

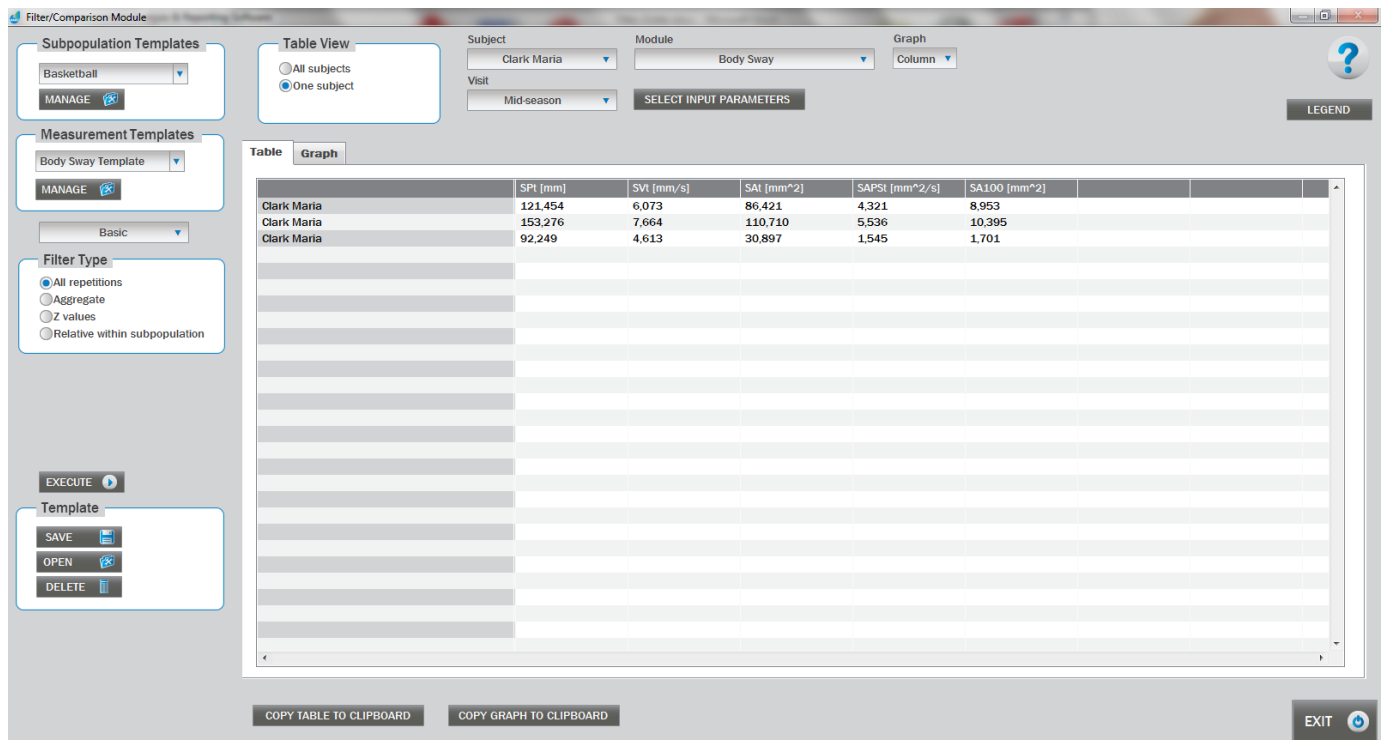
## FILTER / COMPARISON

### BRIEF DESCRIPTION

Filter / comparison unit is used for the visualization of the tests` results (results parameters). There are several options available for results visualization including raw values, aggregate values (on repetitions), Z values (standard score), relative comparison with subpopulation and relative comparison with visit.

### FILTER / COMPARISON WINDOW

Filter / comparison unit window consists of three main areas: on the left side you can find the filter / comparison definition and template functionalities, on the top there are table / graph view options and the central part visualizes data table and graph.



The screenshot shows the 'Filter/Comparison Module' window. On the left, there are panels for 'Subpopulation Templates' (Basketball), 'Measurement Templates' (Body Sway Template), and 'Filter Type' (All repetitions selected). The top right has dropdowns for 'Subject' (Clark Maria), 'Module' (Body Sway), and 'Graph' (Column). A 'Table View' panel has 'One subject' selected. The central area shows a data table with columns for SPT, SVI, SA, SAPSI, and SA100. The table contains three rows of data for 'Clark Maria'. At the bottom, there are buttons for 'COPY TABLE TO CLIPBOARD', 'COPY GRAPH TO CLIPBOARD', and 'EXIT'.

	SPT [mm]	SVI [mm/s]	SA [mm <sup>2</sup> ]	SAPSI [mm <sup>2</sup> /s]	SA100 [mm <sup>2</sup> ]
Clark Maria	121.454	6.073	86.421	4.321	8.953
Clark Maria	153.276	7.664	110.710	5.536	10.395
Clark Maria	92.249	4.613	30.897	1.545	1.701

#### Subpopulation Templates

Contains predefined subpopulation templates (i.e. group of subjects) for instant use. To manage subpopulation templates click “Manage” button (detailed description is under Manage Subpopulation Templates section).

#### Measurement Templates

Contains predefined measurement templates (i.e. group of tests with corresponding sets of selected results` parameters and input parameters) for instant use. To manage measurement templates click “Manage” button (detailed description is under Manage Measurement Templates section)

### Filter level

Is either basic or advanced. The basic level contains quick and easy to use filters and comparison options. Advanced level contains more complex functionalities with wider range of options (additional to basic options).

### Filter Type (Basic level)

Four options are available for results` parameters manipulation:

- *All repetitions* – all repetitions.
- *Aggregate* – uses aggregate function (on repetitions) that is specified for each result parameter separately in a measurement template.
- *Z values* – calculates Z values (standard score) for results parameters (aggregate function specified in measurement template is used on repetitions).
- *Relative within subpopulation* – calculates relative values (in %) compared to the selected subpopulation (under Subpopulation Templates) (aggregate function specified in measurement template is used on repetitions).

### Filter Type (Advanced level)

Two basic options are available for results` parameters manipulation:

- *All repetitions* – all repetitions.
- *Aggregate* – uses aggregate function (on repetitions) that is specified for each result parameter separately in a measurement template. Additional four options are available under Relative Comparison.

### Relative comparison

Four options for comparison are available:

- *None* – no comparison is performed.
- *Z values* – calculates Z values (standard score) for results parameters (aggregate function specified in measurement template is used on repetitions).
- *Relative within subpopulation* – calculates relative values (in %) compared to the subpopulation specified with “Set” button (aggregate function specified in measurement template is used on repetitions).
- *With visit* – calculates relative values (in %) compared to the selected visit (dropdown menu under “With visit” option) (aggregate function specified in measurement template is used on repetitions).

### Execute

Applies options defined above it (table / graph view options are updated).

### Template

Enables manipulation (save, open and delete) of filter/comparison templates that are defined with Subpopulation Template, Measurement Template, Filter Type and Relative Comparison.

### Table View

If in Filter Type All repetitions is selected, then two options are available: (1) All subjects (results` parameters of all subjects are displayed in table/graph) and (2) One subject (results` parameters of one subject are displayed in table/graph). If in Filter Type any other option than All repetitions is selected, three options are available: (1) By subjects (results` parameters of all subjects are displayed in table/graph), (2) By input parameters (results` parameters of all input parameters are displayed in table/graph) and (3) By visits (results` parameters of all visits are displayed in table/graph).

**Subject**

Subject for who the results parameters are displayed in table/graph.

**Visit**

Visit for which the results parameters are displayed in table/graph.

**Module**

Module for which the results parameters are displayed in table/graph.

**Select input parameters**

Input parameters for which the results` parameters are displayed in table/graph.

**Graph**

Type of the graph (column or line).

**Legend**

Shows legend of results` parameters and if necessary of input parameters. Legend is show in the window where it can be copy to clipboard for further use.

**Table**

Contains results` parameters as specified by Table View, Subject, Visit, Module and Input Parameters.

**Graph**

Contains results` parameters as specified by Table View, Subject, Visit, Module and Input Parameters. Graph type is either column or line.

**Copy Table to Clipboard**

Copies all data from table to the clipboard. To paste data in any other application use paste option of the application. Data can be pasted directly to spreadsheet applications, like MS Excel.

**Copy Graph to Clipboard**

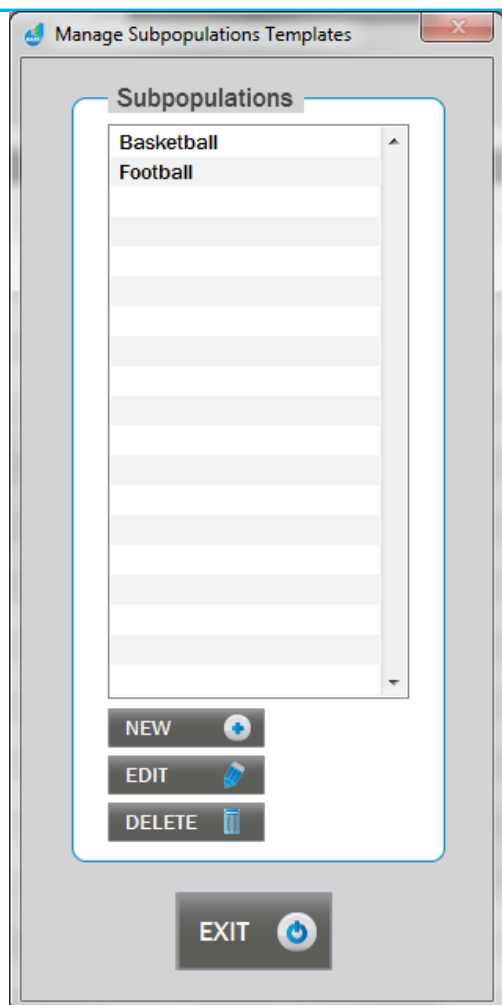
Copies graph to the clipboard. To paste graph in any other application (has to support images) use paste option of the application.

**Exit**

Exits filter comparison unit.

## SUBPOPULATION TEMPLATES MANAGEMENT

Subpopulation templates management is stated by clicking “Manage” button in Subpopulation Templates panel.



### Subpopulation

Is the list of defined subpopulation templates.

### New

Create new subpopulation template (new window "Manage subpopulation template" is opened).

### Edit

Edit an existing subpopulation template (new window "Manage subpopulation template" is opened).

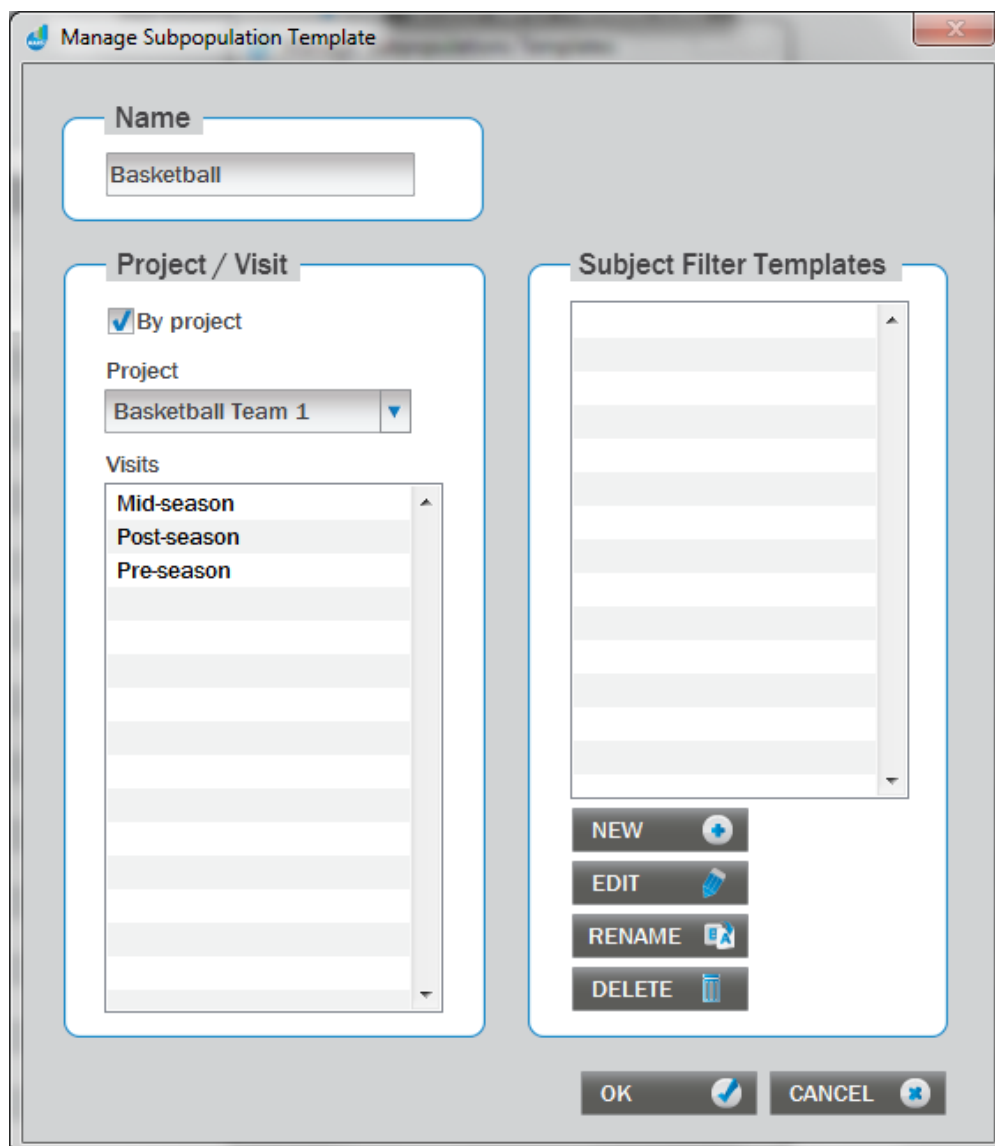
### Delete

Delete an existing subpopulation template.

### Exit

Exit the subpopulation management.

## Manage Subpopulation Template



**Name**

Name of the subpopulation template.

**Project/Visit**

Select project and visits.

**By project**

Select subpopulation that is contained in a project.

**Project**

Selected project for the subpopulation.

**Visit**

Selected visits for the subpopulation.

**Subject Filter Templates**

Subject filters defined by subject attributes (values/ranges).

### **New**

Create new subject filter template (new window "Subject filter" is opened).

### **Edit**

Edit an existing subject filter template (new window "Subject filter" is opened).

### **Rename**

Rename an existing subject filter template.

### **Delete**

Delete an existing subject filter template.

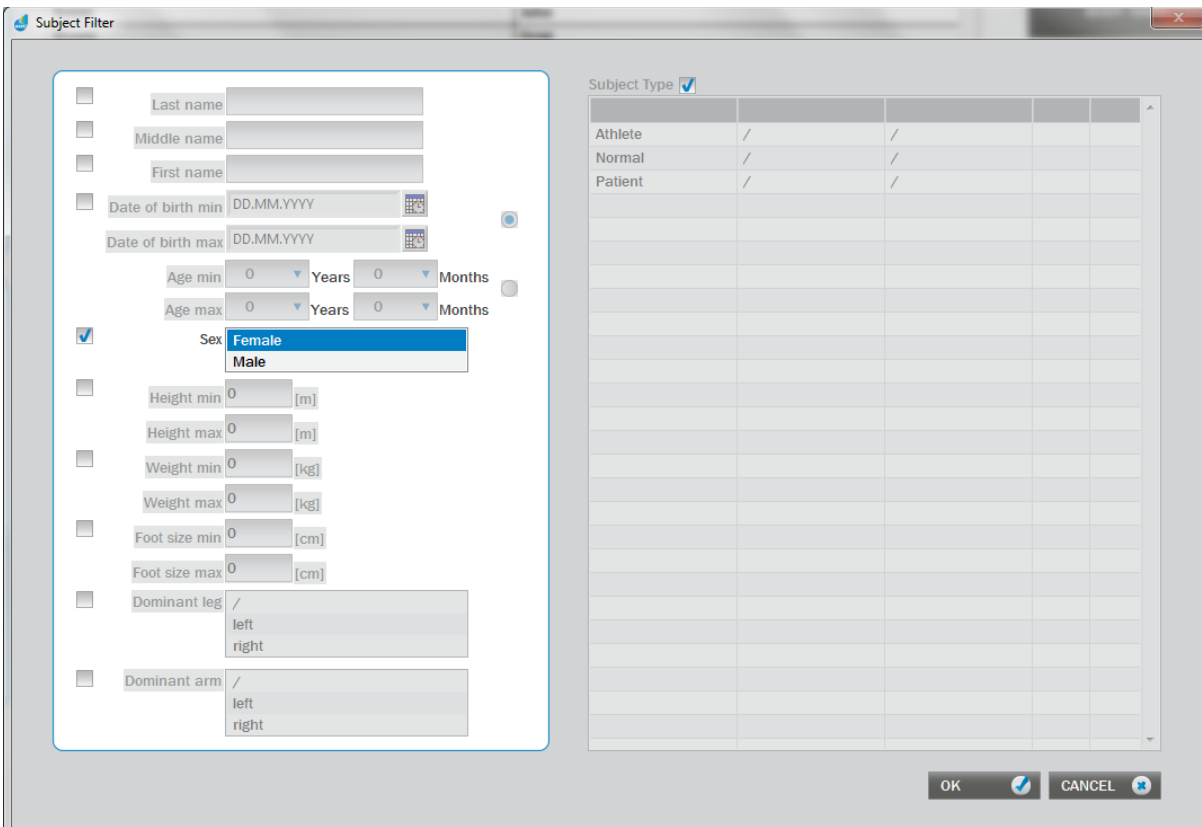
### **Ok**

Confirms changes.

### **Cancel**

Rejects changes.

## **Subject Filter**



Subject Type				
Athlete	/	/		
Normal	/	/		
Patient	/	/		

Contains all subject attributes for which filter options can be set. Any combinations of attributes can be included in the filter. To include subject attribute into the filter check the checkbox next to the attribute. For categorical parameters more categories can be selected, while for numerical parameters range of values can be defined.

### **Ok**

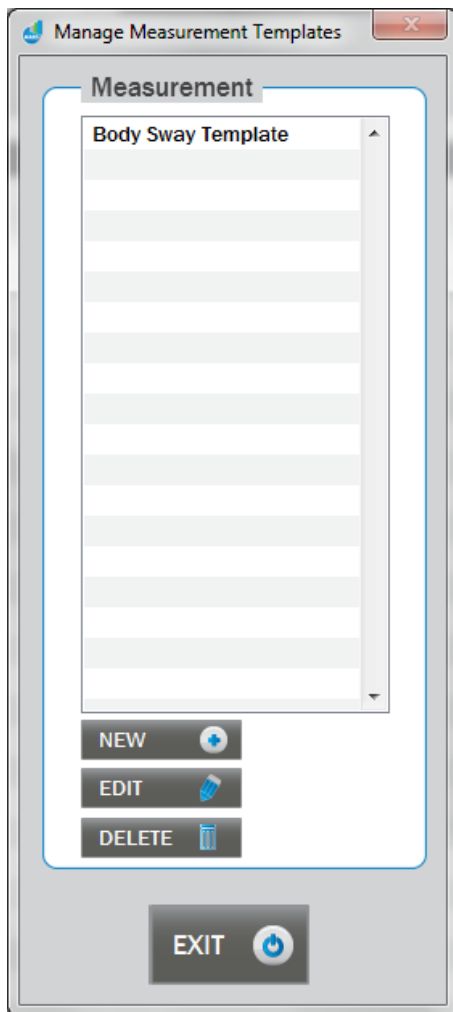
Confirms changes.

**Cancel**

Rejects changes.

## MEASUREMENT TEMPLATES MANAGEMENT

Measurement templates management is started by clicking “Manage” button in Measurement Templates panel.

**Measurement**

Is the list of defined measurement templates.

**New**

Create new measurement template (new window “Manage measurement template” is opened).

**Edit**

Edit an existing measurement template (new window “Manage measurement template” is opened).

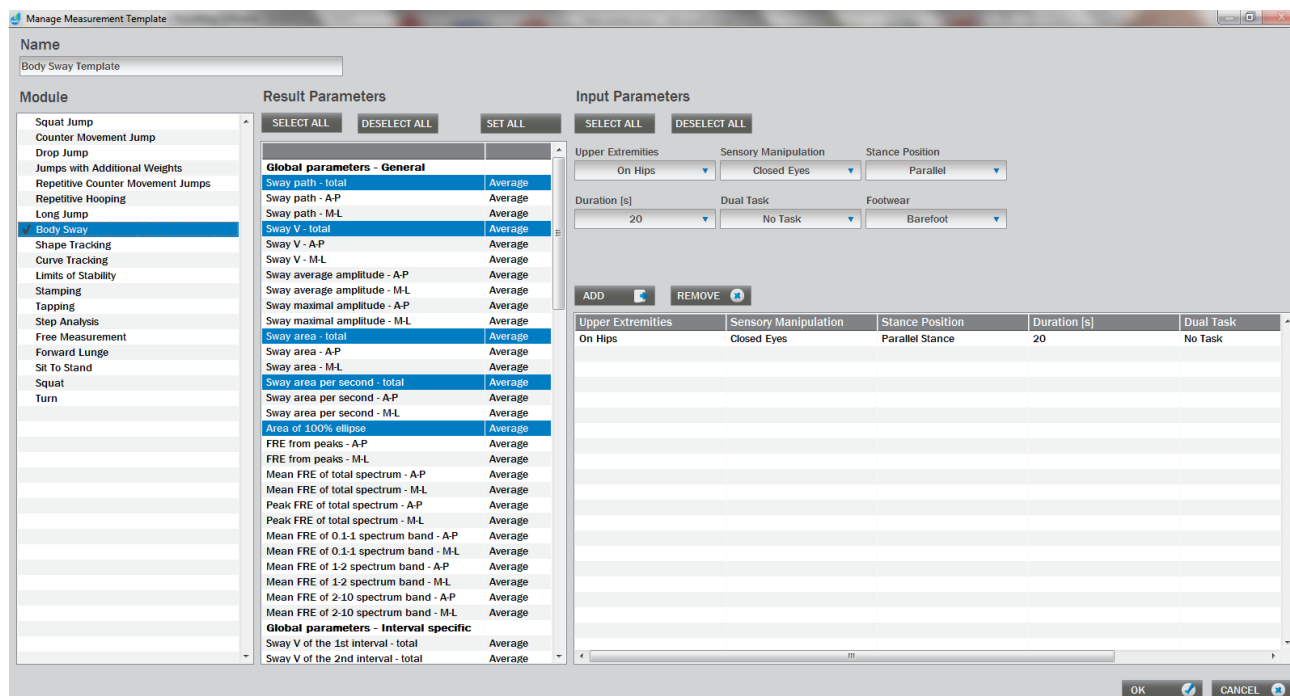
**Delete**

Delete an existing measurement template.

## Exit

Exit the measurement management.

## Manage Measurement template



### Name

Name of the measurement template.

### Module

List of modules. If at least one result parameter is selected for a module, then check is shown left of the module name.

### Result parameters

List of result parameter of the selected module (test). To select/deselect a result parameter click on its name. To change aggregate function of a result parameter click on right column of the parameter and select one of three options: Average, maximal or minimal. This aggregate function is used if option "Aggregate" in "Filter Type" is used (see Filter / Comparison window for details).

### Select All (Results Parameters)

Select all result parameters.

### Deselect All (Results Parameters)

Deselect all result parameters.

### Set All (Results Parameters)

Set selected aggregate function for all result parameters.

### Input parameters

List of results` parameters of the selected module (test).



**Add (Input Parameters)**

Add the selected input parameters (use dropdown menus to select input parameters) on the list.

**Remove (Input Parameters)**

Remove the selected input parameters (in the list) on the list.

**Select All (Input Parameters)**

Select all input parameters. If more than 100 input parameter combinations are possible they will not be added to the list due to their opacity and hard handling in tables and graphs. In this case, you have to add input parameters manually ("Add" button).

**Deselect All (Input Parameters)**

Deselect all input parameters.

**Ok**

Confirms changes.

**Cancel**

Rejects changes.