



## Programming VB-Script GUIs containing a large number of Measurement Elements

### SYMPTOMS

Opening VB-Script based GUIs with a large number of measurement elements (max. 500) in LCO V3.x.x takes longer than with earlier versions (increase per measure variable: approx. 500ms).

### CAUSE

The actions that run when first accessing a measurement variable using the command "readASAPMeasurement()" were extended (checking the availability and validity of measurement, implicit measurement STOP/START).

These changes were necessary as a new validity attribute for measurement variables was introduced. The attribute ensures that only an actually measured value is returned as the result of a measurement. In LCO V2.0 in contrast the first result of a measurement was displayed as "0" whenever a measure variable was initially accessed.

### RESOLUTION

#### A) Replace the method "readASAPMeasurement" by the method "getDoubleValue"

In order to avoid long waiting periods when opening VBScript based GUIs containing a large number of measurement variables we recommend to execute measurement access using the method "getMeasureValue" instead of the method "readASAPMeasurement()". This can be done in the following way:

1. Replace the methods "readASAPMeasurement"/  
"readSymbolicMeasurement" of the object "LCAS.ModelController" in your VBScript Code by the method "getDoubleValue" of the object "LCAS.Measurement"
2. Instead of generating a single instance of the model controller (common for all objects), an instance of the measurement object has to be generated separately for each measurement variable before the first measurement. This means, replace the line:  
set MC = createobject("LCAS.ModelController")  
by "n" lines  
set Measure1=CreateObject ("LCAS.Measurement")  
set Measure2=CreateObject ("LCAS.Measurement")  
set Measure3=CreateObject ("LCAS.Measurement")  
...  
3. Before the first measurement access, link each instance of the measure object to the LCO-Project measure variable to be measured, e.g.:  
result = Measure1.create("ud//v\_RF.Vehicle Dynamics")  
result = Measure2.create("ud//v\_LF.Vehicle Dynamics")  
result = Measure3.create("ud//v\_RR.Vehicle Dynamics")





...

### **B) Sequence of the labels in the upper section of the active mapping file**

As soon as the command OPEN EXPERIMENT is executed, up to 200 measure variables are loaded from the currently active mapping file to the Target Server's measurement schedule. Invalid entries are not considered during this action. In order to accelerate the time needed to open a specific GUI, it is therefore possible – as an alternative to or in conjunction with method A) – to place the labels used in a specific GUI at the front section of the active mapping file. The necessary time to open this GUI will then also be reduced because the first measurement access to the variables occurs upon the command OPEN EXPERIMENT.

### **AFFECTED PRODUCTS**

LCO V3.x.x and higher

### **ADDITIONAL KEYWORDS**

faster measurement, acceleration

