                                                                  4
@main                                                               5
  42 :A move                                                        6
@A                                                                  7
  42 == { "Data moving from @main to @A happens"                    8
          println } if                                              9
```

Moving value between named stacks - *move_from*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Moving value between two named stacks

```
function FUNCTION-NAME()
        ▷ Move value between named stacks
        Name_From ← current stack
        if Name_From = None then
                return Error("Stack is too shallow")
        Name_To ← current stack
        if Name_To = None then
                return Error("Stack is too shallow")
        Value ← Name_From stack
        if Value = None then
                return Error("Stack is too shallow")
        Name_To stack ← Value
```

```
//
//
//
@A
  42
@B
@main
  42 :B :A move_from
@B
  42 == {
          "Data moving from @A to @B happens"
          println } if
```

Rotate current stack to the left - *rotate_current_left*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Rotate current stack as a circular buffer to the left

```
1: function ROTATE_CURRENT_LEFT()
2:         ▷ Rotate current stack
3:         Name ← VM::current_stack_name()
4:         ROTATE_STACK_LEFT(1, Name)
```

```
//
// Rotate current stack to the left
//
1 2 3 rotate_current_left
// The state of stack is 2 3 1
```

Rotate current stack to the right - *rotate_current_right*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Rotate current stack as a circular buffer to the right

```
1: function ROTATE_CURRENT_RIGHT()
2:         ▷ Rotate current stack
3:         Name ← VM::current_stack_name()
4:         ROTATE_STACK_RIGHT(1, Name)
```

```
//
// Rotate current stack to the right
//
1 2 3 rotate_current_right
// The state of stack is 3 1 2
```

Rotate named stack left - *rotate_stack_left*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Rotate named stack as a circular buffer to the left

```
1: function ROTATE_CURRENT_LEFT()
2:     ▷ Rotate named stack
3:     Name ← current stack
4:     ROTATE_STACK_LEFT(1, Name)
```

```
//
// Rotate stack :A to the right and do the math
//
@main
@A
  1 2 41
@main
:A rotate_stack_left + println
// Printing result of + operation = 42
```

Rotate named stack right - *rotate_stack_right*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Rotate named stack as a circular buffer to the right

```
1: function ROTATE_CURRENT_LEFT()
2:         ▷ Rotate named stack
3:         Name ← current stack
4:         ROTATE_STACK_RIGHT(1, Name)
```

```
//
// Rotate stack :A to the right and do the math
//
@main
@A
  1 41 3
@main
:A rotate_stack_right + println
// Printing result of + operation = 42
```

Rotate circular list of stacks to left - *stacks_left*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Rotate circular buffer of stacks to the left

```
1: function Stacks_Left()
2:         ▷ Rotate list of stacks
3:         stacks_left(1)
```

```
//
// Rotate list of stacks
//
@A
@B
@C
  stacks_left
// Now stacks are in order B C A
```

Rotate circular list of stacks to right - *stacks_right*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Rotate circular buffer of stacks to the right

```
1: function Stacks_Right()
2:         ▷ Rotate list of stacks
3:         stacks_right(1)
```

```
//
// Rotate list of stacks
//
@A
@B
@C
  stacks_right
// Now stacks are in order C A B
```

Check if stack exists - *stack_exists*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Returning TRUE to the stack if named stack exists, FALSE - otherwise

```
1:  function Stack_Exists()
2:          ▷ Check if stack exists
3:          Name ← current stack
4:          if Name = None then
5:                  return Error("Stack is too shallow")
6:          if Not Call(Stack_Exists, [Name]) then
7:                  current stack ← FALSE
8:          else
9:                  current stack ← TRUE
```

```
//                                                          1
// This snippet will check if stack with name "A"          2
// exists and prints the message                           3
//                                                          4
@A                                                          5
:A                                                          6
  stack_exists                                              7
    { "Stack A existing" } ?                                8
// And yes, it ddoes exists, as @A will make sure that     9
it does
:B                                                          10
  stack_exists                                              11
  not { "There is no stack with name B" } ?                 12
// And stack B doesn't exists                              13
```

Swap two vallues in current stack - *swap_one*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Swapping two values in the current stack

```
1:  function Swap_One()
2:          ▷ Swapping data in stack
3:          Value1 ← current stack
4:          if Value1 = None then
5:                  return Error("Stack is too shallow")
6:          Value2 ← current stack
7:          if Value2 = None then
8:                  return Error("Stack is too shallow")
9:          current stack ← Value2
10:         current stack ← Value1
```

```
//
// Swapping values
//
1 2 swap_one
// As the result, we will have following state in the
stack 2 1
```

Make existing stack with name - current - *to_current*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Taking name of the stack from the stack and makes this stack a current stack. If stack doesn't exists raise an error

```
1:  function TO_CURRENT()
2:          ▷ Make already existing stack a current stack
3:          Value ← current stack
4:          if Value = None then
5:                  return Error("Stack is too shallow")
6:          To_Current(Name)
```

```
//
// Make stack with name "A" - current
// stack must already exists
//
"A" to_current
```

Make stack with name - current - *to_stack*

Defined in

- [x] rust_multistack
- [ ] rust_multistackvm
- [ ] bund runtime

Taking name of the stack from the stack and makes this stack a current stack. If stack doesn't exists VM creates it.

```
1:  function TO_CURRENT()
2:          ▷ Make stack a current stack. Create if not existing.
3:          Name ← current stack
4:          if Name = None then
5:                  return Error("Stack is too shallow")
6:          if not VM::stack_exists(Name) then
7:                  ENSURE_STACK(Name)
8:          TO_CURRENT(Name)
```

```
//
// Make stack with name "A" - current
//
"A" to_stack
```

Conclusion

BUND is a very new language. It is currently in its early stages of development, and the language's runtime has many limitations. The standard library requires improvement, and the author or contributor must address several potential bugs. However, the *bundcore* crate and its dependencies have successfully passed all their test cases, which is a promising sign. Although the language is simple and its underlying dependencies are generally stable, there are no guarantees against critical bugs. The license is attached for reference. While concatenative, stack-based programming languages are not widely used in general programming practices, they have stood the test of time and deserve more attention from the software development community. BUND aims to address design gaps in this concept, and the author hopes to spark interest with his ideas and inspirations that brought BUND into existence.

You can get in touch with my via my LinkedIn profile.
The BUND project is hosted on my GitHub page vulogov

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