US 20200405230A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2020/0405230 A1**

Svanegaard et al. (43) **Pub. Date: Dec. 31, 2020**

(54) **METHODS FOR MANAGING REMAINING WEAR TIME OF A MEDICAL APPLIANCE AND RELATED ACCESSORY DEVICES**

(71) Applicant: **Coloplast A/S**, Humlebaek (DK)

(72) Inventors: **Mads Hindhede Svanegaard**, Bagsvaerd (DK); **Esben Stroebech**, Hoersholm (DK); **Jacob Eisenberg**, Greve (DK); **Carsten Hellum Olsen**, Frederiksberg (DK); **Jeppe Malmberg**, Copenhagen V (DK); **Alex Poulsen**, Vaerloese (DK)

(21) Appl. No.: **16/979,873**

(22) PCT Filed: **Mar. 15, 2019**

(86) PCT No.: **PCT/DK2019/050093**

§ 371 (c)(1),
(2) Date: **Sep. 11, 2020**

(30) **Foreign Application Priority Data**

Mar. 15, 2018 (DK) ..... PA 2018 70167

Publication Classification

(51) **Int. Cl.**

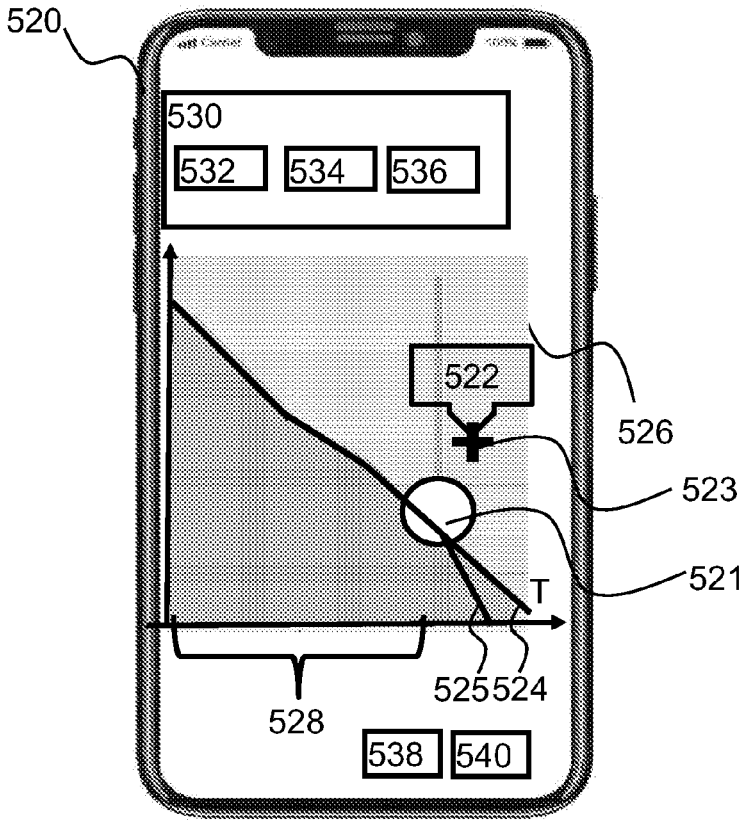
A61B 5/00	(2006.01)
A61F 5/443	(2006.01)
A61F 5/44	(2006.01)

(52) **U.S. Cl.**

CPC ***A61B 5/4851*** (2013.01); ***A61F 5/443*** (2013.01); *A61B 2562/0219* (2013.01); ***A61B 5/6833*** (2013.01); ***A61B 5/742*** (2013.01); ***A61F 5/4404*** (2013.01)

(57) **ABSTRACT**

The present disclosure provides a method, performed in an accessory device, for managing remaining wear time of the ostomy appliance (e.g. managing remaining wear time of the ostomy appliance, e.g. of the base plate disclosed herein). The accessory device comprises an interface configured to communicate with one or more devices of an ostomy system, the interface comprising a display. The ostomy system comprises a monitor device, and/or an ostomy appliance configured to be placed on a skin surface of a user. The ostomy appliance comprises a base plate. The method comprises: obtaining monitor data from the one or more devices, determining the remaining wear time of the ostomy appliance based on the monitor data; obtaining a user request to take into account at least a part of context data, in response to obtaining the user request: obtaining the at least part of the context data, adjusting the remaining wear time based on the at least part of the context data; and communicating, via the interface, the adjusted remaining wear time.



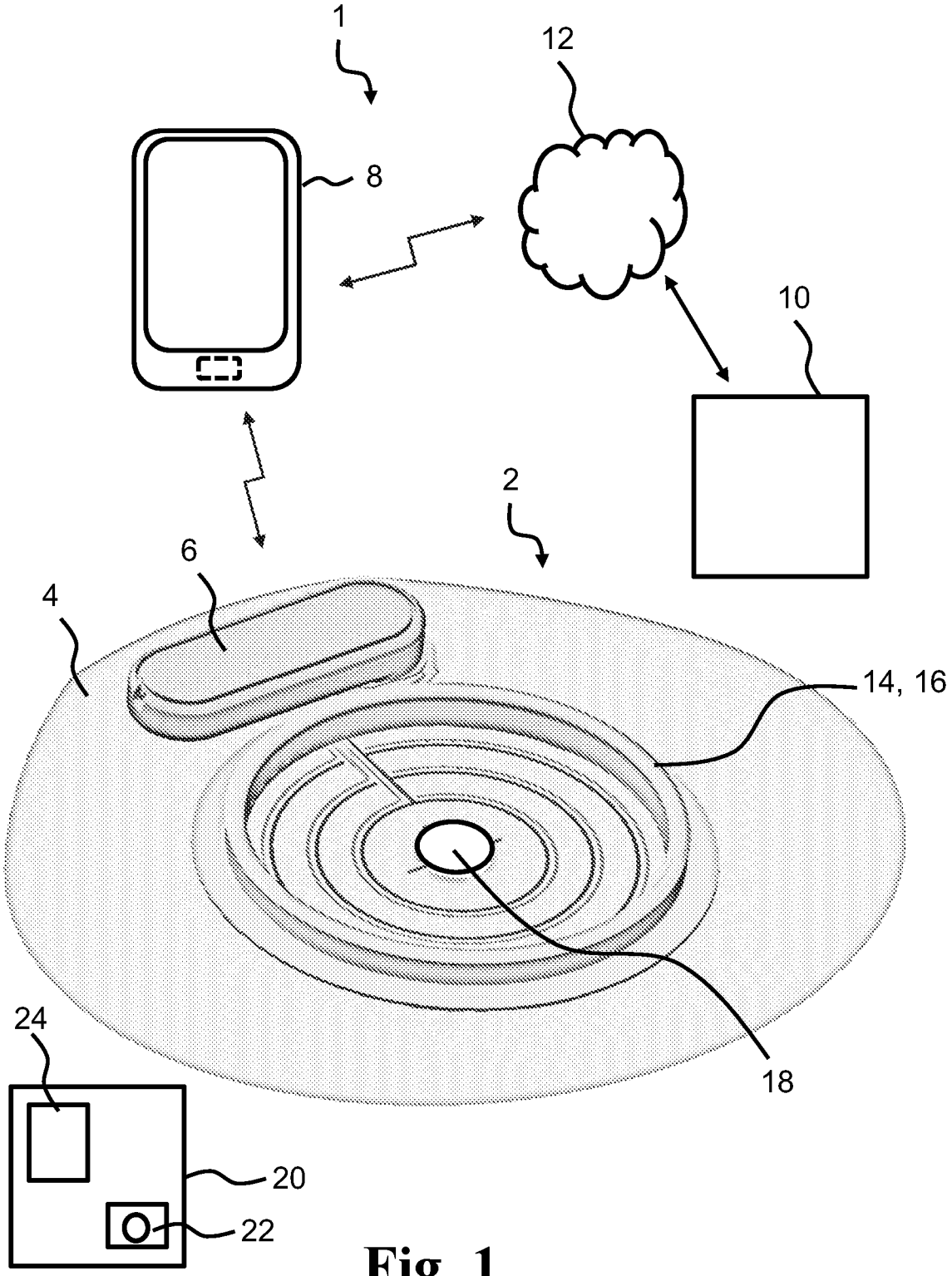


Fig. 1

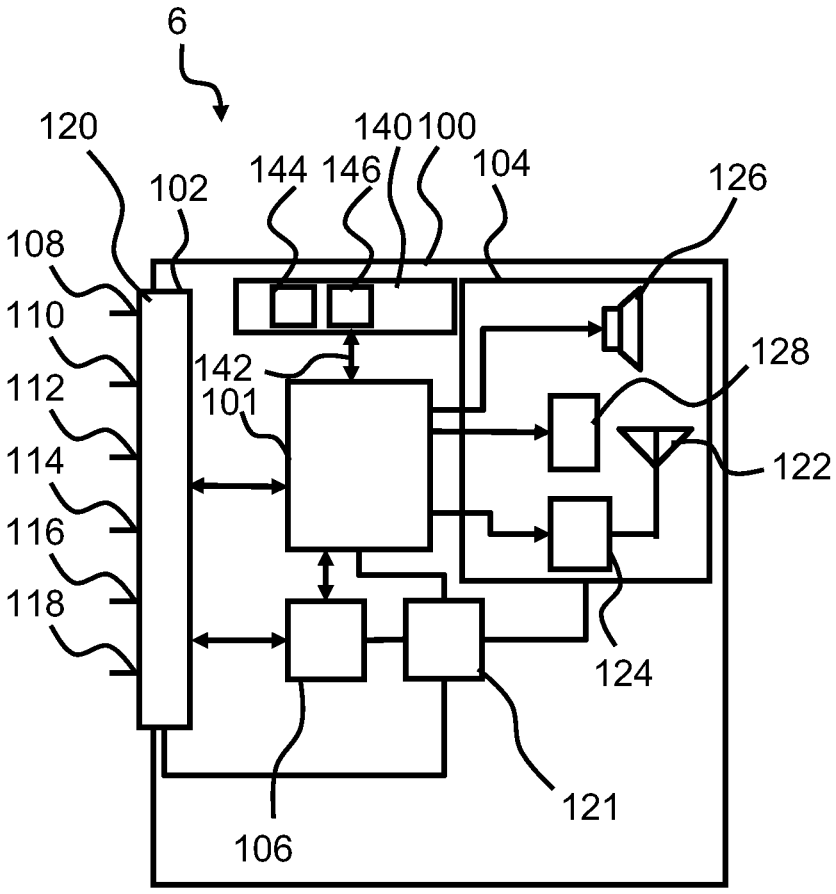

6
120
140
100
144
146
104
126
102
108
110
112
114
116
118
142
101
128
122
124
121
106

Fig. 2

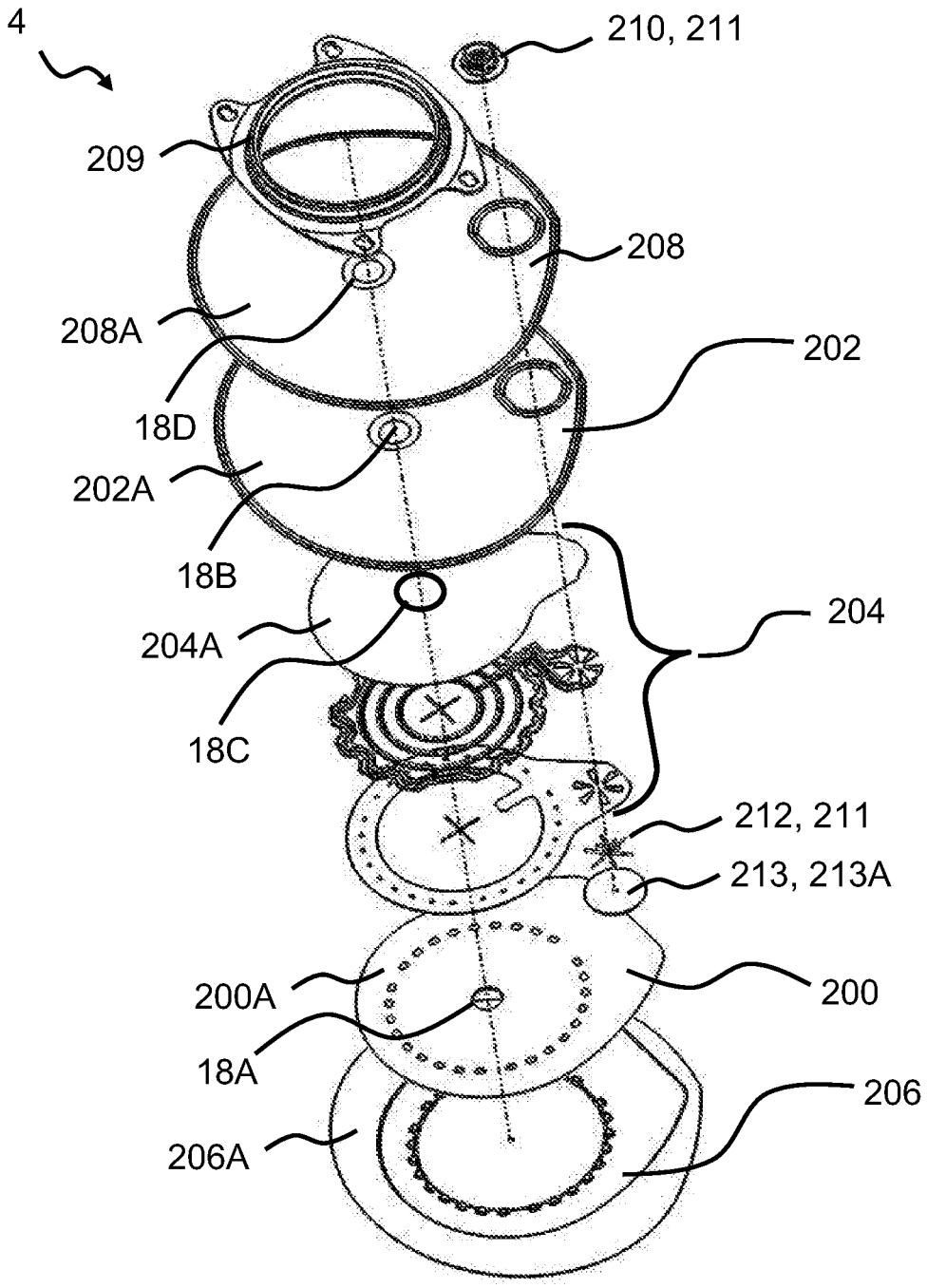

4
210, 211
209
208
208A
202
18D
202A
18B
204
204A
18C
212, 211
213, 213A
200A
200
18A
206
206A

Fig. 3

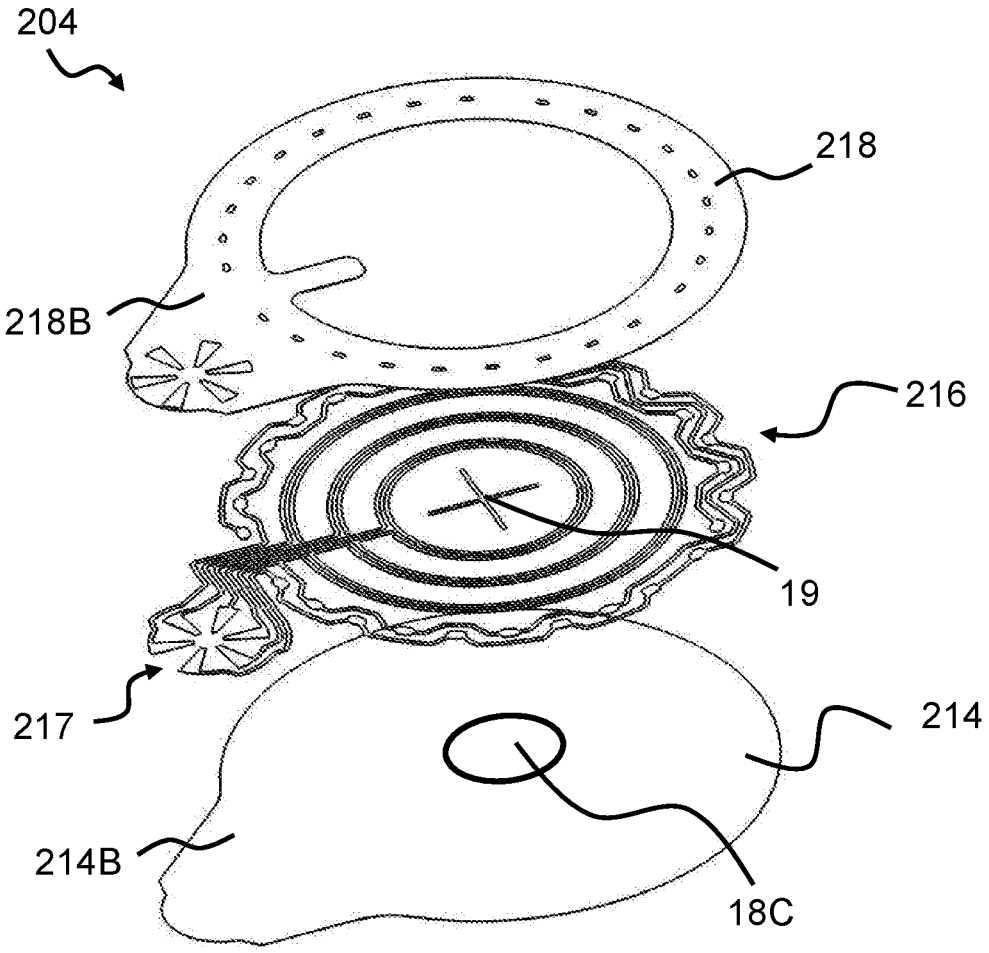


Fig. 4

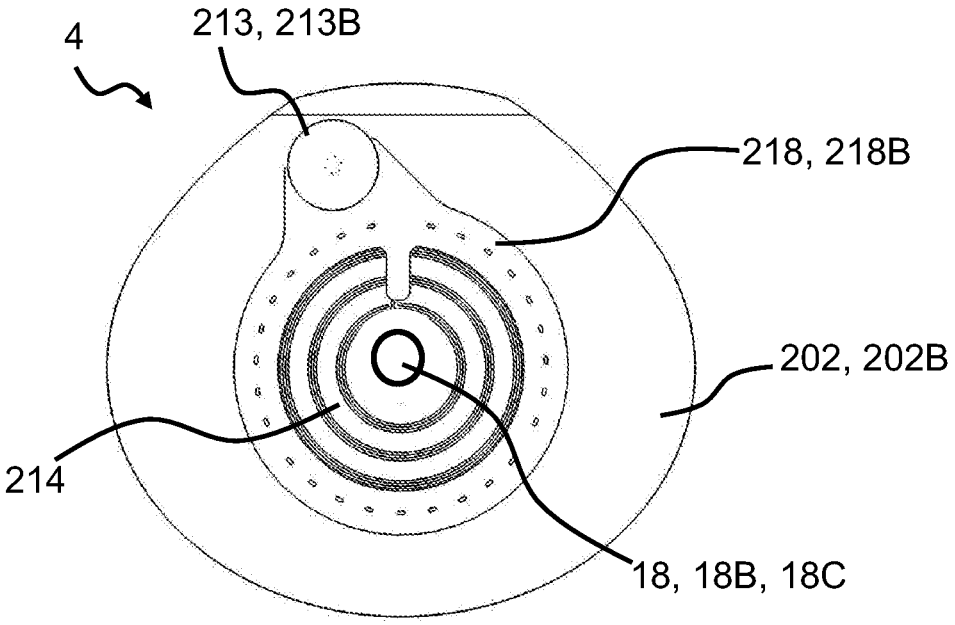

4
213, 213B
218, 218B
202, 202B
214
18, 18B, 18C

Fig. 5

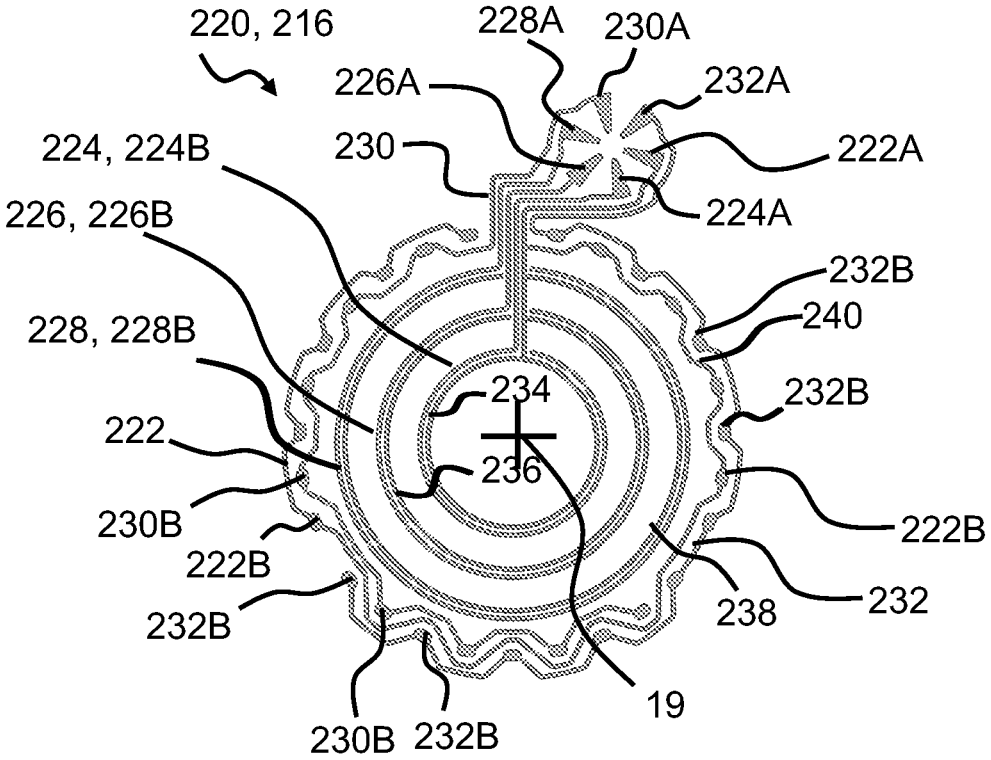

220, 216
228A
230A
226A
232A
224, 224B
230
222A
226, 226B
224A
232B
228, 228B
240
234
232B
222
236
230B
222B
222B
232B
238
232
19
230B
232B

Fig. 6

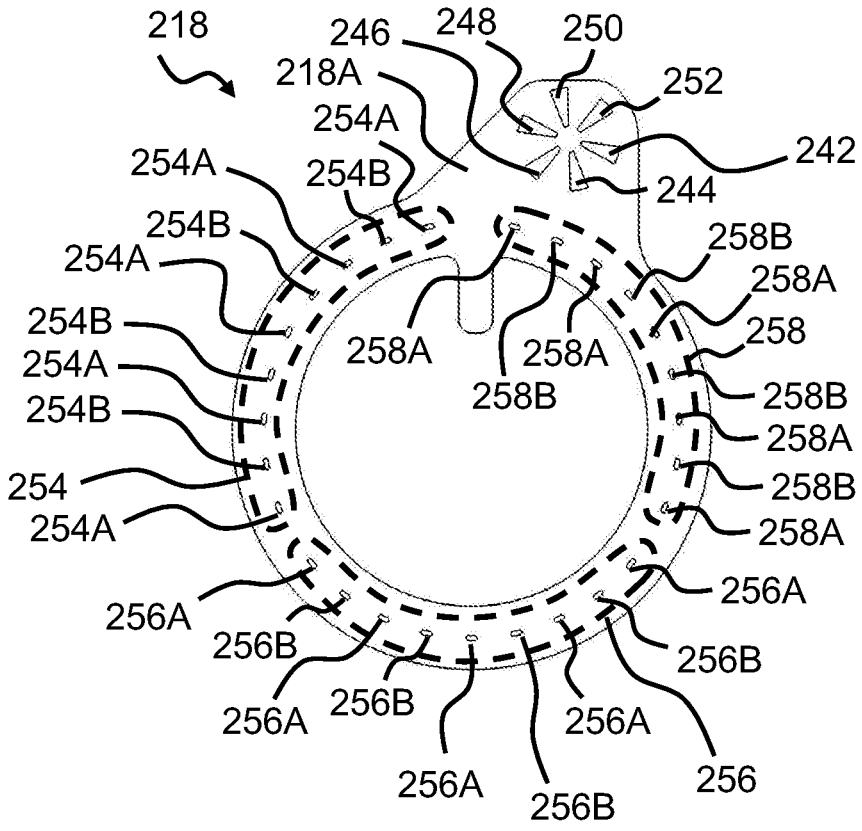

218
246
248
250
218A
252
254A
242
254A
254B
244
254B
258B
254A
258A
254B
258
254A
258A
258A
258B
254B
258B
258A
254
258B
254A
258A
256A
256A
256B
256B
256B
256A
256A
256
256B

Fig. 7

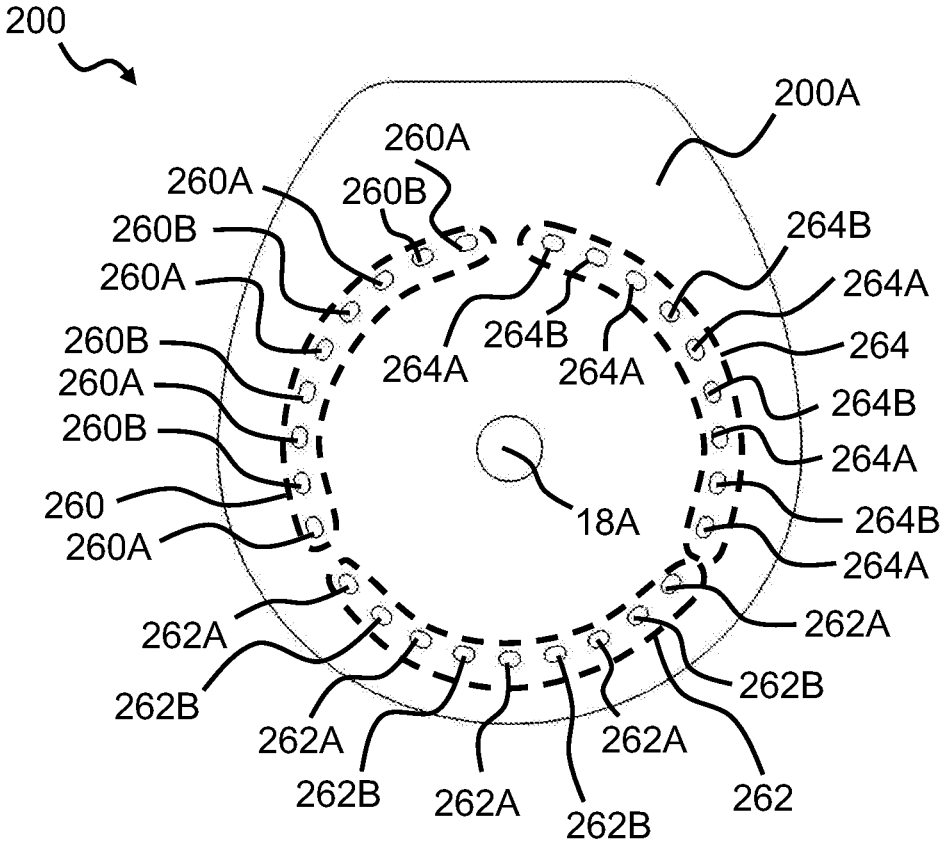

200
200A
260A
260A
260B
260B
260A
260B
260A
260B
260
260A
262A
262B
262A
262B
262A
262B
262A
262B
264B
264A
264
264B
264A
264B
264A
262A
262B
262
18A

Fig. 8

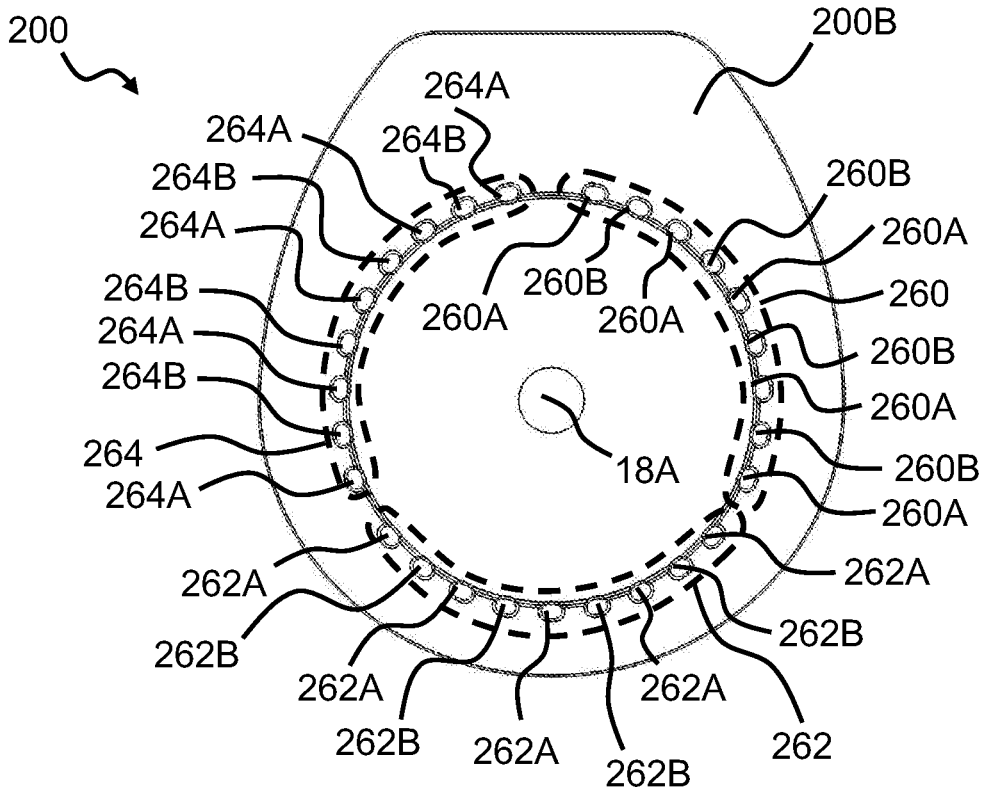

200
200B
264A
264A
264B
264B
264A
260B
260A
264B
260A
260B
260A
260
264A
264B
260B
264
260A
18A
264A
260B
260A
262A
262A
262B
262B
262A
262A
262B
262A
262B
262

Fig. 9

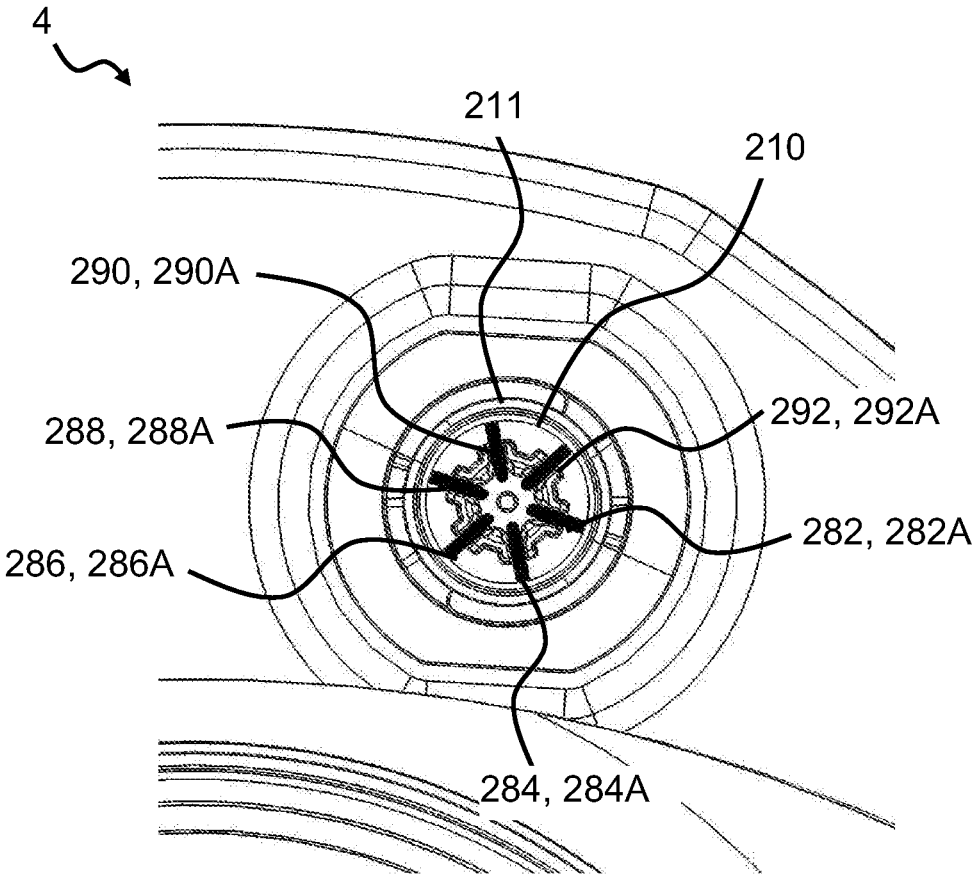


Fig. 10

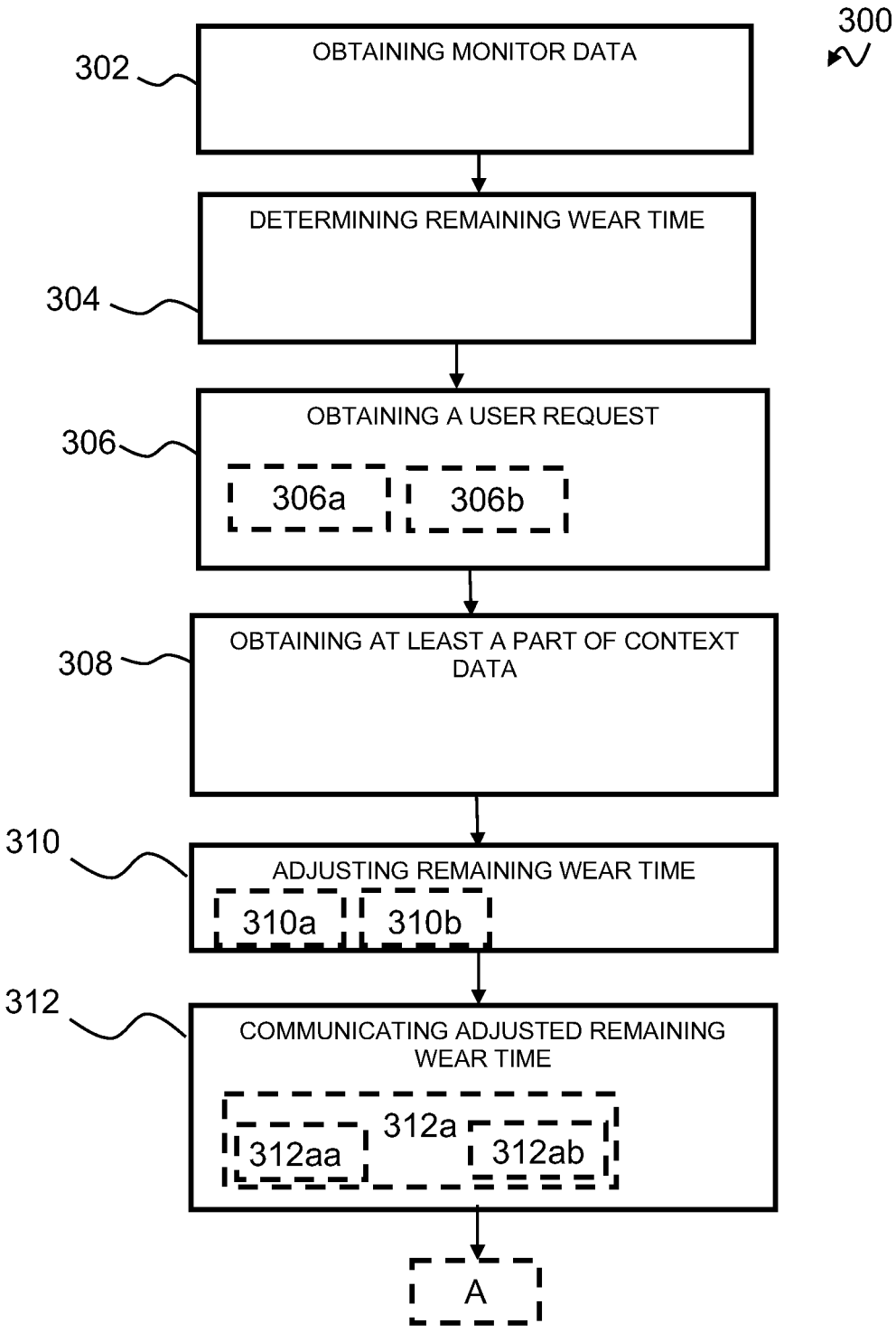

300
302
OBTAINING MONITOR DATA
DETERMINING REMAINING WEAR TIME
304
OBTAINING A USER REQUEST
306
306a
306b
OBTAINING AT LEAST A PART OF CONTEXT DATA
308
310
ADJUSTING REMAINING WEAR TIME
310a
310b
312
COMMUNICATING ADJUSTED REMAINING WEAR TIME
312a
312aa
312ab
A

Fig. 11a

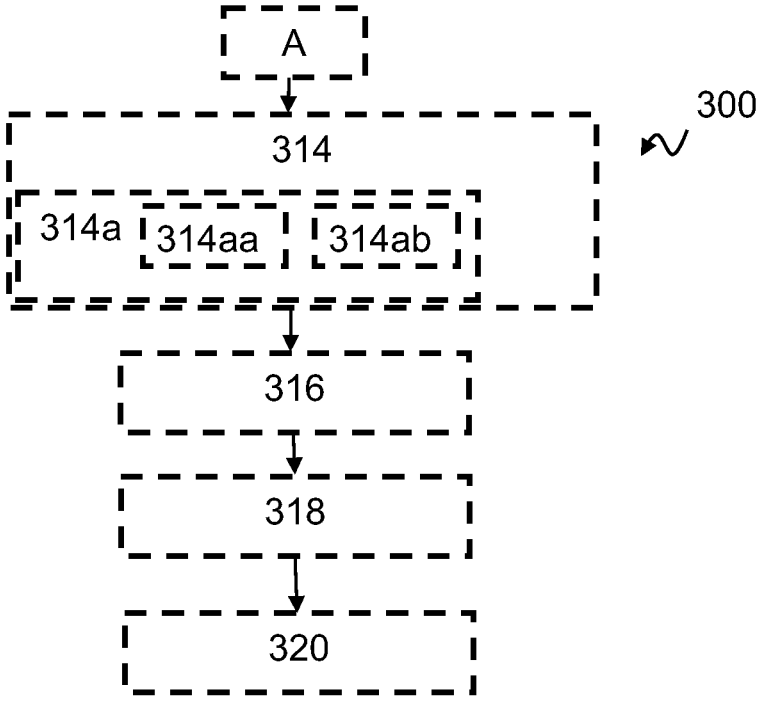


Fig. 11b

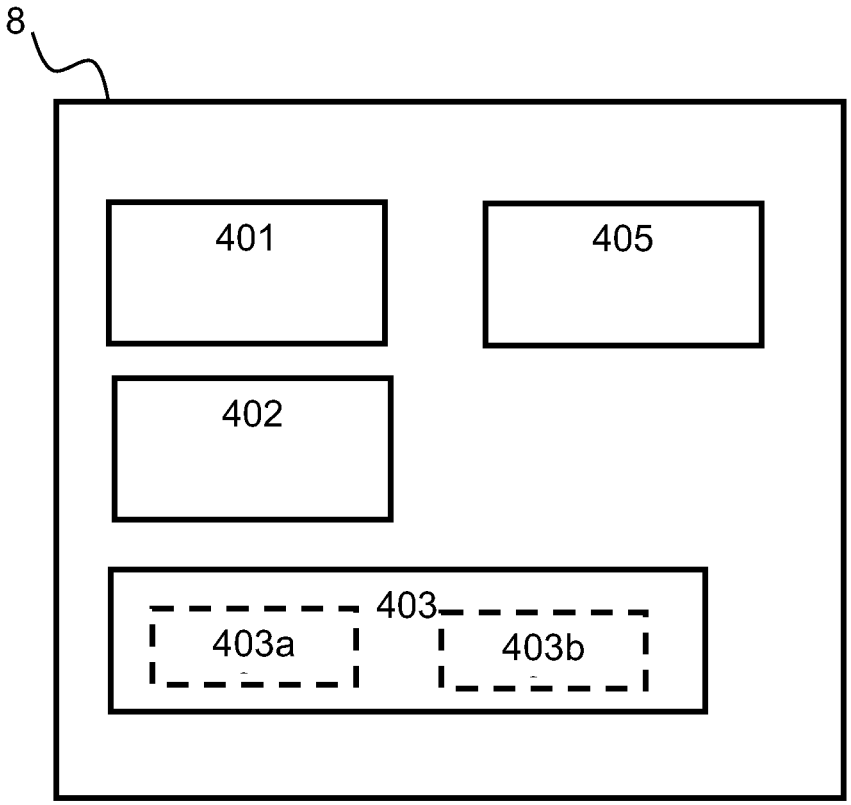


Fig. 12

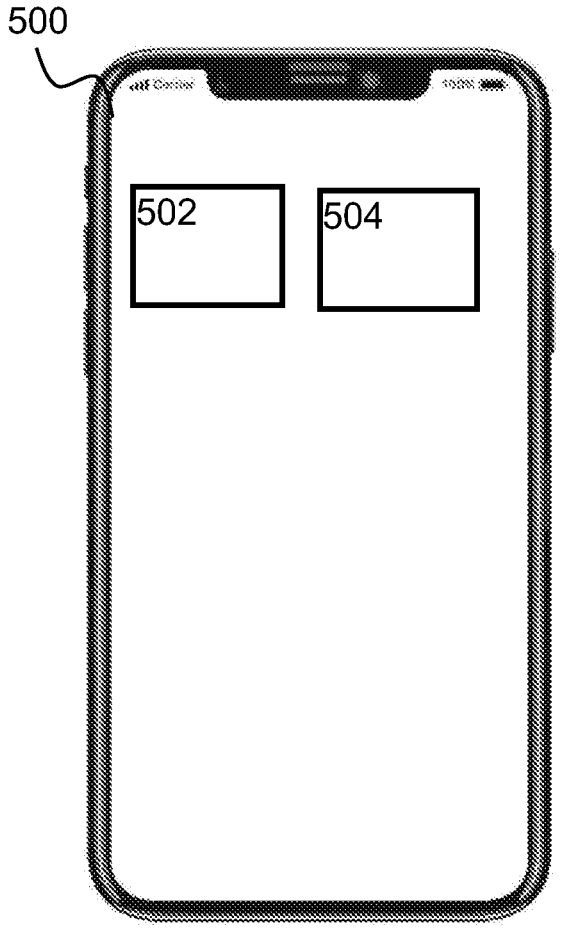


Fig. 13a

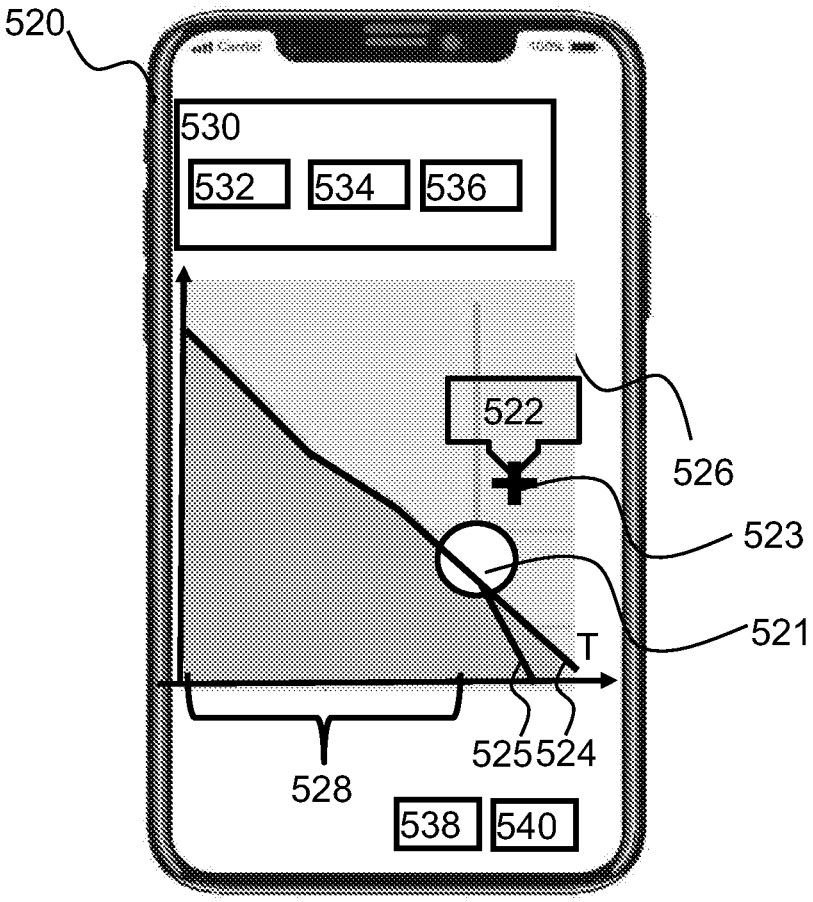


Fig. 13b

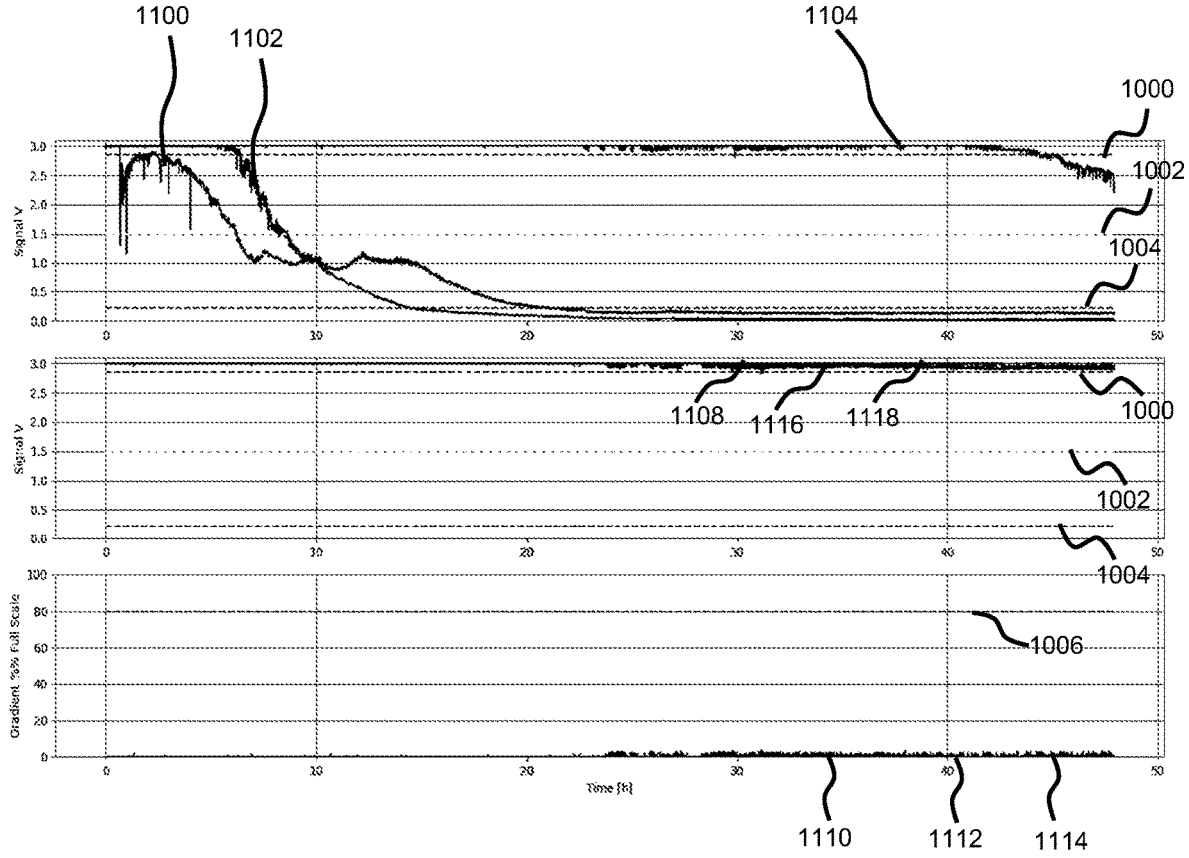

1100
1102
1104
1000
1002
1004
1108
1116
1118
1000
1002
1004
1006
1110
1112
1114
Signal V
Gradient %% Full Scale
Time [s]

Fig. 14

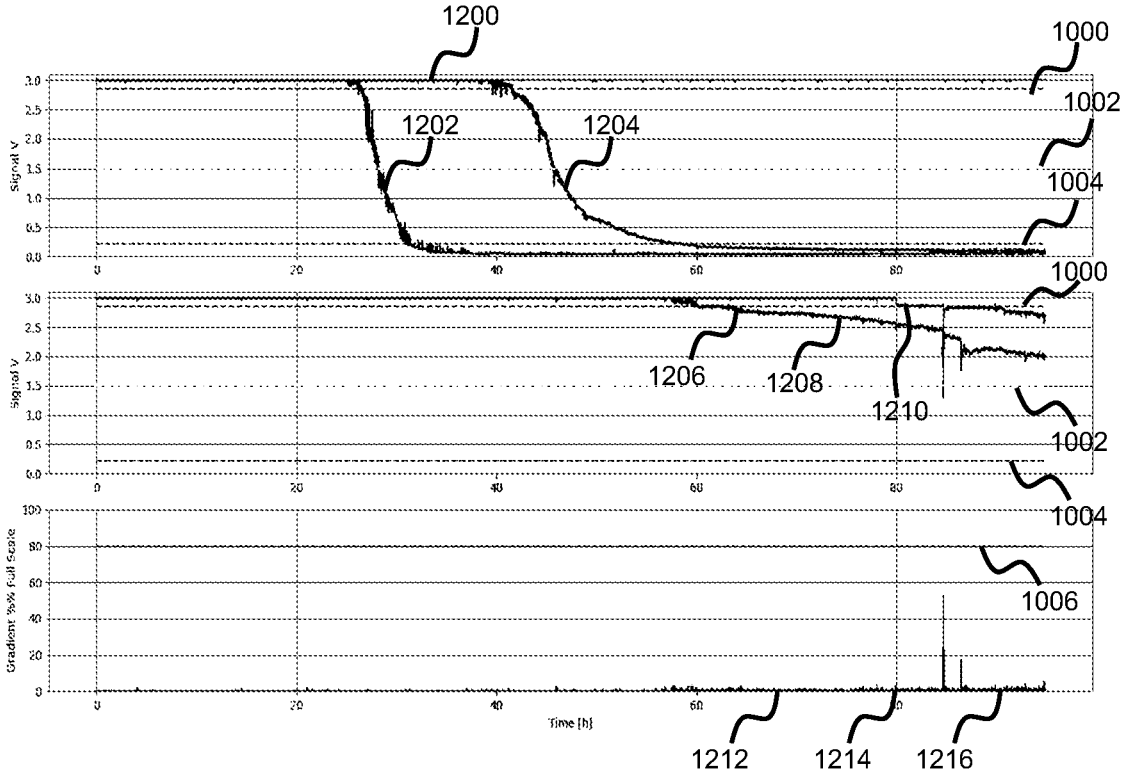

1200
1000
1002
1004
1202
1204
1206
1208
1210
1006
1212
1214
1216
Signal V
Gradient %% Full Scale
Time [h]

Fig. 15

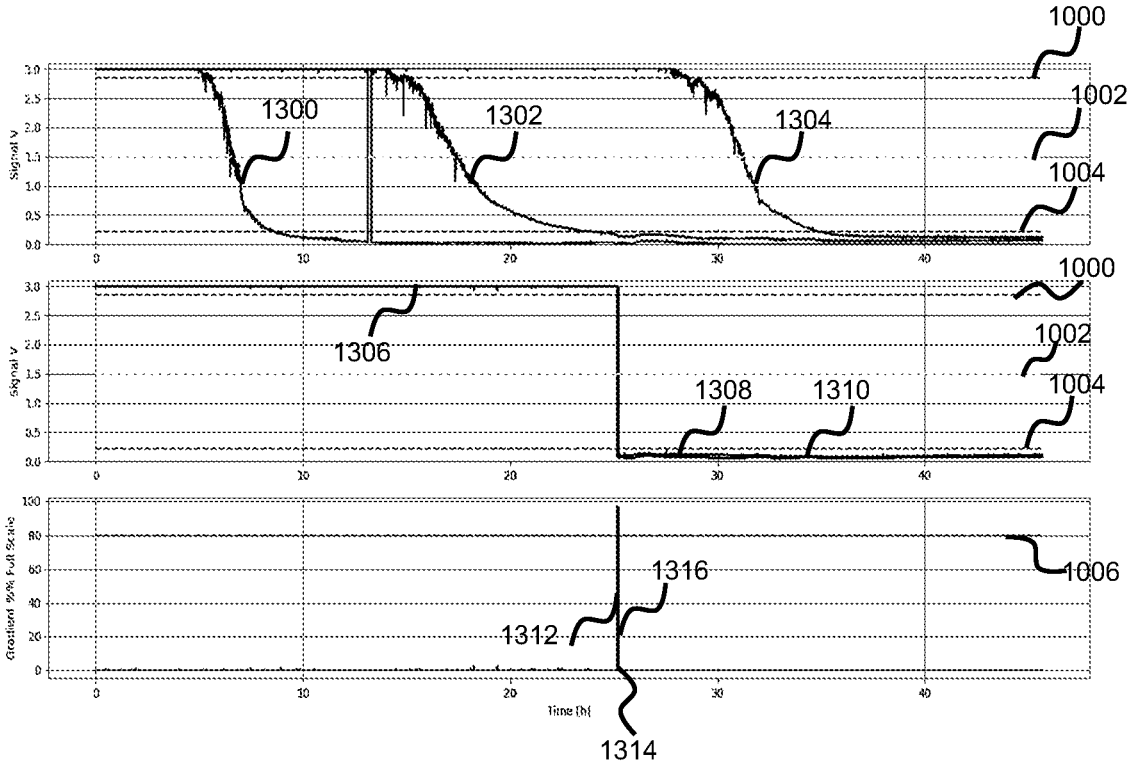

1000
1002
1004
1300
1302
1304
1306
1308
1310
1006
1312
1314
1316
Signal V
Gradient %% Full Scale
Time (h)

Fig. 16

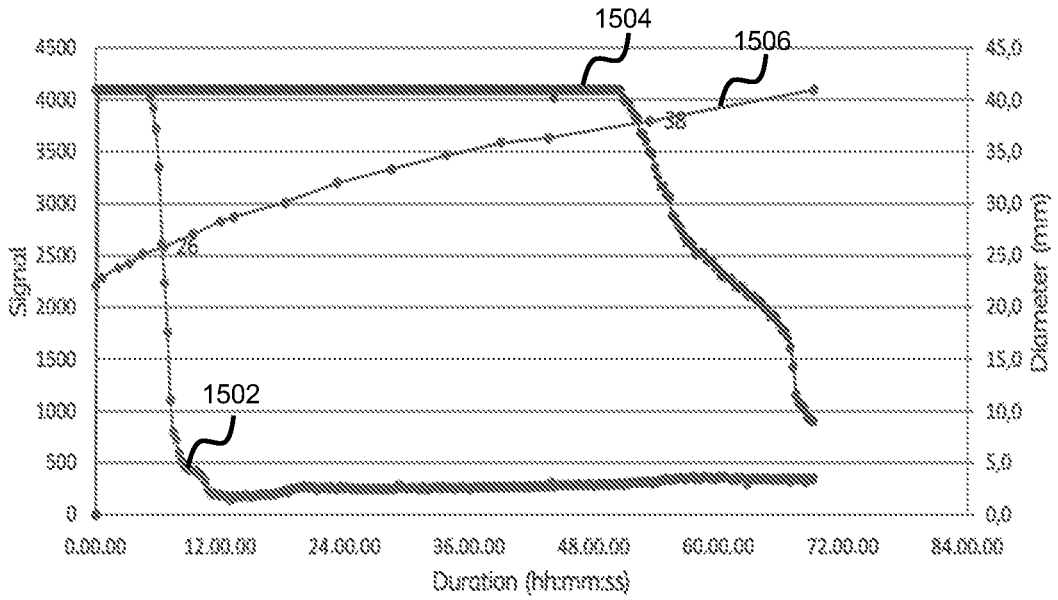

1504
1506
1502
4500
4000
3500
3000
2500
2000
1500
1000
500
0
45,0
40,0
35,0
30,0
25,0
20,0
15,0
10,0
5,0
0,0
Signal
Diameter (mm)
0.00.00
12.00.00
24.00.00
36.00.00
48.00.00
60.00.00
72.00.00
84.00.00
Duration (hh:mm:ss)

Fig. 17

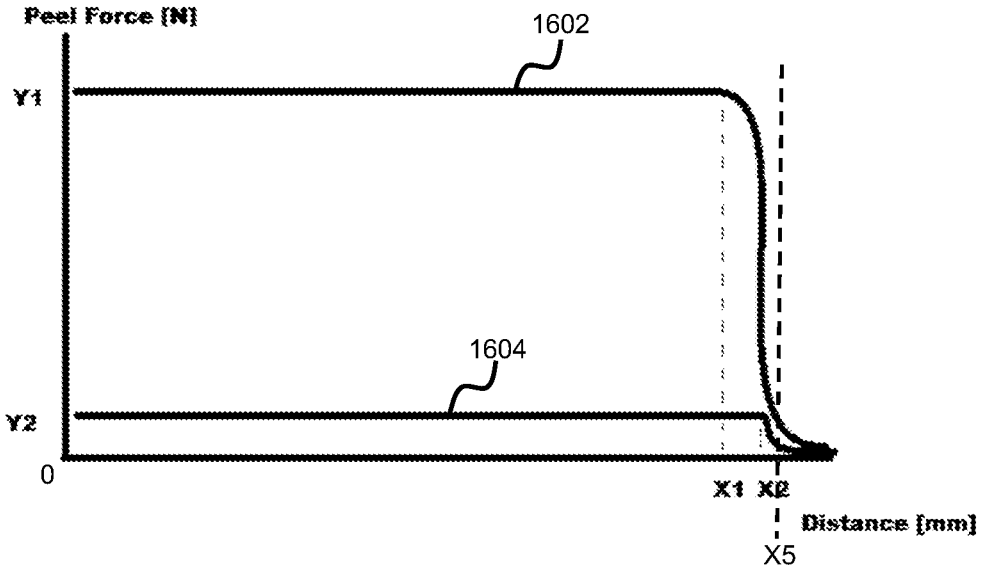


Fig. 18A

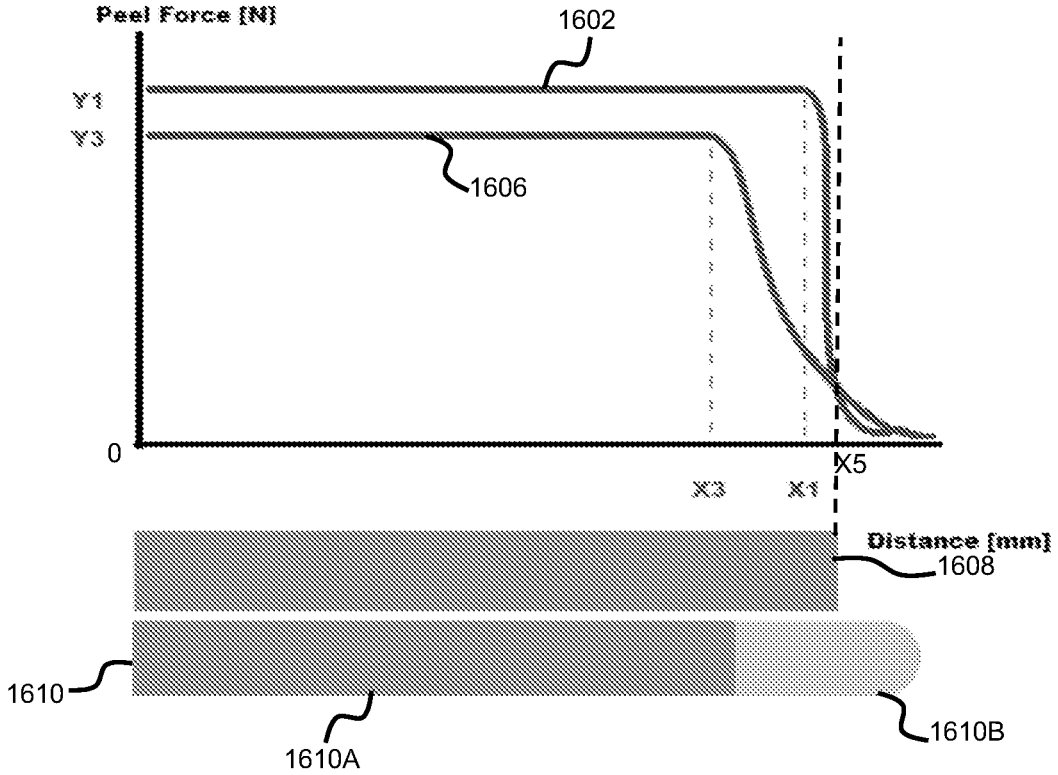


Fig. 18B

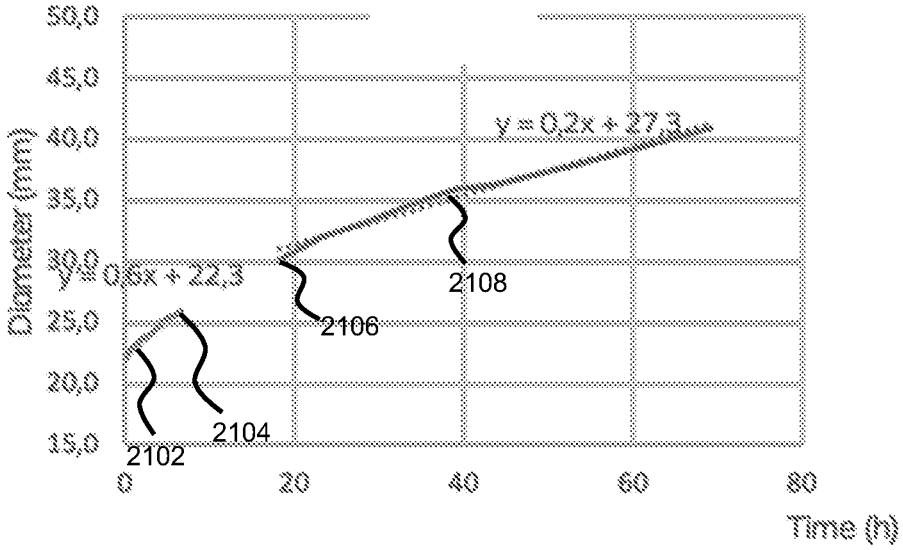


Fig. 19A

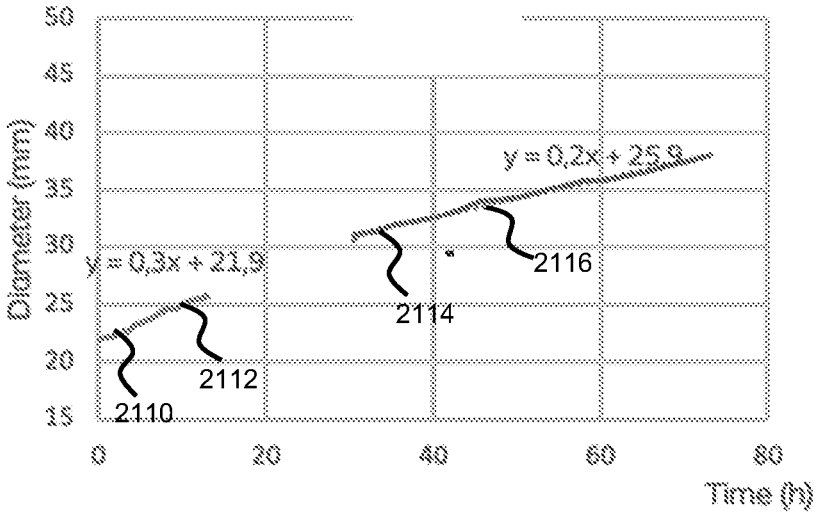


Fig. 19B

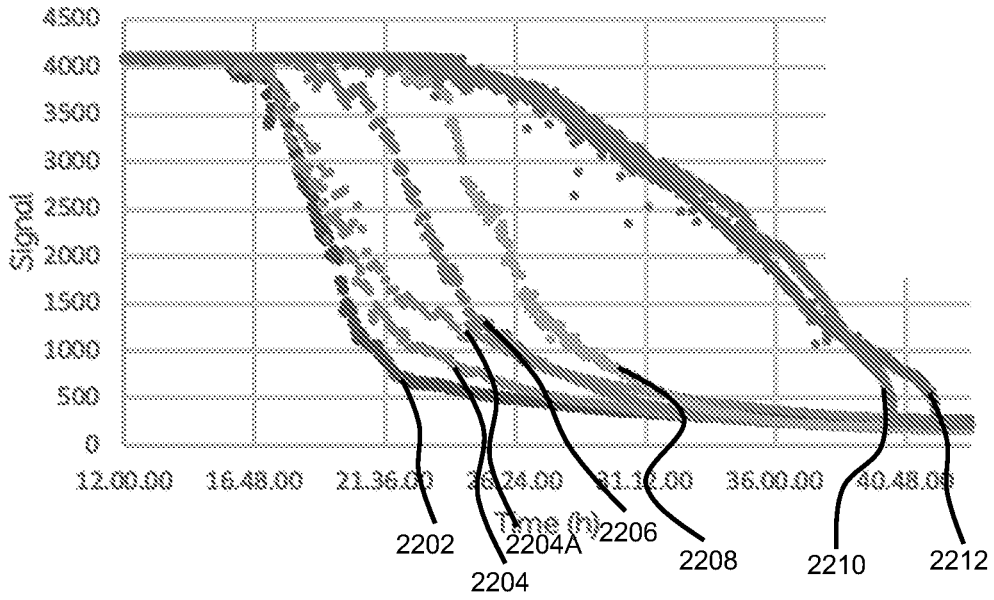


Fig. 20A

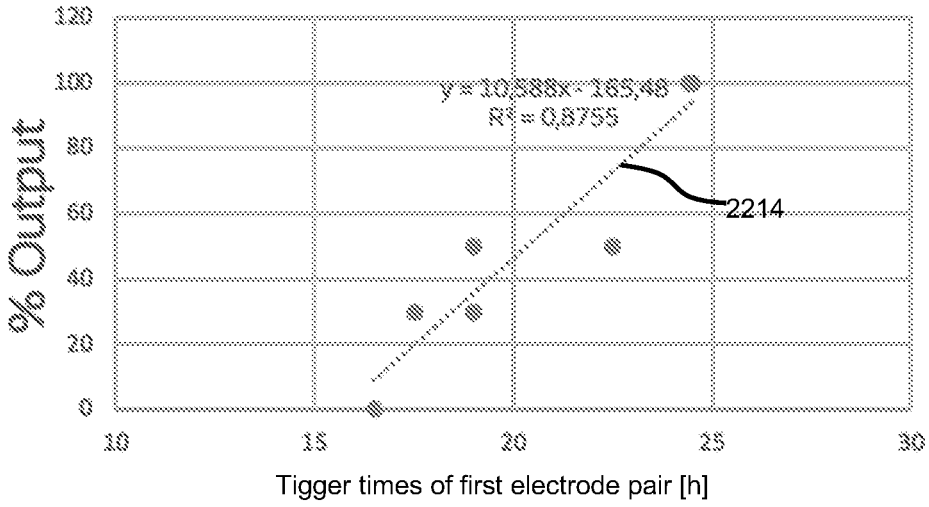


Fig. 20B

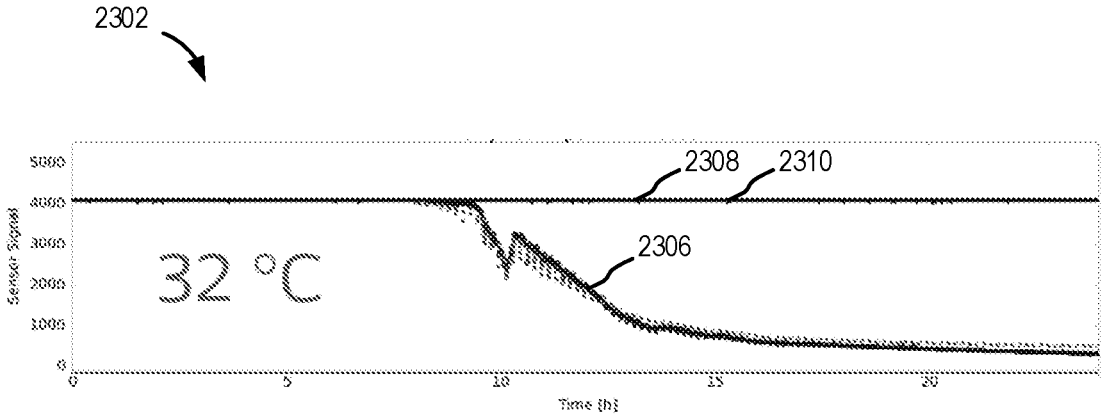


Fig. 21A

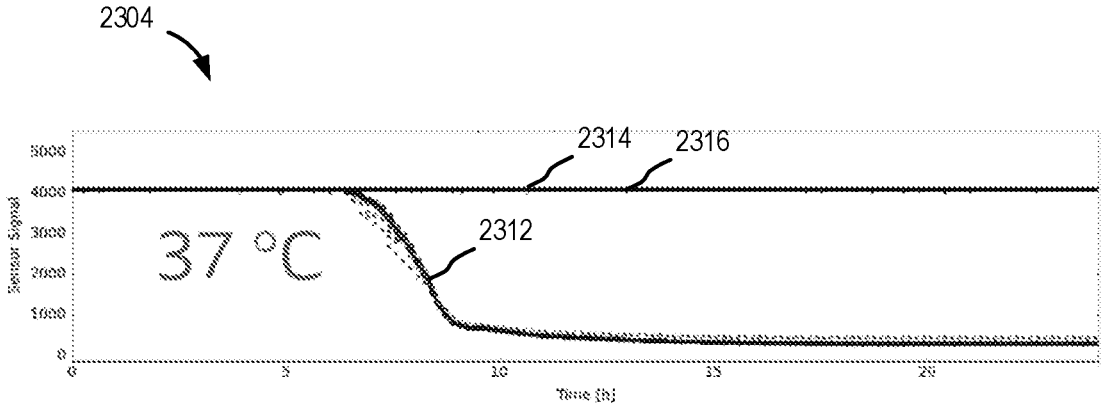


Fig. 21B

METHODS FOR MANAGING REMAINING WEAR TIME OF A MEDICAL APPLIANCE AND RELATED ACCESSORY DEVICES

[0001] The present disclosure relates to an ostomy system and devices thereof. The ostomy system comprises an ostomy appliance and a monitor device. In particular, the present disclosure relates to methods for managing remaining wear time of an ostomy appliance and related accessory devices.

BRIEF DESCRIPTION OF THE DRAWINGS

[0002] The accompanying drawings are included to provide a further understanding of embodiments and are incorporated into and a part of this specification. The drawings illustrate embodiments and together with the description serve to explain principles of embodiments. Other embodiments and many of the intended advantages of embodiments will be readily appreciated as they become better understood by reference to the following detailed description. The elements of the drawings are not necessarily to scale relative to each other. Like reference numerals designate corresponding similar parts.

[0003] FIG. **1** illustrates an exemplary ostomy system,

[0004] FIG. **2** illustrates an exemplary monitor device of the ostomy system,

[0005] FIG. **3** is an exploded view of a base plate of an ostomy appliance,

[0006] FIG. **4** is an exploded view of an exemplary electrode assembly,

[0007] FIG. **5** is a proximal view of parts of a base plate,

[0008] FIG. **6** is a distal view of an exemplary electrode configuration,

[0009] FIG. **7** is a distal view of an exemplary masking element,

[0010] FIG. **8** is a distal view of an exemplary first adhesive layer,

[0011] FIG. **9** is a proximal view of the first adhesive layer of FIG. **8**,

[0012] FIG. **10** is a distal view of a part of the base plate including monitor interface

[0013] FIGS. **11***a-b* are flow charts illustrating an exemplary method for managing remaining wear time according to the present disclosure,

[0014] FIG. **12** is a block diagram illustrating an exemplary accessory device according to the present disclosure, and

[0015] FIG. **13***a-b* are exemplary user interfaces displayed on an exemplary accessory device for managing remaining wear time related to a base plate of an ostomy appliance according to this disclosure

[0016] FIG. **14** is an exemplary graphical representation of parameter data as a function of time,

[0017] FIG. **15** is an exemplary graphical representation of parameter data as a function of time,

[0018] FIG. **16** is an exemplary graphical representation of parameter data as a function of time,

[0019] FIG. **17** is an exemplary graphical representation of parameter data as a function of time and a whitening zone diameter as a function of time,

[0020] FIGS. **18**A-**18**B are exemplary graphical representations of peel force as a function of a peeling distance travelled by a peeling action exercising the peel force on a first adhesive layer of a base plate,

[0021] FIGS. **19**A-**19**B are exemplary graphical representations of a whitening zone diameter,

[0022] FIG. **20**A is an exemplary graphical representation of first parameter data as a function of time for various semi-solid matter scenarios,

[0023] FIG. **20**B is an exemplary graphical representations of first parameter data as a function of percentage of semi-solid matter in the mixture applied to the stomal opening, and

[0024] FIGS. **21**A-**21**B are exemplary graphical representations of parameter data as functions of time for different predetermined temperatures.

DETAILED DESCRIPTION

[0025] Various exemplary embodiments and details are described hereinafter, with reference to the figures when relevant. It should be noted that the figures may or may not be drawn to scale and that elements of similar structures or functions are represented by like reference numerals throughout the figures. It should also be noted that the figures are only intended to facilitate the description of the embodiments. They are not intended as an exhaustive description of the invention or as a limitation on the scope of the invention. In addition, an illustrated embodiment needs not have all the aspects or advantages shown. An aspect or an advantage described in conjunction with a particular embodiment is not necessarily limited to that embodiment and can be practiced in any other embodiments even if not so illustrated, or if not so explicitly described.

[0026] Throughout this disclosure, the words "stoma" and "ostomy" are used to denote a surgically created opening bypassing the intestines or urinary tract system of a person. The words are used interchangeably, and no differentiated meaning is intended. The same applies for any words or phrases derived from these, e.g. "stomal", "ostomies" etc. Also, the solid and liquid wastes emanating from the stoma may be referred to as both stomal "output," "waste(s)," and "fluids" interchangeably. A subject having undergone ostomy surgery may be referred to as "ostomist" or "ostomate"—moreover, also as "patient" or "user". However, in some cases "user" may also relate or refer to a health care professional (HCP), such as a surgeon or an ostomy care nurse or others. In those cases, it will either be explicitly stated, or be implicit from the context that the "user" is not the "patient" him- or herself.

[0027] In the following, whenever referring to proximal side or surface of a layer, an element, a device or part of a device, the referral is to the skin-facing side or surface, when a user wears the ostomy appliance/monitor device. Likewise, whenever referring to the distal side or surface of a layer, an element, a device or part of a device, the referral is to the side or surface facing away from the skin, when a user wears the ostomy appliance/monitor device. In other words, the proximal side or surface is the side or surface closest to the user, when the appliance is fitted on a user and the distal side is the opposite side or surface—the side or surface furthest away from the user in use.

[0028] The axial direction is defined as the direction of the stoma, when a user wears the appliance. Thus, the axial direction is generally perpendicular to the skin or abdominal surface of the user.

[0029] A radial direction is defined as perpendicular to the axial direction. In some sentences, the words "inner" and "outer" may be used. These qualifiers should generally be

perceived with respect to the radial direction, such that a reference to an "outer" element means that the element is farther away from a centre portion of the ostomy appliance than an element referenced as "inner". In addition, "innermost" should be interpreted as the portion of a component forming a centre of the component and/or being adjacent to the centre of the component. In analogy, "outermost" should be interpreted as a portion of a component forming an outer edge or outer contour of a component and/or being adjacent to that outer edge or outer contour.

[0030] The use of the word "substantially" as a qualifier to certain features or effects in this disclosure is intended to simply mean that any deviations are within tolerances that would normally be expected by the skilled person in the relevant field.

[0031] The use of the word "generally" as a qualifier to certain features or effects in this disclosure is intended to simply mean—for a structural feature: that a majority or major portion of such feature exhibits the characteristic in question, and—for a functional feature or an effect: that a majority of outcomes involving the characteristic provide the effect, but that exceptionally outcomes do no provide the effect.

[0032] The present disclosure relates to an ostomy system and devices thereof, such as an ostomy appliance, a base plate for an ostomy appliance, a monitor device, and optionally one or more accessory devices. Further, methods related to the ostomy system and devices thereof are disclosed. An accessory device (also referred to as an external device) may be a mobile phone or other handheld device. An accessory device may be a personal electronic device, e.g. a wearable, such as a watch or other wrist-worn electronic device. An accessory device may be a docking station. The docking station may be configured to electrically and/or mechanically couple the monitor device to the docking station. The docking station may be configured for charging the monitor device and/or configured for transferring data between the monitor device and the docking station. The ostomy system may comprise a server device. The server device may be operated and/or controlled by the ostomy appliance manufacturer and/or a service centre.

[0033] An ostomy system comprising an ostomy appliance and a monitor device, the ostomy appliance comprising a base plate is disclosed, wherein the monitor device is a monitor device as described herein.

[0034] An ostomy system comprising a monitor device and an ostomy appliance comprising a base plate is disclosed, the base plate having a first adhesive layer with a proximal side configured for attachment of the base plate to the skin surface of a user, the first adhesive layer having a stomal opening with a center point, the monitor device comprising a processor and a sensor unit comprising a first sensor with a first sensor surface accommodated in a monitor device housing, the monitor device housing having a sensor opening in a proximal surface of the monitor device, the sensor opening forming at least a part of a sensor path from surroundings of the proximal surface to the first sensor surface.

[0035] Also disclosed is a monitor device for an ostomy appliance of an ostomy system, the monitor device comprising a processor and a sensor unit comprising a first sensor with a first sensor surface accommodated in a monitor device housing, the monitor device housing having a sensor opening in a proximal surface of the monitor device, the proximal surface configured for facing the skin of a user during use, the sensor opening forming at least a part of a sensor path from surroundings of the proximal surface to the first sensor surface.

[0036] The present disclosure provides an ostomy system and devices thereof, such as an ostomy appliance, a base plate for an ostomy appliance, a monitor device, and optionally one or more accessory devices which either alone or together may facilitate reliable monitoring of the ostomy appliance.

[0037] The ostomy appliance comprises a base plate and an ostomy pouch (also referred to as an ostomy bag). The ostomy appliance may be a colostomy appliance, an ileostomy appliance or a urostomy appliance. The ostomy appliance may be a two-part ostomy appliance, i.e. the base plate and the ostomy pouch may be releasably coupled e.g. with a mechanical and/or an adhesive coupling, e.g. to allow that a plurality of ostomy pouches can be utilized (exchanged) with one base plate. Further, a two-part ostomy appliance may facilitate correct application of the base plate to skin, e.g. to an improved user sight of the stomal region. The ostomy appliance may be a one-part ostomy appliance, i.e. the base plate and the ostomy pouch may be fixedly attached to each other. The base plate is configured for coupling to a user's stoma and/or skin surrounding the stoma, such as a peristomal skin area.

[0038] A base plate for an ostomy appliance is disclosed, the base plate comprising a first adhesive layer with a proximal side configured for attachment of the base plate to the skin surface of a user, the first adhesive layer having a stomal opening with a center point; and a plurality of electrodes including a ground electrode, a first electrode, and a optionally a second electrode, the ground electrode comprising a ground connection part, the first electrode comprising a first connection part, and the second electrode comprising a second connection part, wherein the ground electrode forms a ground for the first electrode and/or the second electrode.

[0039] The base plate comprises a first adhesive layer. During use, the first adhesive layer adheres to the user's skin (peristomal area) and/or to additional seals, such as sealing paste, sealing tape and/or sealing ring. Thus, the first adhesive layer may be configured for attachment of the base plate to the skin surface of a user. The first adhesive layer has a stomal opening with a center point or is at least prepared for forming a stomal opening with a center point. A base plate with three electrodes having sensing parts with contact to the first adhesive layer allows for determining erosion/swelling properties or characteristics of the first adhesive layer and/or determining a degree of erosion and/or swelling of the first adhesive layer.

[0040] It is an advantage of the present disclosure that an optimum or improved use of an ostomy appliance is provided. In particular, the present disclosure facilitates that a base plate is not changed too early (leading to increased cell-stripping from the skin and increased risk of skin damage and further leading to increased costs and/or material waste) nor too late (leading to adhesive failure, leakage and/or skin damage from the aggressive output). Accordingly, the user or a health care professional is able to monitor and plan the use of the ostomy appliance.

[0041] The present disclosure provides a simple, efficient, and easy-to-use ostomy appliance system with a high degree of comfort for a user.

[0042] The first adhesive layer may be made of a first composition. The first composition may comprise one or more polyisobutenes and/or styrene-isoprene-styrene. The first composition may comprise one or more hydrocolloids.

[0043] The first composition may be a pressure sensitive adhesive composition suitable for medical purposes comprising a rubbery elastomeric base and one or more water soluble or water swellable hydrocolloids. The first composition may comprise one or more polybutenes, one or more styrene copolymers, one or more hydrocolloids, or any combination thereof. The combination of the adhesive properties of the polybutenes and the absorbing properties of the hydrocolloids renders the first composition suitable for use in ostomy appliances. The styrene copolymer may for example be a styrene-butadiene-styrene block copolymer or a styrene-isoprene-styrene block copolymer. Preferably, one or more styrene-isoprene-styrene (SIS) block type copolymers are employed. The amount of styrene block-copolymer may be from 5% to 20% of the total adhesive composition. The butene component is suitably a conjugated butadiene polymer selected from polybutadiene, polyisoprene. The polybutenes are preferably present in an amount of from 35-50% of the total adhesive composition. Preferably, the polybutene is polyisobutylene (PIB). Suitable hydrocolloids for incorporation in the first composition are selected from naturally occurring hydrocolloids, semisynthetic hydrocolloids, and synthetic hydrocolloids. The first composition may comprise 20-60% hydrocolloids. A preferred hydrocolloid is carboxymethyl cellulose (CMC). The first composition may optionally contain other components, such as fillers, tackifiers, plasticizers, and other additives.

[0044] The first adhesive layer may have a plurality of sensor point openings. A sensor point opening of the first adhesive layer is configured to overlap a (sensing) part of an electrode, e.g. to form a sensor point.

[0045] The sensor point openings of the first adhesive layer may comprise primary sensor point openings. The primary sensor point openings may comprise one or more primary first sensor point openings and one or more primary second sensor point openings, the primary first sensor point openings configured to overlap (sensing) parts of an electrode and the primary second sensor point openings configured to overlap (sensing) parts of another electrode different from the electrode at least partly overlapped by the primary first sensor point openings.

[0046] The sensor point openings of the first adhesive layer may comprise secondary sensor point openings. The secondary sensor point openings may comprise one or more secondary first sensor point openings and one or more secondary second sensor point openings, the secondary first sensor point openings configured to overlap (sensing) parts of an electrode and the secondary second sensor point openings configured to overlap (sensing) parts of another electrode different from the electrode at least partly overlapped by the secondary first sensor point openings.

[0047] The sensor point openings of the first adhesive layer may comprise tertiary sensor point openings. The tertiary sensor point openings may comprise one or more tertiary first sensor point openings and one or more tertiary second sensor point openings, the tertiary first sensor point openings configured to overlap (sensing) parts of an electrode and the tertiary second sensor point openings configured to overlap (sensing) parts of another electrode different from the electrode at least partly overlapped by the tertiary first sensor point openings.

[0048] The first adhesive layer may have a substantially uniform thickness. The first adhesive layer may have a thickness in the range from 0.1 mm to 1.5 mm, e.g. in the range from 0.2 mm to 1.2 mm, such as 0.8 mm or 1.0 mm.

[0049] The first adhesive layer may have a primary thickness in a primary part of the first adhesive layer, e.g. in a primary region within a primary radial distance or in a primary radial distance range from the center point of the stomal opening. The primary thickness may be in the range from 0.2 mm to 1.5 mm. such as about 1.0 mm. The primary radial distance may be in the range from 20 mm to 50 mm, such as in the range from 25 mm to 35 mm, e.g. 30 mm.

[0050] The first adhesive layer may have a secondary thickness in a secondary part of the first adhesive layer, e.g. in a secondary region outside a secondary radial distance or in a secondary radial distance range from the center point of the stomal opening. The secondary thickness may be in the range from 0.2 mm to 1.0 mm, such as about 0.5 mm. The secondary radial distance may be in the range from 20 mm to 50 mm, such as in the range from 25 mm to 35 mm, e.g. 30 mm.

[0051] The base plate may comprise a second layer. The second layer may be an adhesive layer. The second layer may have a second radial extension that is larger than a first radial extension of the first adhesive layer at least in a first angular range of the base plate. Accordingly, a part of a proximal surface of the second layer may be configured for attachment to the skin surface of a user. The part of a proximal surface of the second layer configured for attachment to the skin surface of a user is also denoted the skin attachment surface of the second adhesive layer. The second layer may have a stomal opening with a center point.

[0052] The second adhesive layer may be made of a second composition. The second composition may comprise one or more polyisobutenes and/or styrene-isoprene-styrene. The second composition may comprise one or more hydrocolloids.

[0053] The second composition may be a pressure sensitive adhesive composition suitable for medical purposes comprising a rubbery elastomeric base and one or more water soluble or water swellable hydrocolloids. The second composition may comprise one or more polybutenes, one or more styrene copolymers, one or more hydrocolloids, or any combination thereof. The combination of the adhesive properties of the polybutenes and the absorbing properties of the hydrocolloids renders the second composition suitable for use in ostomy appliances. The styrene copolymer may for example be a styrene-butadiene-styrene block copolymer or a styrene-isoprene-styrene block copolymer. Preferably, one or more styrene-isoprene-styrene (SIS) block type copolymers are employed. The amount of styrene block-copolymer may be from 5% to 20% of the total adhesive composition. The butene component is suitably a conjugated butadiene polymer selected from polybutadiene, polyisoprene. The polybutenes are preferably present in an amount of from 35-50% of the total adhesive composition. Preferably, the polybutene is polyisobutylene (PIB). Suitable hydrocolloids for incorporation in the second composition are selected from naturally occurring hydrocolloids, semisynthetic hydrocolloids, and synthetic hydrocolloids. The second composition may comprise 20-60% hydrocolloids. A pre-

ferred hydrocolloid is carboxymethyl cellulose (CMC). The second composition may optionally contain other components, such as fillers, tackifiers, plasticizers, and other additives.

[0054] Different ratio of contents may change properties of the first and/or second adhesive layers. The second adhesive layer and the first adhesive layer may have different properties. The second adhesive layer (second composition) and the first adhesive layer (first composition) may have different ratios of polyisobutenes, styrene-isoprene-styrene, and/or hydrocolloids. For example, the second adhesive layer may provide a stronger attachment to the skin compared to attachment to the skin provided by the first adhesive layer. Alternatively, or additionally, the second adhesive layer may be thinner than the first adhesive layer. Alternatively, or additionally, the second adhesive layer may be less water and/or sweat absorbing than the first adhesive layer. Alternatively, or additionally, the second adhesive layer may be less moldable than the first adhesive layer. The second adhesive layer may provide a second barrier against leakage.

[0055] The second layer may have a substantially uniform thickness. The second layer may have a thickness in the range from 0.1 mm to 1.5 mm, e.g. in the range from 0.2 mm to 1.0 mm, such as 0.5 mm, 0.6 mm, or 0.7 mm.

[0056] The base plate comprises one or more electrodes, such as a plurality of electrodes, such as two, three, four, five, six, seven or more electrodes. The electrodes, e.g. some or all the electrodes, may be arranged between the first adhesive layer and the second adhesive layer. The electrodes may be arranged in an electrode assembly, e.g. an electrode layer. An electrode comprises a connection part for connecting the electrodes to other components and/or interface terminals/terminal elements. An electrode may comprise one or more conductor parts and/or one or more sensing parts. The electrode assembly may be arranged between the first adhesive layer and the second adhesive layer. The base plate, e.g. the electrode assembly, may comprise a first electrode, a second electrode and optionally a third electrode. The base plate, e.g. the electrode assembly, may comprise a fourth electrode and/or a fifth electrode. The base plate, e.g. the electrode assembly, optionally comprises a sixth electrode. The base plate, e.g. the electrode assembly, may comprise a ground electrode. The ground electrode may comprise a first electrode part. The first electrode part of the ground electrode may form a ground or reference for the first electrode. The ground electrode may comprise a second electrode part. The second electrode part of the ground electrode may form a ground or reference for the second electrode. The ground electrode may comprise a third electrode part. The third electrode part of the ground electrode may form a ground or reference for the third electrode. The ground electrode may comprise a fourth electrode part. The fourth electrode part of the ground electrode may form a ground or reference for the fourth electrode and/or the fifth electrode.

[0057] The ground electrode or electrode parts of the ground electrode may be configured as or form a (common) reference electrode for some or all of the other electrodes of the electrode assembly. The ground electrode may also be denoted reference electrode.

[0058] The electrodes are electrically conductive and may comprise one or more of metallic (e.g. silver, copper, gold, titanium, aluminium, stainless steel), ceramic (e.g. ITO), polymeric (e.g. PEDOT, PANI, PPy), and carbonaceous (e.g. carbon black, carbon nanotube, carbon fibre, graphene, graphite) materials.

[0059] The ground electrode may comprise a first electrode part and a second electrode part, the first electrode part forming the ground for the first electrode and the second electrode part forming the ground for the second electrode. The first electrode part may form a closed loop.

[0060] The electrodes are electrically conductive and may comprise one or more of metallic (e.g. silver, copper, gold, titanium, aluminium, stainless steel), ceramic (e.g. ITO), polymeric (e.g. PEDOT, PANI, PPy), and carbonaceous (e.g. carbon black, carbon nanotube, carbon fibre, graphene, graphite) materials.

[0061] Two electrodes of the electrode assembly may form a sensor. The first electrode and the ground electrode (e.g. first electrode part of the ground electrode) may form a first sensor or first electrode pair. The second electrode and the ground electrode (e.g. second electrode part of the ground electrode) may form a second sensor or second electrode pair. The third electrode and the ground electrode (e.g. third electrode part of the ground electrode) may form a third sensor or third electrode pair. The fourth electrode and the ground electrode (e.g. fourth electrode part of the ground electrode) may form a fourth sensor or fourth electrode pair. The fifth electrode and the ground electrode (e.g. fifth electrode part of the ground electrode) may form a fifth sensor or fifth electrode pair. The fourth electrode and the fifth electrode may form a sixth sensor or sixth electrode pair. An electrode may comprise a sensing part or a plurality of sensing parts, i.e. the part(s) of an electrode that are used for sensing. The first electrode may comprise a first sensing part. The first sensing part may contact the first adhesive layer and is optionally arranged at least partly annularly around the stomal opening. The first electrode may comprise a first conductor part insulated from the first adhesive layer, e.g. by a masking element arranged between the first conductor part and the first adhesive layer. The first sensing part may extend at least 270 degrees around the stomal opening, such as at least 300 degrees around the stomal opening. The first sensing part of the first electrode may be arranged at a first ground distance from the first electrode part of the ground electrode. The first ground distance may be less than 5 mm, such as less than 3 mm, e.g. about 1.0 mm.

[0062] The second electrode may comprise a second sensing part. The second sensing part may contact the first adhesive layer. The second sensing part may be arranged at least partly annularly around the stomal opening. The second sensing part may extend at least 270 degrees around the stomal opening, such as at least 300 degrees around the stomal opening. The second sensing part of the second electrode may be arranged at a second ground distance from the second electrode part of the ground electrode. The second ground distance may be less than 5 mm, such as less than 3 mm, e.g. about 1.0 mm.

[0063] The first sensing part may be arranged at a first radial distance from the center point and the second sensing part may be arranged at a second radial distance from the center point. The second radial distance may be larger than the first radial distance. The second electrode may comprise a second conductor part insulated from the first adhesive layer, e.g. by a masking element arranged between the second conductor part and the first adhesive layer. The first radial distance may vary as a function of an angular position

with respect to a zero direction from the center point. The second radial distance may vary as a function of an angular position with respect to a zero direction from the center point. The zero direction may be defined as the vertical upward direction when the base plate is in its intended wearing position on an upstanding user.

[0064] The first radial distance may be in the range from 5 mm to 40 mm, such as in the range from 10 mm to 25 mm, e.g. about 14 mm. The second radial distance may be in the range from 10 mm to 50 mm, such as in the range from 10 mm to 25 mm, e.g. about 18 mm.

[0065] The base plate may comprise a third electrode comprising a third connection part. The ground electrode may form a ground for the third electrode. The ground electrode may comprise a third electrode part, the third electrode part forming the ground for the third electrode. The third electrode may comprise a third conductor part insulated from the first adhesive layer, e.g. by a masking element arranged between the third conductor part and the first adhesive layer. The third electrode may comprise a third sensing part, the third sensing part contacting the first adhesive layer. The third sensing part may be arranged at least partly annularly around the stomal opening. The third sensing part may be arranged at a third radial distance from the center point. The third radial distance may be larger than the first radial distance and/or larger than the second radial distance. The third radial distance may be in the range from 15 mm to 50 mm. such as in the range from 20 mm to 30 mm, e.g. about 26 mm. The third sensing part may extend at least 270 degrees around the stomal opening, such as at least 300 degrees around the stomal opening. The third sensing part of the third electrode may be arranged at a third ground distance from the third electrode part of the ground electrode. The third ground distance may be less than 5 mm, such as less than 3 mm, e.g. about 1.0 mm. A base plate with a ground electrode, a first electrode, a second electrode, and a third electrode allows for a failsafe base plate in case e.g. the first electrode is cut or otherwise destroyed during preparation of the base plate.

[0066] The base plate may comprise a fourth electrode comprising a fourth connection part. The ground electrode may form a ground for the fourth electrode. The ground electrode may comprise a fourth electrode part, the fourth electrode part forming the ground for the fourth electrode. The fourth electrode may comprise one or a plurality of fourth sensing parts, such as at least five fourth sensing parts. The fourth sensing parts may be distributed around the stomal opening or a center point thereof. The fourth sensing parts may be arranged at respective fourth radial distances from the center point. The fourth radial distance(s) may be larger than the third radial distance. The fourth radial distance(s) may be in the range from 25 mm to 50 mm, such as about 30 mm.

[0067] The base plate may comprise a fifth electrode comprising a fifth connection part. The ground electrode may form a ground for the fifth electrode. The ground electrode may comprise a fifth electrode part, the fifth electrode part forming the ground for the fifth electrode. The fifth electrode may comprise one or a plurality of fifth sensing parts, such as at least five fifth sensing parts. The fifth sensing parts may be distributed around the stomal opening or a center point thereof. The fifth sensing parts may be arranged at respective fifth radial distances from the center point. The fifth radial distance may be larger than the third radial distance. The fifth radial distance may be equal to or larger than the fourth radial distance. The fifth radial distance(s) may be in the range from 25 mm to 50 mm, such as about 30 mm.

[0068] The first electrode may form an open loop. The second electrode may form an open loop and/or the third electrode may form an open loop. The fourth electrode may form an open loop. The fifth electrode may form an open loop. Open loop electrode(s) enables electrode arrangement in few or a single electrode layer.

[0069] The base plate may comprise a second adhesive layer, wherein the plurality of electrodes is arranged between the first adhesive layer and the second adhesive layer.

[0070] The electrode assembly may comprise a support layer, also denoted a support film. One or more electrodes may be formed, e.g. printed, on the proximal side of the support layer. One or more electrodes may be formed, e.g. printed, on the distal side of the support layer. Thus, one or more electrodes may be arranged between the support layer and the first adhesive layer. The electrode assembly may have a stomal opening with a center point.

[0071] The support layer may comprise polymeric (e.g. polyurethane, PTFE, PVDF) and/or ceramic (e.g. alumina, silica) materials. In one or more exemplary base plates, the support layer is made of thermoplastic polyurethane (TPU). The support layer material may be made of or comprise one or more of polyester, a thermoplastic elastomer (TPE), polyamide, polyimide, Ethylene-vinyl acetate (EVA), polyurea, and silicones.

[0072] Exemplary thermoplastic elastomers of the support layer are styrenic block copolymers (TPS, TPE-s), thermoplastic polyolefin elastomers (TPO, TPE-o), thermoplastic Vulcanizates (TPV, TPE-v), thermoplastic polyurethanes (TPU), thermoplastic copolyester (TPC, TPE-E), and thermoplastic polyamides (TPA, TPE-A).

[0073] The electrode assembly/base plate may comprise a masking element configured to insulate at least parts of the electrodes from the first adhesive layer of the base plate. The masking element may comprise one or more, such as a plurality of, sensor point openings. The sensor point openings may comprise primary sensor point openings and/or secondary sensor point openings. The sensor point openings may comprise tertiary sensor point opening(s). The sensor point openings may comprise quaternary sensor point opening(s). A sensor point opening of the masking element overlaps at least one electrode of the electrode assembly when seen in the axial direction, e.g. to form a sensor point. For example, a primary sensor point opening may overlap a (sensing) part of the ground electrode and/or a (sensing) part of the fourth electrode. A secondary sensor point opening may overlap a (sensing) part of the fourth electrode and/or a (sensing) part of the fifth electrode. A tertiary sensor point opening may overlap a (sensing) part of the fifth electrode and/or a (sensing) part of the ground electrode.

[0074] The masking element may comprise one or more, such as a plurality of, terminal openings. A terminal opening may overlap with one or more connection parts of electrodes. In one or more exemplary base plates, each terminal opening overlaps with a single connection part of an electrode.

[0075] The masking element may comprise polymeric (e.g. polyurethane, PTFE, PVDF) and/or ceramic (e.g. alumina, silica) materials. In one or more exemplary base

plates, the masking element is made of or comprises thermoplastic polyurethane (TPU). In one or more exemplary base plates, the masking element is made of or comprises polyester. The masking element material may be made of or comprise one or more of polyester, a thermoplastic elastomer (TPE), polyamide, polyimide, Ethylene-vinyl acetate (EVA), polyurea, and silicones.

[0076] Exemplary thermoplastic elastomers of the masking element are styrenic block copolymers (TPS, TPE-s), thermoplastic polyolefin elastomers (TPO, TPE-o), thermoplastic Vulcanizates (TPV, TPE-v), thermoplastic polyurethanes (TPU), thermoplastic copolyester (TPC, TPE-E), and thermoplastic polyamides (TPA, TPE-A).

[0077] The base plate may comprise a first intermediate element. The first intermediate element may be arranged between the electrodes/electrode layer and the first adhesive layer and/or between the second layer and the first adhesive layer. The first intermediate layer may be made of an insulating material.

[0078] The base plate may comprise a release liner. The release liner is a protective layer that protects adhesive layer(s) during transport and storage and is peeled off by the user prior to applying the base plate on the skin. The release liner may have a stomal opening with a center point.

[0079] The base plate may comprise a top layer. The top layer is a protective layer protecting the adhesive layer(s) from external strains and stress when the user wears the ostomy appliance. The electrodes, e.g. some or all the electrodes, may be arranged between the first adhesive layer and the top layer. The top layer may have a stomal opening with a center point. The top layer may have a thickness in the range from 0.01 mm to 1.0 mm, e.g. in the range from 0.02 mm to 0.2 mm, such as 0.04 mm. The top layer may have a stomal opening with a center point.

[0080] The base plate comprises a monitor interface. The monitor interface may be configured for electrically and/or mechanically connecting the ostomy appliance (base plate) to the monitor device. The monitor interface may be configured for wirelessly connecting the ostomy appliance (base plate) to the monitor device. Thus, the monitor interface of the base plate is configured to electrically and/or mechanically couple the ostomy appliance and the monitor device.

[0081] The monitor interface of the base plate may comprise, e.g. as part of a first connector of the monitor interface, a coupling part for forming a mechanical connection, such as a releasable coupling between the monitor device and the base plate. The coupling part may be configured to engage with a coupling part of the monitor device for releasably coupling the monitor device to the base plate.

[0082] The monitor interface of the base plate may comprise, e.g. as part of a first connector of the monitor interface, a plurality of terminals, such as two, three, four, five, six, seven or more terminals, for forming electrical connections with respective terminals of the monitor device. The monitor interface may comprise a ground terminal element forming a ground terminal. The monitor interface may comprise a first terminal element forming a first terminal, a second terminal element forming a second terminal and optionally a third terminal element forming a third terminal. The monitor interface may comprise a fourth terminal element forming a fourth terminal and/or a fifth terminal element forming a fifth terminal. The monitor interface optionally comprises a sixth terminal element forming a sixth terminal. The terminal elements of the monitor interface may contact respective electrodes (connection parts) of the base plate/electrode assembly. The first intermediate element may be arranged between the terminal elements and the first adhesive layer. The first intermediate element may cover or overlap terminal element(s) of the base plate when seen in the axial direction. Thus, the first adhesive layer may be protected or experience more evenly distributed mechanical stress from the terminal elements of the base plate, in turn reducing the risk of terminal elements penetrating or otherwise damaging the first adhesive layer. The first intermediate element may protect or mechanically and/or electrically shield the first adhesive layer from the terminal elements of the base plate.

[0083] A terminal element, such as the ground terminal element, the first terminal element, the second terminal element, the third terminal element, the fourth terminal element, the fifth terminal element and/or the sixth terminal element, may comprise a distal end and a proximal end. A terminal element, such as the ground terminal element, the first terminal element, the second terminal element, the third terminal element, the fourth terminal element, the fifth terminal element and/or the sixth terminal element, may comprise a distal part, a centre part, and/or a proximal part. The distal part may be between the distal end and the centre part. The proximal part may be between the proximal end and the centre part. The proximal end/proximal part of a terminal element may contact a connection part of an electrode. A terminal element, such as the ground terminal element, the first terminal element, the second terminal element, the third terminal element, the fourth terminal element, the fifth terminal element and/or the sixth terminal element, may be gold plated copper.

[0084] The base plate may comprise a coupling ring or other coupling member for coupling an ostomy pouch to the base plate (two-part ostomy appliance). The center point may be defined as a center of the coupling ring.

[0085] The base plate has a stomal opening with a center point. The size and/or shape of the stomal opening is typically adjusted by the user or nurse before application of the ostomy appliance to accommodate the user's stoma. In one or more exemplary base plates, the user forms the stomal opening during preparation of the base plate for application.

[0086] The monitor device comprises a processor. The processor controls the operation of the monitor device including collection and processing of ostomy data from the base plate of the ostomy appliance, processing of, such as storing, sensor data from sensor unit, and generation/transmission of monitor data to accessory devices.

[0087] The monitor device comprises a memory for storing ostomy data and/or parameter data based on the ostomy data. The processor may be configured for processing and storing sensor data in the memory.

[0088] The monitor device comprises a monitor device housing optionally made of a plastic material. The monitor device housing may be an elongate housing having a first end and a second end. The monitor device housing may have a length or maximum extension along a longitudinal axis in the range from 1 cm to 10 cm. The monitor device housing may have a width or maximum extension perpendicular to the longitudinal axis in the range from 0.5 cm to 5 cm, such as from 0.8 cm to 3 cm. The monitor device housing may be curve-shaped.

[0089] The monitor device housing may have a plurality of sensor openings, e.g. a plurality of sensor openings for a sensor and/or a sensor opening for each of a plurality of sensors. The monitor device may comprise one or more sensor openings in a distal surface of the monitor device. The monitor device may comprise one or more sensor openings in a side surface of the monitor device. The monitor device may comprise one or more sensor openings in an end surface of the monitor device.

[0090] The sensor opening in the proximal surface is arranged at a sensor opening distance from the first end. The sensor opening distance, also denoted D_S, may be in the range from 0.25 L to 0.75 L, such as from 0.35 L to 0.65 L, where L is the length of the monitor device housing. The sensor opening distance may be in the range from 10 mm to 70 mm.

[0091] The monitor device housing comprises or forms a sensor path from surroundings of the proximal surface to the first sensor surface. The sensor path translates temperature and/or humidity at the proximal surface of the monitor device/monitor device housing to the first sensor surface. The sensor opening forms a part of the sensor path and has a cross-sectional area optionally in the range from 0.2 mm^2 to 10 mm^2. The sensor opening may be a circular sensor opening with a diameter in the range from 0.3 mm to 1.4 mm, e.g. from 0.6 mm to 1.0 mm.

[0092] The monitor device comprises a sensor unit with one or more sensors including a first sensor. The sensor unit is connected to the processor for feeding sensor data to the processor. The sensor unit may comprise a humidity sensor for provision of humidity data to the processor. Thus, the sensor data may comprise humidity data. For example, the first sensor may be a humidity sensor for provision of humidity data to the processor.

[0093] Thus, the present disclosure enables humidity detection near the skin of a user and/or on the distal side of the base plate, which in turn can be used for a more accurate estimation of base plate operation state.

[0094] The sensor unit may comprise a temperature sensor for provision of temperature data to the processor. Thus, the sensor data may comprise temperature data. For example, the first sensor may be a temperature sensor for provision of temperature data to the processor. Thus, the present disclosure enables temperature detection near the skin of a user and/or on the distal side of the base plate, which in turn can be used for a more accurate estimation of base plate operation state.

[0095] The first sensor may be a combined humidity and temperature sensor for provision of humidity and temperature data to the processor.

[0096] The sensor unit of the monitor device may comprise a second sensor, e.g. an accelerometer for provision of acceleration data to the processor. The sensor unit of the monitor device may comprise a third sensor, e.g. a gyroscope for provision of gyroscope data to the processor. The sensor unit of the monitor device may comprise a fourth sensor, e.g. a magnetometer for provision of magnetometer data to the processor.

[0097] The processor is configured for processing ostomy data obtained from the base plate and generate or determine monitor data that are transmitted to an accessory device. The monitor data may comprise sensor data obtained from the sensor unit.

[0098] The monitor device comprises a first interface for connecting the monitor device to the base plate. The first interface may be arranged in the proximal surface of the monitor device housing. The first interface may be arranged within a first interface distance from the first end. The first interface distance may be less than 0.50 L, such as less than 0.4 L, where L is the length of the monitor device housing.

[0099] The monitor device may comprise a sealing element forming a seal between the first sensor and a housing part of the monitor device housing. The sealing element may be an O-ring, e.g. made of a rubber material. The sealing element may encircle the first sensor surface to expose the first sensor surface (membrane) to the sensor path while providing a closed cavity of the monitor device, the closed cavity accommodating PCB, processor, and other electronic circuitry. A glue may form the sealing element.

[0100] The ostomy system enables a reliable and accurate measurement of different parameters relevant for monitoring of the ostomy appliance. In the ostomy system, a distance between the proximal surface of the monitor device and a distal surface of the base plate, in a coupled state, is in the range from 0.2 mm to 10 mm, such as in the range from 0.5 mm to 5 mm. In the coupled state, the monitor device is attached to the base plate and arranged in its intended position during use of the ostomy system.

[0101] The monitor device comprises a first interface connected to the processor. The first interface may be configured as an appliance interface for electrically and/or mechanically connecting the monitor device to the ostomy appliance. Thus, the appliance interface is configured to electrically and/or mechanically couple the monitor device and the ostomy appliance. The first interface may be configured as an accessory device interface for electrically and/or mechanically connecting the monitor device to an accessory device, such as a docking station. The first interface may be configured for coupling to a docking station of the ostomy system, e.g. for charging the monitor device and/or for data transfer between the monitor device and the docking station.

[0102] The first interface of the monitor device may comprise a plurality of terminals, such as two, three, four, five, six, seven or more terminals, for forming electrical connections with respective terminals and/or electrodes of the ostomy appliance. One or more terminals of the first interface may be configured for forming electrical connections with an accessory device, e.g. with respective terminals of a docking station. The first interface may comprise a ground terminal. The first interface may comprise a first terminal, a second terminal and optionally a third terminal. The first interface may comprise a fourth terminal and/or a fifth terminal. The first interface optionally comprises a sixth terminal. In one or more exemplary monitor devices, the first interface has M terminals, wherein M is an integer in the range from 4 to 8.

[0103] The first interface of the monitor device may comprise a coupling part for forming a mechanical connection, such as a releasable coupling between the monitor device and the base plate. The coupling part and the terminals of the first interface form (at least part of) a first connector of the monitor device.

[0104] The monitor device comprises a power unit for powering the monitor device. The power unit may comprise a battery. The power unit may comprise charging circuitry connected to the battery and terminals of the first interface

for charging the battery via the first interface, e.g. the first connector. The first interface may comprise separate charging terminal(s) for charging the battery.

[0105] The monitor device comprises a second interface connected to the processor. The second interface may be configured as an accessory interface for connecting, e.g. wirelessly connecting, the monitor device to one or more accessory devices. The second interface may comprise an antenna and a wireless transceiver, e.g. configured for wireless communication at frequencies in the range from 2.4 to 2.5 GHz. The wireless transceiver may be a Bluetooth transceiver, i.e. the wireless transceiver may be configured for wireless communication according to Bluetooth protocol, e.g. Bluetooth Low Energy, Bluetooth 4.0, Bluetooth 5. The second interface optionally comprises a loudspeaker and/or a haptic feedback element for provision of an audio signal and/or haptic feedback to the user, respectively. The processor may be configured to transmit monitor data, as a wireless monitor signal via the antenna and the wireless transceiver.

[0106] The ostomy system may comprise a docking station forming an accessory device of the ostomy system. The docking station may be configured to electrically and/or mechanically couple the monitor device to the docking station.

[0107] The docking station may comprise a docking monitor interface. The docking monitor interface may be configured for electrically and/or mechanically connecting the monitor device to the docking station. The docking monitor interface may be configured for wirelessly connecting the monitor device to the docking station. The docking monitor interface of the docking station may be configured to electrically and/or mechanically couple the docking station and the monitor device.

[0108] The docking monitor interface of the docking station may comprise, e.g. as part of a first connector of the docking monitor interface, a coupling part for forming a mechanical connection, such as a releasable coupling between the monitor device and the docking station. The coupling part may be configured to engage with a coupling part of the monitor device for releasably coupling the monitor device to the docking station.

[0109] The docking monitor interface of the docking station may comprise, e.g. as part of a first connector of the docking monitor interface, a plurality of terminals, such as two, three, four, five, six, seven or more terminals, for forming electrical connections with respective terminals of the monitor device. The docking monitor interface may comprise a ground terminal. The docking monitor interface may comprise a first terminal and/or a second terminal. The docking station may comprise a third terminal. The docking monitor interface may comprise a fourth terminal and/or a fifth terminal. The docking monitor interface optionally comprises a sixth terminal.

[0110] The present disclosure provides a method, performed in an accessory device, for managing wear time of a base plate of an ostomy appliance (e.g. managing remaining wear time of the base plate disclosed herein, planning use of remaining wear time, budgeting remaining wear time (e.g. of the base plate disclosed herein)). The accessory device comprises an interface configured to communicate with one or more devices of an ostomy system, the interface comprising a display. The ostomy system comprises a monitor device, and/or an ostomy appliance configured to be placed on a skin surface of a user. The ostomy appliance comprises a base plate. The method comprises: obtaining monitor data from the one or more devices, determining the remaining wear time of the ostomy appliance based on the monitor data; obtaining a user request to take into account at least a part of context data, in response to obtaining the user request: obtaining the at least part of the context data, adjusting the remaining wear time based on the at least part of the context data; and communicating, via the interface, the adjusted remaining wear time.

[0111] It is an advantage of the present disclosure that the disclosed methods and accessory devices support a user into managing the wear time of the base plate and planning the use of the remaining wear time, with respect to activities planning, medicine intake planning, and/or nutritional planning. In other words, the disclosure enables a user to budget the remaining wear time of a base plate disclosed herein, so as to avoid the risk of leakage or discomfort. The disclosed technique overall aims at improving the quality of life of an ostomist (e.g. making ostomy care easier to handle for an ostomist).

[0112] The method comprises obtaining monitor data from the one or more devices, such as from the monitor device, such as from the ostomy appliance (e.g. from the base plate). The method may comprise obtaining monitor data from a memory of the accessory device. Obtaining monitor data from the monitor device may comprise retrieving and/or receiving the monitor data from the monitor device.

[0113] The ostomy appliance comprises a base plate, such as a base plate disclosed herein. The ostomy appliance comprises an ostomy pouch. The base plate may comprise a first adhesive layer having a proximal side. During use, a proximal surface of the first adhesive layer adheres to the user's skin in the peristomal area and/or to additional seals, such as sealing paste, sealing tape and/or sealing ring. The base plate may comprise one or more electrodes configured to measure electrical properties of the first adhesive layer. The electrical properties may be indicative of a conductive path in the first adhesive layer, thereby indicative of the moisture level, and indicative of the condition of the ostomy appliance.

[0114] The monitor data may be indicative of a condition of the base plate of the ostomy appliance. The condition of base plate of the ostomy appliance may refer to a level of a physical property of at least a part of the base plate of the ostomy appliance, such as a level of moisture and/or temperature of at least a part of the base plate of the ostomy appliance, such as a level of a physical property of at least a layer of the base plate of the ostomy appliance, such as a level of moisture and/or temperature of at least a layer of the base plate of the ostomy appliance, such as a level of a physical property of at least an adhesive layer of the base plate of the ostomy appliance (e.g. a first adhesive layer proximal to the skin of the user). In one or more exemplary accessory devices, the interface is configured to obtaining the monitor data by obtaining the monitor data indicative of the condition comprising a moisture level of a first adhesive layer of the base plate and/or a moisture level of a proximal side of the first adhesive layer. The moisture level may be seen as representative of a conductive path in the first adhesive layer, such as across the first adhesive layer. The monitor data comprises e.g. data representative of the measurement of the electrical properties of the first adhesive

layer. In other words, the condition may be seen as a condition of the first adhesive layer of the base plate.

[0115] The monitor data may comprise ostomy data and/or parameter data. The monitor device is configured to process the ostomy data and/or parameter data based on the ostomy data to determine monitor data that is transmitted to the accessory device. The ostomy data and/or parameter data may be indicative of resistance between electrodes of the base plate, capacitance and/or inductance between electrodes and/or any change thereof. For example, the ostomy data and/or parameter data may be indicative of a change in resistance, capacitance and/or inductance between electrodes. For example, the ostomy data and/or parameter data may comprise timing information, such as timestamped data or information from which timing is derivable.

[0116] The method comprises determining the wear time of the ostomy appliance (e.g. of the base plate disclosed herein) based on the monitor data obtained. Wear time may comprise average wear time, nominal wear time, minimal wear time, maximal wear time, median wear time, and/or any of other statistical metric derivable from wear time. Wear time may comprise remaining wear time and/or current wear time and/or elapsed wear time. A quality of adhesion may comprise a metric indicative of erosion of a layer of the base plate (such as of the first adhesive layer), such as a moisture pattern representation.

[0117] Wear time is indicative of the dynamic internal state of the base plate of the ostomy appliance (e.g. of the base plate of the ostomy appliance currently being worn by the user) related to adhesive performance of the ostomy appliance. Adhesive performance of the ostomy appliance may be related to an internal condition of the base plate of the ostomy appliance (e.g. of the base plate of the ostomy appliance), such as an internal condition of an adhesive layer of the base plate of the ostomy appliance. The adhesive performance, operating state, and thereby wear time may be affected by several factors, such as humidity, temperature, misplacement of the base plate of the ostomy appliance on the stoma, and/or malfunction of the ostomy appliance. The adhesive performance, and thereby the wear time may be affected by misplacement of the base plate of the ostomy appliance on the stoma, and/or malfunction of the ostomy appliance. Adhesive performance may be indicative of wear property, e.g. wear time and/or wear comfort. The one or more factors alone or in combination impact the adhesive performance of the base plate of the ostomy appliance, and thereby impact the wear time of the base plate disclosed herein.

[0118] The method comprises: obtaining a user request to take into account at least a part of context data, in response to obtaining the user request: obtaining the at least part of the context data, adjusting the remaining wear time based on the at least part of the context data, and communicating the adjusted remaining wear time via the interface. Obtaining the user request to take into account at least a part of context data may comprise: displaying a first context user interface object representative of a user request to take into account a first part of the context data; detecting a third user input corresponding to selection of the first context user interface object. Obtaining the user request to take into account at least a part of context data may comprise in response to detecting the third user input, obtaining the first part of the context data from a user application and including the first part of the context data in the operation of adjusting the remaining wear time. In one or more exemplary methods, the first context user interface object representative of a user request to take into account a first part of the context data may comprise a user interface field, the user interface field being configured to accept discourse input, and obtaining the user request may comprise detecting a third user input on the user interface field, and determining the context data based on the detected third user input.

[0119] Context data may be quantified with one or more context parameters, which may be associated one or more adjustment factors. The accessory device may maintain a local or remote database (or lookup table) associating a context parameter with a corresponding adjustment factors. Adjusting the remaining wear time of the base plate of the ostomy appliance based on the context data may comprise adjusting the remaining wear time based on the one or more context parameters (e.g. using the one or more adjustment factors, e.g. by applying the one or more adjustment factors).

[0120] Many of the factors may be captured by context data obtained at the accessory device. Thus, exploiting context data and correlating it with monitor data is seen as leading to an improvement in determining wear time, and thereby an improvement in the life of an ostomist (because the ostomist given a more accurate operating state is able to plan and prevent any undesired situation caused by e.g. the ostomy appliance leaking).

[0121] In one or more exemplary methods, context data comprises application data, e.g. from a second application. Context data may refer to data indicative of a context in which the ostomy appliance may be operating, such as data characterizing the context or an environment affecting the operation of the ostomy appliance and of the base plate. For example, context data may be referred to as contextual data.

[0122] Obtaining a user request to take into account at least a part of context data may comprise obtaining a user request to input a part of context data. Obtaining a user request to take into account at least a part of context data may comprise obtaining a user request indicative of a user input.

[0123] For example, determining the remaining wear time of the ostomy appliance based on the monitor data may comprise determining the remaining wear time of the base plate of the ostomy appliance based on an operating state. The operating state may be indicative of the severity and/or imminence of a leakage (e.g. low, medium, acute). The operating state may comprise Z operating states, where Z is an integer. The operating state may comprise a first operating state, a second operating state, a third operating state (e.g. good, check, change in X time/NOW).

[0124] In an illustrative example where the present technique is applied, initially, the operating state of the base plate may be indicative of a default or normal operating state of the base plate wherein the default operating state is indicative of very low or no degree of radial erosion of the base plate and/or of no leakage. After a prolonged use of the ostomy appliance, the accessory device may determine an operating state of the ostomy appliance that may be indicative of a degree of radial erosion of the base plate, such as of the first adhesive layer, and/or an acute leakage risk of the ostomy appliance. Communicating, via the interface, the adjusted remaining wear time may comprise displaying, on the display, a first wear time user interface object representative of the adjusted remaining wear time.

[0125] A user interface refers herein to a graphical representation comprising a collection of user interface objects. A user interface comprises one or more user interface objects. A user interface may be referred to as a user interface screen.

[0126] A user interface object refers herein to a graphical representation of an object that is displayed on the display of the accessory device. The user interface object may be user-interactive, or selectable by a user input. For example, an image (e.g., icon), a button, and text (e.g., hyperlink) each optionally constitute a user interface object. The user interface object may form part of a widget. A widget may be seen as a mini-application that may be used by the user, and created by the user. A user interface object may comprise a prompt, application launch icon, and/or an action menu. The first input may comprise a touch (e.g. a tap, a force touch, a long press), a and/or movement of contact (e.g. a swipe gesture, e.g. for toggling). The movement on contact may be detected by a touch sensitive surface, e.g. by a touch sensitive display. The first input may comprise a lift off, wherein a lift off is a detection of absence of touch on the touch sensitive surface following the detection of a contact. The first input may comprise a touch, and a movement followed by a lift off. Determining a lift off may comprise detecting absence of touch on the touch sensitive surface after having detected a touch (e.g. a discontinuation of contact in the detected touch). Detecting the first input may comprise detected a touch, and after detecting a touch, detecting absence of touch on the touch sensitive surface.

[0127] The display of the accessory device may be configured to detect touch (e.g. the display is a touch-sensitive display). An input may comprise a contact on the touch sensitive display. A touch-sensitive display provides an input interface and an output interface between the accessory device and a user. A processor of the accessory device may be configured to receive and/or send electrical signals from/to touch-sensitive display. A touch-sensitive display is configured to display visual output to the user. The visual output optionally includes graphics, text, icons, video, and any combination thereof (collectively termed "graphics"). For example, some or all of the visual output may be seen as corresponding to user-interface objects.

[0128] The method may comprise communicating, via the interface, the remaining wear time prior to adjusting the remaining wear time to the adjusted remaining wear time.

[0129] Communicating the remaining wear time prior to adjusting may comprise displaying, on the display, a second wear time user interface object representative of the remaining wear time determined prior to adjusting the remaining wear time to the adjusted remaining wear time.

[0130] Displaying, on the display, the first wear time user interface object representative of the adjusted remaining wear time may comprise displaying, on the display, the first wear time user interface object representative of the adjusted remaining wear time in a first application user interface of a first application. The first application is an ostomy user application installed on the accessory device.

[0131] Displaying, on the display, the second wear time user interface object representative of the remaining wear time determining prior to adjusting may comprise displaying, on the display, the second wear time user interface object representative of the remaining wear time in a first application user interface of a first application. The first application is an ostomy user application installed on the accessory device.

[0132] In one or more exemplary methods, displaying, on the display, the first wear time user interface object representative of the adjusted remaining wear time comprises displaying, on the display, the first wear time user interface object representative of the adjusted remaining wear time in a first notification. Displaying the first notification comprising the first wear time user interface object representative of the adjusted remaining wear time may comprise displaying the first notification on a home screen and/or on a lock screen of the accessory device.

[0133] In one or more exemplary methods, displaying, on the display, the second wear time user interface object representative of the remaining wear time determining prior to adjusting comprises displaying, on the display, the second wear time user interface object representative of the remaining wear time in a second notification. Displaying the second notification comprising the second wear time user interface object representative of the remaining wear time may comprise displaying the second notification on a home screen and/or on a lock screen of the accessory device. The second notification may be comprised in the first notification or may be separate from the first notification.

[0134] In one or more exemplary methods, obtaining the at least part of context data comprises obtaining the at least part of context data from a second application different from the first application. For example, the second application comprises a calendar application, a weather application, an analytics application, a health application, a sports application, an activity tracker application, a photo application, a camera, and/or a medical application. The second application may be a third-party application, other than ostomy user application. The second application may be integrated with/connected to an application server configured to provide the corresponding context data to the accessory device upon request.

[0135] Obtaining the at least part of context data may comprise displaying a user interface field in the first application. The user interface field is configured to accept discourse input. Obtaining the at least part of context data may comprise detecting a first user input in the user interface field, determining the at least part of context data based on the first user input, and obtaining the at least part of context data based on the detected first user input. The interface may comprise an input device (e.g. keyboard, microphone). The discourse input may comprise text input, and/or voice input. The discourse input may be indicative of context data, e.g. indicative of activity, food intake, diet, medicine intake, etc. . . . . For example, the discourse input may indicate a physical activity (e.g. "gym" or "I want to go to the boxing class"), may indicate food intake (e.g. "going to Indian restaurant"), medicine intake (e.g. "I would like to take my laxative medicine now").

[0136] Obtaining the at least part of context data may comprise obtaining one or more of: calendar data from a calendar application installed on the accessory device, location data, nutritional data, medicine intake data, health data, activity data.

[0137] Calendar data comprises date, time, calendar events including event date, event start time, event end time, event recurrence, event location, event attendees, etc. The method may comprise deriving one or more regular events not derived from the calendar application, such as commuting, going up and down stairs, walking dog etc. and including the derived one or more regular events in the context

data. For example, the accessory device can adjust the remaining wear time based on identifying a calendar event being a sports activity in the near future. The accessory device may adjust the remaining wear time by reduction due to e.g. sweating and movements affecting the adhesive performance of the base plate and may communicate the adjusted remaining wear time accordingly. This way, the user is informed and may decide to change the base plate e.g. prior to the sports activity if the remaining wear time does not permit to proceed to the sports activity without changing the base plate.

[0138] Location data may be obtained from a GPS sensor, an accelerometer, a gyroscope, a magnetometer, a cellular base station, a wireless access point, and/or a short range connection. Nutritional data may comprise data indicative of food intake by the user, such as what food the user has consumed, e.g. based on user input, and/or based on photo capture in a photo-enabled application.

[0139] Medicine intake data may comprise data. indicative of medicine intake by the user, such as a prescription). Medicine intake data may be obtained via a medical user application (e.g. a user application used to store prescriptions, or to communicate with a medical team). Medicine intake affects the nature, consistence, flow of the output generated by the body of the user, and in turns affect the operating state. For example, the accessory device obtains medicine intake data e.g. from a user input or a medical application. The accessory device may adjust the remaining wear time based on the context data including the medicine intake data (e.g. using a corresponding adjustment factor). The accessory device may reduce the remaining wear time based on the medical intake data (e.g. more severe than if the medicine intake was not taken into account) and communicate the adjusted remaining wear time in a timely manner so as to allow for the user to adapt the ostomy care. This way, the user is informed and may possibly change the base plate in due time to prevent any unforeseen leakage caused by the medicine intake.

[0140] Health data may comprise age, gender, medical conditions of the user, prescriptions, one or more diseases, heart rate, user metabolism data, health condition data. Health data may be obtained via a health user application, a hear rate sensor, an activity tracker etc. A user metabolism data may comprise a user metabolism parameter indicative of the general metabolism of a user. A user health condition data may comprise a user health condition parameter indicative of a health condition of a user: current health condition, average health condition, health condition profile over time. For example, the health condition parameter may comprise a first health condition, and a second health condition. A health condition I of a user may be indicative of the user being healthy, suffering from a permanent physical condition, suffering from a temporary physical condition. For example, if the health condition parameter indicates an inflammation, the remaining wear time may be adjusted to an adjusted remaining wear time that requires earlier change than if the health condition parameter indicates a healthy condition.

[0141] Adjusting the remaining wear time based on the at least part of the context data may comprise determining an adjustment factor based on the at least part of the context data, and determining the remaining wear time based on the adjustment factor. Context data may be quantified with one or more context parameters, which may be associated one or more adjustment factors. The accessory device may maintain a local or remote database (or lookup table) associating a context parameter with a corresponding adjustment factors. Adjusting the remaining wear time of the base plate of the ostomy appliance based on the context data may comprise adjusting the remaining wear time based on the one or more context parameters (e.g. using the one or more adjustment factors, e.g. by applying the one or more adjustment factors). The adjustment factor may comprise a reduction coefficient, and/or an increase coefficient.

[0142] Determining the remaining wear time based on the adjustment factor may comprise reducing the remaining wear time based on the adjustment factor (e.g. by a reduction coefficient).

[0143] Determining the remaining wear time based on the adjustment factor may comprise increasing the remaining wear time based on the adjustment factor.

[0144] The method may comprise communicating (e.g. displaying, transmitting) a recommendation notification to change a base plate in a certain time window prior to an event (e.g. leakage), to check supplies prior to an event (e.g. driving, or activity) or while at home etc.

[0145] The method may comprise displaying, via the display, a second user interface object prompting the user to provide an indicator as to whether the adjusted remaining wear time is acceptable.

[0146] The method may comprise: detecting a second user input corresponding to selection of the first wear time user interface object, or the second wear time user interface object, or a first application user interface object; in response to detecting the second user input, opening the first application. The first application user interface object may comprise a first application launch icon.

[0147] In one or more exemplary methods and accessory devices, the display is a touch sensitive display, and the second user input may comprise a contact on the touch sensitive display

[0148] Obtaining a user request to take into account at least a part of context data may comprise: displaying a first context user interface object representative of a user request to take into account a first part of the context data; detecting a third user input corresponding to selection of the first context user interface object.

[0149] The disclosure provides an accessory device for an ostomy system. The accessory device forms part of an ostomy system. The accessory device comprises a memory, a processor operatively connected to the interface and to the memory, and an interface configured to communicate with one or more devices of the ostomy system. The one or more devices comprise a monitor device, and/or an ostomy appliance configured to be placed on a skin surface of a user. The ostomy appliance comprises a base plate disclosed herein.

[0150] The interface comprises a display, and optionally a transceiver and optionally an input device (e.g. a keyboard, and/or a microphone).

[0151] The interface is configured to obtain monitor data from the one or more devices, e.g. from the monitor device. The processor is configured to determine the remaining wear time of the ostomy appliance based on the monitor data; obtain a user request to take into account at least a part of the context data, in response to obtaining the user request: obtain at least a part of context data, via the interface; adjust the remaining wear time based on the at least part of the

context data. The interface is configured to communicate the adjusted remaining wear time.

[0152] The accessory device is configured to perform any of the methods disclosed herein.

[0153] The interface comprises a display, such as a touch-sensitive display. The interface of the accessory device is configured to communicate with one or more of: a user, a monitor device and/or a server device. The interface of the accessory device may be configured to communicate with the server device via a network.

[0154] The interface may comprise a monitor interface for connecting, e.g. wirelessly connecting, the accessory device to one or more monitor devices. The interface of the accessory device may comprise a transceiver comprising an antenna and a wireless transceiver, e.g. configured for wireless communication at frequencies in the range from 2.4 to 2.5 GHz. The wireless transceiver may be a Bluetooth transceiver, i.e. the wireless transceiver may be configured for wireless communication according to Bluetooth protocol, e.g. Bluetooth Low Energy, Bluetooth 4.0, Bluetooth 5.

[0155] The accessory device is configured to receive monitor data from one or more monitor devices. The accessory device may be configured to transmit accessory data, e.g. to a server device. For example, the processor of the accessory device may be configured to transmit accessory data, as a wireless accessory signal via the antenna and the wireless transceiver.

[0156] The interface of the accessory device comprises a display.

[0157] The interface may be configured to obtain, via the transceiver, monitor data from the monitor device coupled to the ostomy appliance. The monitor data may comprise sensor data obtained from one or more sensors in the monitor device. The monitor data may comprise ostomy data obtained from electrodes of the base plate, and/or parameter data based on ostomy data obtained from electrodes of the base plate.

[0158] The accessory device is configured to obtain context data, e.g. from one or more user applications installed on the accessory device, and/or from a memory of the accessory device. The accessory device may be configured to have one or more user applications installed thereon, wherein the one or more user applications comprise a first application (e.g. an ostomy user application) and a second application (e.g. a third-party application, e.g. an application other than the ostomy user application). Obtaining the context data may comprise obtaining the context data from a second application different from the first application. For example, the second application comprises a calendar application, a weather application, a health application, a sports application, an analysis application, an activity tracker application, a social media application, a photo application, a camera, and/or a medical application. The second application may comprise an input application (configured to accept user input related to context data). Context data may comprise includes calendar data, location data, environment data, nutritional data, health data, activity data, and/or medicine intake data. Context data may be quantified with one or more context parameters, which may be associated one or more adjustment coefficients and optionally a function parameterized with the adjustment coefficients. The accessory may maintain a local or remote database or lookup table associating a context parameter with a corresponding adjustment coefficient.

[0159] For example, the processor may be configured to determine the wear time (e.g. remaining wear time) of the ostomy appliance (e.g. of the disclosed base plate) based on the operating state of the ostomy appliance (e.g. of the disclosed base plate).

[0160] In one or more exemplary methods and accessory devices, the processor may be configured to determine one or more operating states of the base plate based on the monitor data and the context data by determining one or more current moisture pattern types based on the monitor data, and by generating the one or more operating states based on the one or more current moisture pattern types and the context data. Determining one or more current moisture pattern types may be based on the ostomy data and/or the parameter data (e.g. first parameter data and second parameter data), such as based on measurements obtained by the electrodes, such as measurements of resistance, capacitance and/or inductance, such as timing information. For example, the processor may be configured to determine the operating state of the ostomy appliance based on the monitor data and context data by determining one or more moisture pattern types based on the monitor data and context data, wherein monitor data includes on the ostomy data and/or the parameter data (e.g. first parameter data and second parameter data), such as measurements obtained by the electrodes, such as measurements of resistance, capacitance and/or inductance, such as timing information, and context data includes calendar data, location data, environment data, nutritional data, health data, activity data, and/or medicine intake data.

[0161] In one or more exemplary accessory devices, the first parameter data, the second parameter data, and the third parameter data may be indicative of resistance between the first electrode pair, the second electrode pair, and the third electrode pair, respectively. The first parameter data, the second parameter data, and the third parameter data may be indicative of voltage between the first electrode pair, the second electrode pair, and the third electrode pair, respectively (and thus indicative of resistance). The first parameter data, the second parameter data, and the third parameter data may be indicative of current between the first electrode pair, the second electrode pair, and the third electrode pair, respectively (and thus indicative of resistance).

[0162] The first parameter data, the second parameter data, and the third parameter data may be indicative of a rate of change in resistance between the first electrode pair, the second electrode pair, and the third electrode pair, respectively. In one or more exemplary monitor devices, the first parameter data, the second parameter data, and the third parameter data may be indicative of a rate of change in voltage between the first electrode pair, the second electrode pair, and the third electrode pair, respectively. In one or more exemplary monitor devices, the first parameter data, the second parameter data, and the third parameter data may be indicative of a rate of change in current between the first electrode pair, the second electrode pair, and the third electrode pair, respectively.

[0163] The moisture pattern type is optionally indicative of adhesive condition (e.g. failure) of the base plate and/or leakage risk of the ostomy appliance and/or indicative of the risk of skin damage to the user of the ostomy system.

[0164] For example, the processor may be configured to determine the operating state of the ostomy appliance by determining one or more moisture pattern types based on

parameter data (e.g. the first parameter data and second parameter data (and optionally a third parameter data)). To determine one or more moisture pattern types may comprise to select a moisture pattern type from a set of predefined moisture pattern types based on a trend identified in the monitor data over a period of time and to adjust the selection based on the context data. The set of predefined moisture pattern types may comprise a number M of moisture pattern types, such as at least three moisture pattern types, at least four moisture pattern types, at least five moisture pattern types. The number M of moisture pattern types may be in the range from four to twenty. For example, to determine one or more moisture pattern types may comprise to select an adjustment function and/or an adjustment factor based on the context data, and to identify a moisture pattern type by applying to the parameter data the selected adjustment function and/or adjustment factor.

[0165] In one or more exemplary accessory devices, the first parameter data, the second parameter data, and the third parameter data may be indicative of resistance between the first electrode pair, the second electrode pair, and the third electrode pair, respectively.

[0166] The first parameter data, the second parameter data, and the third parameter data may be indicative of a rate of change in resistance between the first electrode pair, the second electrode pair, and the third electrode pair, respectively.

[0167] To determine an operating state of the base plate of the ostomy appliance may comprise to determine an operating state (e.g. current and/or future operating state) from a set of operating states. In other words, to determine the operating state may comprise selecting an operating state from a set of predefined operating states based on monitor data and context data. The set of predefined operating states may comprise a number of operating states, such as at least two operating states, at least three operating states, at least four operating states, at least five operating states. The number of operating states may be in the range from four to twenty. In one or more exemplary accessory devices, the number of operating states in the set of predefined operating states is larger than ten, such as larger than 20 or even larger than 50.

[0168] In one or more exemplary accessory devices, the processor is configured to determine an operating state of the base plate if a change criterion is fulfilled. The change criterion may be based on context data and monitor data (e.g. the first parameter data, the second parameter data and/or the third parameter data). The change criterion may be fulfilled if parameter data changes, e.g. if a change in parameter data is larger than a change threshold selected based on the context data. Thus, operating state determination may be conditional or dependent on a change in the parameter data conditioned by the context data, in turn leading to an optimum use of power or battery resources in the monitor device, since operating state determination may be performed when there may be a change in the operating state as a consequence of the change in parameter data.

[0169] In one or more exemplary accessory devices, to determine an operating state of the base plate is based on a first criteria set based on context data and parameter data (the first parameter data and/or the second parameter data), wherein the operating state is determined to be the first operating state if the first criteria set is satisfied. The first criteria set may comprise one or more first criteria based on one or more of first parameter data, second parameter data and third parameter data. The first criteria set may comprise a first primary criterion based on the first parameter data. The first criteria set may comprise a first secondary criterion based on the second parameter data. The first criteria set may comprise a first tertiary criterion based on the third parameter data.

[0170] In one or more exemplary accessory devices, to determine the operating state of the base plate may be based on a first threshold set comprising one or a plurality of first threshold values. The first threshold set may comprise one or a plurality of threshold values, e.g. to be applied in the first criteria set. The first threshold set may comprise a first primary threshold value. The first threshold set may comprise a first secondary threshold value. The first threshold set may comprise a first tertiary threshold value. The first criteria set may be given by or at least may comprise

$$(P\_1\_1<TH\_1\_1),$$

$$(P\_2\_1>TH\_1\_2), \text{ and}$$

$$(P\_3\_1>TH\_1\_3),$$

wherein P_1_1 is a first primary parameter based on the first parameter data, TH_1_1 is a first primary threshold value, P_2_1 is a second primary parameter based on the second parameter data, TH_1_2 is a first secondary threshold value, P_3_1 is a third primary parameter based on the third parameter data, and TH_1_3 is a first tertiary threshold value, and wherein the first operating state is indicative of low degree of radial erosion or radial swelling on the base plate. The first threshold values (TH_1_1, TH_1_2 and TH_1_3) may be the same or different, e.g. depending on the electrode configuration of the base plate. The first tertiary criterion (P_3_1<TH_1_3) may be omitted in the first criteria set. The first operating state, e.g. indicative of low degree of radial erosion on the base plate may be indicative of a radial progression of moisture to the first electrode pair (but not to the second electrode pair and not to the third electrode pair) which corresponds to e.g. an un-alarming and/or normal radial progression of moisture.

[0171] In one or more exemplary embodiments, when the first parameter data, the second parameter data and the third parameter data are each respectively indicative of resistance between the first electrode pair, the second electrode pair and the third electrode pair respectively, the first threshold values (TH_1_1, TH_1_2 and TH_1_3) may correspond to first resistance threshold values. In one or more exemplary embodiments, the first primary threshold value TH_1_1 may correspond to an upper resistance threshold value. An upper resistance threshold value may be set to a value which is less than 30 Mega-Ohms, such as 25 Mega-Ohms, such as 20.5 Mega-Ohms, such as 20.4 Mega-Ohms. In one or more exemplary embodiments, the first secondary threshold value TH_1_2 may correspond to the upper resistance threshold value. In one or more exemplary embodiments, the first tertiary threshold value TH_1_3 may correspond to the upper resistance threshold value.

[0172] The first primary parameter P_1_1 may be indicative of the resistance between the first electrode pair (first electrode and first electrode part of the ground electrode) of the base plate. The first parameter data may comprise a first secondary parameter which may be derived from the first primary parameter, and/or a first tertiary parameter, which may be derived from the first primary parameter. A first

secondary parameter P_1_2 may comprise or be a gradient derived from the first primary parameter. In one or more embodiments, a first primary parameter P_1_1 may be indicative of a voltage between the first electrode pair (first electrode and first electrode part of the ground electrode) of the base plate.

[0173] In one or more exemplary embodiments, when the first parameter data, the second parameter data and the third parameter data are each respectively indicative of voltage between the first electrode pair, the second electrode pair and the third electrode pair respectively, the first threshold values (TH_1_1, TH_1_2 and TH_1_3) may correspond to first voltage threshold values. In one or more exemplary embodiments, the first primary threshold value TH_1_1 may correspond to an upper voltage threshold value. An upper voltage threshold value may be set to a value less than 5 Volts, such as 3 Volts, such as 2, 86 Volts. In one or more exemplary embodiments, the first secondary threshold value TH_1_2 may correspond to the upper voltage threshold value. In one or more exemplary embodiments, the first tertiary threshold value TH_1_3 may correspond to the upper voltage threshold value.

[0174] The first criteria set may comprise e.g.

$$(P\_4\_1 > TH\_1\_4)$$

wherein P_4_1 is a fourth primary parameter based on the fourth parameter data and indicative of the resistance, voltage, or current between the fourth electrode pair and TH_1_4 is a first quaternary threshold value, and wherein the first operating state is indicative of absence of fluid on the proximal side of the first adhesive layer of the base plate of the ostomy appliance. In one or more exemplary embodiments, the first quaternary threshold value TH_1_4 may correspond to an upper resistance threshold value. An upper resistance threshold value may be set to a value which is less than 30 Mega-Ohms, such as 25 Mega-Ohms, such as 20.5 Mega-Ohms, such as 20.4 Mega-Ohms.

[0175] In one or more exemplary embodiments, the following additional criterion may be determined

$$(P\_1\_1 < TH\_low),$$

wherein P_1_1 is a first primary parameter based on the first parameter data, TH_low is a threshold value corresponding to a lower resistance threshold value. In one or more exemplary embodiments, a lower resistance threshold value may be set to a value less than 1 Mega-Ohms, such as 100 kilo-Ohms, such as 80 kilo-Ohms, such as 79 kilo-Ohms. This is indicative of a saturation of the first electrode pair by the moisture detected and there are no further changes expected by the first primary parameter. Moisture is likely to continue its progression.

[0176] In one or more exemplary embodiments, the following additional criterion may be determined

$$(P\_2\_1 < TH\_\mathrm{low}),$$

wherein P_2_1 is a second primary parameter based on the second parameter data, TH_low is a threshold value corresponding to a lower resistance threshold value. In one or more exemplary embodiments, a lower resistance threshold value may be set to a value less than 1 Mega-Ohms, such as 100 kilo-Ohms, such as 80 kilo-Ohms, such as 79 kilo-Ohms. This is indicative of a saturation of the second electrode pair by the moisture detected and there are no further changes expected by the second primary parameter. Moisture is likely to continue its progression.

[0177] In one or more exemplary embodiments, the following additional criterion may be determined:

$$(P\_3\_1 > TH\_\mathrm{low}),$$

P_3_1 is a third primary parameter based on the third parameter data, and TH_low is a threshold value corresponding to a lower resistance threshold value. In one or more exemplary embodiments, a lower resistance threshold value may be set to a value less than 1 Mega-Ohms, such as 100 kilo-Ohms, such as 80 kilo-Ohms, such as 79 kilo-Ohms. This is indicative of a saturation of the third electrode pair by the moisture detected and there are no further changes expected by the second primary parameter. Moisture is likely to continue its progression.

[0178] In one or more exemplary embodiments, one or more criteria of a criteria set, e.g. one or more first criteria of the first criteria set and/or one or more second criteria of the second criteria set, may be based on timing information or one or more delay parameters based on the parameter data. In one or more exemplary embodiments, one or more delay parameters or time differences related to different parameter data, e.g. related to the first parameter data and the second parameter data, are determined.

[0179] In one or more exemplary embodiments, one or more first criteria of the first criteria set may be based on timing information (e.g. one or more delay parameters of the parameter data and/or one or more times where a parameter crosses a threshold).

[0180] In one or more exemplary embodiments, the timing information may comprise a time difference D_1_2_1 between a time T1 where P_1_1 crosses a threshold, such as TH_1_1, and a time T2 where P_2_1 crosses a threshold, such as TH_1_2. Thus, delay parameter or time difference D_1_2_1 may be given as D_1_2_1=T2−T1.

[0181] In one or more exemplary embodiments, the timing information, e.g. used in the first criteria set, may comprise a time difference D_2_3_1 between a time T2 where P_2_1 crosses a threshold, such as TH_1_2, and a time T3 where P_3_1 crosses a threshold, such as TH_1_3. Thus, delay parameter or time difference D_2_3_1 may be given as D2_3_1=T3−T2.

[0182] In one or more exemplary embodiments, one or more criteria sets, such as the third criteria set and/or the second criteria set, may comprise any of:

$$D\_1\_2\_1 > Z$$

$$D2\_3\_1 > Z$$

Wherein Z is a time difference constant characterizing the progression of moisture (e.g. 3 h, e.g. 2 h). Different time difference constants may be employed in different criteria sets/for different time delays.

[0183] In one or more exemplary embodiments, one or more criteria sets, such as the second criteria set and/or the third criteria set may comprise any of:

$$D\_1\_2\_1 > Z$$

[0184] Wherein Z is a time difference constant characterizing the progression of moisture (e.g. 3 h, e.g. 2 h).

[0185] The second primary parameter may be indicative of the resistance between the second electrode pair (second electrode and second electrode part of the ground electrode) of the base plate. The second parameter data may comprise a second secondary parameter, and/or a second tertiary parameter, which may be derived from the second primary

parameter. A second secondary parameter may be indicative of a voltage between the second electrode pair (second electrode and second electrode part of the ground electrode) of the base plate.

[0186] The third primary parameter may be indicative of resistance between the third electrode pair (third electrode and third electrode part of the ground electrode) of the base plate.

[0187] In one or more exemplary accessory devices, to determine the operating state of the base plate is based on a second criteria set based on context data and parameter data (e.g. the second parameter data and/or the third parameter data), wherein the operating state is determined to be the second operating state if the second criteria set is satisfied. The second criteria set may be based on the first parameter data.

[0188] The second criteria set may comprise one or more second criteria based on context data and parameter data (e.g. one or more of first parameter data, second parameter data and third parameter data). The second criteria set may comprise a second primary criterion based on the first parameter data and a part of context data. The second criteria set may comprise a second secondary criterion based on the second parameter data and a part of context data. The second criteria set may comprise a second tertiary criterion based on the third parameter data and a part of context data.

[0189] In one or more exemplary accessory devices, to determine the operating state of the base plate is based on a second threshold set comprising one or a plurality of second threshold values. The second threshold set may comprise one or a plurality of threshold values, e.g. to be applied in the second criteria set. The second threshold set may comprise a second primary threshold value. The second threshold set may comprise a second secondary threshold value. The second threshold set may comprise a second tertiary threshold value.

[0190] The second criteria set may be given by or at least may comprise

$$(P\_1\_1<TH\_2\_1),$$

$$(P\_2\_1<TH\_2\_2), \text{ and}$$

$$(P\_3\_1>TH\_2\_3)$$

wherein P_1_1 is a first primary parameter based on the first parameter data and indicative of the resistance between the first electrode pair, TH_2_1 is a second primary threshold value, P_2_1 is a second primary parameter based on the second parameter data and indicative of the resistance between the second electrode pair. TH_2_2 is a second secondary threshold value, P_3_1 is a third primary parameter based on the third parameter data and indicative of the resistance between the third electrode pair, TH_2_3 is a second tertiary threshold value, and wherein the second operating state is indicative of medium degree of radial erosion or radial swelling on the base plate. The second threshold values (TH_2_1, TH_2_2 and TH_2_3) may be the same or different, e.g. depending on the electrode configuration of the base plate. The second primary criterion (P_1_1<TH_2_1) and/or the second tertiary criterion (P_3_1>TH_2_3) may be omitted in the second criteria set. The second operating state indicative of medium degree of radial erosion on the base plate may be indicative of a radial progression of moisture to the first electrode pair and the second electrode pair (and not the third electrode pair). The second operating state indicative of medium degree of radial erosion on the base plate may be indicative of a radial progression of moisture to the first electrode pair and to the second electrode pair.

[0191] In one or more exemplary embodiments, when the first parameter data, the second parameter data and the third parameter data are each respectively indicative of resistance between the first electrode pair, the second electrode pair and the third electrode pair respectively, the second threshold values (TH_2_1, TH_2_2 and TH_2_3) may correspond to second resistance threshold values. In one or more exemplary embodiments, the second primary threshold value TH_2_1 may correspond to an upper resistance threshold value. An upper resistance threshold value may be set to a value which is less than 30 Mega-Ohms, such as 25 Mega-Ohms, such as 20.5 Mega-Ohms, such as 20.4 Mega-Ohms. In one or more exemplary embodiments, the second secondary threshold value TH_2_2 may correspond to the upper resistance threshold. In one or more exemplary embodiments, the second tertiary threshold value TH_2_3 may correspond to the upper resistance threshold value. In one or more exemplary embodiments, the second primary threshold value TH_2_1 may correspond to a medium resistance threshold value. A medium resistance threshold value may be set to a value less than 10 Mega-Ohms, such as 5 Mega-Ohms, such as 3 Mega-Ohms, such as 2 Mega-Ohms, such as 1 Mega-Ohms.

[0192] In one or more exemplary embodiments, when the first parameter data, the second parameter data and the third parameter data are each respectively indicative of voltage between the first electrode pair, the second electrode pair and the third electrode pair respectively, the second threshold values (TH_2_1, TH_2_2 and TH_2_3) may correspond to second voltage threshold values. In one or more exemplary embodiments, the second primary threshold value TH_2_1 may correspond to an upper voltage threshold value. An upper voltage threshold value may be set to a value less than 5 Volts, such as 3 Volts, such as 2.86 Volts. In one or more exemplary embodiments, the second secondary threshold value TH_2_2 may correspond to the upper voltage threshold value. In one or more exemplary embodiments, the second tertiary threshold value TH_2_3 may correspond to the upper voltage threshold value. In one or more exemplary embodiments, the second primary threshold value TH_2_1 may correspond to a medium voltage threshold value. A medium resistance threshold value may be set to a value less than 10 Mega-Ohms, such as 5 Mega-Ohms, such as 3 Mega-Ohms, such as 2 Mega-Ohms, such as 1 Mega-Ohms.

[0193] In one or more exemplary embodiments, the second criteria set may comprise any of:

$$D\_1\_2\_1>Z$$

wherein Z is a time difference constant characterizing the progression of moisture (e.g. 3 h, e.g. 2 h).

[0194] In one or more exemplary accessory devices, to determine the operating state of the base plate is based on a default criteria set based on the first parameter data, wherein the operating state is determined to be the default operating state if the default criteria set is satisfied, and in accordance with a determination that the operating state is the default operating state, transmit a default monitor signal comprising monitor data indicative of the default operating state of the ostomy appliance.

[0195] The default criteria set may be given by or at least may comprise

($P\_1\_1 > TH\_D\_1$),

($P\_2\_1 > TH\_D\_2$), and

($P\_3\_1 > TH\_D\_3$)

wherein P_1_1 is a first primary parameter based on the first parameter data and indicative of the resistance between the first electrode pair, TH_D_1 is a default primary threshold value, P_2_1 is a second primary parameter based on the second parameter data and indicative of the resistance between the second electrode pair, TH_D_2 is a default secondary threshold value, P_3_1 is a third primary parameter based on the third parameter data and indicative of the resistance between the third electrode pair, TH_D_3 is a default tertiary threshold value, and wherein the default operating state is indicative of very low or no degree of radial erosion or radial swelling on the base plate. The default threshold values (TH_D_1, TH_D2 and TH_D_3) may be the same or different, e.g. depending on the electrode configuration of the base plate. In one or more exemplary embodiments, when the first parameter data, the second parameter data and the third parameter data are each respectively indicative of resistance between the first electrode pair, the second electrode pair and the third electrode pair respectively, the default threshold values (TH_D_1, TH_D_2 and TH_D_3) may correspond to default resistance threshold values. In one or more exemplary embodiments, the second primary threshold value TH_D_1 may correspond to an upper resistance threshold value. An upper resistance threshold value may be set to a value which is less than 30 Mega-Ohms, such as 25 Mega-Ohms, such as 20.5 Mega-Ohms, such as 20.4 Mega-Ohms. In one or more exemplary embodiments, the default secondary threshold value TH_D_2 may correspond to the upper resistance threshold. In one or more exemplary embodiments, the default tertiary threshold value TH_D_3 may correspond to the upper resistance threshold value.

[0196] In one or more exemplary embodiments, when the first parameter data, the second parameter data and the third parameter data are each respectively indicative of voltage between the first electrode pair, the second electrode pair and the third electrode pair respectively, the default threshold values (TH_D_1, TH_D_2 and TH_D_3) may correspond to default voltage threshold values. In one or more exemplary embodiments, the default primary threshold value TH_D_1 may correspond to an upper voltage threshold value. An upper voltage threshold value may be set to a value less than 5 Volts, such as 3 Volts, such as 2.86 Volts. In one or more exemplary embodiments, the default secondary threshold value TH_D_2 may correspond to the upper voltage threshold value. In one or more exemplary embodiments, the default tertiary threshold value TH_D_3 may correspond to the upper voltage threshold value.

[0197] In one or more exemplary accessory devices, to determine the operating state of the base plate is based on a third criteria set based on context data and the third parameter data, wherein the operating state is determined to be the third operating state if the third criteria set is satisfied, and in accordance with a determination that the operating state is the third operating state, transmit a third monitor signal comprising monitor data indicative of the third operating state of the ostomy appliance.

[0198] In one or more exemplary accessory devices, the third operating state of the base plate corresponds to a situation wherein the first adhesive layer of the base plate has experienced a third degree of radial erosion or radial swelling, e.g. the first adhesive layer is eroded to the third radial distance of the third electrode pair.

[0199] The third criteria set may be given by or at least may comprise

($P\_1\_1 < TH\_3\_1$),

($P\_2\_1 < TH\_3\_2$), and

($P\_3\_1 < TH\_3\_3$)

wherein P_1_1 is a first primary parameter based on the first parameter data and indicative of the resistance between the first electrode pair, TH_3_1 is a third primary threshold value, P_2_1 is a second primary parameter based on the second parameter data and indicative of the resistance between the second electrode pair, TH_3_2 is a third secondary threshold value, P_3_1 is a third primary parameter based on the third parameter data and indicative of the resistance between the third electrode pair, TH_3_3 is a third tertiary threshold value, and wherein the third operating state is indicative of high degree of radial erosion or radial swelling on the base plate. The third threshold values (TH_3_1, TH_3_2 and TH_3_3) may be the same or different, e.g. depending on the electrode configuration of the base plate. The third primary criterion (P_1_1<TH_3_1) and/or the third secondary criterion (P_2_1<TH_3_2) may be omitted in the third criteria set. The third operating state indicative of high degree of radial erosion on the base plate may be indicative of high likelihood of leakage, e.g. on the proximal side of the base plate, e.g. within a time period e.g. within the next 20 minutes. The third operating state may indicate a radial progression of moisture to the first electrode pair, the second electrode pair, and the third electrode pair.

[0200] In one or more exemplary embodiments, when the first parameter data, the second parameter data and the third parameter data are each respectively indicative of resistance between the first electrode pair, the second electrode pair and the third electrode pair respectively, the third threshold values (TH_3_1, TH_3_2 and TH_3_3) may correspond to third resistance threshold values. In one or more exemplary embodiments, the third primary threshold value TH_3_1 may correspond to an upper resistance threshold value. In one or more exemplary embodiments, the third secondary threshold value TH_3_2 may correspond to an upper resistance threshold value. In one or more exemplary embodiments, the third tertiary threshold value TH_3_3 may correspond to an upper resistance threshold value. An upper resistance threshold value may be set to a value which is less than 30 Mega-Ohms, such as 25 Mega-Ohms, such as 20.5 Mega-Ohms, such as 20.4 Mega-Ohms.

[0201] In one or more exemplary embodiments, the third primary threshold value TH_3_1 may correspond to a lower resistance threshold value. In one or more exemplary embodiments, a lower resistance threshold value may be set to a value less than 1 Mega-Ohms, such as 100 kilo-Ohms, such as 80 kilo-Ohms, such as 79 kilo-Ohms. In one or more exemplary embodiments, the third secondary threshold value TH_3_2 may correspond to a medium resistance threshold. A medium resistance threshold value may be set to a value less than 10 Mega-Ohms, such as 5 Mega-Ohms, such as 3 Mega-Ohms, such as 2 Mega-Ohms, such as 1

Mega-Ohms. In one or more exemplary embodiments, the third tertiary threshold value TH_3_3 may correspond to the upper resistance threshold. An upper resistance threshold value may be set to a value which is less than 30 Mega-Ohms, such as 25 Mega-Ohms, such as 20.5 Mega-Ohms, such as 20.4 Mega-Ohms.

[0202] In one or more exemplary embodiments, when the first parameter data, the second parameter data and the third parameter data are each respectively indicative of voltage between the first electrode pair, the second electrode pair and the third electrode pair respectively, the third threshold values (TH_3_1, TH_3_2 and TH_3_3) may correspond to third voltage threshold values. In one or more exemplary embodiments, the third primary threshold value TH_3_1 may correspond to an upper voltage threshold value. In one or more exemplary embodiments, the third secondary threshold value TH_3_2 may correspond to an upper voltage threshold value. In one or more exemplary embodiments, the second tertiary threshold value TH_2_3 may correspond to the upper voltage threshold value.

[0203] In one or more exemplary embodiments, the third primary threshold value TH_3_1 may correspond to a lower voltage threshold value. In one or more exemplary embodiments, a lower voltage threshold value may be set to a value which is less than 1 Volt, such as 0.5 Volt, such as 0.25 Volts, such as 0.22 Volts. In one or more exemplary embodiments, the third secondary threshold value TH_3_2 may correspond to a medium voltage threshold value. A medium voltage threshold value may be set to a value less than 2 Volts, such as 1.5 Volts. In one or more exemplary embodiments, the second tertiary threshold value TH_2_3 may correspond to the upper voltage threshold value.

[0204] In one or more exemplary embodiments, the third criteria set may comprise any of:

$$D\_1\_2\_1<Z$$

$$D\_2\_3\_1<Z$$

Wherein Z is a time difference constant characterizing the progression of moisture (e.g. 3 h, e.g. 2 h), a time difference D_1_2_1 between a time T1 where P_1_1 crosses TH_1_1 and a time T2 where P_2_1 crosses TH_1_2, and a time difference D_2_3_1 between a time T2 where P_2_1 crosses TH_1_2 and a time T3 where P_3_1 crosses TH_1_3.

[0205] In one or more exemplary devices and methods, the ostomy data comprises fourth ostomy data from a fourth electrode pair of the base plate. To apply a processing scheme may comprise to obtain fourth parameter data based on the fourth ostomy data, and determine an operating state of the base plate of the ostomy appliance based on the fourth parameter data. The monitor device may be configured to, in accordance with a determination that the operating state is a fourth operating state, transmit a fourth monitor signal comprising monitor data indicative of the fourth operating state of the ostomy appliance.

[0206] In one or more exemplary devices and methods, the fourth operating state of the base plate corresponds to a situation, wherein the fourth electrode pair detects fluid, such as output, between the proximal surface of first adhesive layer and the skin of the user at a fourth radial distance, and thus there is a high risk of leakage from the ostomy appliance in the fourth operating state.

[0207] The fourth criteria set may be given by or at least may comprise:

$$(P\_4\_1<TH\_4\_4)$$

wherein P_4_1 is a fourth primary parameter based on the fourth parameter data and indicative of the resistance between the fourth electrode pair and TH_4_4 is a fourth quaternary threshold value, and wherein the fourth operating state is indicative of high risk of leakage from the ostomy appliance. In one or more exemplary embodiments, the fourth quaternary threshold value TH_4_4 may correspond to an upper resistance threshold value.

[0208] In one or more exemplary embodiments, a fifth operating state of the base plate corresponds to a situation, wherein the fourth electrode pair detects fluid, such as sweat, between the proximal surface of first adhesive layer and the skin of the user at a fourth radial distance, and thus there is a no leakage from the ostomy appliance in the fifth operating state.

[0209] The fifth operating state may be determined in accordance with a determination that one or more fifth criterion of a fifth criteria set are satisfied.

[0210] The fifth criteria set may be given by or at least may comprise:

$$(P\_4\_1<TH\_5\_1)$$

$$(P\_4\_2<TH\_5\_2)$$

$$(P\_4\_3<TH\_5\_3)$$

$$(\nabla P\_4\_1<V)$$

$$(\nabla P\_4\_2<V) \text{ and}$$

$$(\nabla P\_4\_3<V)$$

Wherein P_4_1 is a fourth primary parameter based on the fourth parameter data and indicative of the resistance between the fourth electrode pair, P_4_2 is a fourth secondary parameter indicative of the resistance between the fourth electrode and the fifth electrode, P_4_3 is a fourth tertiary parameter based on the fourth parameter data and indicative of the resistance between the fifth electrode pair and TH_5_1 is a fifth primary threshold value, TH_5_2 is a fifth secondary threshold value, TH_5_3 is a fifth tertiary threshold value and ∇P_4_1 is gradient of P_4_1, ∇P_4_2 is gradient of P_4_2, ∇P_4_3 is gradient of P_4_3, and V is a gradient limit (e.g. 80%). In one or more exemplary embodiments, the fifth primary threshold value TH_5_1 may correspond to an upper resistance threshold value. In one or more exemplary embodiments, TH_5_2 may correspond to an upper resistance threshold value. In one or more exemplary embodiments, TH_5_3 may correspond to an upper resistance threshold value. An upper resistance threshold value may be set to a value which is less than 30 Mega-Ohms, such as 25 Mega-Ohms, such as 20.5 Mega-Ohms, such as 20.4 Mega-Ohms. The fifth operating state may refer to presence of sweat detected by the fourth parameter data indicating moisture detected omnidirectionally from the stomal opening and uniformly.

[0211] In one or more exemplary embodiments, the sixth operating state of the base plate corresponds to a situation, wherein the fourth electrode pair detects fluid, such as output, between the proximal surface of first adhesive layer and the skin of the user at a fourth radial distance, and thus there is a sudden leakage from the ostomy appliance in the sixth operating state.

[0212] A sixth operating state may be determined in accordance with a determination that one or more sixth criteria of a sixth criteria set are satisfied by the fourth parameter data.

[0213] The sixth criteria set may comprise a sixth primary criterion, wherein the sixth primary criterion may comprise:

($P\_4\_1<TH\_6\_1$) and

($\nabla P\_4\_1>V$)

[0214] The sixth criteria set may comprise a sixth secondary criterion, wherein the sixth secondary criterion may comprise:

($P\_4\_2<TH\_6\_2$) and

($\nabla P\_4\_2>V$)

[0215] The sixth criteria set may comprise a sixth tertiary criterion, wherein the sixth tertiary criterion may comprise:

($P\_4\_3<TH\_6\_3$) and

($\nabla P\_4\_3>V$)

wherein P_4_1 is a fourth primary parameter based on the fourth parameter data and indicative of the resistance between the fourth electrode pair, P_4_2 is a fourth secondary parameter indicative of the resistance between the fourth electrode and the fifth electrode, P_4_3 is a fourth tertiary parameter indicative of the resistance between the fifth electrode pair (fifth electrode and ground electrode) and TH_6_1 is a sixth primary threshold value, TH_6_2 is a sixth secondary threshold value TH_6_3 is a sixth tertiary threshold value, and ∇P_4_1 is gradient of P_4_1, ∇P_4_2 is gradient of P_4_2, ∇P_4_3 is gradient of P_4_3, and V is a gradient limit (e.g. 80%). In one or more exemplary embodiments, the sixth primary threshold value TH_6_1 may correspond to an upper resistance threshold value. In one or more exemplary embodiments, TH_6_2 may correspond to an upper resistance threshold value. In one or more exemplary embodiments, TH_6_3 may correspond to an upper resistance threshold value. An upper resistance threshold value may be set to a value which is less than 30 Mega-Ohms, such as 25 Mega-Ohms, such as 20.5 Mega-Ohms, such as 20.4 Mega-Ohms. The sixth operating state may refer to presence of output detected by the fourth parameter data indicating a sudden leak, e.g. a developing leak. In one or more exemplary embodiments, when the time T is below X minutes from the placement of the base plate, where X is between 5 to 60 minutes, and when any of P_1_1, P_2_1, P_3_1 in average over T are below a default threshold value corresponding to an upper resistance threshold value, this indicates that any of the first electrode pair, the second electrode pair, and the third electrode pair is cut (e.g. cut by the user when preparing the base plate for placement around the stoma). In one or more exemplary embodiments, when the time T is below X minutes from the placement of the base plate, where X is between 5 to 60 minutes, and when any of P_4_1, P_4_2, P_4_3 in average over T are below a default threshold value corresponding to an upper resistance threshold value, this indicates an instant leakage, e.g. presence of output on the proximal side.

[0216] In one or more exemplary embodiments, any of the first criteria set, the second criteria set, the third criteria set, the fourth criteria set, the default criteria set, the fifth criteria set, the sixth criteria set may be used to define one or more further criteria sets, and thereby to determine one or more operating states.

[0217] In one or more exemplary embodiments, different criteria sets may be used to determine the same operating state.

[0218] The interface is configured to communicate the adjusted remaining wear time by e.g. displaying, on the display, a first wear time user interface object representative of the adjusted remaining wear time.

[0219] The interface may be configured to communicate the remaining wear time prior to adjusting the remaining wear time to the adjusted remaining wear time by e.g. displaying, on the display, a second wear time user interface object representative of the remaining wear time determined prior to adjusting the remaining wear time to the adjusted remaining wear time.

[0220] The interface may be configured to display, on the display, the first wear time user interface object representative of the adjusted remaining wear time by e.g. displaying, on the display, the first wear time user interface object representative of the adjusted remaining wear time in a first application user interface of a first application. The first application is an ostomy user application installed on the accessory device.

[0221] The interface may be configured to display on the display, the second wear time user interface object representative of the remaining wear time determining prior to adjusting by e.g. displaying, on the display, the second wear time user interface object representative of the remaining wear time in a first application user interface of a first application. The first application is an ostomy user application installed on the accessory device.

[0222] The interface may be configured to display on the display, the first wear time user interface object representative of the adjusted remaining wear time by e.g. displaying, on the display, the first wear time user interface object representative of the adjusted remaining wear time in a first notification. Displaying the first notification comprising the first wear time user interface object representative of the adjusted remaining wear time may comprise displaying the first notification on a home screen and/or on a lock screen of the accessory device.

[0223] The interface may be configured to display, on the display, the second wear time user interface object representative of the remaining wear time determining prior to adjusting by e.g. displaying, on the display, the second wear time user interface object representative of the remaining wear time in a second notification. Displaying the second notification comprising the second wear time user interface object representative of the remaining wear time may comprise displaying the second notification on a home screen and/or on a lock screen of the accessory device. The second notification may be comprised in the first notification or may be separate from the first notification.

[0224] The processor may be configured to obtain the at least part of context data by e.g. obtaining the at least part of context data from a second application different from the first application. For example, the second application comprises a calendar application, a weather application, a health application, a sports application, an activity tracker application, a photo application, a camera, and/or a medical application.

[0225] The processor may be configured to obtain the at least part of context data by e.g. displaying a user interface field in the first application. The user interface field is configured to accept discourse input. Obtaining the at least part of context data may comprise detecting a first user input in the user interface field, determining the at least part of context data based on the first user input, and obtaining the at least part of context data based on the detected first user input. The interface may comprise an input device (e.g. keyboard, microphone). The discourse input may comprise text input, and/or voice input. The discourse input may be indicative of context data, e.g. indicative of activity, food intake, diet, medicine intake, etc. . . . .

[0226] The present disclosure provides an ostomy appliance system comprising an ostomy appliance disclosed herein, an accessory device disclosed herein and a monitor device disclosed herein, the ostomy appliance comprising a base plate disclosed herein.

[0227] The present disclosure provides a computer readable storage medium storing one or more programs, the one or more programs comprising instructions, which when executed by an accessory device with an interface, a memory and a processor cause the accessory device to perform any of the methods disclosed herein.

[0228] FIG. **1** illustrates an exemplary ostomy system. The ostomy system **1** comprises an ostomy appliance **2** including a base plate **4** and an ostomy pouch (not shown). Further, the ostomy system **1** comprises a monitor device **6** and an accessory device **8** (mobile telephone). The base plate **4** and the monitor device **6** are in a coupled state, and the monitor device **6** is connectable to the base plate **4** via respective first connectors of the monitor device **6** and base plate **4**. The monitor device **6** is configured for wireless communication with the accessory device **8**. Optionally, the accessory device **8** is configured to communicate with a server device **10** of the ostomy system **1**, e.g. via network **12**. The server device **10** may be operated and/or controlled by the ostomy appliance manufacturer and/or a service centre. Ostomy data or parameter data based on the ostomy data are obtained from electrodes/sensors of the ostomy appliance **2** with the monitor device **6**. The monitor device **6** processes the ostomy data and/or parameter data based on the ostomy data to determine monitor data that are transmitted to the accessory device **8**. The monitor data may include sensor data of the monitor device. In the illustrated ostomy system, the accessory device **8** is a mobile phone, however the accessory device **8** may be embodied as another handheld device, such as a tablet device, or a wearable, such as a watch or other wrist-worn electronic device. Accordingly, the monitor device **6** is configured to determine and transmit monitor data to the accessory device **8**. The base plate **4** comprises a coupling member **14** in the form of a coupling ring **16** for coupling an ostomy pouch (not shown) to the base plate (two-part ostomy appliance). The base plate **4** has a stomal opening **18** with a center point **19**. The size and/or shape of the stomal opening **18** is typically adjusted by the user or nurse before application of the ostomy appliance to accommodate the user's stoma.

[0229] The ostomy system **1** optionally comprises a docking station **20** forming an accessory device of the ostomy system **1**. The docking station comprises **20** comprises a docking monitor interface including a first connector **22** configured for electrically and/or mechanically connecting the monitor device **6** to the docking station **20**. The docking monitor interface may be configured for wirelessly connecting the monitor device to the docking station. The docking station **20** comprises a user interface **24** for receiving user input and/or providing feedback to the user on the operational state of the docking station **20**. The user interface **24** may comprise a touch-screen. The user interface **24** may comprise one or more physical buttons and/or one or more visual indicators, such as light emitting diodes.

[0230] FIG. **2** is a schematic block diagram of an exemplary monitor device. The monitor device **6** comprises a monitor device housing **100**, a processor **101**, and one or more interfaces, the one or more interfaces including a first interface **102** (appliance interface) and a second interface **104** (accessory interface). The monitor device **6** comprises a memory **106** for storing ostomy data and/or parameter data based on the ostomy data. The memory **106** is connected to the processor **101** and/or the first interface **102**.

[0231] The first interface **102** is configured as an appliance interface for electrically and/or mechanically connecting the monitor device **6** to the ostomy appliance, e.g. ostomy appliance **2**. The first interface **102** comprises a plurality of terminals for forming electrical connections with respective terminals of the ostomy appliance **2** (base plate **4**). The first interface **102** comprises a ground terminal **108**, a first terminal **110**, a second terminal **112** and a third terminal **114**. The first interface **102** optionally comprises a fourth terminal **116** and a fifth terminal **118**. The first interface **102** of the monitor device **6** comprises a coupling part **120** for forming a mechanical connection, such as a releasable coupling between the monitor device and the base plate. The coupling part **120** and the terminals **108**, **110**, **112**, **114**, **116**, and **118** of the first interface **102** form (at least part of) a first connector of the monitor device **6**.

[0232] The monitor device **6** comprises a power unit **121** for powering the monitor device and active components thereof, i.e. the power unit **121** is connected to the processor **101**, the first interface **102**, the second interface **104**, and memory **106**. The power unit comprises a battery and charging circuitry. The charging circuitry is connected to the battery and terminals of the first interface **102** for charging the battery via terminals of the first interface, e.g. terminals of the first connector.

[0233] The second interface **104** of monitor device is configured as an accessory interface for connecting the monitor device **6** to one or more accessory devices such as accessory device **8**. The second interface **104** comprises an antenna **122** and a wireless transceiver **124** configured for wireless communication with accessory device(s). Optionally, the second interface **104** comprises a loudspeaker **126** and/or a haptic feedback element **128** for provision of respective audio signal and/or haptic feedback to the user.

[0234] The monitor device **6** comprises a sensor unit **140** connected to the processor **101** for provision of sensor data **142** to the processor **101**. The sensor unit **140** comprises a first sensor **144** being a temperature and humidity sensor for feeding temperature and humidity data as sensor data **142** to the processor **101**. Further, the sensor unit **140** comprises a second sensor **146** being an accelerometer for feeding acceleration data as sensor data **142** to the processor **101**. The processor **101** receives and stores sensor data **142** comprising temperature data, humidity data, and acceleration data, in the memory **106** and/or transmits the sensor data as part of monitor data via second interface **104**.

[0235] The monitor device **100** is configured to obtain ostomy data from the base plate coupled to the first interface **102**. The ostomy data may be stored in the memory **106** and/or processed in the processor **101** in order to obtain parameter data.

[0236] FIG. **3** illustrates an exploded view of an exemplary base plate of an ostomy appliance. The base plate **4** comprises a first adhesive layer **200** with a stomal opening **18**A. During use, a proximal surface of the first adhesive layer **200** adheres to the user's skin in the peristomal area and/or to additional seals, such as sealing paste, sealing tape and/or sealing ring. The base plate **4** optionally comprises a second adhesive layer **202** with a stomal opening **18**B. The base plate **4** comprises a plurality of electrodes arranged in an electrode assembly **204**. The electrode assembly **204** is arranged between the first adhesive layer **200** and the second adhesive layer **202**. The electrode assembly **204** comprises a support layer with stomal opening **18**C and electrodes formed on a proximal surface of the support layer. The base plate **4** comprises a release liner **206** that is peeled off by the user prior to applying the base plate **4** on the skin. The base plate **4** comprises a top layer **208** with a stomal opening **18**D and a coupling ring **209** for coupling an ostomy pouch to the base plate **4**. The top layer **208** is a protective layer protecting the second adhesive layer **202** from external strains and stress during use.

[0237] The base plate **4** comprises a monitor interface. The monitor interface is configured for electrically and/or mechanically connecting the ostomy appliance (base plate **4**) to the monitor device. The monitor interface of the base plate comprises a coupling part **210** for forming a mechanical connection, such as a releasable coupling between the monitor device and the base plate. The coupling part **210** is configured to engage with a coupling part of the monitor device for releasably coupling the monitor device to the base plate **4**. Further, the monitor interface of the base plate **4** comprises a plurality of terminal elements respectively forming a plurality of terminals **212** for forming electrical connections with respective terminals of the monitor device. The coupling part **210** and the terminals **212** form a first connector **211** of the base plate **4**. The base plate **4** comprises a first intermediate element **213** on the distal side of the electrode assembly. The first intermediate element **213** is arranged between the terminal elements forming terminals **212** and the first adhesive layer (not shown). The first intermediate element **213** covers the terminal elements forming terminals **212** of the base plate **4** when seen in the axial direction and protects the first adhesive layer from mechanical stress from the terminal elements of the base plate.

[0238] FIG. **4** illustrates an exploded view of an exemplary electrode assembly **204** of a base plate. The electrode assembly **204** has a distal side **204**A and a proximal side **204**B. The electrode assembly **204** comprises a support layer **214** with proximal surface **214**B and electrodes **216** arranged on the proximal side of the support layer **214** and including a ground electrode, a first electrode, a second electrode, a third electrode, a fourth electrode, and a fifth electrode, wherein each electrode has a respective connection part **217** for connecting the electrodes **216** to respective terminal elements of the monitor interface. The electrodes **216** are positioned and/or formed on a proximal side **214**B of the support layer **214**. Further, electrode assembly **204** comprises a masking element **218** with proximal surface **218**B and configured to insulate electrode parts of electrodes **216** from the first adhesive layer of the base plate. The masking element **218** covers or overlap with parts of the electrodes **216** when seen in the axial direction.

[0239] FIG. **5** is a proximal view of proximal surfaces of base plate parts of the base plate without the first adhesive layer and the release liner. The base plate **4** comprises a first intermediate element **213** on the distal side of the electrode assembly, i.e. between the electrode assembly **204** and the first adhesive layer (not shown). The first intermediate element **213** covers the terminal elements of the base plate **4** when seen in the axial direction and protects the first adhesive layer from mechanical stress from the terminal elements of the base plate.

[0240] FIG. **6** is a distal view of an exemplary electrode configuration **220** of electrodes **216** of the electrode assembly **204**. The electrode configuration **220**/electrode assembly **204** comprises a ground electrode **222**, a first electrode **224**, a second electrode **226**, a third electrode **228**, a fourth electrode **230**, and a fifth electrode **232**. The ground electrode **222** comprises a ground connection part **222**A and the first electrode **224** comprises a first connection part **224**A. The second electrode **226** comprises a second connection part **226**A and the third electrode **228** comprises a third connection part **228**A. The fourth electrode **230** comprises a fourth connection part **230**A and the fifth electrode **232** comprise a fifth connection part **232**A.

[0241] The fourth electrode **230** comprises fourth sensing parts **230**B. The fifth electrode **232** comprises fifth sensing parts **232**B.

[0242] The ground electrode **222** comprises a first electrode part **234** for forming a ground or reference for the first electrode **224**. The ground electrode **222** comprises a second electrode part **236** for forming a ground or reference for the second electrode **226**. The ground electrode **222** comprises a third electrode part **238** for forming a ground or reference for the third electrode **228**. The masking element **218** is arranged proximal to the electrodes **222**, **224**, **226**, **228** covering and insulating parts of the electrodes from the first adhesive and forming respective conductor parts of the electrodes **222**, **224**, **226**, **228**. The parts of the electrodes **222**, **224**, **226**, **228** not covered by the masking element **219** contacts the first adhesive layer and form sensing parts **224**B, **226**B, **228**B of electrodes **224**, **226**, **228**, respectively. Further, the electrode parts **234**, **236**, **238** form sensing parts of the ground electrode **222**.

[0243] The first sensing part **224**B extends circularly at least 330 degrees around the stomal opening at a first radial distance R1 from the center point **19**. The first radial distance R1 may be around 14 mm. In one or more embodiments, the first radial distance R1 may be around 13 mm, such as 12.5 mm. The first electrode part **234** is arranged on the inside of the first sensing part (i.e. closer to the center point) and extends circularly at least 330 degrees around the stomal opening at a first ground distance RG1 from the first sensing part (radially from the center point). The first ground distance RG1 between sensing part of first electrode and first electrode part is about 1 mm.

[0244] The second sensing part **226**B extends circularly at least 330 degrees around the stomal opening at a second radial distance R2 from the center point **19**. The second radial distance R2 may be around 18 mm. In one or more embodiments, the second radial distance R2 may be 17 mm. The second electrode part **236** is arranged on the inside of

the second sensing part **226**B (i.e. closer to the center point) and extends circularly at least 330 degrees around the stomal opening at a second ground distance RG2 from the second sensing part **226**B (radially from the center point). The second ground distance RG2 between sensing part of second electrode and second electrode part is about 1 mm.

[0245] The third sensing part **228**B extends circularly at least 330 degrees around the stomal opening at a third radial distance R3 from the center point **19**. The third radial distance R3 is about 26 mm. In one or more embodiments, the third radial distance R3 is 21 mm. The third electrode part **238** is arranged on the inside of the third sensing part **228**B (i.e. closer to the center point) and extends circularly at least 330 degrees around the stomal opening at a third ground distance RG3 from the third sensing part **228**B (radially from the center point). The third ground distance RG3 between sensing part of third electrode and third electrode part is about 1 mm.

[0246] The ground electrode **222** comprises a fourth electrode part **240** for forming a ground or reference for the fourth electrode **230** and the fifth electrode **232**. The fourth electrode part **240** of the ground electrode **222** extends at least 300 degrees around the stomal opening and comprises ground sensing parts **222**B. The fourth sensing parts **230**B, fifth sensing parts **232**B, and ground sensing parts of the fourth electrode part **240** are circularly distributed around the center point **19** at a leakage radius from the center point such as a leakage radius R5 which may be around 32 mmm from the center point). The fourth sensing parts **230**B, fifth sensing parts **232**B, and ground sensing parts of the fourth electrode part may have a radial extension larger than 1.0 mm, such as in the range from 1.5 mm to 3.0 mm, e.g. about 2.0 mm. The fourth sensing parts **230**B, fifth sensing parts **232**B, and ground sensing parts of the fourth electrode part **240** may have a circumferential extension (perpendicular to the radial extension) larger than 1.0 mm, such as in the range from 2.5 mm to 5.0 mm, e.g. about 3.5 mm.

[0247] FIG. **7** is a distal view of an exemplary masking element. The masking element **218** optionally has a plurality of terminal openings including six terminal openings. The plurality of terminal openings comprises a ground terminal opening **242**, a first terminal opening **244**, a second terminal opening **246**, a third terminal opening **248**, a fourth terminal opening **250**, and a fifth terminal opening **252**. The terminal openings **242**, **244**, **246**, **248**, **250**, **252** of the masking element **218** are configured to overlap and/or be aligned with respective connection parts **222**A, **224**A, **226**A, **228**A, **230**A, **232**A of the electrodes of the electrode assembly.

[0248] The masking element **218** has a plurality of sensor point openings. The sensor point openings comprise primary sensor point openings shown within dotted line **254**, each primary sensor point opening configured to overlap a part of the ground electrode **222** and/or a part of the fourth electrode **230**. The primary sensor point openings **254** comprise, in the illustrated exemplary masking element, five primary first sensor point openings **254**A each configured to overlap a part of the ground electrode **222**. The primary sensor point openings **254** comprise, in the illustrated exemplary masking element, four primary second sensor point openings **254**B each configured to overlap a part of the fourth electrode **230**. The sensor point openings comprise secondary sensor point openings shown within dotted line **256**, each second sensor point opening configured to overlap a part of the fourth electrode **230** and/or a part of the fifth electrode **232**. The secondary sensor point openings **256** comprise, in the illustrated exemplary masking element, five secondary first sensor point openings **256**A each configured to overlap a part of the fifth electrode **232**. The secondary sensor point openings **256** comprise, in the illustrated exemplary masking element, four secondary second sensor point openings **256**B each configured to overlap a part of the fourth electrode **230**. The sensor point openings comprise tertiary sensor point openings shown within dotted line **258**, each tertiary sensor opening configured to overlap a part of the fifth electrode **232** and/or a part of the ground electrode **222**. The tertiary sensor point openings **258** comprise, in the illustrated exemplary masking element, five tertiary first sensor point openings **258**A each configured to overlap a part of the fifth electrode **232**. The tertiary sensor point openings **258** comprise, in the illustrated exemplary masking element, four tertiary second sensor point openings **258**B each configured to overlap a part of the ground electrode **222**.

[0249] FIG. **8** is a distal view of an exemplary first adhesive layer. The first adhesive layer **200** has a plurality of sensor point openings. The sensor point openings of the first adhesive layer comprise primary sensor point openings shown within dotted line **260**, each primary sensor point opening configured to overlap a part of the ground electrode **222** and/or a part of the fourth electrode **230** of the electrode assembly. The primary sensor point openings comprise, in the illustrated exemplary first adhesive layer, five primary first sensor point openings **260**A each configured to overlap a part of the ground electrode **222**. The primary sensor point openings comprise, in the illustrated exemplary first adhesive layer, four primary second sensor point openings **260**B each configured to overlap a part of the fourth electrode **230**. The sensor point openings of the first adhesive layer comprise secondary sensor point openings shown within dotted line **262**, each second sensor point opening configured to overlap a part of the fourth electrode **230** and/or a part of the fifth electrode **232** of the electrode assembly. The secondary sensor point openings comprise, in the illustrated exemplary first adhesive layer, five secondary first sensor point openings **262**A each configured to overlap a part of the fifth electrode **232**. The secondary sensor point openings comprise, in the illustrated exemplary first adhesive layer, four secondary second sensor point openings **262**B each configured to overlap a part of the fourth electrode **230**. The sensor point openings of the first adhesive layer comprise tertiary sensor point openings shown within dotted line **264**, each tertiary sensor opening configured to overlap a part of the fifth electrode **232** and/or a part of the ground electrode **222** of the electrode assembly. The tertiary sensor point openings comprise, in the illustrated exemplary first adhesive layer, five tertiary first sensor point openings **264**A each configured to overlap a part of the fifth electrode **232**. The tertiary sensor point openings comprise, in the illustrated exemplary first adhesive layer, four tertiary second sensor point openings **264**B each configured to overlap a part of the ground electrode **222**. FIG. **9** is a proximal view of the first adhesive layer of FIG. **8**.

[0250] FIG. **10** is a more detailed distal view of a part of the base plate **4**. Monitor interface of the base plate comprises the first connector **211**. The first connector **211** comprises coupling part **210** configured to releasably couple the monitor device to the base plate and thus forming a releasable coupling. The first connector **211**/monitor inter-

face comprises a plurality of terminals formed by respective terminal elements for forming respective electrical connections with respective terminals of the monitor device.

[0251] The plurality of terminals of the first connector **211**/monitor interface comprises a ground terminal element **282** forming a ground terminal **282**A, a first terminal element **284** forming a first terminal **284**, a second terminal element **286** forming a second terminal **286**A, and optionally a third terminal element **288** forming a third terminal **288**A. The monitor interface optionally comprises a fourth terminal element **290** forming a fourth terminal **290**A and/or a fifth terminal element **292** forming a fifth terminal **290**. The terminal elements **282**, **284**, **286**, **288**, **290**, **292** contact respective connection parts **222**A, **224**A, **226**A, **228**A, **230***a*, **232**A of electrodes **222**, **224**, **226**, **228**, **230**, **232**.

[0252] The position of the first connector on the base plate, the number of terminals and the position of the terminals in the coupling part may be adapted to the electrode configuration used in the electrode assembly of the base plate.

[0253] FIGS. **11***a-b* are flow diagrams illustrating an exemplary method **300** according to this disclosure. The method **300** is performed in an accessory device of and ostomy system (e.g. accessory device **8** of FIG. **1** and of FIG. **12**). The method **300** is performed for managing a remaining wear time of a base plate of an ostomy appliance disclosed herein, e.g. planning use of remaining wear time, budgeting remaining wear time, exploiting remaining wear time of the base plate of an ostomy appliance.

[0254] The accessory device **8** is configured to communicate with one or more devices of an ostomy system (e.g. ostomy system **1** of FIG. **1**). As illustrated in FIG. **1**, the ostomy system **1** comprises a monitor device **6**, and/or an ostomy appliance **2** configured to be placed on a skin surface of a user.

[0255] The ostomy appliance **2** comprises a base plate **4** disclosed herein. The ostomy appliance comprises an ostomy pouch. The base plate **4** may comprise a first adhesive layer having a proximal surface. During use, a proximal surface of the first adhesive layer adheres to the user's skin in the peristomal area and/or to additional seals, such as sealing paste, sealing tape and/or sealing ring. The base plate may comprise one or more electrodes configured to measure electrical properties of the first adhesive layer. The electrical properties may be indicative of a conductive path in the first adhesive layer, thereby indicative of the moisture level, and indicative of the condition of the base plate.

[0256] The method **300** comprises obtaining **302** monitor data from the one or more devices, such as from monitor device coupled with the ostomy appliance and with the accessory device (e.g. monitor device **6** of FIG. **1**). The monitor data may comprise ostomy data and/or parameter data. The monitor data comprises e.g. parameter data representative of the measurement of the electrical properties of the first adhesive layer. In other words, the condition may be seen as a condition of the first adhesive layer of the base plate, including presence of fluid on the proximal surface of the first adhesive layer.

[0257] Obtaining **302** monitor data may comprise retrieving and/or receiving the monitor data from the monitor device. Obtaining **302** monitor data may comprise receiving the monitor data over a time period. The ostomy data and/or parameter data may be indicative of resistance between electrodes of the base plate, capacitance and/or inductance between electrodes and/or any change thereof. For example, the ostomy data and/or parameter data may be indicative of a change in resistance, capacitance and/or inductance between electrodes. For example, the ostomy data and/or parameter data may comprise timing information, such as timestamped data or information from which timing is derivable.

[0258] The method comprises determining **304** the remaining wear time of the ostomy appliance (e.g. of the base plate disclosed herein) based on the monitor data obtained. The remaining wear time may comprise average remaining wear time, nominal remaining wear time, minimal remaining wear time, maximal remaining wear time, median remaining wear time, and/or any of other statistical metric derivable from a remaining wear time. For example, determining **304** the remaining wear time of the ostomy appliance based on the monitor data may comprise determining the remaining wear time of the ostomy appliance based on an operating state. The operating state may be indicative of the severity and/or imminence of a leakage (e.g. low, medium, acute). The operating state may comprise Z operating states, where Z is an integer. The operating state may comprise a first operating state, a second operating state, a third operating state (e.g. good, check, change in X time/NOW).

[0259] The method comprises: obtaining **306** a user request to take into account at least a part of context data, in response to obtaining the user request: obtaining **308** the at least part of the context data, adjusting **310** the remaining wear time based on the at least part of the context data, and communicating **312** via the interface, the adjusted remaining wear time. Obtaining **306** the user request to take into account at least a part of context data may comprise: displaying **306***a* a first context user interface object representative of a user request to take into account a first part of the context data; detecting **306***b* a third user input corresponding to selection of the first context user interface object. Obtaining **306** the user request to take into account at least a part of context data may comprise in response to detecting the third user input, obtaining the first part of the context data from a user application and including the first part of the context data in the operation of adjusting the remaining wear time. In one or more exemplary methods, the first context user interface object representative of a user request to take into account a first part of the context data may comprise a user interface field, the user interface field being configured to accept discourse input, and obtaining **306** the user request may comprise detecting a third user input on the user interface field, and determining the context data based on the detected third user input.

[0260] In other words, obtaining **306** a user request to take into account at least a part of context data may comprise obtaining a user request to include at least a part of context data in the adjustment of the remaining wear time.

[0261] The method **300** comprises communicating **312** via the interface, the adjusted remaining wear time, e.g. to the user, e.g. to an additional accessory device, e.g. to a server device.

[0262] Communicating **312**, via the interface, the adjusted remaining wear time may comprise displaying **312***a*, on the display, a first wear time user interface object representative of the adjusted remaining wear time. The display of the accessory device may be configured to detect touch (e.g. the display is a touch-sensitive display). An input may comprise

a contact on the touch sensitive display. A touch-sensitive display provides an input interface and an output interface between the accessory device and a user. A processor of the accessory device may be configured to receive and/or send electrical signals from/to touch-sensitive display. A touch-sensitive display is configured to display visual output to the user. The visual output optionally includes graphics, text, icons, video, and any combination thereof (collectively termed "graphics"). For example, some or all of the visual output may be seen as corresponding to user-interface objects.

[0263] The method **300** may comprise communicating **314**, via the interface, the remaining wear time prior to adjusting the remaining wear time to the adjusted remaining wear time.

[0264] Communicating **314** the remaining wear time prior to adjusting the remaining wear time to the adjusted remaining wear time may comprise displaying **314***a*, on the display, a second wear time user interface object representative of the remaining wear time determined prior to adjusting the remaining wear time to the adjusted remaining wear time.

[0265] Displaying **312***a*, on the display, the first wear time user interface object representative of the adjusted remaining wear time may comprise displaying **312***aa*, on the display, the first wear time user interface object representative of the adjusted remaining wear time in a first application user interface of a first application. The first application is an ostomy user application installed on the accessory device.

[0266] Displaying **314***a*, on the display, the second wear time user interface object representative of the remaining wear time determining prior to adjusting may comprise displaying **314***aa*, on the display, the second wear time user interface object representative of the remaining wear time in a first application user interface of a first application. The first application is an ostomy user application installed on the accessory device.

[0267] In one or more exemplary methods, displaying **312***a*, on the display, the first wear time user interface object representative of the adjusted remaining wear time comprises displaying **312***ab*, on the display, the first wear time user interface object representative of the adjusted remaining wear time in a first notification. Displaying the first notification comprising the first wear time user interface object representative of the adjusted remaining wear time may comprise displaying the first notification on a home screen and/or on a lock screen of the accessory device.

[0268] In one or more exemplary methods, displaying **314***a*, on the display, the second wear time user interface object representative of the remaining wear time determining prior to adjusting comprises displaying **314***ab*, on the display, the second wear time user interface object representative of the remaining wear time in a second notification. Displaying the second notification comprising the second wear time user interface object representative of the remaining wear time may comprise displaying the second notification on a home screen and/or on a lock screen of the accessory device. The second notification may be comprised in the first notification or may be separate from the first notification.

[0269] In one or more exemplary methods, obtaining **308** the at least part of context data comprises obtaining the at least part of context data from a second application different from the first application. For example, the second application comprises a calendar application, a weather application, a health application, a sports application, an activity tracker application, a photo application, a camera, and/or a medical application.

[0270] Obtaining **308** the at least part of context data may comprise displaying a user interface field in the first application. The user interface field is configured to accept discourse input. Obtaining **308** the at least part of context data may comprise detecting a first user input in the user interface field, determining the at least part of context data based on the first user input, and obtaining the at least part of context data based on the detected first user input. The interface may comprise an input device (e.g. keyboard, microphone). The discourse input may comprise text input, and/or voice input. The discourse input may be indicative of context data, e.g. indicative of activity, food intake, diet, medicine intake, etc. . . . .

[0271] Obtaining **308** the at least part of context data may comprise obtaining context data from one or more applications installed on the accessory device, data comprising one or more of: calendar data from a calendar application, location data, nutritional data, medicine intake data, health data, activity data. Context data may be obtained from an application server coupled with the application installed on the accessory device, and wherein the application server is configured to transmit context data upon request by the accessory device, e.g. by the corresponding application.

[0272] Context data may comprise calendar data (calendar data comprising date, time, calendar events including event date, event start time, event end time, event recurrence, event location, event attendees, etc.), location data (e.g. obtained from a GPS sensor, an accelerometer, a gyroscope, a magnetometer, a cellular base station, a wireless access point, and/or a short range connection), nutritional data (e.g. data indicative of food intake by the user, such as what food the user has consumed, e.g. based on user input, and/or based on photo capture in a photo-enabled application), medicine intake data (e.g. data indicative of medicine intake by the user, such as a prescription, e.g. obtained via a medical user application (e.g. a user application used to store prescriptions, or to communicate with a medical team)), health data (e.g. age, gender, medical conditions of the user, prescriptions, one or more diseases, heart rate, user metabolism data, health condition data).

[0273] Adjusting **310** the remaining wear time based on the at least part of the context data may comprise determining **310***a* an adjustment factor based on the at least part of the context data, and determining **310***b* the remaining wear time based on the adjustment factor. The adjustment factor may comprise a reduction coefficient, and/or an increase coefficient.

[0274] Determining **310***a* an adjustment factor based on the at least part of the context data may comprise retrieving, using a context parameter or a context data identifier, the adjustment factor from e.g. a lookup table or a database dedicated to correlating adjustment factors and context data (e.g. context parameters, or context identifiers). Exemplary adjustment factors are illustrated in connection with FIGS. **20**A-**20**B, **21**A-**21**B.

[0275] The health condition of a user may affect the viscosity of the output affects the first parameter data and thereby the remaining wear time. The viscosity of the output is affected by one or more factors: nutritional data (type of food eaten by user, water intake, etc.), medication intake data (e.g. vitamins/supplements, prescriptions, etc.), and

health data (e.g. medical conditions of the user, diseases, ostomist, ileostomist, etc.). The exemplary results of FIGS. **20**A-B illustrate how to viscosity of the output affects the first parameter data and thereby remaining wear time. For example, by obtaining whether the user is an ileostomist or a colostomist, the remaining wear time may be adjusted by applying a corresponding velocity data of FIG. **20**B for example.

[0276] Health data may comprise an ostomy health condition such as ileostomy and/or colostomy. An ileostomist output may be more fluid than a colostomist output. A user health condition may be associated with a percentage of dilution of the output based on whether the user is an ileostomist or a colostomist. FIGS. **20**A-**20**B illustrate dilution relation data between first parameter data and the dilution grade of an output mixture. The accessory device may be configured to retrieve dilution relation data associated with the user health condition. The memory of the accessory device may have the dilution relation data stored thereon, or may be configured to store the dilution relation data, so that the processor of the accessory device may adjust the remaining wear time based on a current operating state and/or the monitor data using the dilution relation data.

[0277] Determining **310***b* the remaining wear time based on the adjustment factor may comprise reducing the remaining wear time based on the adjustment factor (e.g. by a reduction coefficient). Due to activity (e.g. sports, bending, movement), experimental results have shown that remaining wear time may be affected negatively by a reducing factor ranging from 2 to 10 compared to when the user has no or little activity (e.g. a sedentary user), For example, a remaining wear time may be reduced by a factor of 2 to 10 due to an extensive activity. For example, by identifying the user activity level, the remaining wear time may be adjusted by dividing the current remaining e.g. by an adjustment factor ranging from 2 to 10.

[0278] The accessory device may comprise a sensor unit comprising an accelerometer for sensing acceleration and provision of acceleration data to the processor.

[0279] Determining **310***b* the remaining wear time based on the adjustment factor comprises increasing the remaining wear time based on the adjustment factor (e.g. scaling factors illustrated in FIGS. **19**A-B, **20**A-B, **21**A-B).

[0280] In the present disclosure, adjustment factor and scaling factor are used interchangeably.

[0281] The method **300** may comprise communicating (e.g. displaying, transmitting) a recommendation notification to change a base plate in a certain time window prior to an event (e.g. leakage), to check supplies prior to an event (e.g. driving, or activity) or while at home etc.

[0282] The method may comprise displaying **316**, via the display, a second user interface object prompting the user to provide an indicator as to whether the adjusted remaining wear time is acceptable.

[0283] The method may comprise: detecting **318** a second user input corresponding to selection of the first wear time user interface object, or the second wear time user interface object, or a first application user interface object; in response to detecting the second user input, opening **320** the first application. The first application user interface object may comprise a first application launch icon.

[0284] In one or more exemplary methods and accessory devices, the display is a touch sensitive display, and the second user input may comprise a contact on the touch sensitive display

[0285] Obtaining **306** a user request to take into account at least a part of context data may comprise: displaying **306***a* a first context user interface object representative of a user request to take into account a first part of the context data; detecting **306***b* a third user input corresponding to selection of the first context user interface object.

[0286] FIG. **12** is a block diagram illustrating an exemplary accessory device **8** according to the present disclosure. The accessory device **8** forms part of an ostomy system and is capable of managing remaining wear time of an ostomy appliance based on context data. The ostomy appliance is to be placed on a user's skin. In particular the accessory device **8** is capable of managing remaining wear time of the base plate disclosed herein. The accessory device **8** comprises a memory **401**; a processor **402** coupled to the memory **401**; and an interface **403**, coupled to the processor **402**.

[0287] The interface **403** is configured to communicate with one or more devices of the ostomy system. The one or more devices comprise a monitor device disclosed herein, and/or an ostomy appliance configured to be placed on a skin surface of a user or on any additional seals. The ostomy appliance comprises a base plate. The base plate may comprise a first adhesive layer having a proximal side. During use, a proximal surface of the first adhesive layer adheres to the user's skin in the peristomal area and/or to additional seals, such as sealing paste, sealing tape and/or sealing ring. The base plate may comprise one or more electrodes configured to measure electrical properties of the first adhesive layer. The electrical properties may be indicative of a conductive path in the first adhesive layer, thereby indicative of the moisture level, and indicative of the condition of the ostomy appliance.

[0288] The interface **403** comprises a display **403***a*. The interface comprises a transceiver **403***b*. The interface **403** is configured to obtain monitor data from the one or more devices, e.g. from the monitor device. The transceiver **403***b* may be configured to obtain monitor data from the one or more devices, e.g. from the monitor device. The monitor data may be indicative of a condition of the ostomy appliance, such as a condition of a proximal side of a layer of the ostomy appliance (e.g. a first adhesive layer of the base plate) that is directed towards the skin surface.

[0289] The processor **402** is configured to determine the remaining wear time of the ostomy appliance based on the monitor data, e.g. by determining an operating state of the ostomy appliance (e.g. of the base plate) based on the monitor data.

[0290] The processor **402** is configured to obtain a user request to take into account at least a part of the context data, via the interface **403**.

[0291] The processor **402** is configured to in response to obtaining the user request: obtain at least a part of context data, via the interface **403**.

[0292] The processor **402** may be configured to obtain the at least a part of context data context data from e.g. the memory **401**, e.g. from one or more user applications **405** installed on the accessory device **8**, and/or from the interface **403**.

[0293] The processor **402** is configured to adjust the remaining wear time based on the at least part of the context data.

[0294] The interface **403** is configured to communicate the adjusted remaining wear time, via the display **403***a* or the transceiver **403***b*, e.g. to the user, and/or to other devices.

[0295] For example, the processor **402** may be configured to determine the wear time (e.g. remaining wear time) of the ostomy appliance (e.g. of the disclosed base plate) based on the operating state of the ostomy appliance (e.g. of the disclosed base plate).

[0296] In one or more exemplary methods and accessory devices, the processor **402** may be configured to determine one or more operating states of the base plate based on the monitor data and the context data by determining one or more current moisture pattern types based on the monitor data, and by generating the one or more operating states based on the one or more current moisture pattern types and the context data. Determining one or more current moisture pattern types may be based on the ostomy data and/or the parameter data (e.g. first parameter data and second parameter data), such as based on measurements obtained by the electrodes, such as measurements of resistance, capacitance and/or inductance, such as timing information. For example, the processor may be configured to determine the operating state of the ostomy appliance based on the monitor data and context data by determining one or more moisture pattern types based on the monitor data and context data, wherein monitor data includes on the ostomy data and/or the parameter data (e.g. first parameter data and second parameter data), such as measurements obtained by the electrodes, such as measurements of resistance, capacitance and/or inductance, such as timing information, and context data includes calendar data, location data, environment data, nutritional data, health data, activity data, and/or medicine intake data.

[0297] The moisture pattern type is optionally indicative of adhesive condition (e.g. failure) of the base plate and/or leakage risk of the ostomy appliance and/or indicative of the risk of skin damage to the user of the ostomy system.

[0298] For example, the processor **402** may be configured to determine the operating state of the ostomy appliance by determining one or more moisture pattern types based on parameter data (e.g. the first parameter data and second parameter data (and optionally a third parameter data)). To determine one or more moisture pattern types may comprise to select a moisture pattern type from a set of predefined moisture pattern types based on a trend identified in the monitor data over a period of time and to adjust the selection based on the context data. The set of predefined moisture pattern types may comprise a number M of moisture pattern types, such as at least three moisture pattern types, at least four moisture pattern types, at least five moisture pattern types. The number M of moisture pattern types may be in the range from four to twenty. For example, to determine one or more moisture pattern types may comprise to select an adjustment function and/or an adjustment factor based on the context data, and to identify a moisture pattern type by applying to the parameter data the selected adjustment function and/or adjustment factor.

[0299] In one or more exemplary accessory devices, the first parameter data, the second parameter data, and the third parameter data may be indicative of resistance between the first electrode pair, the second electrode pair, and the third electrode pair, respectively. The first parameter data, the second parameter data, and the third parameter data may be indicative of a rate of change in resistance between the first electrode pair, the second electrode pair, and the third electrode pair, respectively.

[0300] To determine an operating state of the base plate of the ostomy appliance may comprise to determine an operating state (e.g. current and/or future operating state) from a set of operating states. In other words, to determine the operating state may comprise selecting an operating state from a set of predefined operating states based on monitor data and context data. The set of predefined operating states may comprise a number of operating states, such as at least two operating states, at least three operating states, at least four operating states, at least five operating states. The number of operating states may be in the range from four to twenty. In one or more exemplary accessory devices, the number of operating states in the set of predefined operating states is larger than ten, such as larger than 20 or even larger than 50.

[0301] In one or more exemplary accessory devices, the processor **402** is configured to determine an operating state of the base plate if a change criterion is fulfilled. The change criterion may be based on context data and monitor data (e.g. the first parameter data, the second parameter data and/or the third parameter data). The change criterion may be fulfilled if parameter data changes, e.g. if a change in parameter data is larger than a change threshold selected based on the context data. Thus, operating state determination may be conditional or dependent on a change in the parameter data conditioned by the context data, in turn leading to an optimum use of power or battery resources in the monitor device, since operating state determination may be performed when there may be a change in the operating state as a consequence of the change in parameter data.

[0302] In one or more exemplary accessory devices, to determine an operating state of the base plate is based on a first criteria set based on context data and parameter data (the first parameter data and/or the second parameter data), wherein the operating state is determined to be the first operating state if the first criteria set is satisfied. The first criteria set may comprise one or more first criteria based on one or more of first parameter data, second parameter data and third parameter data. The first criteria set may comprise a first primary criterion based on the first parameter data. The first criteria set may comprise a first secondary criterion based on the second parameter data. The first criteria set may comprise a first tertiary criterion based on the third parameter data.

[0303] In one or more exemplary accessory devices, to determine the operating state of the base plate may be based on a first threshold set comprising one or a plurality of first threshold values. The first threshold set may comprise one or a plurality of threshold values, e.g. to be applied in the first criteria set. The first threshold set may comprise a first primary threshold value. The first threshold set may comprise a first secondary threshold value. The first threshold set may comprise a first tertiary threshold value.

[0304] The first criteria set may be given by or at least may comprise

$(P\_1\_1<TH\_1\_1)$,

$(P\_2\_1>TH\_1\_2)$, and

$(P\_3\_1>TH\_1\_3)$,

wherein P_1_1 is a first primary parameter based on the first parameter data, TH_1_1 is a first primary threshold value, P_2_1 is a second primary parameter based on the second parameter data, TH_1_2 is a first secondary threshold value, P_3_1 is a third primary parameter based on the third parameter data, and TH_1_3 is a first tertiary threshold value, and wherein the first operating state is indicative of low degree of radial erosion or radial swelling on the base plate. The first threshold values (TH_1_1, TH_1_2 and TH_1_3) may be the same or different, e.g. depending on the electrode configuration of the base plate. The first tertiary criterion (P_3_1<TH_1_3) may be omitted in the first criteria set.

[0305] The first primary parameter P_1_1 may be indicative of the resistance between the first electrode pair (first electrode and first electrode part of the ground electrode) of the base plate.

[0306] The second primary parameter may be indicative of the resistance between the second electrode pair (second electrode and second electrode part of the ground electrode) of the base plate.

[0307] The third primary parameter may be indicative of resistance between the third electrode pair (third electrode and third electrode part of the ground electrode) of the base plate.

[0308] In one or more exemplary accessory devices, to determine the operating state of the base plate is based on a second criteria set based on context data and parameter data (e.g. the second parameter data and/or the third parameter data), wherein the operating state is determined to be the second operating state if the second criteria set is satisfied. The second criteria set may be based on the first parameter data.

[0309] The second criteria set may comprise one or more second criteria based on context data and parameter data (e.g. one or more of first parameter data, second parameter data and third parameter data). The second criteria set may comprise a second primary criterion based on the first parameter data and a part of context data. The second criteria set may comprise a second secondary criterion based on the second parameter data and a part of context data. The second criteria set may comprise a second tertiary criterion based on the third parameter data and a part of context data.

[0310] In one or more exemplary accessory devices, to determine the operating state of the base plate is based on a second threshold set comprising one or a plurality of second threshold values. The second threshold set may comprise one or a plurality of threshold values, e.g. to be applied in the second criteria set. The second threshold set may comprise a second primary threshold value. The second threshold set may comprise a second secondary threshold value. The second threshold set may comprise a second tertiary threshold value.

[0311] The second criteria set may be given by or at least may comprise

($P\_1\_1<TH\_2\_1$),

($P\_2\_1<TH\_2\_2$), and

($P\_3\_1>TH\_2\_3$)

wherein P_1_1 is a first primary parameter based on the first parameter data and indicative of the resistance between the first electrode pair, TH_2_1 is a second primary threshold value, P_2_1 is a second primary parameter based on the second parameter data and indicative of the resistance between the second electrode pair, TH_2_2 is a second secondary threshold value, P_3_1 is a third primary parameter based on the third parameter data and indicative of the resistance between the third electrode pair, TH_2_3 is a second tertiary threshold value, and wherein the second operating state is indicative of medium degree of radial erosion or radial swelling on the base plate. The second threshold values (TH_2_1. TH_2_2 and TH_2_3) may be the same or different, e.g. depending on the electrode configuration of the base plate. The second primary criterion (P_1_1<TH_2_1) and/or the second tertiary criterion (P_3_1>TH_2_3) may be omitted in the second criteria set.

[0312] In one or more exemplary accessory devices, to determine the operating state of the base plate is based on a default criteria set based on the first parameter data, wherein the operating state is determined to be the default operating state if the default criteria set is satisfied, and in accordance with a determination that the operating state is the default operating state, transmit a default monitor signal comprising monitor data indicative of the default operating state of the ostomy appliance.

[0313] The default criteria set may be given by or at least may comprise

($P\_1\_1>TH\_D\_1$),

($P\_2\_1>TH\_D\_2$), and

($P\_3\_1>TH\_D\_3$)

wherein P_1_1 is a first primary parameter based on the first parameter data and indicative of the resistance between the first electrode pair, TH_D_1 is a default primary threshold value, P_2_1 is a second primary parameter based on the second parameter data and indicative of the resistance between the second electrode pair, TH_D_2 is a default secondary threshold value, P_3_1 is a third primary parameter based on the third parameter data and indicative of the resistance between the third electrode pair, TH_D_3 is a default tertiary threshold value, and wherein the default operating state is indicative of very low or no degree of radial erosion or radial swelling on the base plate. The default threshold values (TH_D_1, TH_D_2 and TH_D_3) may be the same or different, e.g. depending on the electrode configuration of the base plate.

[0314] In one or more exemplary accessory devices, to determine the operating state of the base plate is based on a third criteria set based on context data and the third parameter data, wherein the operating state is determined to be the third operating state if the third criteria set is satisfied, and in accordance with a determination that the operating state is the third operating state, transmit a third monitor signal comprising monitor data indicative of the third operating state of the ostomy appliance.

[0315] In one or more exemplary accessory devices, the third operating state of the base plate corresponds to a situation wherein the first adhesive layer of the base plate has experienced a third degree of radial erosion or radial swelling, e.g. the first adhesive layer is eroded to the third radial distance of the third electrode pair.

[0316] The third criteria set may be given by or at least may comprise

($P\_1\_1<TH\_3\_1$),

($P\_2\_1<TH\_3\_2$), and

($P\_3\_1<TH\_3\_3$)

wherein P_1_1 is a first primary parameter based on the first parameter data and indicative of the resistance between the first electrode pair, TH_3_1 is a third primary threshold value, P_2_1 is a second primary parameter based on the second parameter data and indicative of the resistance between the second electrode pair, TH_3_2 is a third secondary threshold value, P_3_1 is a third primary parameter based on the third parameter data and indicative of the resistance between the third electrode pair, TH_3_3 is a third tertiary threshold value, and wherein the third operating state is indicative of high degree of radial erosion or radial swelling on the base plate. The third threshold values (TH_3_1, TH_3_2 and TH_3_3) may be the same or different, e.g. depending on the electrode configuration of the base plate. The third primary criterion (P_1_1<TH_3_1) and/or the third secondary criterion (P_2_1<TH_3_2) may be omitted in the third criteria set.

[0317] The interface **403** is configured to communicate the adjusted remaining wear time by e.g. displaying, on the display **403***a*, a first wear time user interface object representative of the adjusted remaining wear time.

[0318] The interface **403** may be configured to communicate the remaining wear time prior to adjusting the remaining wear time to the adjusted remaining wear time by e.g. displaying, on the display **403***a*, a second wear time user interface object representative of the remaining wear time determined prior to adjusting the remaining wear time to the adjusted remaining wear time.

[0319] The interface **403** may be configured to display, on the display **403***a*, the first wear time user interface object representative of the adjusted remaining wear time by e.g. displaying, on the display **403***a*, the first wear time user interface object representative of the adjusted remaining wear time in a first application user interface of a first application. The first application is an ostomy user application installed on the accessory device.

[0320] The interface **403** may be configured to display, on the display **403***a*, the second wear time user interface object representative of the remaining wear time determining prior to adjusting by e.g. displaying, on the display, the second wear time user interface object representative of the remaining wear time in a first application user interface of a first application. The first application is an ostomy user application installed on the accessory device.

[0321] The interface **403** may be configured to display on the display **403***a*, the first wear time user interface object representative of the adjusted remaining wear time by e.g. displaying, on the display, the first wear time user interface object representative of the adjusted remaining wear time in a first notification. Displaying the first notification comprising the first wear time user interface object representative of the adjusted remaining wear time may comprise displaying the first notification on a home screen and/or on a lock screen of the accessory device.

[0322] The interface **403** may be configured to display, on the display **403***a*, the second wear time user interface object representative of the remaining wear time determining prior to adjusting by e.g. displaying, on the display, the second wear time user interface object representative of the remaining wear time in a second notification. Displaying the second notification comprising the second wear time user interface object representative of the remaining wear time may comprise displaying the second notification on a home screen and/or on a lock screen of the accessory device. The second notification may be comprised in the first notification or may be separate from the first notification.

[0323] The processor **402** may be configured to obtain the at least part of context data by e.g. obtaining the at least part of context data from a second application different from the first application. For example, the second application comprises a calendar application, a weather application, a health application, an analytics application, a sports application, an activity tracker application, a photo application, a camera, and/or a medical application.

[0324] The second application may be configured to retrieve the context data from an application server.

[0325] The processor **402** may be configured to obtain the at least part of context data by e.g. displaying a user interface field in the first application. The user interface field is configured to accept discourse input. Obtaining the at least part of context data may comprise detecting a first user input in the user interface field, determining the at least part of context data based on the first user input, and obtaining the at least part of context data based on the detected first user input. The interface may comprise an input device (e.g. keyboard, microphone). The discourse input may comprise text input, and/or voice input. The discourse input may be indicative of context data, e.g. indicative of activity, food intake, diet, medicine intake, etc. . . . .

[0326] FIGS. **13***a-b* show exemplary user interfaces **500**, **520**.

[0327] First user interface **500** of FIG. **13***a* comprises a first wear time user interface object **502** representative of the adjusted remaining wear time or representative of a first notification including first wear time user interface object. The first user interface **500** may comprise a plurality of user interface objects, e.g. a first wear time user interface object **502** representative of the adjusted remaining wear time or representative of a first notification including first wear time user interface object.

[0328] The first user interface **500** may comprise a second wear time user interface object **504** representative of the remaining wear time determining before adjusting the remaining wear time to the adjusted remaining wear time.

[0329] The first user interface **500** may comprise a lock screen of the accessory device (e.g. accessory device **8** of FIG. **1**), and/or a home screen of the accessory device (e.g. accessory device **8** of FIG. **1**).

[0330] A second input selecting any of user interface objects **502**, **504**, may be detected by the accessory device, and in response to detecting the second input, the accessory device launches or opens a first application, i.e. an ostomy user application, (e.g. an ostomy user application installed on the accessory device). For example, detection of second input that corresponds to selection any of user interface objects **502**, **504** triggers the launch and opening of the ostomy user application installed on the accessory device.

[0331] FIG. **13***b* shows an exemplary user interface, such as a first application user interface **520**.

[0332] The first application user interface **520** comprises third user interface objects **521**, **528** representing the elapsed wear time of the ostomy appliance at the current time and up to the current wear time.

[0333] The first application user interface **520** comprises a second wear time user interface object **524** representative of the remaining wear time at the current time prior adjustment.

[0334] The first application user interface **520** comprises user interface object **526** representative of a graph of a function or of a set that provides third user interface objects **521**, **528** representing elapsed wear time, and second wear time user interface object **524** representative of the remaining wear time over time T, e.g. over a time window comprising at least of part of an elapsed time prior to the current time, current time and a future time period after the current time. The graph comprises values indicative of operating states in the y-axis.

[0335] The first application user interface **520** may comprise a user interface field **522** configured to accept discourse input. The first application user interface **520** may comprise an add context interface object **523** (representative of the user request to take into account a first part of the context data) to add the context data appearing in the user interface field **522** e.g. activity data, so as to obtain the adjusted remaining wear time. The first application user interface **520** may comprise additional add context interface object representative of the user request to take into account additional parts of the context data, e.g. to add the context data e.g. health data, nutritional data, and/or medicine intake data.

[0336] The user interface field **522** may be configured to be populated by context data retrieved from one or more second applications, e.g. calendar application, a weather application, a health application, an analytics application, a sports application, an activity tracker application, a photo application, a camera, and/or a medical application.

[0337] When the accessory device has detected an input in the user interface field **522** to obtain a first part of the context data and a consecutive input on the add context user interface object **523** to add the corresponding first part, the accessory device adjusts the remaining wear time based on the first part of context data obtained, and provides data to the display to display a first wear time user interface object **525** representative of the adjusted remaining wear time. The first wear time user interface object **525** shows an exemplary reduction in the remaining wear time.

[0338] By enabling a direct editing of the data taken into account for determining the remaining wear time, the determined remaining wear time may be adjusted based on the input context data as compared to the determined remaining wear time prior to input of the context data. This way, the present disclosure provides a tool that allows the user budgeting the remaining wear time, and seeing whether a planned activity, food, medicine intake is to be carried out with or without a change of base plate (to avoid any leakage).

[0339] The first application user interface **520** may comprise a user interface object **530** representing a summary status of the base plate comprising an elapsed wear time user interface object **532** (e.g. current elapsed wear time user interface object) and a recommendation user interface object **534**. The elapsed wear time user interface object **532** may be an indicator of the elapsed wear time for the presently worn ostomy appliance, such as the presently worn base plate. The elapsed wear time user interface object **532** may comprise a day indicator and an hour indicator (e.g. 2 Days and 15 h). The recommendation user interface object **534** may be a text prompt in the like of: "Your base plate is worn, Change is recommended," "Everything is fine, no problems detected".

[0340] The first application user interface **520** may be seen as one of the user interface screen displayed by the ostomy user application.

[0341] The first application user interface **520** may comprise a user interface object **536** to access a settings interface of the ostomy user application.

[0342] The first application user interface **520** may comprise a fifth user interface object **538** indicative of the connection between the monitor device and the base plate. The fifth user interface object **538** may indicate a connection state for the connection between the monitor device and the base plate (such as connected, not connected, searching, failed connection).

[0343] The first application user interface **520** may comprise a sixth user interface object **540** indicative of battery status of the monitor device. The sixth user interface object **540** may indicate a remaining battery time, and/or a remaining battery percentage (e.g. state of charge).

[0344] FIG. **14** shows an exemplary graphical representation of parameter data as a function of time. In this example, the parameter data in the y-axis is in Volts and time is in the x-axis. Curve **1100** shows, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate. Curve **1102** shows, as a function of time, second parameter data indicative of voltage measured by the second electrode pair of the base plate. Curve **1104** shows, as a function of time, third parameter data indicative of voltage measured by the third electrode pair of the base plate. Curves **1108**, **1116**, **1118** show, as a function of time, fourth primary parameter indicative of voltage measured by the fourth electrode pair of the base plate, fourth secondary parameter indicative of voltage measured by the fourth electrode and the fifth electrode of the base plate, and fourth tertiary parameter indicative of voltage measured by the fifth electrode pair of the base plate respectively. Curves **1110**, **1112**, **1114** show, as a function of time, a gradient of fourth primary parameter indicative of voltage gradient measured by the fourth electrode pair of the base plate, a gradient of fourth secondary parameter indicative of voltage gradient measured by the fourth electrode and the fifth electrode of the base plate, and a gradient of fourth tertiary parameter indicative of voltage gradient measured by the fifth electrode pair of the base plate respectively. FIG. **14** shows the upper voltage threshold value represented as curve **1000**, the medium voltage threshold value represented as curve **1002**, the lower voltage threshold value represented as curve **1004**, and curve **1006** is a gradient limit.

[0345] Curves **1108**, **1116**, **1118** as well as curves **1110**, **1112**, **1114** show that no moisture is detected at the proximal side of the first adhesive layer by the fourth electrode pair.

[0346] At a time less than 5 h, curve **1100** shows that moisture is detected by the first electrode pair as the first parameter data crosses the upper voltage threshold value while curve **1102** shows that moisture is not detected by the second electrode pair as the second parameter data has not crossed the upper voltage threshold value. At this stage, it is determined that the ostomy appliance is in a first operating state.

[0347] At time between 5 h and 10 h, curve **1102** shows that moisture is detected by the second electrode pair as the second parameter data crosses the upper voltage threshold value. At this stage, it is determined that the ostomy appliance is in a second operating state.

[0348] At time around 45 h, curve **1104** shows that moisture is detected by the third electrode pair as the third parameter data crosses the upper voltage threshold value. At this stage, it is determined that the ostomy appliance is in a third operating state.

[0349] FIG. **15** shows an exemplary graphical representation of parameter data as a function of time. In this example, the parameter data in the y-axis is in Volts and time is in the x-axis. Curve **1202** shows, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate. Curve **1204** shows, as a function of time, second parameter data indicative of voltage measured by the second electrode pair of the base plate. Curve **1200** shows, as a function of time, third parameter data indicative of voltage measured by the third electrode pair of the base plate. Curves **1206**, **1208**, **1210** show, as a function of time, fourth primary parameter indicative of voltage measured by the fourth electrode pair of the base plate, fourth secondary parameter indicative of voltage measured by the fourth electrode and the fifth electrode of the base plate, and fourth tertiary parameter indicative of voltage measured by the fifth electrode pair of the base plate respectively. Curves **1212**, **1214**, **1216** show, as a function of time, a gradient of fourth primary parameter indicative of voltage gradient measured by the fourth electrode pair of the base plate, a gradient of fourth secondary parameter indicative of voltage gradient measured by the fourth electrode and the fifth electrode of the base plate, and a gradient of fourth tertiary parameter indicative of voltage gradient measured by the fifth electrode pair of the base plate respectively. FIG. **15** shows the upper voltage threshold value represented as curve **1000**, the medium voltage threshold value represented as curve **1002**, the lower voltage threshold value represented as curve **1004**, and curve **1006** represents a gradient limit.

[0350] Curves **1206**, **1208**, **1210** as well as curves **1212**, **1214**, **1216** show that moisture is detected at the proximal side of the first adhesive layer by the fourth electrode pair, the fourth and fifth electrode, and the fifth electrode pair at a time starting at 60 h until 90 h. As the three electrode pairs are triggered as shown by the decreases shown by **1206**, **1208**, **1210** and as the curves **1212**, **1214**, **1216** show a gradient below 80%, this is indicative of the presence of sweat at the proximal side of the first adhesive layer.

[0351] At a time of 30 min, curve **1202** shows that moisture is detected by the first electrode pair as the first parameter data crosses the upper voltage threshold value while curve **1204** shows that moisture is not detected by the second electrode pair as the second parameter data has not crossed the upper voltage threshold value. At this stage, it is determined that the ostomy appliance is in a first operating state.

[0352] At time around 40 h, curve **1204** shows that moisture is detected by the second electrode pair as the second parameter data crosses the upper voltage threshold value. At this stage, it is determined that the ostomy appliance is in a second operating state.

[0353] FIG. **16** shows an exemplary graphical representation of parameter data as a function of time. In this example, the parameter data in the y-axis is in Volts and time is in the x-axis. Curve **1300** shows, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate. Curve **1302** shows, as a function of time, second parameter data indicative of voltage measured by the second electrode pair of the base plate. Curve **1304** shows, as a function of time, third parameter data indicative of voltage measured by the third electrode pair of the base plate. Curves **1306**, **1308**, **1310** show, as a function of time, fourth primary parameter indicative of voltage measured by the fourth electrode pair of the base plate, fourth secondary parameter indicative of voltage measured by the fourth electrode and the fifth electrode of the base plate, and fourth tertiary parameter indicative of voltage measured by the fifth electrode pair of the base plate respectively. Curves **1312**, **1314**, **1316** show, as a function of time, a gradient of fourth primary parameter indicative of voltage gradient measured by the fourth electrode pair of the base plate, a gradient of fourth secondary parameter indicative of voltage gradient measured by the fourth electrode and the fifth electrode of the base plate, and a gradient of fourth tertiary parameter indicative of voltage gradient measured by the fifth electrode pair of the base plate respectively. FIG. **16** shows the upper voltage threshold value represented as curve **1000**, the medium voltage threshold value represented as curve **1002**, the lower voltage threshold value represented as curve **1004**, and curve **1006** is a gradient limit.

[0354] Curves **1306**, **1308**, **1310** as well as curves **1312**, **1314**, **1316** show that moisture is detected at the proximal side of the first adhesive layer by the fourth electrode pair at a time starting at around 25 h. As leakage electrodes (i.e. the fourth electrode pair, the fourth and fifth electrode, and the fifth electrode pair) are trigger as shown by the decreases shown by **1306**, **1308**, **1310** and as curve **1312**, **1314**, **1316** show a gradient above 80%, this is indicative of the presence of output at the proximal side of the first adhesive layer. This indicate severe leakage. It may be determined that the ostomy appliance is in a sixth operating state.

[0355] At a time of 5 h, curve **1300** shows that moisture is detected by the first electrode pair as the first parameter data crosses the upper voltage threshold value while curve **1302** shows that moisture is not detected by the second electrode pair as the second parameter data has not crossed the upper voltage threshold value. At this stage, it is determined that the ostomy appliance is in a first operating state.

[0356] At time around 15 h, curve **1302** shows that moisture is detected by the second electrode pair as the second parameter data crosses the upper voltage threshold value. At this stage, it is determined that the ostomy appliance is in a second operating state.

[0357] At time around 30 h, curve **1304** shows that moisture is detected by the third electrode pair as the third parameter data crosses the upper voltage threshold value. In an example where the curves **1306**, **1308**, **1310** had not dropped below corresponding thresholds, curve **1304** indicates that moisture has reached the third electrode pair, and the present disclosure enables determining that the ostomy appliance is in a third operating state.

[0358] FIG. **17** shows an exemplary graphical representation of parameter data as a function of time and a whitening zone diameter (e.g. related to a radial thickness of a whitening ring surrounding the stomal opening) as a function of time. FIG. **17** illustrates the moisture propagation in the first adhesive layer as a function of time, and illustrates a correlation between parameter data detected by the first

electrode pair and the second electrode pair of the base plate and actual moisture on the proximal surface of the first adhesive layer of the base plate. The actual moisture propagation in the first adhesive layer may appear as a whitening zone (e.g. a white ring around the stomal opening) in the first adhesive layer. Moisture affects the first adhesive layer in that the moisture reacts with the composition of the first adhesive layer to form the white ring around the stomal opening, and thereby reduces adhesive performance of the base plate. FIG. **17** is obtained by experiments where water is applied from the stomal opening of the base plate to follow, using the electrodes of the base plate, the radial propagation of moisture leading to radial erosion of the first adhesive layer of the base plate.

[0359] Curve **1502** shows, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate. Curve **1504** shows, as a function of time, second parameter data indicative of voltage measured by the second electrode pair of the base plate. Curve **1506** shows a diameter of the white ring as a function of time. The first parameter data shows a decrease in e.g. voltage measured by the first electrode pair over time. It is also seen that the voltage of the second electrode pair drops at a later time than when the first parameter data shows a decrease in e.g. voltage dropped. This correlates well with the diameter of the white ring which goes from around 25-26 mm when the first electrode pair is triggered (e.g. first parameter data shows a decrease) to 38 mm when the second electrode pair is triggered (second parameter data shows a decrease). This corresponds substantially to the location of the first electrode pair at twice the first radial distance R1, and of the second electrode pair at twice the second radial distance R2.

[0360] It is noted that various regions and countries have various routines and recommendations to support optimal use of an ostomy appliance. For example, in regions of Europe, it may be indicated to the user that an ostomy appliance with a base plate as disclosed herein is an optimal state (corresponding to a first operating state) when the radial thickness of the whitening ring is between 0-15 mm (for a user not in compliance with a preferred use), such as between 0-7 mm (for a user in compliance with a preferred use), such as between 0-5 mm (recommended by a nurse).

[0361] For example, in Europe, it may be indicated to the user that an ostomy appliance with a base plate as disclosed herein is in suboptimal state (corresponding to a second operating state) and thereby indicate a consideration to change the base plate when the radial thickness of the whitening ring is such as between 5-10 mm (recommended by a nurse), between 7 mm and 10 mm (for a user in compliance with a preferred use), and/or between 15 mm and 30 mm (for a user not in compliance with a preferred use).

[0362] For example, in Europe, it may be indicated to the user that an ostomy appliance with a base plate as disclosed herein is in a poor state (corresponding to a third operating state) and indicate a request to change the base plate when the radial thickness of the whitening ring is more than 10 mm (recommended by a nurse), such as more than 15 mm (for a user in compliance with a preferred use), such as more than 30 mm (for a user not in compliance with a preferred use).

[0363] For example, in other regions (e.g. America), it may be indicated to the user that an ostomy appliance with a base plate as disclosed herein is an optimal state (corresponding to a first operating state) when the radial thickness of the whitening ring is between 0-20 mm (for a user not in compliance with a preferred use), such as between 0-10 mm (for a user in compliance with a preferred use), such as between 0-10 mm (recommended by a nurse).

[0364] For example, in other regions (e.g. America), it may be indicated to the user that an ostomy appliance with a base plate as disclosed herein is in suboptimal state (corresponding to a second operating state) and thereby indicate a consideration to change the base plate when the radial thickness of the whitening ring is such as between 10 mm and 20 mm (recommended by a nurse), between 10 mm and 20 (for a user in compliance with a preferred use), and/or between 20 mm and 40 mm (for a user not in compliance with a preferred use).

[0365] For example, in other regions (e.g. America), it may be indicated to the user that an ostomy appliance with a base plate as disclosed herein is in a poor state (corresponding to a third operating state) and indicate a request to change the base plate when the radial thickness of the whitening ring is more than 20 mm (recommended by a nurse), such as more than 20 mm (for a user in compliance with a preferred use), such as more than 40 mm (for a user not in compliance with a preferred use).

[0366] The disclosed methods, and accessory devices allow to accommodate the regional preferences of user in their use of the ostomy appliance so as to adjust thresholds for the operating states to the regional preference or use.

[0367] FIGS. **18**A-**18**B shows exemplary graphical representations of peel force as a function of a peeling distance travelled by a peeling action exercising the peel force (e.g. perpendicularly to the proximal (or distal) surface of the first adhesive layer) on a first adhesive layer of a base plate disclosed herein. The peel force relates to a required force to peel the first adhesive layer off the skin surface. The peeling distance is with respect to one end of the first adhesive layer where the peel force starts to be exercised. The peeling distance relates to the size or length of the first adhesive layer and thereby may relate to a size or length of a portion the first adhesive layer affected by moisture and of a portion of the first adhesive layer not affected by moisture. The peel forces illustrated in FIGS. **18**A-**18**B are representative of adhesive performance of the first adhesive layer of the base plate to the skin surface.

[0368] Composition of the first adhesive layer of the base plate as disclosed herein in one or more embodiments is formulated to provide adhesion of the base plate to the skin surface of the user when the base plate is worn and to maintain a dry and healthy skin surface. Avoiding maceration of skin when occluding the skin with an adhesive is done by transporting sweat away from the skin and into the first adhesive layer by means of e.g. hydrocolloid types and adhesive (e.g. hydrocolloid adhesives) forming part of an absorbing element of the first adhesive layer.

[0369] For example, when the absorbing element is in contact with moisture, (e.g. water, sweat, urine or faeces), the absorbing element absorb the moisture. This reduces the adhesion of the first adhesive layer to the skin.

[0370] For example, the first adhesive layer goes from a dry adhesive state with acceptable adhesive performance (e.g. acceptable adhesion and cohesion) in to a wet adhesive state (e.g. reduced or non-adhesion and low cohesion gel).

[0371] Curve **1602** of FIGS. **18**A and **18**B shows a peel force applied to the first adhesive layer as a function of a peeling distance travelled by a peeling action exercising the peel force on the first adhesive layer in a dry adhesive state, (e.g. not affected by moisture). The peel force is expressed in Newtons while the peeling distance is expressed in mm. The length of the first adhesive layer in dry adhesive state is illustrated by X5, corresponding to length of the first adhesive layer **1608** in dry adhesive state.

[0372] Curve **1602** shows that the peel force applied to the first adhesive layer in a dry adhesive state is equal to Y1 when the peeling distance is less than X1. At X1, the peeling force drops as the peeling distance increases towards X5 and the end of the first adhesive layer.

[0373] Curve **1604** of FIG. **18**A shows a peel force applied to the first adhesive layer as a function of a peeling distance travelled by a peeling action exercising the peel force on the first adhesive layer in a wet adhesive state, (e.g. affected by moisture to the point of reaching a completely wet adhesive state, where the first adhesive layer has become a gel).

[0374] Curve **1604** shows that when the peeling distance is less than X2, the peel force applied to the first adhesive layer in a wet adhesive state is equal to Y2 which has much lower value than Y1. This shows that the adhesive performance of the first adhesive layer is reduced when the first adhesive layer is in a wet adhesive state. At X2, the peeling force drops as the peeling distance increases until the end of the first adhesive layer. It is noted that X2 is larger than X1, because the first adhesive layer in a wet adhesive state extends in volume, and thus in length due to the gelling of the components of the first adhesive layer.

[0375] The peel experiment illustrated in FIG. **18**A shows a loss of adhesive performance when the first adhesive is in a wet adhesive state.

[0376] Curve **1606** of FIG. **18**B shows a peel force applied to the first adhesive layer as a function of a peeling distance travelled by a peeling action exercising the peel force on the first adhesive layer illustrated **1610** which comprises a first portion **1610**A in a dry adhesive state and a second portion **1610**B in a wet adhesive state, (e.g. affected by moisture to the point of reaching a completely wet adhesive state, where the first adhesive layer has become a gel).

[0377] Curve **1606** shows that when the peeling distance is less than X3, the peel force applied to the first adhesive layer in a wet adhesive state is equal to Y3 which has lower value than Y1. This shows that the adhesive performance of the first adhesive layer is reduced when the first adhesive layer comprises a portion in a wet adhesive state. At X3, the peeling force drops as the peeling distance increases until the end of the first adhesive layer. It is noted that X3 corresponds to the length of the portion **1610**A in dry adhesive state.

[0378] The peel experiment illustrated in FIG. **18**B shows a loss of adhesive performance when the first adhesive is partly in a wet adhesive state.

[0379] Accordingly, FIGS. **18**A-**18**B demonstrate that the operating state determined based on monitor data is indicative of adhesive performance of the base plate.

[0380] FIGS. **19**A-**19**B show exemplary graphical representations of a whitening zone diameter (e.g. related to a radial thickness of a whitening ring surrounding the stomal opening) as a function of time. FIGS. **19**A-**19**B illustrates the moisture propagation in the first adhesive layer as a function of time, and illustrates a diametral velocity of the moisture propagation on the proximal surface of the first adhesive layer of the base plate. The actual moisture propagation in the first adhesive layer may appear as a whitening zone (e.g. a white ring around the stomal opening) in the first adhesive layer. FIGS. **19**A-**19**B show measurements of a diameter of the whitening zone as a function of time as moisture propagates. Moisture affects the first adhesive layer in that the moisture reacts with the composition of the first adhesive layer to form the white ring around the stomal opening, and thereby reduces adhesive performance of the base plate.

[0381] FIG. **19**A is obtained by experiments where water is applied from the stomal opening of the base plate of a first type to measure a velocity of the radial propagation of moisture leading to radial erosion of the first adhesive layer of the base plate of the first type.

[0382] FIG. **19**B is obtained by experiments where water is applied from the stomal opening of the base plate of a second type to measure a velocity the radial propagation of moisture leading to radial erosion of the first adhesive layer of the base plate of the second type. The second type is different from the first type, in that the composition of the first adhesive layer may be different than the first adhesive layer of the second type when compared to the first type.

[0383] Curve **2104** shows, as a function of time, a diameter of the white ring of a base plate of the first type measured from a cut for a stomal opening to the first electrode pair.

[0384] Curve **2102** shows a linear approximation of curve **2104**, and thereby characterizes the velocity from the cut to the first electrode pair. The linear approximation may be formulated as a linear equation of the type Y=v01*X+A, where Y is the diameter of the white ring in millimetres (mm), X is time in hours, v01 is a diametral velocity of propagation of moisture in the base plate of the first type from the cut to the first electrode pair, and A relates to the diameter of the cut. In the experiment illustrated in FIG. **19**A, v01=0.6 mm/h and A is 22 (i.e. the cut for the stomal opening has a diameter of 22 mm). Other experiments have shown that v01 may be in the range of 0.5 mm/h to 0.8 mm/h, with an average diametral velocity v01 of 0.65 mm/h for moisture to propagate from the cut to the first electrode pair. To obtain radial velocity V01 for moisture to propagate from the cut to the first electrode pair from the results of FIG. **19**A, the diametral velocity v01 is to be divided by two: V01=0.3 mm/h for the illustrated experiment.

[0385] Curve **2106** shows, as a function of time, a diameter of the white ring of a base plate of the first type measured from the first electrode pair to the second electrode pair.

[0386] Curve **2108** shows a linear approximation of curve **2106**, and thereby characterizes the velocity from the first electrode pair to the second electrode pair. The linear approximation may be formulated as a linear equation of the type Y=v12*X+B, where Y is the diameter of the white ring in millimetres (mm), X is time in hours, v12 is a diametral velocity of propagation of moisture in the base plate of the first type from the first electrode pair to the second electrode pair, and B relates to approximate location of the first electrode pair from the center of the stomal opening. In the experiment illustrated in FIG. **19**A, v12=0.2 mm/h and B is 27.3 mm (i.e. the first electrode pair is place around 27.3 mm). Other experiments have shown that v12 may be in the range of 0.15 mm/h to 0.22 mm/h, with an average diametral

velocity of 0.18 mm/h for moisture to propagate from the first electrode pair to the second electrode pair. To obtain radial velocity V12 for moisture to propagate from the first electrode pair to the second electrode pair from the results of FIG. **19**A, the diametral velocity v12 is to be divided by two: V12=0.1 mm/h for the illustrated experiment.

[0387] Curve **2112** shows, as a function of time, a diameter of the white ring of a base plate of the second type measured from a cut for a stomal opening to the first electrode pair.

[0388] Curve **2110** shows a linear approximation of curve **2112**, and thereby characterizes the velocity from the cut to the first electrode pair. The linear approximation may be formulated as a linear equation of the type Y=v01*X+A, where Y is the diameter of the white ring in millimetres (mm), X is time in hours, v01 is a diametral velocity of propagation of moisture in the base plate of the second type from the cut to the first electrode pair, and A relates to the diameter of the cut. In the experiment illustrated in FIG. **19**B, v01=0.3 mm/h and A is 21.9 (i.e. the cut for the stomal opening has a diameter of 21.9 mm). Other experiments have shown that v01 may be in the range of 0.2 mm/h to 0.32 mm/h, with an average diametral velocity v01 of 0.275 mm/h for moisture to propagate from the cut to the first electrode pair. To obtain radial velocity V01 for moisture to propagate from the cut to the first electrode pair from the results of FIG. **19**B, the diametral velocity v01 is to be divided by two: V01=0.15 mm/h for the illustrated experiment.

[0389] Curve **2114** shows, as a function of time, a diameter of the white ring of a base plate of the second type measured from the first electrode pair to the second electrode pair.

[0390] Curve **2116** shows a linear approximation of curve **2114**, and thereby characterizes the velocity from the first electrode pair to the second electrode pair. The linear approximation may be formulated as a linear equation of the type Y=v12*X+B, where Y is the diameter of the white ring in millimetres (mm), X is time in hours, v12 is a diametral velocity of propagation of moisture in the base plate of the second type from the first electrode pair to the second electrode pair, and B relates to approximate location of the first electrode pair from the center of the stomal opening. In the experiment illustrated in FIG. **19**B, v12=0.2 mm/h and B is 25.9 mm (i.e. the first electrode pair is place around 25.9 mm). Other experiments have shown that v12 may be in the range of 0.15 mm/h to 0.22 mm/h, with an average diametral velocity of 0.1 mm/h for moisture to propagate from the first electrode pair to the second electrode pair. To obtain radial velocity V12 for moisture to propagate from the first electrode pair to the second electrode pair from the results of FIG. **19**B, the diametral velocity v12 is to be divided by two: V12=0.5 mm/h for the illustrated experiment.

[0391] The experiments illustrated in FIGS. **19**A-**19**B correspond substantially with the location of the first electrode pair at twice the first radial distance R1, and of the second electrode pair at twice the second radial distance R2.

[0392] The present disclosure exploits the derivable velocities to determine a future operating state based on monitor data and/or current operating state and/or previous operating states so as to manage the remaining wear time.

[0393] FIG. **20**A show an exemplary graphical representation of first parameter data as a function of time. In this example, the parameter data in the y-axis is in millivolts and time is in the x-axis.

[0394] FIG. **20**A is obtained by experiments where semi-solid matter with various degrees of dilution is applied from the stomal opening of the base plate to follow, using the first electrode pair of the base plate, the radial propagation of moisture leading to radial erosion of the first adhesive layer of the base plate. Dilution is performed with tap water and semi-solid matter.

[0395] The exemplary results of FIG. **20**A illustrates and mimics how the moisture content of the output would affect the first parameter data and thereby the operating state. This is done by mixing a semi-solid matter with water to various dilution factors. The content of moisture in real life changes the viscosity of the output and is affected by one or more factors: nutrition (type of food eaten by user, water intake, etc.), medication (e.g. vitamins/supplements, prescriptions, etc.), and health data (e.g. medical conditions of the user, diseases, ostomist, ileostomist, etc.).

[0396] Curve **2202** shows, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate when a mixture of 0% semi-solid matter and 100% tap water is applied from the stomal opening of the base plate.

[0397] Curve **2204** shows, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate when a mixture of 30% semi-solid matter and 70% tap water is applied. Curve **2204**A shows, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate when a mixture of 30% semi-solid matter and 70% tap water is applied.

[0398] Curve **2206** shows, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate when a mixture of 30% semi-solid matter and 70% tap water is applied.

[0399] Curve **2208** shows, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate when a mixture of 50% semi-solid matter and 50% tap water is applied.

[0400] Curve **2210** shows, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate when a mixture of 100% semi-solid matter and 0% tap water is applied.

[0401] Curve **2212** shows, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate when a mixture of 100% semi-solid matter and 0% tap water is applied.

[0402] It may be noted that the more diluted the output is the earlier the first electrode pair is triggered.

[0403] FIG. **20**B shows exemplary graphical representations of first parameter data as a function of percentage of output in the mixture applied.

[0404] Curve **2214** shows a linear approximation relating the trigger times of the first electrode pair to the percentage of semi-solid matter, and thereby characterizes how the viscosity of the semi-solid matter affects the propagation of moisture in the first adhesive layer. The curve **2214** represents a linear equation with a coefficient of 10.6 with an approximation precision of 87% for the exemplary results. This support a determination of a future operating state based one or more of: nutritional data (type of food eaten by

user, water intake, etc.), medication intake data (e.g. vitamins/supplements, prescriptions, etc.), and health data (e.g. medical conditions of the user, diseases, ostomist, ileostomist, etc.).

[0405] It may be envisaged that a thin output may be detected based the early triggering time of the first electrode pair and thereby the remaining may be adjusted accordingly.

[0406] Due to activity (e.g. sports, bending, movement), experimental results have shown that the remaining wear time may be affected negatively by a reducing factor ranging from 2 to compared to when the user has no or little activity (e.g. a sedentary user), For example, a remaining wear time may be reduced by a scaling factor of 2 to 10 due to an extensive activity.

[0407] FIG. **21**A shows an exemplary graphical representation **2302** of parameter data as a function of time for a first type of base plate at a first predetermined temperature. The first predetermined temperature in the example depicted in FIG. **21**A is 32 degrees Celsius. FIG. **21**B shows an exemplary graphical representation **2304** of parameter data as a function of time for the first type of base plate at a second predetermined temperature. The second predetermined temperature in the example depicted in FIG. **21**B is 37 degrees Celsius. The temperatures were selected to closely approximate human skin temperature.

[0408] FIGS. **21**A and **21**B were obtained by applying fluid at a stomal opening of a base plate, wherein the stomal opening had a diameter of 22 mm. The residual humidity of the environment for both experiments was 50%. As the fluid was absorbed by the base plate over time and the fluid propagated radially from the stomal opening outward, parameter data (e.g. voltages (mV)) was measured between a first electrode pair, a second electrode pair, and/or a third electrode pair respectively.

[0409] Specifically, in FIG. **21**A, curve **2306** shows, as a function of time, a decrease in voltage for the first electrode pair at approximately 8.3 hours. Curve **2308** shows, as a function of time, a constant voltage for the second electrode pair. And, curve **2310** shows, as a function of time, a constant voltage for the third electrode pair.

[0410] By comparison, in FIG. **21**B, curve **2312** shows a decrease in voltage for the first electrode pair at approximately 7.6 hours. Curve, **2314** shows, as a function of time, a constant voltage for the second electrode pair. And, curve **2316** shows, as a function of time, a constant voltage for the third electrode pair.

[0411] Stated another way, in this example, moisture propagated approximately 11% faster when the temperature was 37 degrees Celsius in comparison to when the temperature was 32 degrees Celsius. This comparison shows that as temperature increases, wear time of the base plate decreases due to faster moisture propagation and adhesion degradation.

[0412] Another experiment was conducted where the propagation speed of fluid, applied at the stomal opening of a second type of base plate, was measured. Similar to the experiment depicted in FIGS. **21**A, **21**B, the stomal opening had a diameter of 22 mm and the residual humidity of the environment was 50%. The second type of base plate is different than the first type of base plate, in that the composition of the first adhesive layer of the first type of base plate is different than the composition of the first adhesive layer of the second type of base plate.

[0413] In this experiment, the fluid propagated between center of the hole and first electrode pair at approximately 0.15 mm/hour when the temperature was 32 degrees Celsius. In comparison, the fluid propagated at approximately 0.2 mm/hour when the temperature was 37 degrees Celsius. As such, this experiment similarly found that for another type of base plate as temperature increases, wear time of the second type of base plate decreases due to faster moisture propagation and adhesion degradation.

[0414] In view of the above results, a scaling factor may be applied to the operating state (e.g. wear time) of a base plate such that the scaling factor affects negatively the operating state (e.g. decreases the wear time) of the base plate as temperature increases and/or the scaling factor affects positively the operating state (e.g. increases the wear time) of the base plate as temperature decreases.

[0415] In some embodiments, the scaling factor may be predetermined. In these embodiments, the predetermined scaling factor may be constant. Alternatively, the predetermined scaling factor may be iteratively adjusted based on when the first electrode pair, the second electrode pair, and/or the third electrode pair are triggered. In at least some of these embodiments, the predetermined scaling factor may be iteratively adjusted.

[0416] The use of the terms "first", "second", "third" and "fourth", "primary", "secondary", "tertiary" etc. does not imply any particular order, but are included to identify individual elements. Moreover, the use of the terms "first", "second", "third" and "fourth", "primary", "secondary", "tertiary" etc. does not denote any order or importance, but rather the terms "first", "second", "third" and "fourth", "primary", "secondary", "tertiary" etc. are used to distinguish one element from another. Note that the words "first", "second", "third" and "fourth", "primary", "secondary", "tertiary" etc. are used here and elsewhere for labelling purposes only and are not intended to denote any specific spatial or temporal ordering.

[0417] Furthermore, the labelling of a first element does not imply the presence of a second element and vice versa.

[0418] Although particular features have been shown and described, it will be understood that they are not intended to limit the claimed invention, and it will be made obvious to those skilled in the art that various changes and modifications may be made without departing from the spirit and scope of the claimed invention. The specification and drawings are, accordingly to be regarded in an illustrative rather than restrictive sense. The claimed invention is intended to cover all alternatives, modifications, and equivalents.

LIST OF REFERENCES

[0419] **1** ostomy system
[0420] **2** ostomy appliance
[0421] **4** base plate
[0422] **6** monitor device
[0423] **8** accessory device
[0424] server device
[0425] **12** network
[0426] **14** coupling member
[0427] **16** coupling ring
[0428] **18**, **18**A, **18**B, **18**C, **18**D stomal opening
[0429] docking station
[0430] **22** first connector
[0431] **24** user interface
[0432] **100** monitor device housing

[0433] **101** processor
[0434] **102** first interface
[0435] **104** second interface
[0436] **106** memory
[0437] **108** ground terminal of monitor device
[0438] **110** first terminal of monitor device
[0439] **112** second terminal of monitor device
[0440] **114** third terminal of monitor device
[0441] **116** fourth terminal of monitor device
[0442] **118** fifth terminal of monitor device
[0443] **120** coupling part
[0444] **121** power unit
[0445] **122** antenna
[0446] **124** wireless transceiver
[0447] **126** loudspeaker
[0448] **128** haptic feedback element
[0449] **140** sensor unit
[0450] **142** sensor data
[0451] **144** first sensor
[0452] **146** second sensor
[0453] **200** first adhesive layer
[0454] **200**A distal surface of first adhesive layer
[0455] **200**B proximal surface of first adhesive layer
[0456] **202** second adhesive layer
[0457] **202**A distal surface of second adhesive layer
[0458] **202**B proximal surface of second adhesive layer
[0459] **204** electrode assembly
[0460] **204**A distal surface of electrode assembly
[0461] **204**B proximal surface of electrode assembly
[0462] **206** release liner
[0463] **206**A distal surface of the release liner
[0464] **206**B proximal surface of the release liner
[0465] **208** top layer
[0466] **208**A distal surface of the top layer
[0467] **208**B proximal surface of the top layer
[0468] **209** coupling ring
[0469] **210** coupling part of first connector
[0470] **211** first connector
[0471] **212** terminals of first connector
[0472] **213** first intermediate element
[0473] **213**A distal surface of first intermediate element
[0474] **213**B proximal surface of first intermediate element
[0475] **214** support layer of electrode assembly
[0476] **214**A distal surface of support layer
[0477] **214**B proximal surface of support layer
[0478] **216** electrodes of electrode assembly
[0479] **217** connection parts of electrodes
[0480] **218**,**219** masking element
[0481] **218**A distal surface of masking element
[0482] **218**B proximal surface of masking element
[0483] **220**, **220**A, **220**B electrode configuration
[0484] **222** ground electrode
[0485] **222**A ground connection part
[0486] **222**B ground sensing part
[0487] **222**C ground connector part
[0488] **224** first electrode
[0489] **224**A first connection part
[0490] **224**B first sensing part
[0491] **224**C first conductor part
[0492] **226** second electrode
[0493] **226**A second connection part
[0494] **226**B second sensing part
[0495] **226**C second conductor part
[0496] **228** third electrode
[0497] **228**A third connection part
[0498] **228**B third sensing part
[0499] **228**C third conductor part
[0500] **230** fourth electrode
[0501] **230**A fourth connection part
[0502] **230**B fourth sensing part
[0503] **232** fifth electrode
[0504] **232**A fifth connection part
[0505] **232**B fifth sensing part
[0506] **234** first electrode part of the ground electrode
[0507] **236** second electrode part of the ground electrode
[0508] **238** third electrode part of the ground electrode
[0509] **240** fourth electrode part of the ground electrode
[0510] **242** ground terminal opening
[0511] **244** first terminal opening
[0512] **246** second terminal opening
[0513] **248** third terminal opening
[0514] **250** fourth terminal opening
[0515] **252** fifth terminal opening
[0516] **254** primary sensor point openings of masking element
[0517] **254**A primary first sensor point opening
[0518] **254**B primary second sensor point opening
[0519] **256** secondary sensor point openings of masking element
[0520] **256**A secondary first sensor point opening
[0521] **256**B secondary second sensor point opening
[0522] **258** tertiary sensor point openings of masking element
[0523] **258**A tertiary first sensor point opening
[0524] **258**B tertiary second sensor point opening
[0525] **260** primary sensor point openings of first adhesive layer
[0526] **260**A primary first sensor point opening
[0527] **260**B primary second sensor point opening
[0528] **262** secondary sensor point openings of first adhesive layer
[0529] **262**A secondary first sensor point opening
[0530] **262**B secondary second sensor point opening
[0531] **264** tertiary sensor point openings of first adhesive layer
[0532] **264**A tertiary first sensor point opening
[0533] **264**B tertiary second sensor point opening
[0534] **282** ground terminal element
[0535] **282**A ground terminal
[0536] **284** first terminal element
[0537] **284**A first terminal
[0538] **286** second terminal element
[0539] **286**A second terminal
[0540] **288** third terminal element
[0541] **288**A third terminal
[0542] **290** fourth terminal element
[0543] **290**A fourth terminal
[0544] **292** fifth terminal element
[0545] **292**A fifth terminal
[0546] **300** method for managing wear time of a base plate of an ostomy appliance
[0547] **302** obtaining monitor data from the one or more devices
[0548] **304** determining the remaining wear time of the ostomy appliance
[0549] **306** obtaining a user request to take into account at least a part of context data

[0550] **306***a* displaying a first context user interface object representative of a user request to take into account a first part of the context data

[0551] **306***b*; detecting a third user input corresponding to selection of the first context user interface object.

[0552] **308** in response to obtaining the user request: obtaining the at least part of the context data,

[0553] **310** in response to obtaining the user request: adjusting the remaining wear time based on the at least part of the context data

[0554] **310***a* determining an adjustment factor based on the at least part of the context data

[0555] **310***b* determining the remaining wear time based on the adjustment factor.

[0556] **312**, in response to obtaining the user request: communicating via the interface, the adjusted remaining wear time

[0557] **312***a* displaying, on the display, a first wear time user interface object representative of the adjusted remaining wear time

[0558] **312***aa* displaying, on the display, the first wear time user interface object representative of the adjusted remaining wear time in a first application user interface of a first application

[0559] **312***ab* displaying, on the display, the first wear time user interface object representative of the adjusted remaining wear time in a first notification A

[0560] **314** communicating, via the interface, the remaining wear time prior to adjusting the remaining wear time to the adjusted remaining wear time

[0561] **314***a* displaying, on the display, a second wear time user interface object representative of the remaining wear time determined prior to adjusting the remaining wear time to the adjusted remaining wear time

[0562] **314***aa* displaying, on the display, the second wear time user interface object representative of the remaining wear time in a first application user interface of a first application

[0563] **314***ab* displaying, on the display, the second wear time user interface object representative of the remaining wear time in a second notification

[0564] **316** displaying, via the display, a second user interface object prompting the user to provide an indicator as to whether the adjusted remaining wear time is acceptable

[0565] **318** detecting a second user input corresponding to selection of the first wear time user interface object, or the second wear time user interface object, or a first application user interface object

[0566] **320** in response to detecting the second user input, opening the first application

[0567] **401** memory of accessory device

[0568] **402** processor of accessory device

[0569] **403** interface of accessory device

[0570] **403***a* display of accessory device

[0571] **403***b* transceiver of accessory device

[0572] **500** exemplary first user interface screen

[0573] **502** a first wear time user interface object representative of the adjusted remaining wear time or representative of a first notification including first wear time user interface object

[0574] **504** a second wear time user interface object representative of the remaining wear time determining before adjusting the remaining wear time to the adjusted remaining wear time

[0575] **520** exemplary first application user interface

[0576] **521** third user interface object representing the elapsed wear time of the ostomy appliance at the current time

[0577] **522** user interface field

[0578] **523** add context data user interface object

[0579] **524** second wear time user interface object **524** representative of the remaining wear time at the current time prior adjustment

[0580] **525** first wear time user interface object representative of the adjusted remaining wear time

[0581] **526** user interface object representative of a graph

[0582] **528** third user interface object representing the elapsed wear time of the ostomy appliance up to the current time

[0583] **530** user interface object representing a summary status of the base plate

[0584] **532** current elapsed wear time user interface object

[0585] **534** recommendation user interface object

[0586] **536** user interface object to access user settings of the user ostomy application

[0587] **538** fifth user interface object

[0588] **540** sixth user interface object

[0589] **1000** curve representing the upper voltage threshold value

[0590] **1002** curve representing the medium voltage threshold value

[0591] **1004** curve representing the lower voltage threshold value

[0592] **1006** curve representing a gradient limit

[0593] **1100** curve showing, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate

[0594] **1102** curve showing, as a function of time, second parameter data indicative of voltage measured by the second electrode pair of the base plate

[0595] **1104** curve showing, as a function of time, third parameter data indicative of voltage measured by the third electrode pair of the base plate

[0596] **1108** curve showing, as a function of time, fourth primary parameter indicative of voltage measured by the fourth electrode pair of the base plate

[0597] **1110** curve showing, as a function of time, a gradient of fourth primary parameter indicative of voltage gradient

[0598] **1112** curve showing, as a function of time, a gradient of fourth secondary parameter indicative of voltage gradient measured

[0599] **1114** curve showing, as a function of time, a gradient of fourth tertiary parameter indicative of voltage gradient measured

[0600] **1116** curve showing, as a function of time, a fourth secondary parameter indicative of voltage measured

[0601] **1118** curve showing, as a function of time, a fourth tertiary parameter indicative of voltage measured

[0602] **1200** curve showing, as a function of time, third parameter data indicative of voltage measured by the third electrode pair of the base plate

[0603] **1202** curve showing, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate

[0604] **1204** curve showing, as a function of time, second parameter data indicative of voltage measured by the second electrode pair of the base plate

[0605] **1206** curve showing, as a function of time, a fourth primary parameter indicative of voltage measured by the fourth electrode pair of the base plate

[0606] **1208** curve showing, as a function of time, a fourth secondary parameter indicative of voltage measured

[0607] **1210** curve showing, as a function of time, a fourth tertiary parameter indicative of voltage measured

[0608] **1212** curve showing, as a function of time, a gradient of fourth primary parameter indicative of voltage gradient measured by the fourth electrode pair of the base plate

[0609] **1214** curve showing, as a function of time, a gradient of fourth secondary parameter data indicative of voltage gradient measured

[0610] **1216** curve showing, as a function of time, a gradient of fourth tertiary parameter indicative of voltage gradient measured

[0611] **1300** curve showing, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate

[0612] **1302** curve showing, as a function of time, second parameter data indicative of voltage measured by the second electrode pair of the base plate

[0613] **1304** curve showing, as a function of time, third parameter data indicative of voltage measured by the third electrode pair of the base plate

[0614] **1306** curve showing, as a function of time, a fourth primary parameter indicative of voltage measured by the fourth electrode pair of the base plate

[0615] **1308** curve showing, as a function of time, a fourth secondary parameter indicative of voltage measured

[0616] **1310** curve showing, as a function of time, a fourth tertiary parameter indicative of voltage measured

[0617] **1312** curve showing, as a function of time, a gradient of fourth primary parameter indicative of voltage gradient measured by the fourth electrode pair of the base plate

[0618] **1314** curve showing, as a function of time, a gradient of fourth secondary parameter indicative of voltage gradient measured

[0619] **1316** curve showing, as a function of time, a gradient of fourth tertiary parameter indicative of voltage gradient measured

[0620] **1502** curve showing, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate

[0621] **1504** curve showing, as a function of time, second parameter data indicative of voltage measured by the second electrode pair of the base plate

[0622] **1506** curve showing a diameter of the white ring as a function of time

[0623] **1602** curve showing peel force applied to the first adhesive layer in a dry adhesive state as a function of peeling distance

[0624] **1604** a peel force applied to the first adhesive layer as a function of a peeling distance travelled by a peeling action exercising the peel force on the first adhesive layer in a wet adhesive state

[0625] **1606** a peel force applied to the first adhesive layer as a function of a peeling distance travelled by a peeling action exercising the peel force on the first adhesive layer partially wet

[0626] **1608** length of the first adhesive layer **1608** in dry adhesive state

[0627] **1610** the first adhesive layer which comprises a first portion in a dry adhesive state and a second portion in a wet adhesive state

[0628] **1610**A a first portion in a dry adhesive state

[0629] **1610**B a second portion in a wet adhesive state

[0630] **2104** curve showing a function of time, a diameter of the white ring of a base plate of the first type measured from a cut for a stomal opening to the first electrode pair

[0631] **2102** a linear approximation of curve **2104**

[0632] **2106** curve showing, as function of time, a diameter of the white ring of a base plate of the first type measured from the first electrode pair to the second electrode pair

[0633] **2108** a linear approximation of curve **2106**

[0634] **2110** a linear approximation of curve **2112**

[0635] **2112** curve showing, as function of time, a diameter of the white ring of a base plate of the second type measured from a cut for a stomal opening to the first electrode pair

[0636] **2114** curve showing, as a function of time, a diameter of the white ring of a base plate of the second type measured from the first electrode pair to the second electrode pair

[0637] **2116** a linear approximation of curve **2114**

[0638] **2202** curve showing, as a function of time, first parameter data

[0639] **2204** curve showing, as a function of time, first parameter data

[0640] **2204**A curve showing, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate when a mixture of 30% output and 70% tap water is applied

[0641] **2206** curve showing, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate when a mixture of 30% output and 70% tap water is applied

[0642] **2208** curve showing, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate when a mixture of 50% output and 50% tap water is applied

[0643] **2210** curve showing, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate when a mixture of 100% output and 0% tap water is applied

[0644] **2212** curve showing, as a function of time, first parameter data indicative of voltage measured by the first electrode pair of the base plate when a mixture of 100% output and 0% tap water is applied

[0645] **2214** curve showing a linear approximation relating the trigger times of the first electrode pair to the percentage of output

[0646] **2302** a graphical representation of parameter data as a function of time at a first predetermined temperature

[0647] **2304** a graphical representation of parameter data as a function of time at a second predetermined temperature

[0648] **2306** curve showing, as a function of time, a decrease in voltage for the first electrode pair at a first predetermined temperature

[0649] **2308** curve showing, as a function of time, a constant voltage for the second electrode pair at the first predetermined temperature

[0650] **2310** curve showing, as a function of time, a constant voltage for the third electrode pair at the first predetermined temperature

[0651] **2312** curve showing, as a function of time, a decrease in voltage for the first electrode pair at a second predetermined temperature

[0652] **2314** curve showing, as a function of time, a constant voltage for the second electrode pair at the second predetermined temperature

[0653] **2316** curve showing, as a function of time, a constant voltage for the third electrode pair at the second predetermined temperature

1. A method, performed in an accessory device, for managing a remaining wear time of a base plate of a medical appliance, wherein the accessory device comprises an interface configured to communicate with one or more devices of a medical system, the interface comprising a display, wherein the medical system comprises a monitor device and a medical appliance configured to be placed on a skin surface of a user, wherein the medical appliance comprises a base plate, the method comprising:

obtaining monitor data from the one or more devices, the monitor data being indicative of a physical condition of the base plate,

determining the remaining wear time of the base plate of the medical appliance based on the monitor data;

obtaining a user request to take into account at least a part of context data indicative of a context in which the medical appliance is operating,

in response to obtaining the user request:

obtaining the at least a part of context data,

adjusting the remaining wear time of the base plate based on the at least a part of context data; and

communicating, via the interface, the adjusted remaining wear time of the base plate.

2. The method according to claim **1**, wherein communicating, via the interface, the adjusted remaining wear time comprises displaying, on the display, a first wear time user interface object representative of the adjusted remaining wear time.

3. The method according to claim **1**, the method comprising communicating, via the interface, the remaining wear time prior to adjusting the remaining wear time to the adjusted remaining wear time.

4. The method according to claim **3**, wherein communicating the remaining wear time prior to adjusting comprises displaying, on the display, a second wear time user interface object representative of the remaining wear time determined prior to adjusting the remaining wear time to the adjusted remaining wear time.

5. The method according to claim **2**, wherein displaying, on the display, the first wear time user interface object representative of the adjusted remaining wear time comprises displaying, on the display, the first wear time user interface object representative of the adjusted remaining wear time in a first application user interface of a first application, wherein the first application is medical user application installed on the accessory device.

6. The method according to claim **4**, wherein displaying, on the display, the second wear time user interface object representative of the remaining wear time determining prior to adjusting comprises displaying, on the display, the second wear time user interface object representative of the remaining wear time in a first application user interface of a first application, wherein the first application is a medical user application installed on the accessory device.

7. The method according to claim **2**, wherein displaying, on the display, the first wear time user interface object representative of the adjusted remaining wear time comprises displaying, on the display, the first wear time user interface object representative of the adjusted remaining wear time in a first notification.

8. The method according to claim **4**, wherein displaying, on the display, the second wear time user interface object representative of the remaining wear time determining prior to adjusting comprises displaying, on the display, the second wear time user interface object representative of the remaining wear time in a second notification.

9. The method according to claim **1**, wherein obtaining the at least part of context data comprises obtaining the at least part of context data from a second application different from the first application.

10. The method according to claim **1**, wherein obtaining the at least part of context data comprises:

displaying a user interface field in the first application, wherein the user interface field is configured to accept discourse input,

detecting a first user input in the user interface field,

determining the at least part of context data based on the first user input, and

obtaining the at least part of context data based on the detected first user input.

11. The method according to claim **1**, wherein obtaining the at least part of context data comprises obtaining the at least part of context data comprising one or more of: calendar data from a calendar application installed on the accessory device, location data, nutritional data, medicine intake data, health data, activity data.

12. The method according to claim **1**, wherein adjusting the remaining wear time based on the at least part of the context data comprising determining an adjustment factor based on the at least part of the context data, and determining the remaining wear time based on the adjustment factor.

13. The method according to claim **12**, wherein determining the remaining wear time based on the adjustment factor comprises reducing the remaining wear time based on the adjustment factor.

14. The method according to claim **12**, wherein determining the remaining wear time based on the adjustment factor comprises increasing the remaining wear time based on the adjustment factor.

15. The method according to claim **1**, the method comprising displaying, via the display, a second user interface object prompting the user to provide an indicator as to whether the adjusted remaining wear time is acceptable.

16. The method according to claim **2**, the method comprising:

detecting a second user input corresponding to selection of the first wear time user interface object, or the second wear time user interface object, or a first application user interface object;

in response to detecting the second user input, opening the first application.

17. The method according to claim **1**, wherein obtaining the user request to take into account the at least part of context data comprises:

displaying a first context user interface object representative of a user request to take into account a first part of the context data;

detecting a third user input corresponding to selection of the first context user interface object.

18. A medical system comprising an accessory device and one or more devices, wherein the one or more devices comprises a monitor device and a medical appliance configured to be placed on a skin surface of a user, wherein the medical appliance comprises a base plate, and wherein the accessory device comprises:

a memory;

a processor operatively connected to an interface and to the memory, the interface being configured to communicate with the one or more devices of the medical system;

wherein the interface comprises a display;

wherein the interface is configured to obtain monitor data from the one or more devices, the monitor data being indicative of a physical condition of the base plate,

wherein the processor is configured to

determine a remaining wear time of the base plate of the medical appliance based on the monitor data;

obtain a user request to take into account at least a part of context data indicative of a context in which the medical appliance is operating,

in response to obtaining the user request:

obtain the at least a part of context data, via the interface;

adjust the remaining wear time of the base plate based on the at least a part of context data, and

wherein the interface is configured to communicate the adjusted remaining wear time of the base plate.

* * * * *