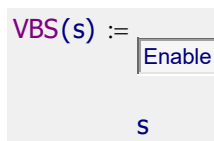# Visual Basic Functions

Interactuing within the OS.
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Following component eval any string into the Microsoft visual basic script engine.

$$\text{VBS}(s) :=$$
Enable

$$s$$

Enable from contextual menu, and then clicking over the component.

The variable **ans** have an special meaningful
(must to be write as "**ans =**" textual)

$$\text{VBS}("ans = 1 + 2") = 3$$

Also can be called without it, as simple string parser

$$\text{VBS}("2*3 + sin(0.5)") = 6.48$$

Number formating

$$X := 10000$$

$$F(x) := \text{VBS}(\text{concat}("FormatCurrency(" , \text{num2str}(x) , ")"))$$

$$F(X) = "\$10,000.00"$$

$$F(x) := \text{VBS}(\text{concat}("FormatNumber(" , \text{num2str}(x) , ",3)"))$$

$$F(X) = "10,000.000"$$

Special windows folders. Notice where ans is included.

$$\text{Folders}(H) := \begin{vmatrix} s \leftarrow "Set\ oShell = CreateObject("Shell.Application") : " \\ s \leftarrow \text{concat}(s , "Set\ oFolder = oShell.Namespace(\&") \\ s \leftarrow \text{concat}(s , H , "\&) : ") \\ s \leftarrow \text{concat}(s , "ans = oFolder.Self.Path") \\ \text{VBS}(s) \end{vmatrix}$$

My documents and my music

$$\text{Folders}("H5") = "F:\backslash USERS\backslash Documents"$$

$$\text{Folders}("Hd") = "F:\backslash USERS\backslash Music"$$

Mathcad functions

VBS("worksheet.parent.version") = "11.0"

VBS("worksheet.name") = "□ - vbs"

VBS("worksheet.Path") = "F:\USERS\Desktop\"

VBS("worksheet.fullname") = "F:\USERS\Desktop\vbs.mcd"

X := 7   Notice that changing X not change the following result authomatic (press F9)

VBS("worksheet.GetValue("X")") = 7

Security notes

Even this component it's very unsafe if the computer is exposed to users hwo can write malicious code, have the big adventage that it is only one component to enable each time that scripting functions are needed. Also, if the component is exported as an mcm file, you can select your own name, hard to discover for other users, and in this way the component appears as enable even the security level is set to high. For this reason starting value for the box is disable, but you can change this at the scripting code, at your risk.

VBScript functions

vbsCDate(s) := VBS(concat("CDate("" , s , "")"))

vbsCDate("4:35:47 PM") = 0.691516203703704

vbsCDate("10/19/1962") = 22938

vbsCDate("0.691516203703704") = 0.691516203703704

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