

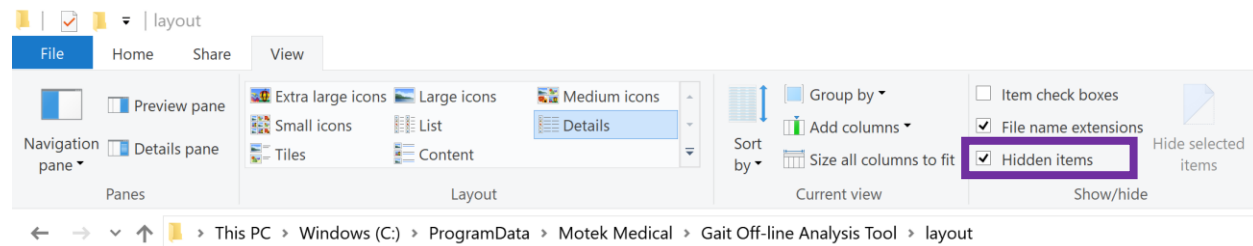
HOW TO EDIT A GOAT LAYOUT FILE

It is possible to adjust the layout of your gait report to edit the parameters displayed in the graph or add an extra graph to the report from the .mox file. This allows you to personalize the report to your own needs. Only data that is available within the .mox file can be added to the report.

Lay-out file location

The layout files can be found in C:\ProgramData\Motek Medical\Gait Off-line Analysis Tool\layout

If you can't see the ProgramData folder on your C drive, check if Hidden items are shown.



Lay-out file content

Open the layout file with notepad++ or another text file editor. In notepad++ you can change the formatting of the file to make it easier to read. Go to syntax/language and select XML.

- There are 4 sections to the report as shown below: normdata, pages, texts, graphs.

```
<Lookup tag="layout">
  <Group tag="normdata">
  _____
  <Group tag="pages">
  _____
  <Group tag="texts">
  _____
  <Group tag="graphs">
  _____
</Lookup>
```

- Normdata, refers to the data that is used in the gait report as the reference data. Not this is available in the "MM Gait report.layout" file but not in the "MM Gait report – Norm.layout". This is because the latter has the Motek norm database built into it.
- Pages, describes the number of pages, header text, footer text, and number of row and columns per pages. This is important because the page is built based on grid layout.
- Text, refers to the text that is displayed in the report.
- Graphs, refers to the graphs on display and their appearance in the report.

Before modifying a layout file, it is often a good idea to first sketch out on paper how you would like the report to be. Then you can go into the layout file and modify it to match your template.

Important – the numbering in the reports starts at 0 rather than at 1 as you might expect, hence the first page in the report is page 0, not page 1. The graph in the top left corner is in column 1 and row 1 and not column 0, row 0.

Modifying the normdata

To change normdata, look for the below section in the report:

```
<Group tag="normdata">
  <Lookup>
    <String tag="normfile" value="normdata.txt" />
  </Lookup>
</Group>
```

To modify the norm or reference data which is shown in the report, change the name of the text file after “value”. This should refer to a normdata.txt file as saved in C:\ProgramData\Motek Medical\Gait Off-line Analysis Tool. To make different template reports (layout files) with different norm data, simply save the layout file with a different name and then replace the value of the text file. Note that layout files such as “MM Sagittal plane.layout” and “MM Gait report.layout” have the Motek norm database built into it and therefore do not contain the tag normdata as shown above.

Modifying the pages

To change pages, look for the group tag = pages in the report (as shown below).

```
<Group tag="pages">
  <Lookup>
    <Integer tag="pagenumber" value="0" />
    <String tag="headertext" value="<h2><u>Gait Report for ([PATIENTLASTNAME]), [PATIEI
    <String tag="footertext" value="<h6>Motek medical</h6>" />
    <Integer tag="numberofcolumns" value="4" />
    <Integer tag="numberofrows" value="2" />
  </Lookup>
```

To modify the header or footer text simply change the text after the word value. See the section below on modifying the text to see how you can format the text. The numberofcolumns and numberofrows are important to determine how many graphs should be displayed per page. For example 3 columns and 3 rows will give you a total of 9 graphs on a page. To add additional pages, just copy and paste the section between <Lookup> and </Lookup> and increment the value for the page number.

Modifying the text

To change the text, the text after value between “” has to be changed. References such as PATIENTFIRSTNAME are used to place text from the mox file (i.e. the subject information or the spatio-temporal parameters) into the report. Always place the text between square brackets [].

```
<String tag="text" value="
    <h5>Spatio-temporal parameters</h5><br>
    <b>Step width: </b> [MEANSTEPWIDTH] ± [SDSTEPWIDTH] m<br>
    <b>Step length: </b> [MEANSTEPLength] ± [SDSTEPLength] m<br>
    <b>Stride length: </b> [MEANSTRIDELENGTH] ± [SDSTRIDELENGTH] m<br>
    <b>Step time: </b> [MEANSTEPTIME] ± [SDSTEPTIME] s<br>
    <b>Stride time: </b> [MEANSTRIDETIME] ± [SDSTRIDETIME] s<br>
    <b>Stance time: </b> [MEANSTANCETIME] ± [SDSTANCETIME] s<br>
    <b>Swing time: </b> [MEANSWINGTIME] ± [SDSWINGTIME] s<br>
"/>
```

To change the formatting of the text use the following codes:

	Example
b - bold	<pre><String tag="text" value ="This word is in bold "/></pre> <p>will produce:</p> <p>This word is in bold</p>
u underline text	<pre><String tag="text" value ="This word is <u> underlined </u>"/></pre> <p>will produce:</p> <p>This word is <u>underlined</u></p>
br -brake/enter (new line)	<pre><String tag="text" value ="This is
 on a new line </br>"/></pre> <p>will produce:</p> <p>This is on a new line</p>
h1,h2, h3, h4- header size	<pre><String tag = "headertext" value= "<h1>Most important heading here</h1> <h4>Less important heading here</h4>"/></pre> <p>will produce:</p> <p>Most important heading here</p> <p>Less important heading here</p>

To add new text using the following structure

```
<String tag="text" value="This is a new line of text"/>
```

Make sure that this is added between the <Lookup> and </Lookup> and within the Group tag="texts" as shown below.

```
<Group tag="texts">
  <Lookup>
    <String tag="text" value="This is a new line of text"/>
    <Integer tag="page" value="0" />
    <Integer tag="row" value="0" />
    <Integer tag="column" value="0" />
    <Integer tag="width" value="3" />
  </Lookup>
</Group>
```

This will produce the following on page 0 in row 0 and column 0:

This is a new line of text

Adding a comment box

It is possible to add comment windows to the report. This requires comments to be enabled (value="1") in the report layout file, under the group tag 'Texts'. A comment box is created on page 1 in row 1 and column 0 by adding the following.

```
<Lookup>
  <Integer tag="page" value="1" />
  <Integer tag="row" value="0" />
  <Integer tag="column" value="1" />
  <Integer tag="width" value="1" />
  <Boolean tag="input" value="1" />
  <String tag="textname" value="comments" />
</Lookup>
```

This will result in the following comments box in the report.

Date of Birth: Sat Jan 1 2000
Date Report: Tue Sep 10 2019
Filename: 1218-Gait analysis - Balloon animals
Diagnosis:

here you can add your comments

Modifying the graphs

To modify the graphs look for the following tag:

```
<Group tag="graphs">
```

Below this tag, you will find the data for each individual graph. This data includes the graph title, vertical axis label, title sizes and the position of the graph (page number, row number and column number) which can all be modified to suit the user requirements. The line colour and the vertical axis limits can also be specified. Note that if no axis limits are specified then the axis will be scaled automatically to the maximum values of the specific dataset. For the line colour, the value is the Red colour, the y value is the Blue value and the z value is the Green value. The w value controls the transparency.

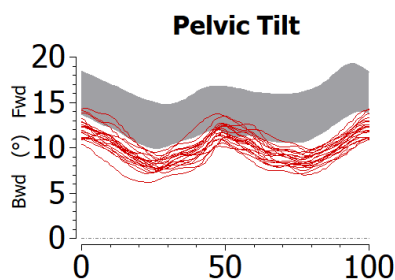
An example of how to plot the pelvic tilt in red on page 3* in column 1*, row 1* with “Pelvic Tilt” as the title is shown below.

```
<Lookup>
  <String tag="title" value="Pelvic Tilt" />
  <String tag="channelname" value="Rotation PelvicTil" />
  <String tag="verticalaxislabel" value="Bwd (°) Fwd" />
  <Integer tag="horizontaltitleize" value="4" />
  <Integer tag="verticaltitleize" value="3" />
  <Integer tag="page" value="2" />
  <Integer tag="row" value="0" />
  <Integer tag="column" value="0" />
  <Color tag="linecolor" x="210" y="0" z="0" w="255" />
  <Boolean tag="zeroline" value="1" />
  <Boolean tag="leftside" value="1" />
  <Real tag="verticalaxismaxvalue" value = "30" />
  <Real tag="verticalaxisminvalue" value = "-30" />
</Lookup>
```

Important: the value for the channel name must be the same as the name in the .mox file.

*Don't forget that the page number and column and row numbers given in the report layout start at 0 not 1, so specifying tag="page" value ="2" will place the graph on page 3 of the report.

The example above will produce the following graph:



Note that the norm data in this graph is the centre specific data (i.e. the data stored in normdata.txt).

You can follow the following steps to add a new graph to the report. Note that the channel name in the GOAT layout must be the same as the channel label in the .mox file.

1. Go to the folder where you saved the .mox file
2. Open the .mox file in a text file editor (e.g. notepad++) and scroll down to section viewer data.
3. copy the example below from the data you want to display in the GOAT graphs (e.g. <channel_label>FP0-Moment Y).

```

</viewer_channel>
  <viewer_channel>
    <channel_label>FP0 - Moment Y</channel_label>
    <raw_channel_data>

```

4. Go to (C:\ProgramData\Gait Off-line Analysis Tool\layout) to open the .layout file.
5. Open the .layout file in a text file editor and add the red section (the channel label) from the example above (from the .mox file) to the red section below of the .layout file:

<Lookup>

```

  <String tag="title" value="Left Force moment Y " />
  <String tag="channelname" value=" FP0 - Moment Y" />
  <String tag="verticalaxislabel" value="<-Nm ->" />
  <Integer tag="horizontaltitlesize" value="7" />
  <Integer tag="verticaltitlesize" value="6" />
  <Integer tag="page" value="2" />
  <Integer tag="row" value="1" />
  <Integer tag="column" value="0" />
    <Color tag="linecolor" x="0" y="0" z="0" w="255" />
  <Boolean tag="zeroline" value="1" />
  <Boolean tag="leftside" value="1" />
  <Real tag="verticalaxismaxvalue" value = "40" />
  <Real tag="verticalaxisminvalue" value = "-40" />

```

</Lookup>

6. Check the names, title and labels etc. are correct for your newly added data. Also check that the position in the report is ok and that the axis maximum and minimum values are appropriate.
7. The value of the tag “leftside” should be set to 1 for left cycles and 0 for right cycles.
8. Save the .layout file in the text file editor.
9. Go to Menu bar in GOAT: View > Report Layout to open the new layout of the gait report.