

SYS\$(x) - System String Variable Function

(updated up to v24)

The SYS\$ function represents several different DesignCAD system variables in string format. SYS\$(6), for example, is the current path name. A list of the available SYS\$ functions follows:

0 – Commandline parameters. (V. 14)

This function contains any extra information that was on the command line after the macro name, or was passed by the CMDLINE statement to a RUN or CALL statement. For example, if you run mymacro.d3m by typing "mymacro.d3m 1, 10, 100" at the commandline, when the macro checks Sys\$(0) it will find the string "1, 10, 100"

1 - Entity text string. This is the text from a Text or Attribute entity that was "loaded" with the ENTITY statement (read_only)

2 - Current drawing name (with full path) (read_only).

Contains an empty string until the drawing has been saved at least once.

3 - Current drawing name (minus path) (read_only).

Contains an empty string until the drawing has been saved at least once.

5 - Current drive (read_only)

6 - Current path name

7 - Current time (read_only)

8 - Current date (read_only)

20 - Default drawing directory

Terminate the desired directory with a backslash '\'. Example:

Sys(20) = "C:\Program Files\IMSI\DesignCAD 3D Max 14\My Drawings\"

21 - Default symbol directory

Terminate the desired directory with a backslash '\'. Example:

Sys(21) = "C:\Program Files\IMSI\DesignCAD 3D Max 14\Symbols\2D Symbols\Windows\"

22 - Default bitmap directory

Terminate the desired directory with a backslash '\'.

23 - Default macro directory

Terminate the desired directory with a backslash '\'. Example:

Sys(23) = "C:\Program Files\Addons\DrillTroll's Macro Tools\"

25 - Default view directory

Terminate the desired directory with a backslash '\'.

34 - Default Material List directory

Terminate the desired directory with a backslash '\'.

36 - DesignCAD root directory (read_only)

37 - Default import directory

38 - Default export directory

39 - Default EXE directory

40 - Windows clipboard text

41 - Input window caption. Use an empty string "" for no title bar.

42 - Output window caption. Use an empty string "" for no title bar.

43 – Default Symbol Library Path (V. 15)

90 - Name of current view window

91 - Name of current material

92 - Entity color. This 9-digit string represents the RGB values for the color of the item referenced by the last ENTITY statement. It replaces Sys(92) in earlier versions of DesignCAD. The first three characters represent the red component, the second three represent the green component, and the last three the blue component of the color. (read_only). Note: This function is no longer necessary, as there are dedicated Sys() functions, Sys(290) – Sys(292), which directly represent the RGB values of the current Entity color.

93 - Name of current layer (30 characters, max.)

94 - Name of current TrueType font

95 - Name of current Vector Font

100 - Registered serial number (read_only)

101 - Registered user name (read_only)

102 - Registered company name (read_only)

103 - DesignCAD release date (read_only)

104 - DesignCAD release time (read_only)

105 - DesignCAD version number (read_only)

200 - Statusbar panels visibility (write_only) (V. 13)

This is a six-digit string consisting of ones and zeros. Each digit controls the visibility of one of the panes of the status bar, as follows:

Digit	Panel
1	Snap mode
2	Points counter
3	Zoom factor
4	Drafting mode
5	Preset Point mode
6	Working Plane

The command prompt panel cannot be turned off. The string must be exactly six characters in length, or it will be ignored. Any character other than "0" (zero) will make the corresponding panel visible.

Examples:

Sys\$(200) = "010001" ' shows only points counter and working plane

Sys\$(200) = "111111" ' turns all panels back on

Notes: The string must be exactly six characters long, or it will have no effect on the current settings. Any character other than "0" will turn the corresponding panel ON.

Note for 15.0 and later: an extra field has been added, increasing the number of zeros or ones from six to seven.

Digit 1 is now the Units of Measurement, and everything else is shifted one location to the right.

Digit	Panel
1	Units of Measurement
2	Snap mode
3	Points counter
4	Zoom factor
5	Drafting mode
6	Preset Point mode
7	Working Plane

[Sys\\$\(240\) – Write-only – Store the string representation of an entity's 64-bit id here, then read Sys\(490\) to get that entity's index. If the 64-bit ID is not found, Sys\(490\) will be set to zero.](#)

[Sys\\$\(295\) – Read-only – Retrieves the long id \(permanent 64-bit id used by OLE Automation\) of an entity selected by the Entity Statement as a string. An entity's index may change if other drawing entities are deleted, but so long as it remains unedited \(no trimming or rearranging points\) its 64-bit id should remain constant. This may prove handy for keeping long-term track of entities over the course of many drawing sessions.](#)

296 - Entity Symbol Name. (Read-only) (V. 13)

This function contains the full path and filename of the symbol entity currently selected by the ENTITY statement, or the block name if the entity is a block.

297 - Entity Attribute Definition Tag. (V. 13)

This function contains the tag name of the Attribute Definition currently selected by the ENTITY statement.

298 - Entity Attribute Definition Prompt. (V. 13)

This function contains the user prompt for the Attribute Definition currently selected by the ENTITY statement.

299 - Entity Attribute Definition Default Text. (V. 13)

This function contains the default text of the Attribute Definition currently selected by the ENTITY statement.

300 - Entity Name. (V. 16)

This function contains the name of the ENTITY statement.

301 – Layer Group Name. (V. 17)

This function contains the name of the current layer group.

390 - Indexed Block Attribute Definition Tag. (V. 13)

This function contains the tag name of the indexed Attribute Definition that is contained in a Block entity currently selected by the ENTITY statement. The index of the attribute definition being described is set by Sys(391).

391 - Indexed Block Attribute Definition Default Text. (Read-only) (V. 13)

This function contains the default text string for the indexed Attribute Definition that is contained in a Block entity currently selected by the ENTITY statement. The index of the attribute definition being described is set by Sys(391).

392 - Indexed Block Attribute Definition Text. (V. 13)

This function contains the actual text contents of the indexed Attribute Definition that is contained in a Block entity currently selected by the ENTITY statement. The index of the attribute definition being described is set by Sys(391).

Sample code -- how to extract Attribute Definition data from blocks:

For entnum = 1 To Sys(9) ' check every entity in the file

Entity entnum

On Error Resume

If (Sys(90) = 26) And (Sys(296) = 3) Then

' This is a Symbol entity, of subtype Block

blkName\$ = Sys\$(296)

nAttributes = Sys(390)

for i = 1 to nAttributes

' get data for every attribute definition in this

' block instance

Sys(391) = i

isFixed = Sys(392)

isVisible = Sys(393)

tag\$ = Sys\$(390) ' attribute definition tag

defText\$ = Sys\$(391) ' default text string

attText\$ = Sys\$(392) ' actual text string

next i

End If

If Sys(90) = 71 Then

' This is an attribute definition (outside a block)

isFixed = Sys(298)

isVisible = Sys(299)

tag\$ = Sys\$(297) ' attribute definition tag

prompt\$ = Sys\$(298) ' user prompt

defText\$ = Sys\$(299) ' default text string

End If

```
If Sys(90) = 68 Then
    ' This is a construction line
    CLineType = Sys(297)
    If CLineType = 0 Then
        CLMsg$ = "Invalid Data"
    End If
    If CLineType = 1 Then
        CLMsg$ = "Construction Line"
    End If
    If CLineType = 2 Then
        CLMsg$ = "Construction Ray"
    End If
End If
```

Next entnum

803 - Current Paperspace Layout Name

To use the SYS\$ function in a macro, use it like you would any other string function. For example, the following macro displays the current drive and path name:

```
message Sys$(6)
```