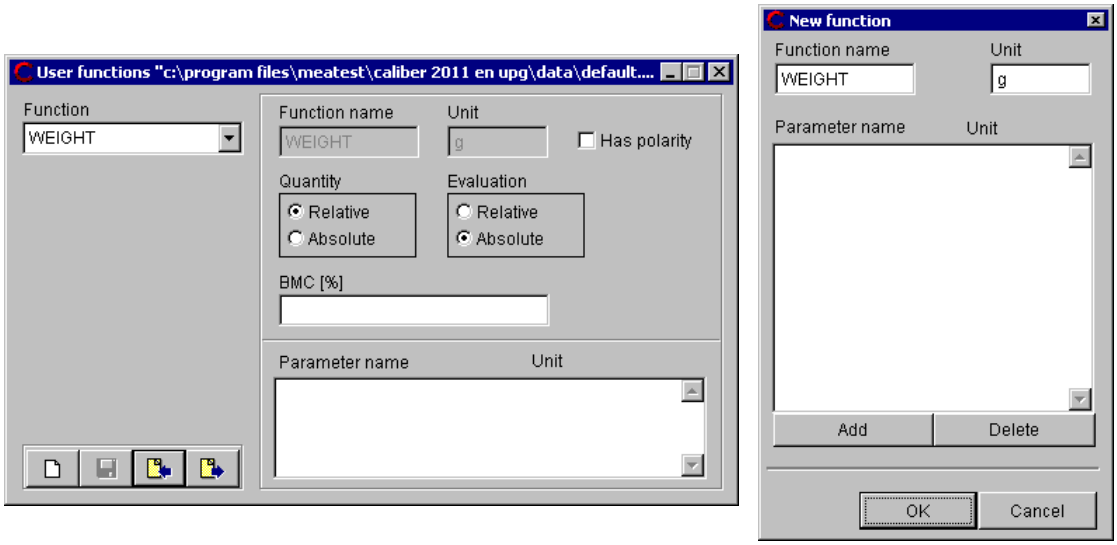
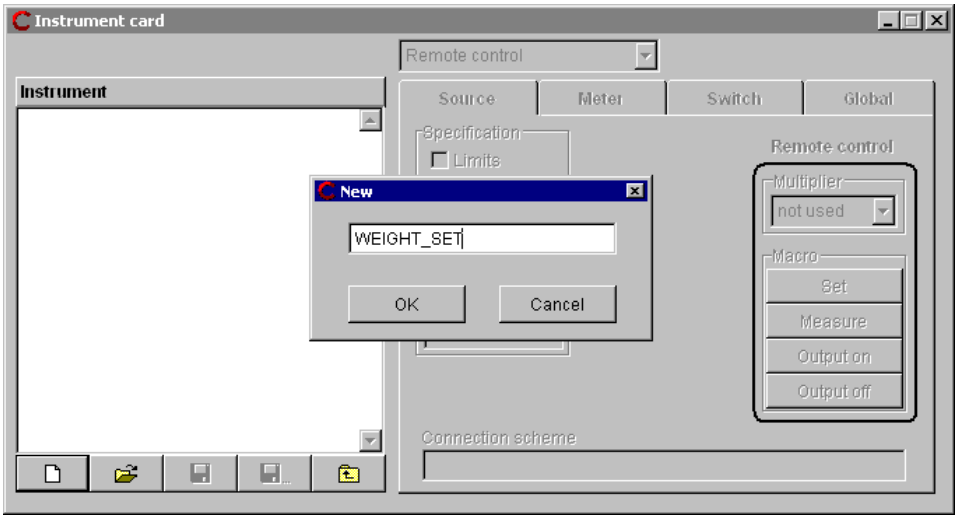
Weight function in Caliber

This article describes how to create and use weight function in Caliber.

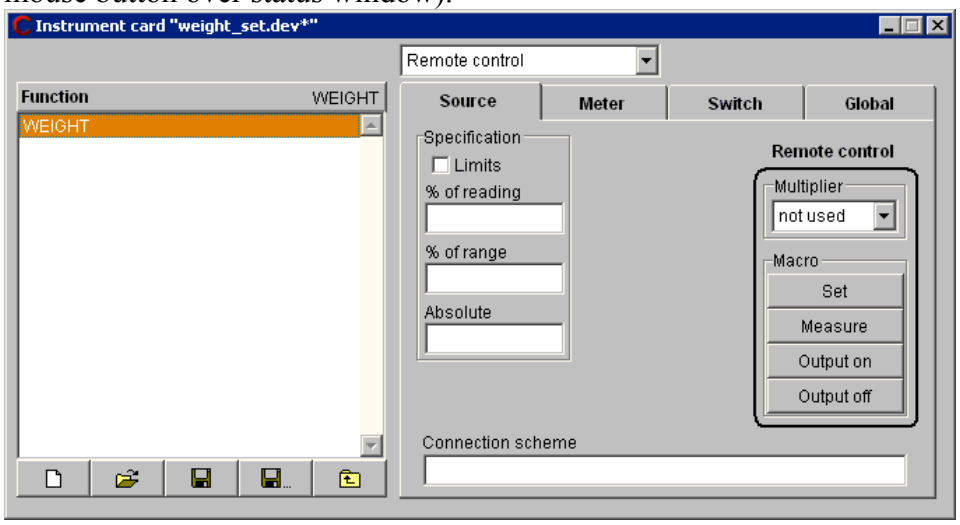
1) Creating new function.
From top menu labeled “Window” select “User functions” module. Press “New” button to activate “New function” panel. Fill in “Function name” and “Unit” as shown in picture. Set “Quantity” to “Relative” option. Press “Save” button.



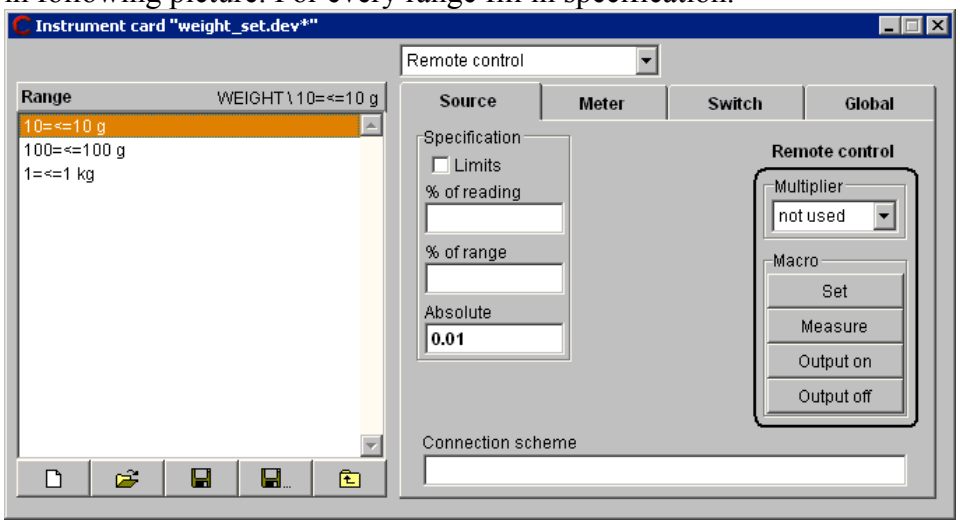
2) Creating new instrument card of WEIGHT SET.
This card will serve as source for “WEIGHT” function. Press “New” button, fill in instrument name “WEIGHT_SET”, press “OK” button.



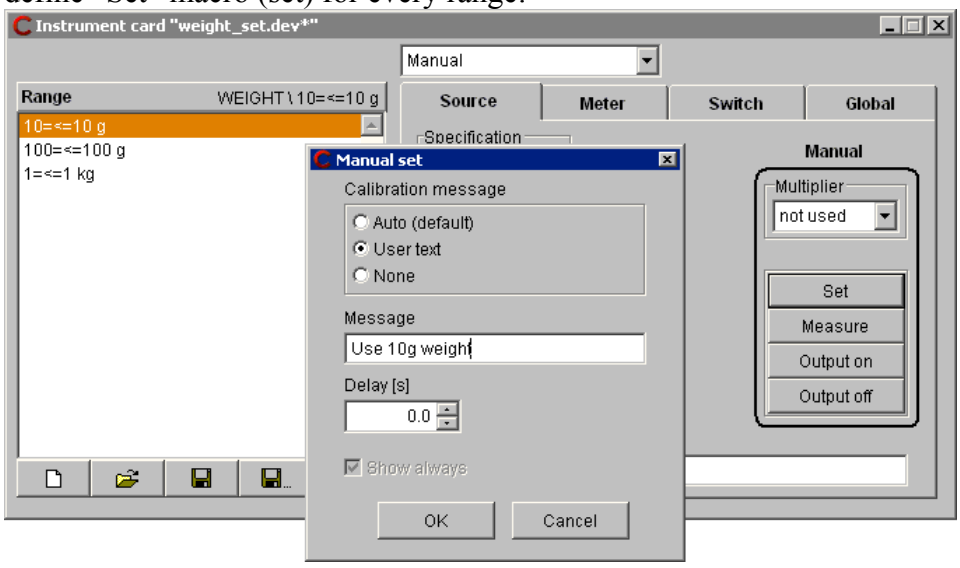
Select “Source” page and add newly created function “WEIGHT” (by pressing right mouse button over status window).



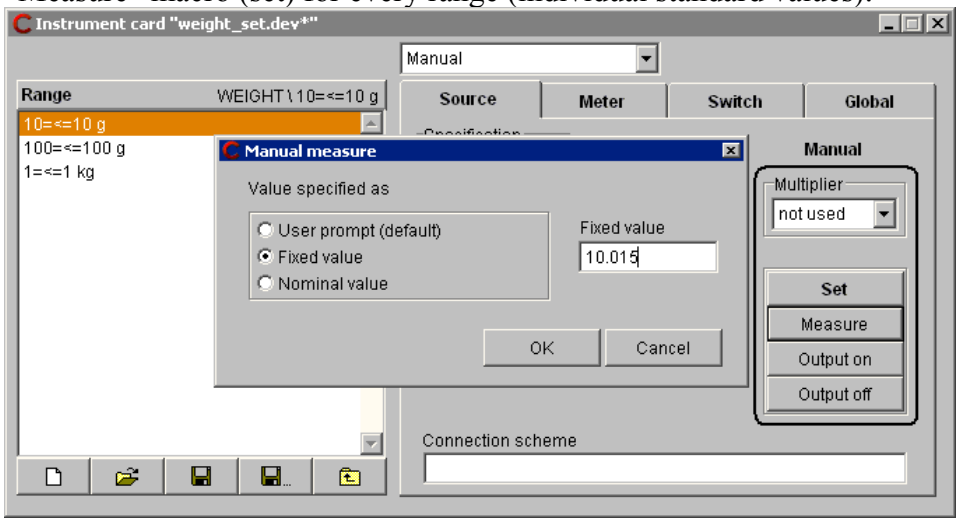
Now add ranges to “WEIGHT” functions. For example “10g”, “100g”, “1000g” as show in following picture. For every range fill in specification.



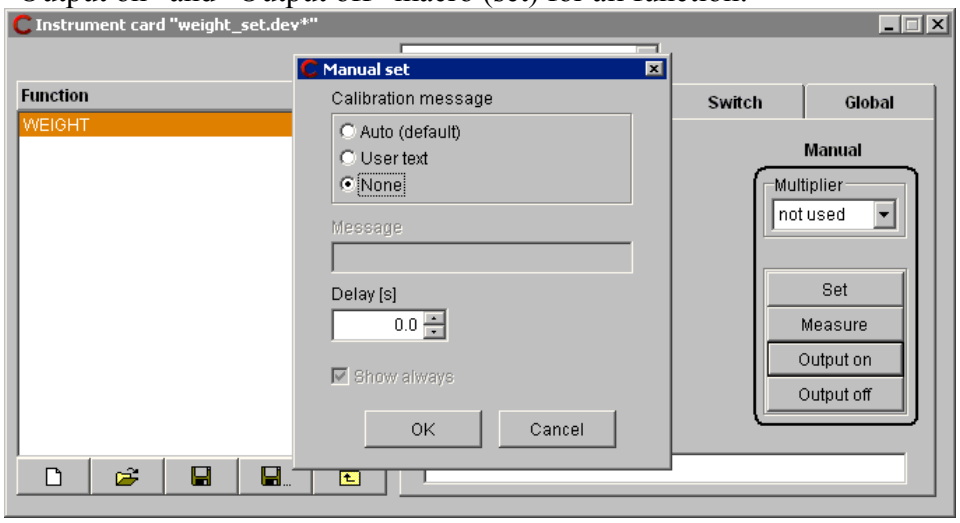
The last step is to define macros. In our example, only manual control will be used. So define “Set” macro (set) for every range:



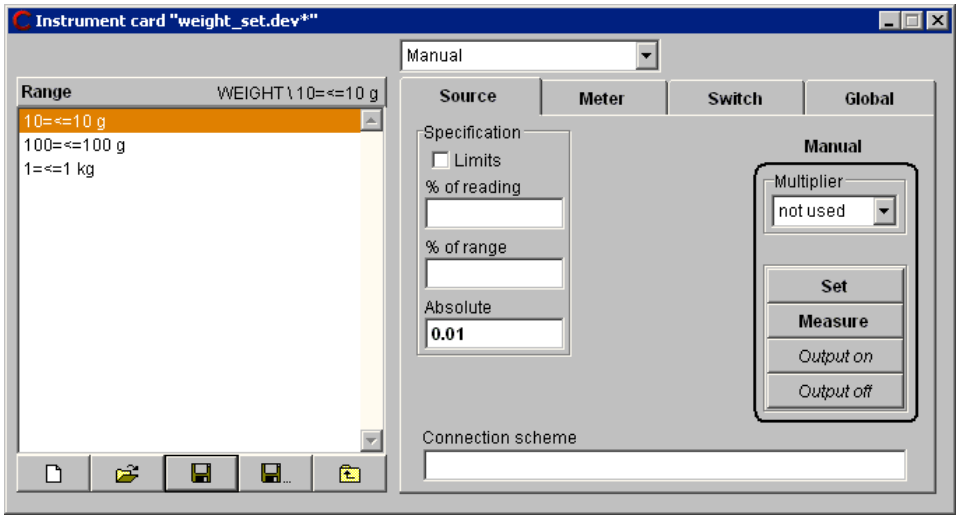
"Measure" macro (set) for every range (individual standard values):



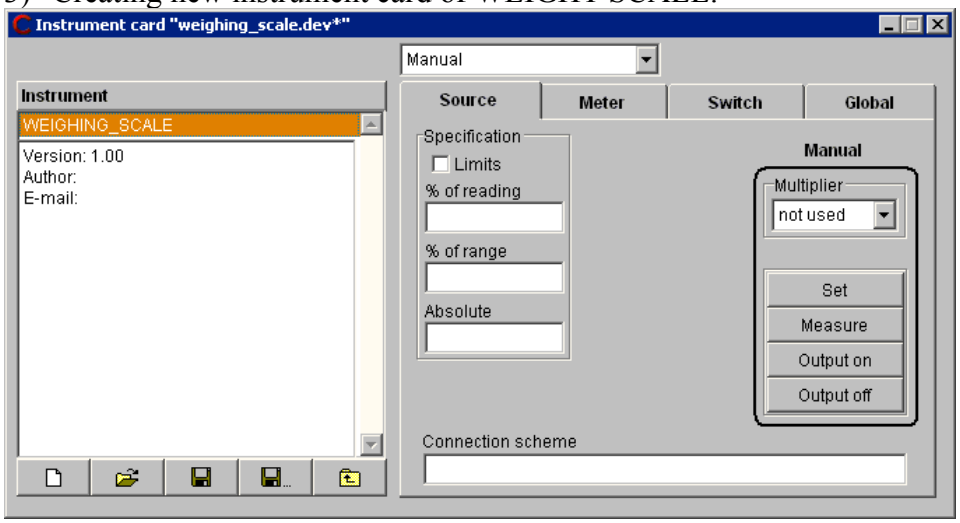
"Output on" and "Output off" macro (set) for all function:



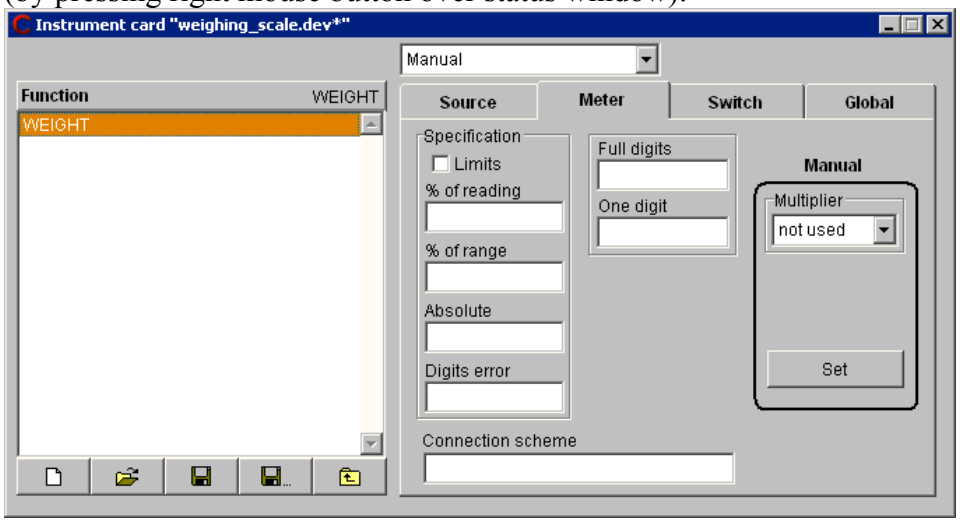
Instrument card is finished, press "Save" button.



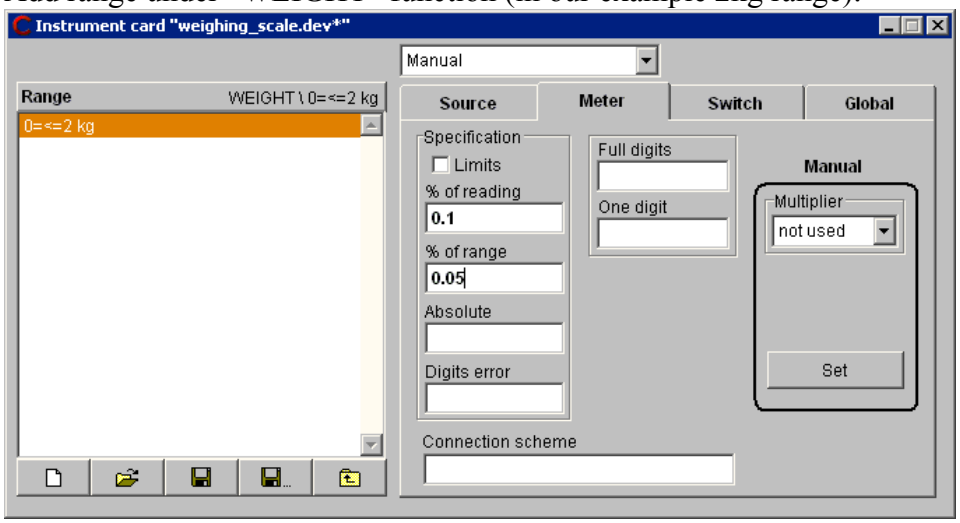
3) Creating new instrument card of WEIGHT SCALE.



Select "Meter" page on the right side of screen. Add newly created function "WEIGHT" (by pressing right mouse button over status window):

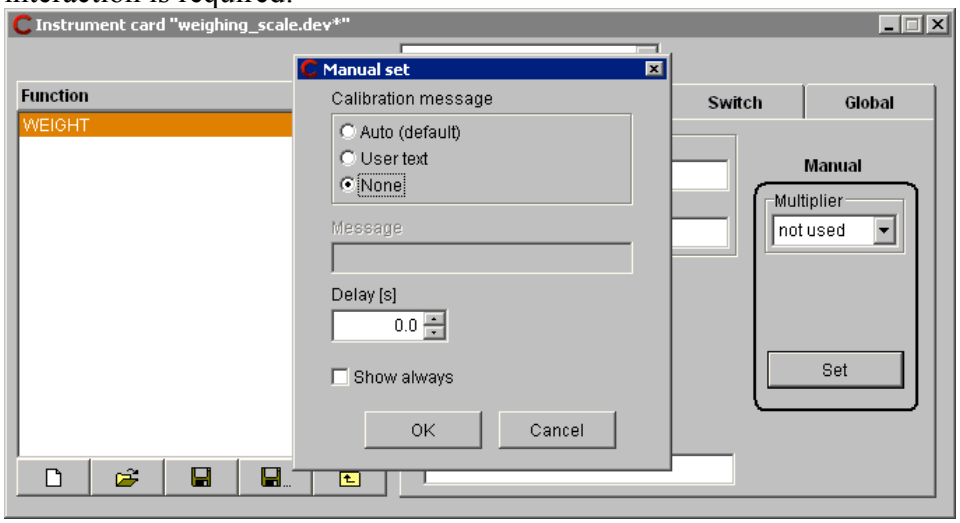


Add range under "WEIGHT" function (in our example 2kg range):

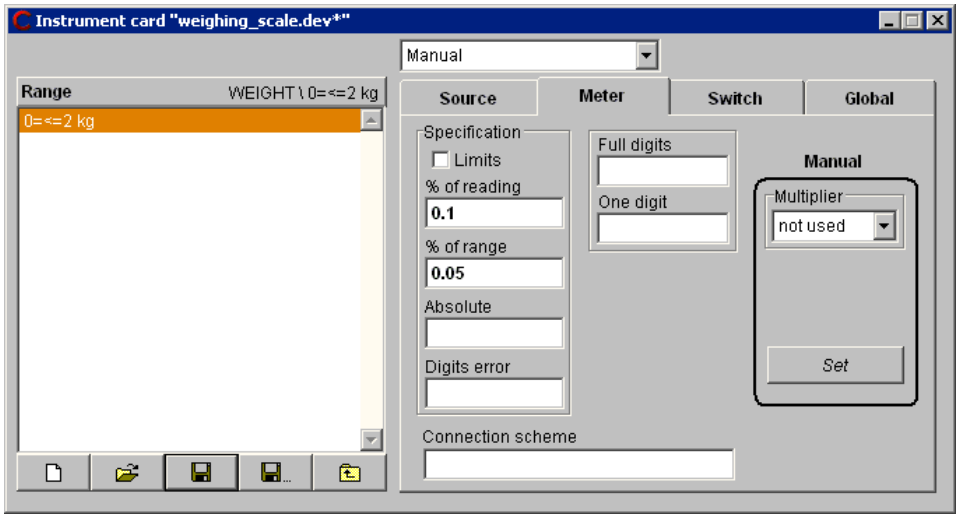


Fill in also specification for this range.

Last step is to define “Set” macro. This instrument will be operated only manually and no interaction is required:

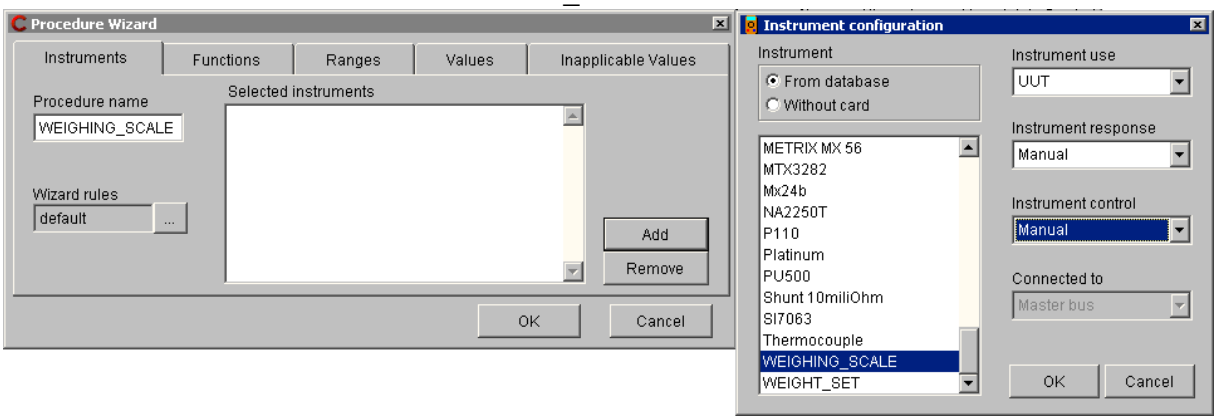


Instrument card is finished and should be saved.

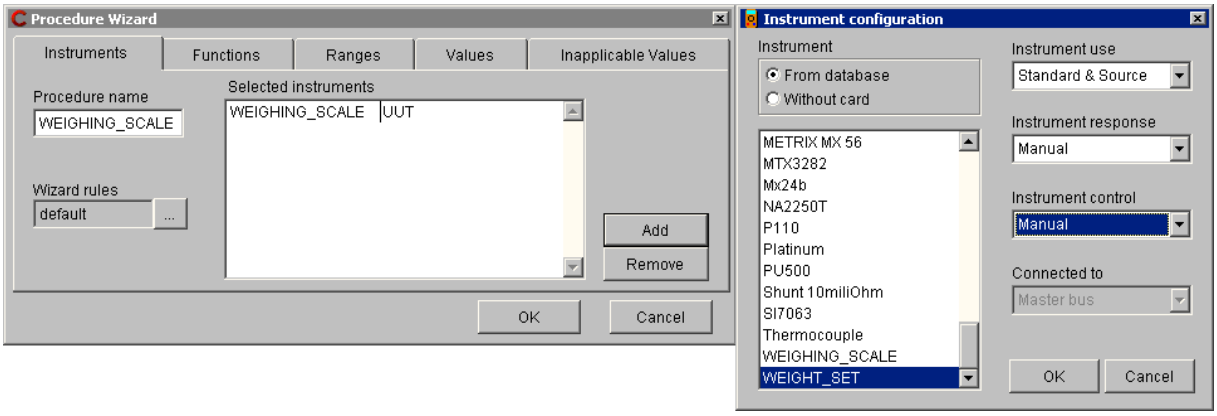


4) Creating testing procedure.

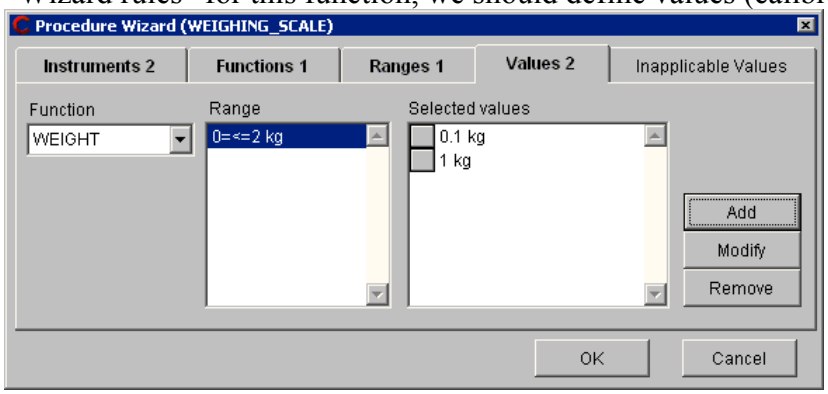
Now we have two instrument cards created and we can form calibration procedure. Press "New" button to activate "Procedure Wizard". Fill in "Procedure name" and add instruments. First of them "WEIGHING_SCALE" as UUT:



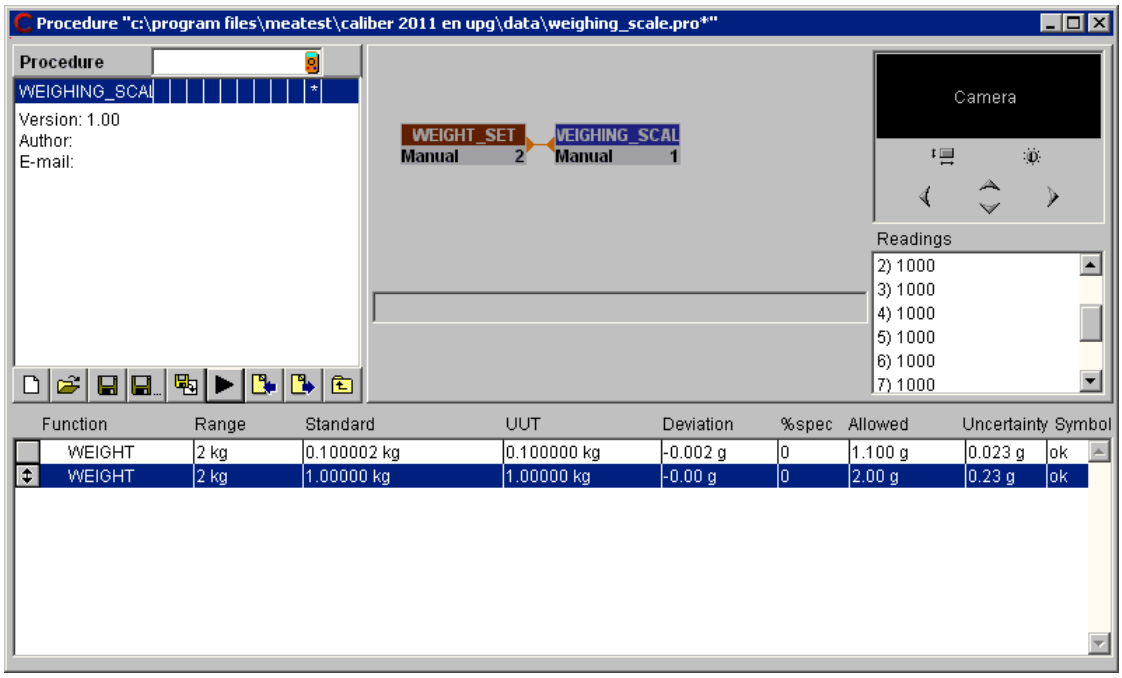
Subsequently "WEIGHT_SET" as Standard & Source:



Wizard automatically selects the only function "WEIGHT" and range "2kg". As there are no "Wizard rules" for this function, we should define values (calibration points) here:



By pressing "OK" button new procedure will be automatically created and procedure can be tested. No real instrument is needed, because all operation is done manually.


Procedure "c:\program files\meatest\caliber 2011 en upg\data\weighing_scale.pro*"
Procedure
WEIGHING_SCAL
Version: 1.00
Author:
E-mail:
WEIGHT_SET
Manual 2
VEIGHING_SCAL
Manual 1
Camera
Readings
2) 1000
3) 1000
4) 1000
5) 1000
6) 1000
7) 1000
Function Range Standard UUT Deviation %spec Allowed Uncertainty Symbol
WEIGHT 2 kg 0.100002 kg 0.100000 kg -0.002 g 0 1.100 g 0.023 g ok
WEIGHT 2 kg 1.00000 kg 1.00000 kg -0.00 g 0 2.00 g 0.23 g ok