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Title:	Program for printing the string using procedure and macro.
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Sign of Faculty:	

Aim: Program for printing the string using procedure and macro.

Theory:

Procedures:-

• Procedures are used for large group of instructions to be repeated.

• Object code generated only once. Length of the object file is less the memory

• CALL and RET instructions are used to call procedure and return from procedure.

• More time required for its execution.

• Procedure Can be defined as:

Procedure_name PROC
……
……
Procedure_name ENDP

Example:

Addition PROC near
……
……
Addition ENDP

Macro:-

• Macro is used for small group of instructions to be repeated.

• Object code is generated every time the macro is called.

• Object file becomes very lengthy.

• Macro can be called just by writing.

• Directives MACRO and ENDM are used for defining macro.

• Less time required for its execution.

• Macro can be defined as:

Macro_name MACRO [Argument, ... , Argument N]
.....
.....
ENDM

Example:-

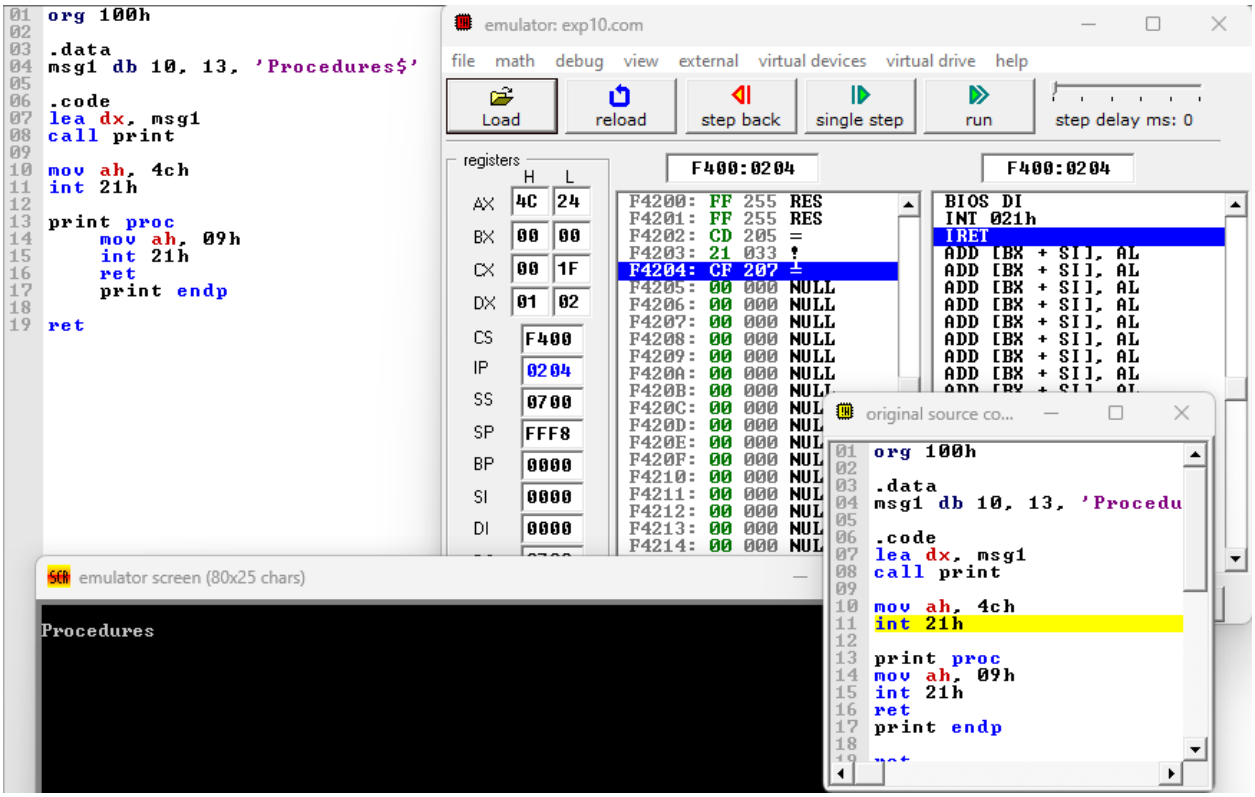
Display MACRO msg
.....
.....
ENDM

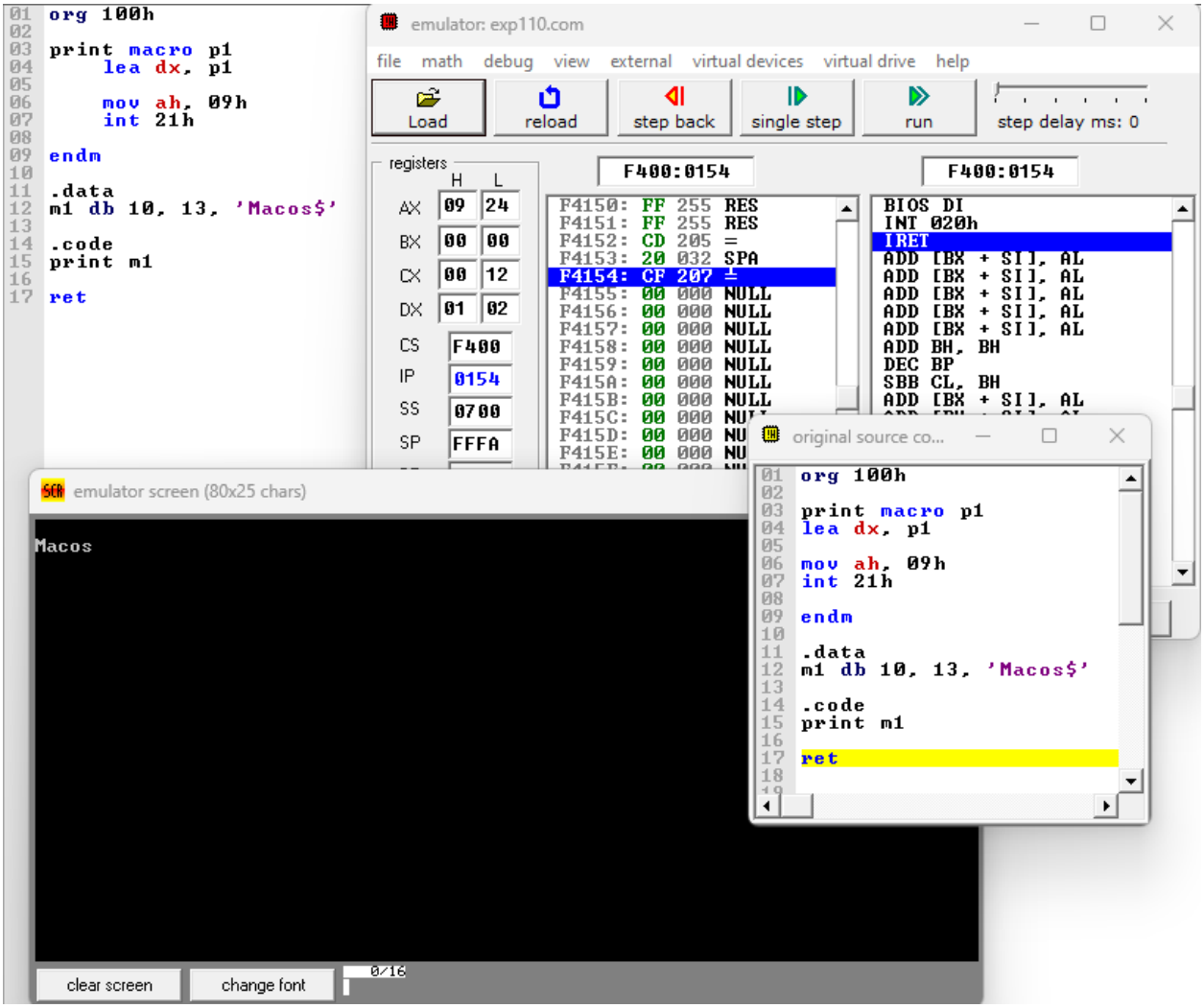
Code :

```
org 100h

.data
msg1 db 10, 13, 'Procedures$'

.code
lea dx, msg1
call print

mov ah, 4ch
int 21h

print proc
   mov ah, 09h
   int 21h
   ret
   print endp

ret
```

```
org 100h

print macro p1
   lea dx, p1

   mov ah, 09h
   int 21h

endm

.data
m1 db 10, 13, 'Macos$'

.code
print m1

ret
```

Output :





Conclusion :

In conclusion, the utilization of both procedures and macros in the program for printing strings enhances code readability, reusability, and efficiency. Procedures allow for the encapsulation of repetitive tasks, promoting modular design and easing maintenance. On the other hand, macros enable the generation of code snippets at compile time, reducing runtime overhead and potentially optimizing performance. By combining these two programming constructs, developers can create robust and flexible solutions for string manipulation tasks, thereby improving the overall quality and maintainability of the codebase.