How can I evaluate values displayed within a TRACE32 window in a PRACTICE script?
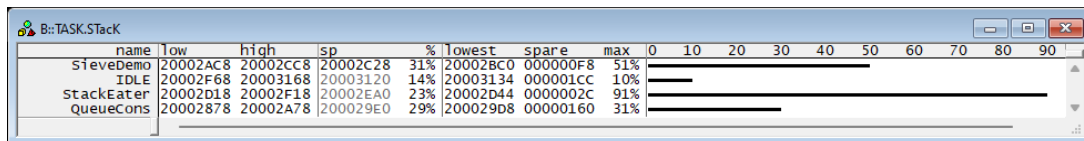
2025-07-19 - Comments (0) - PRACTICE

The default method that always works is to print the TRACE32 window into a file, and then parse this file using specific PRACTICE commands and functions.

Example: Parsing a TASK.STacK window

let's consider that you want to get the different values displayed in the following **TASK.STacK** window:

The first step is to print the window into a file using the **PRinTer.FILE** and **WinPrint** commands:

```
PRinTer.FILE test.txt  // redirect the printer output to the file
test.txt
WinPrint.TASK.STack // send the content of the window to the printer
```

The next step is to parse the file using the PRACTICE commands **OPEN**, **READ** and **CLOSE** as well as the **STRing.*** PRACTICE functions

```
// declare macros
PRIVATE &stack_line
PRIVATE &task_name &low &high &sp &lowest &spare &max &tmp

// open the file for reading and writing
OPEN #1 test.txt
// read the first line of the file, which corresponds to the command
name, into the macro &stack_line
READ #1 %LINE &stack_line
// read the second line of the file, which corresponds to the column
names, into the macro &stack_line
READ #1 %LINE &stack_line

// iterate over the rest of lines until the end of the file is
reached:
```

```
RePeaT
(
  // read one line
  READ #1 %LINE &stack_line
  // Abort when reading an empty line
  IF "&stack_line"==""
    ENDDO

  // extract name and emove unnecessary spaces
  &task_name=STRing.SPLIT("&stack_line","|",0)
  &task_name=STRING.TRIM("&task_name")
  // extract low and high values
  &tmp=STRing.SPLIT("&stack_line","|",1)
  &low=STRing.SPLIT("&tmp"," ",0)
  &high=STRing.SPLIT("&tmp"," ",1)
  // extract sp
  &sp=STRing.SPLIT("&stack_line","|",2)
  &sp=STRing.SPLIT("&sp"," ",0)
  // extract lowest, spare and max
  &tmp=STRing.SPLIT("&stack_line","|",3)
  &lowest=STRing.SPLIT("&tmp"," ",0)
  &spare=STRing.SPLIT("&tmp"," ",1)
  &max=STRing.SPLIT("&tmp"," ",-1)
  // print results
  AREA.view
  PRINT "-----------------------------------------"
  PRINT "Task name:                  &task_name"
  PRINT "Low stack address:          &low"
  PRINT "High stack address:         &high"
  PRINT "SP value:                   &sp"
  PRINT "Lowest used stack address:  &lowest"
  PRINT "Spare bytes:                &spare"
  PRINT "Max stack space used:       &max"

)
WHILE !FILE.EOFLASTREAD()

// close the file
CLOSE #1
```
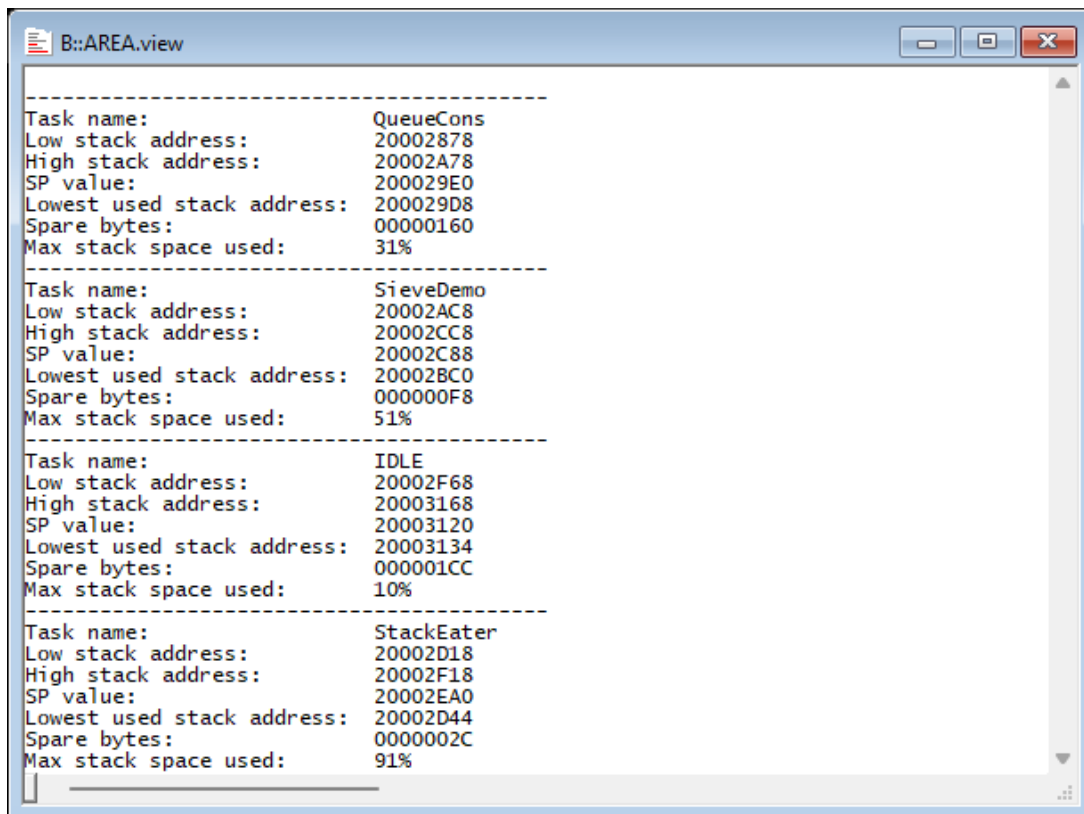
Final Results

Here is an example of the parsed output displayed in the A**REA.view** window:

```
-----------------------------------------
Task name:                QueueCons
Low stack address:        20002878
High stack address:       20002A78
SP value:                 200029E0
Lowest used stack address: 200029D8
Spare bytes:              00000160
Max stack space used:     31%
-----------------------------------------
Task name:                SieveDemo
Low stack address:        20002AC8
High stack address:       20002CC8
SP value:                 20002C88
Lowest used stack address: 20002BC0
Spare bytes:              000000F8
Max stack space used:     51%
-----------------------------------------
Task name:                IDLE
Low stack address:        20002F68
High stack address:       20003168
SP value:                 20003120
Lowest used stack address: 20003134
Spare bytes:              000001CC
Max stack space used:     10%
-----------------------------------------
Task name:                StackEater
Low stack address:        20002D18
High stack address:       20002F18
SP value:                 20002EA0
Lowest used stack address: 20002D44
Spare bytes:              0000002C
Max stack space used:     91%
```

References

The PRACTICE commands and functions used in this script are described in the following documentation:

- **PRinTer.FILE** and **WinPrint**: PowerView Command Reference

- **OPEN**, **READ** and **CLOSE**: PRACTICE Script Language Reference Guide

- **STRing.*** PRACTICE functions: PowerView Function Reference

Alternative Approach

It is possible to get the values displayed in some TRACE32 windows using specific PRACTICE functions directly. For example, refer to the description of the **sYmbol.List.MAP.<x>()** functions in General Function Reference.