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1 "/Users/venkatanagasaisrujantallam/
PyCharm Projects/ATA Project/.venv/bin/
python" /Users/
venkatanagasaisrujantallam/PyCharm
Projects/ATA Project/src/live_loop.py
2
3
4 #####
#####
#####
5 # Processing Country: AT
6 #####
#####
#####
7
8 Loading historical data for AT...
9 Total: 24097 hours | Train: 19277 |
Dev: 2409 | Test: 2411
10 Fitting initial SARIMA model on training
data...
11
12 =====
=====
13 Starting Live Simulation for AT
14 Strategy: rolling_sarima
15 =====
=====
16
17 Simulating 2000 hours from index 21686
to 23686
18
19 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
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20      ✓ Full refit completed
21 [ 0] 2020-06-22T13:00:00Z | Adapted (
    reason=initial) | elapsed=10.250s
22 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
23      ✓ Incremental update on 12 new
    points
24 [ 11] 2020-06-23T00:00:00Z | Adapted (
    reason=scheduled) | elapsed=5.353s
25 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
26      ✓ Incremental update on 25 new
    points
27 [ 35] 2020-06-24T00:00:00Z | Adapted (
    reason=scheduled) | elapsed=5.434s
28 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
29      ✓ Incremental update on 25 new
    points
30 [ 59] 2020-06-25T00:00:00Z | Adapted (
    reason=scheduled) | elapsed=5.533s
31 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
32      ✓ Incremental update on 25 new
    points
33 [ 83] 2020-06-26T00:00:00Z | Adapted (
    reason=scheduled) | elapsed=6.502s
34 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
35      ✓ Incremental update on 25 new
    points
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36 [ 107] 2020-06-27T00:00:00Z | Adapted (
    reason=scheduled) | elapsed=5.771s
37 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
38     ✓ Incremental update on 25 new
        points
39 [ 131] 2020-06-28T00:00:00Z | Adapted (
    reason=scheduled) | elapsed=6.308s
40 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
41     ✓ Incremental update on 25 new
        points
42 [ 155] 2020-06-29T00:00:00Z | Adapted (
    reason=scheduled) | elapsed=5.695s
43 [Metrics] MASE: 1.7964, PI Coverage: 0
    .6488
44 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
45     ✓ Incremental update on 25 new
        points
46 [ 179] 2020-06-30T00:00:00Z | Adapted (
    reason=scheduled) | elapsed=6.419s
47 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
48     ✓ Incremental update on 25 new
        points
49 [ 203] 2020-07-01T00:00:00Z | Adapted (
    reason=scheduled) | elapsed=6.233s
50 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
51     ✓ Incremental update on 25 new
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51 points
52 [ 227] 2020-07-02T00:00:00Z | Adapted (
    reason=scheduled) | elapsed=6.171s
53 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
54     ✓ Incremental update on 25 new
    points
55 [ 251] 2020-07-03T00:00:00Z | Adapted (
    reason=scheduled) | elapsed=6.582s
56 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
57     ✓ Incremental update on 25 new
    points
58 [ 275] 2020-07-04T00:00:00Z | Adapted (
    reason=scheduled) | elapsed=6.335s
59 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
60     ✓ Incremental update on 25 new
    points
61 [ 299] 2020-07-05T00:00:00Z | Adapted (
    reason=scheduled) | elapsed=6.625s
62 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
63     ✓ Incremental update on 25 new
    points
64 [ 323] 2020-07-06T00:00:00Z | Adapted (
    reason=scheduled) | elapsed=8.010s
65 [Metrics] MASE: 2.2490, PI Coverage: 0
    .4464
66 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
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67      ✓ Incremental update on 25 new
points
68 [ 347] 2020-07-07T00:00:00Z | Adapted (
reason=scheduled) | elapsed=6.479s
69 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
70      ✓ Incremental update on 25 new
points
71 [ 371] 2020-07-08T00:00:00Z | Adapted (
reason=scheduled) | elapsed=7.012s
72 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
73      ✓ Incremental update on 25 new
points
74 [ 395] 2020-07-09T00:00:00Z | Adapted (
reason=scheduled) | elapsed=7.180s
75 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
76      ✓ Incremental update on 25 new
points
77 [ 419] 2020-07-10T00:00:00Z | Adapted (
reason=scheduled) | elapsed=7.062s
78 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
79      ✓ Incremental update on 25 new
points
80 [ 443] 2020-07-11T00:00:00Z | Adapted (
reason=scheduled) | elapsed=6.170s
81 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
82      ✓ Incremental update on 25 new
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82 points
83 [ 467] 2020-07-12T00:00:00Z | Adapted
    (reason=scheduled) | elapsed=7.105s
84 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
85     ✓ Incremental update on 25 new
    points
86 [ 491] 2020-07-13T00:00:00Z | Adapted
    (reason=scheduled) | elapsed=7.054s
87 [Progress] 500/2000 hours completed
88 [Metrics] MASE: 2.3060, PI Coverage:
    0.4762
89 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
90     ✓ Incremental update on 25 new
    points
91 [ 515] 2020-07-14T00:00:00Z | Adapted
    (reason=scheduled) | elapsed=7.364s
92 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
93     ✓ Incremental update on 25 new
    points
94 [ 539] 2020-07-15T00:00:00Z | Adapted
    (reason=scheduled) | elapsed=7.907s
95 [Refit] Adapting SARIMA on 2161 hours
    (window=90d)
96     ✓ Incremental update on 25 new
    points
97 [ 563] 2020-07-16T00:00:00Z | Adapted
    (reason=scheduled) | elapsed=6.650s
98 [Refit] Adapting SARIMA on 2161 hours
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98  (window=90d)
99      ✓ Incremental update on 25 new
points
100 [ 587] 2020-07-17T00:00:00Z | Adapted
(reason=scheduled) | elapsed=6.969s
101 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
102      ✓ Incremental update on 25 new
points
103 [ 611] 2020-07-18T00:00:00Z | Adapted
(reason=scheduled) | elapsed=7.439s
104 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
105      ✓ Incremental update on 25 new
points
106 [ 635] 2020-07-19T00:00:00Z | Adapted
(reason=scheduled) | elapsed=6.814s
107 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
108      ✓ Incremental update on 25 new
points
109 [ 659] 2020-07-20T00:00:00Z | Adapted
(reason=scheduled) | elapsed=6.897s
110 [Metrics] MASE: 2.0736, PI Coverage:
0.5000
111 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
112      ✓ Incremental update on 25 new
points
113 [ 683] 2020-07-21T00:00:00Z | Adapted
(reason=scheduled) | elapsed=7.778s
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114 [Refit] Adapting SARIMA on 2161 hours  
      (window=90d)  
115     ✓ Incremental update on 25 new  
          points  
116 [ 707] 2020-07-22T00:00:00Z | Adapted  
      (reason=scheduled) | elapsed=8.225s  
117 [Refit] Adapting SARIMA on 2161 hours  
      (window=90d)  
118     ✓ Incremental update on 25 new  
          points  
119 [ 731] 2020-07-23T00:00:00Z | Adapted  
      (reason=scheduled) | elapsed=7.051s  
120 [Refit] Adapting SARIMA on 2161 hours  
      (window=90d)  
121     ✓ Incremental update on 25 new  
          points  
122 [ 755] 2020-07-24T00:00:00Z | Adapted  
      (reason=scheduled) | elapsed=7.447s  
123 [Refit] Adapting SARIMA on 2161 hours  
      (window=90d)  
124     ✓ Incremental update on 25 new  
          points  
125 [ 779] 2020-07-25T00:00:00Z | Adapted  
      (reason=scheduled) | elapsed=7.366s  
126 [Refit] Adapting SARIMA on 2161 hours  
      (window=90d)  
127     ✓ Incremental update on 25 new  
          points  
128 [ 803] 2020-07-26T00:00:00Z | Adapted  
      (reason=scheduled) | elapsed=11.115s  
129 [Refit] Adapting SARIMA on 2161 hours
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129 (window=90d)
130     ✓ Incremental update on 25 new
points
131 [ 827] 2020-07-27T00:00:00Z | Adapted
(reason=scheduled) | elapsed=7.358s
132 [Metrics] MASE: 2.6417, PI Coverage:
0.4643
133 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
134     ✓ Incremental update on 25 new
points
135 [ 851] 2020-07-28T00:00:00Z | Adapted
(reason=scheduled) | elapsed=8.623s
136 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
137     ✓ Incremental update on 16 new
points
138 [ 866] 2020-07-28T15:00:00Z | Adapted
(reason=drift) | elapsed=8.998s
139 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
140     ✓ Incremental update on 2 new
points
141 [ 867] 2020-07-28T16:00:00Z | Adapted
(reason=drift) | elapsed=7.709s
142 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
143     ✓ Incremental update on 2 new
points
144 [ 868] 2020-07-28T17:00:00Z | Adapted
(reason=drift) | elapsed=9.096s
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145 [Refit] Adapting SARIMA on 2161 hours  
      (window=90d)  
146     ✓ Incremental update on 8 new  
           points  
147 [ 875] 2020-07-29T00:00:00Z | Adapted  
      (reason=scheduled) | elapsed=8.666s  
148 [Refit] Adapting SARIMA on 2161 hours  
      (window=90d)  
149     ✓ Incremental update on 21 new  
           points  
150 [ 895] 2020-07-29T20:00:00Z | Adapted  
      (reason=drift) | elapsed=9.828s  
151 [Refit] Adapting SARIMA on 2161 hours  
      (window=90d)  
152     ✓ Incremental update on 2 new  
           points  
153 [ 896] 2020-07-29T21:00:00Z | Adapted  
      (reason=drift) | elapsed=9.594s  
154 [Refit] Adapting SARIMA on 2161 hours  
      (window=90d)  
155     ✓ Incremental update on 2 new  
           points  
156 [ 897] 2020-07-29T22:00:00Z | Adapted  
      (reason=drift) | elapsed=9.144s  
157 [Refit] Adapting SARIMA on 2161 hours  
      (window=90d)  
158     ✓ Incremental update on 2 new  
           points  
159 [ 898] 2020-07-29T23:00:00Z | Adapted  
      (reason=drift) | elapsed=9.187s  
160 [Refit] Adapting SARIMA on 2161 hours
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160  (window=90d)
161      ✓ Incremental update on 2 new
points
162 [ 899] 2020-07-30T00:00:00Z | Adapted
(reason=scheduled) | elapsed=9.021s
163 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
164      ✓ Incremental update on 2 new
points
165 [ 900] 2020-07-30T01:00:00Z | Adapted
(reason=drift) | elapsed=9.236s
166 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
167      ✓ Incremental update on 14 new
points
168 [ 913] 2020-07-30T14:00:00Z | Adapted
(reason=drift) | elapsed=8.653s
169 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
170      ✓ Incremental update on 2 new
points
171 [ 914] 2020-07-30T15:00:00Z | Adapted
(reason=drift) | elapsed=8.825s
172 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
173      ✓ Incremental update on 2 new
points
174 [ 915] 2020-07-30T16:00:00Z | Adapted
(reason=drift) | elapsed=9.141s
175 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
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176      ✓ Incremental update on 2 new
          points
177 [ 916] 2020-07-30T17:00:00Z | Adapted
          (reason=drift) | elapsed=8.923s
178 [Refit] Adapting SARIMA on 2161 hours
          (window=90d)
179      ✓ Incremental update on 2 new
          points
180 [ 917] 2020-07-30T18:00:00Z | Adapted
          (reason=drift) | elapsed=9.003s
181 [Refit] Adapting SARIMA on 2161 hours
          (window=90d)
182      ✓ Incremental update on 2 new
          points
183 [ 918] 2020-07-30T19:00:00Z | Adapted
          (reason=drift) | elapsed=9.336s
184 [Refit] Adapting SARIMA on 2161 hours
          (window=90d)
185      ✓ Incremental update on 2 new
          points
186 [ 919] 2020-07-30T20:00:00Z | Adapted
          (reason=drift) | elapsed=8.635s
187 [Refit] Adapting SARIMA on 2161 hours
          (window=90d)
188      ✓ Incremental update on 2 new
          points
189 [ 920] 2020-07-30T21:00:00Z | Adapted
          (reason=drift) | elapsed=8.870s
190 [Refit] Adapting SARIMA on 2161 hours
          (window=90d)
191      ✓ Incremental update on 4 new
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191 points
192 [ 923] 2020-07-31T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=8.135s
193   [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
194     ✓ Incremental update on 25 new
      points
195 [ 947] 2020-08-01T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=8.494s
196   [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
197     ✓ Incremental update on 25 new
      points
198 [ 971] 2020-08-02T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=8.259s
199   [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
200     ✓ Incremental update on 25 new
      points
201 [ 995] 2020-08-03T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=7.231s
202 [Progress] 1000/2000 hours completed
203   [Metrics] MASE: 3.1687, PI Coverage:
      0.4881
204   [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
205     ✓ Incremental update on 25 new
      points
206 [ 1019] 2020-08-04T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=10.187s
207   [Refit] Adapting SARIMA on 2161 hours
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207 (window=90d)
208     ✓ Incremental update on 25 new
points
209 [ 1043] 2020-08-05T00:00:00Z | Adapted
(reason=scheduled) | elapsed=9.044s
210 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
211     ✓ Incremental update on 25 new
points
212 [ 1067] 2020-08-06T00:00:00Z | Adapted
(reason=scheduled) | elapsed=9.185s
213 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
214     ✓ Incremental update on 25 new
points
215 [ 1091] 2020-08-07T00:00:00Z | Adapted
(reason=scheduled) | elapsed=8.631s
216 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
217     ✓ Incremental update on 25 new
points
218 [ 1115] 2020-08-08T00:00:00Z | Adapted
(reason=scheduled) | elapsed=10.219s
219 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
220     ✓ Incremental update on 25 new
points
221 [ 1139] 2020-08-09T00:00:00Z | Adapted
(reason=scheduled) | elapsed=9.863s
222 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
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223      ✓ Incremental update on 25 new
points
224 [ 1163] 2020-08-10T00:00:00Z | Adapted
(reason=scheduled) | elapsed=9.747s
225 [Metrics] MASE: 2.2053, PI Coverage:
0.7381
226 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
227      ✓ Incremental update on 25 new
points
228 [ 1187] 2020-08-11T00:00:00Z | Adapted
(reason=scheduled) | elapsed=8.573s
229 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
230      ✓ Incremental update on 25 new
points
231 [ 1211] 2020-08-12T00:00:00Z | Adapted
(reason=scheduled) | elapsed=9.573s
232 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
233      ✓ Incremental update on 25 new
points
234 [ 1235] 2020-08-13T00:00:00Z | Adapted
(reason=scheduled) | elapsed=10.062s
235 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
236      ✓ Incremental update on 25 new
points
237 [ 1259] 2020-08-14T00:00:00Z | Adapted
(reason=scheduled) | elapsed=9.861s
238 [Refit] Adapting SARIMA on 2161 hours
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238 (window=90d)
239     ✓ Incremental update on 25 new
points
240 [ 1283] 2020-08-15T00:00:00Z | Adapted
(reason=scheduled) | elapsed=9.092s
241 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
242     ✓ Incremental update on 25 new
points
243 [ 1307] 2020-08-16T00:00:00Z | Adapted
(reason=scheduled) | elapsed=10.609s
244 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
245     ✓ Incremental update on 25 new
points
246 [ 1331] 2020-08-17T00:00:00Z | Adapted
(reason=scheduled) | elapsed=11.191s
247 [Metrics] MASE: 2.4833, PI Coverage:
0.6548
248 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
249     ✓ Incremental update on 25 new
points
250 [ 1355] 2020-08-18T00:00:00Z | Adapted
(reason=scheduled) | elapsed=9.355s
251 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
252     ✓ Incremental update on 25 new
points
253 [ 1379] 2020-08-19T00:00:00Z | Adapted
(reason=scheduled) | elapsed=9.402s
```

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254 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
255     ✓ Incremental update on 25 new  
points  
256 [ 1403] 2020-08-20T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=10.478s  
257 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
258     ✓ Incremental update on 25 new  
points  
259 [ 1427] 2020-08-21T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=11.244s  
260 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
261     ✓ Incremental update on 25 new  
points  
262 [ 1451] 2020-08-22T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=10.356s  
263 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
264     ✓ Incremental update on 25 new  
points  
265 [ 1475] 2020-08-23T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=8.787s  
266 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
267     ✓ Incremental update on 25 new  
points  
268 [ 1499] 2020-08-24T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=10.407s  
269 [Progress] 1500/2000 hours completed
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270 [Metrics] MASE: 2.5470, PI Coverage:  
0.6726  
271 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
272     ✓ Incremental update on 25 new  
points  
273 [ 1523] 2020-08-25T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=11.191s  
274 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
275     ✓ Incremental update on 25 new  
points  
276 [ 1547] 2020-08-26T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=8.380s  
277 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
278     ✓ Incremental update on 25 new  
points  
279 [ 1571] 2020-08-27T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=11.610s  
280 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
281     ✓ Incremental update on 25 new  
points  
282 [ 1595] 2020-08-28T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=12.048s  
283 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
284     ✓ Incremental update on 25 new  
points  
285 [ 1619] 2020-08-29T00:00:00Z | Adapted
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285 (reason=scheduled) | elapsed=10.296s
286 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
287     ✓ Incremental update on 25 new
      points
288 [ 1643] 2020-08-30T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=11.142s
289 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
290     ✓ Incremental update on 25 new
      points
291 [ 1667] 2020-08-31T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=11.208s
292 [Metrics] MASE: 2.5050, PI Coverage:
  0.7024
293 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
294     ✓ Incremental update on 25 new
      points
295 [ 1691] 2020-09-01T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=9.425s
296 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
297     ✓ Incremental update on 25 new
      points
298 [ 1715] 2020-09-02T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=10.810s
299 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
300     ✓ Incremental update on 25 new
      points
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301 [ 1739] 2020-09-03T00:00:00Z | Adapted  
    (reason=scheduled) | elapsed=12.260s  
302 [Refit] Adapting SARIMA on 2161 hours  
    (window=90d)  
303     ✓ Incremental update on 25 new  
        points  
304 [ 1763] 2020-09-04T00:00:00Z | Adapted  
    (reason=scheduled) | elapsed=12.361s  
305 [Refit] Adapting SARIMA on 2161 hours  
    (window=90d)  
306     ✓ Incremental update on 25 new  
        points  
307 [ 1787] 2020-09-05T00:00:00Z | Adapted  
    (reason=scheduled) | elapsed=12.171s  
308 [Refit] Adapting SARIMA on 2161 hours  
    (window=90d)  
309     ✓ Incremental update on 25 new  
        points  
310 [ 1811] 2020-09-06T00:00:00Z | Adapted  
    (reason=scheduled) | elapsed=12.491s  
311 [Refit] Adapting SARIMA on 2161 hours  
    (window=90d)  
312     ✓ Incremental update on 25 new  
        points  
313 [ 1835] 2020-09-07T00:00:00Z | Adapted  
    (reason=scheduled) | elapsed=11.206s  
314 [Metrics] MASE: 2.7884, PI Coverage:  
    0.7083  
315 [Refit] Adapting SARIMA on 2161 hours  
    (window=90d)  
316     ✓ Incremental update on 25 new
```

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316 points
317 [ 1859] 2020-09-08T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=11.990s
318   [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
319     ✓ Incremental update on 25 new
      points
320 [ 1883] 2020-09-09T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=11.935s
321   [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
322     ✓ Incremental update on 25 new
      points
323 [ 1907] 2020-09-10T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=12.420s
324   [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
325     ✓ Incremental update on 25 new
      points
326 [ 1931] 2020-09-11T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=12.715s
327   [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
328     ✓ Incremental update on 25 new
      points
329 [ 1955] 2020-09-12T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=13.679s
330   [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
331     ✓ Incremental update on 25 new
      points
```

```
332 [ 1979] 2020-09-13T00:00:00Z | Adapted  
    (reason=scheduled) | elapsed=10.278s  
333 [Progress] 2000/2000 hours completed  
334  
335 Live simulation completed: 2000 hours,  
    100 adaptations logged  
336 Saved: ../outputs/AT_online_updates.csv  
337 Saved: ../outputs/AT_rolling7d_metrics.  
    csv  
338  
339 =====  
=====  
340 Live Simulation Summary for AT  
341 =====  
=====  
342 Total updates logged: 100  
343 Strategy used: rolling_sarima  
344  
345 Adaptation reasons:  
346     scheduled: 83  
347     drift: 16  
348     initial: 1  
349  
350  
351 #####  
#####  
352 # Processing Country: CH  
353 #####  
#####  
354  
355 Loading historical data for CH...
```

```
356 Total: 24097 hours | Train: 19277 |
  Dev: 2409 | Test: 2411
357 Fitting initial SARIMA model on
  training data...
358
359 =====
  =====
360 Starting Live Simulation for CH
361 Strategy: rolling_sarima
362 =====
  =====
363
364 Simulating 2000 hours from index 21686
  to 23686
365
366 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
367     ✓ Full refit completed
368 [  0] 2020-06-22T13:00:00Z | Adapted
  (reason=initial) | elapsed=11.595s
369 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
370     ✓ Incremental update on 12 new
  points
371 [  11] 2020-06-23T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=5.858s
372 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
373     ✓ Incremental update on 25 new
  points
374 [  35] 2020-06-24T00:00:00Z | Adapted
```

```
374 (reason=scheduled) | elapsed=5.682s
375 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
376     ✓ Incremental update on 25 new
  points
377 [ 59] 2020-06-25T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=6.382s
378 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
379     ✓ Incremental update on 25 new
  points
380 [ 83] 2020-06-26T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=5.870s
381 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
382     ✓ Incremental update on 25 new
  points
383 [ 107] 2020-06-27T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=6.057s
384 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
385     ✓ Incremental update on 25 new
  points
386 [ 131] 2020-06-28T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=5.892s
387 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
388     ✓ Incremental update on 25 new
  points
389 [ 155] 2020-06-29T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=6.727s
```

```
390 [Metrics] MASE: 2.1080, PI Coverage:  
0.8810  
391 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
392     ✓ Incremental update on 25 new  
points  
393 [ 179] 2020-06-30T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=6.605s  
394 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
395     ✓ Incremental update on 25 new  
points  
396 [ 203] 2020-07-01T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=7.003s  
397 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
398     ✓ Incremental update on 25 new  
points  
399 [ 227] 2020-07-02T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=6.855s  
400 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
401     ✓ Incremental update on 25 new  
points  
402 [ 251] 2020-07-03T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=7.075s  
403 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
404     ✓ Incremental update on 25 new  
points  
405 [ 275] 2020-07-04T00:00:00Z | Adapted
```

```
405 (reason=scheduled) | elapsed=7.362s
406 [Refit] Adapting SARIMA on 2161 hours
        (window=90d)
407     ✓ Incremental update on 25 new
        points
408 [ 299] 2020-07-05T00:00:00Z | Adapted
        (reason=scheduled) | elapsed=6.420s
409 [Refit] Adapting SARIMA on 2161 hours
        (window=90d)
410     ✓ Incremental update on 25 new
        points
411 [ 323] 2020-07-06T00:00:00Z | Adapted
        (reason=scheduled) | elapsed=7.263s
412 [Metrics] MASE: 2.7449, PI Coverage:
        0.8155
413 [Refit] Adapting SARIMA on 2161 hours
        (window=90d)
414     ✓ Incremental update on 25 new
        points
415 [ 347] 2020-07-07T00:00:00Z | Adapted
        (reason=scheduled) | elapsed=6.884s
416 [Refit] Adapting SARIMA on 2161 hours
        (window=90d)
417     ✓ Incremental update on 25 new
        points
418 [ 371] 2020-07-08T00:00:00Z | Adapted
        (reason=scheduled) | elapsed=7.248s
419 [Refit] Adapting SARIMA on 2161 hours
        (window=90d)
420     ✓ Incremental update on 25 new
        points
```

```
421 [ 395] 2020-07-09T00:00:00Z | Adapted  
    (reason=scheduled) | elapsed=7.232s  
422 [Refit] Adapting SARIMA on 2161 hours  
    (window=90d)  
423     ✓ Incremental update on 25 new  
    points  
424 [ 419] 2020-07-10T00:00:00Z | Adapted  
    (reason=scheduled) | elapsed=6.280s  
425 [Refit] Adapting SARIMA on 2161 hours  
    (window=90d)  
426     ✓ Incremental update on 25 new  
    points  
427 [ 443] 2020-07-11T00:00:00Z | Adapted  
    (reason=scheduled) | elapsed=8.229s  
428 [Refit] Adapting SARIMA on 2161 hours  
    (window=90d)  
429     ✓ Incremental update on 25 new  
    points  
430 [ 467] 2020-07-12T00:00:00Z | Adapted  
    (reason=scheduled) | elapsed=6.803s  
431 [Refit] Adapting SARIMA on 2161 hours  
    (window=90d)  
432     ✓ Incremental update on 25 new  
    points  
433 [ 491] 2020-07-13T00:00:00Z | Adapted  
    (reason=scheduled) | elapsed=8.189s  
434 [Progress] 500/2000 hours completed  
435 [Metrics] MASE: 3.1386, PI Coverage:  
    0.8750  
436 [Refit] Adapting SARIMA on 2161 hours  
    (window=90d)
```

```
437      ✓ Incremental update on 25 new
points
438 [ 515] 2020-07-14T00:00:00Z | Adapted
(reason=scheduled) | elapsed=6.980s
439 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
440      ✓ Incremental update on 25 new
points
441 [ 539] 2020-07-15T00:00:00Z | Adapted
(reason=scheduled) | elapsed=7.968s
442 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
443      ✓ Incremental update on 25 new
points
444 [ 563] 2020-07-16T00:00:00Z | Adapted
(reason=scheduled) | elapsed=7.422s
445 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
446      ✓ Incremental update on 25 new
points
447 [ 587] 2020-07-17T00:00:00Z | Adapted
(reason=scheduled) | elapsed=8.457s
448 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
449      ✓ Incremental update on 25 new
points
450 [ 611] 2020-07-18T00:00:00Z | Adapted
(reason=scheduled) | elapsed=6.997s
451 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
452      ✓ Incremental update on 25 new
```

```
452 points
453 [ 635] 2020-07-19T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=8.717s
454   [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
455     ✓ Incremental update on 25 new
      points
456 [ 659] 2020-07-20T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=7.607s
457   [Metrics] MASE: 2.9869, PI Coverage:
      0.8810
458   [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
459     ✓ Incremental update on 25 new
      points
460 [ 683] 2020-07-21T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=8.264s
461   [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
462     ✓ Incremental update on 25 new
      points
463 [ 707] 2020-07-22T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=7.427s
464   [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
465     ✓ Incremental update on 25 new
      points
466 [ 731] 2020-07-23T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=7.705s
467   [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
```

```
468     ✓ Incremental update on 25 new
points
469 [ 755] 2020-07-24T00:00:00Z | Adapted
(reason=scheduled) | elapsed=7.630s
470 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
471     ✓ Incremental update on 25 new
points
472 [ 779] 2020-07-25T00:00:00Z | Adapted
(reason=scheduled) | elapsed=7.880s
473 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
474     ✓ Incremental update on 25 new
points
475 [ 803] 2020-07-26T00:00:00Z | Adapted
(reason=scheduled) | elapsed=8.928s
476 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
477     ✓ Incremental update on 25 new
points
478 [ 827] 2020-07-27T00:00:00Z | Adapted
(reason=scheduled) | elapsed=7.555s
479 [Metrics] MASE: 2.4381, PI Coverage:
0.9048
480 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
481     ✓ Incremental update on 25 new
points
482 [ 851] 2020-07-28T00:00:00Z | Adapted
(reason=scheduled) | elapsed=9.299s
483 [Refit] Adapting SARIMA on 2161 hours
```

```
483 (window=90d)
484     ✓ Incremental update on 25 new
points
485 [ 875] 2020-07-29T00:00:00Z | Adapted
(reason=scheduled) | elapsed=8.544s
486 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
487     ✓ Incremental update on 25 new
points
488 [ 899] 2020-07-30T00:00:00Z | Adapted
(reason=scheduled) | elapsed=9.211s
489 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
490     ✓ Incremental update on 25 new
points
491 [ 923] 2020-07-31T00:00:00Z | Adapted
(reason=scheduled) | elapsed=10.248s
492 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
493     ✓ Incremental update on 25 new
points
494 [ 947] 2020-08-01T00:00:00Z | Adapted
(reason=scheduled) | elapsed=9.620s
495 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
496     ✓ Incremental update on 25 new
points
497 [ 971] 2020-08-02T00:00:00Z | Adapted
(reason=scheduled) | elapsed=9.932s
498 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
```

```
499      ✓ Incremental update on 25 new
          points
500 [ 995] 2020-08-03T00:00:00Z | Adapted
          (reason=scheduled) | elapsed=9.986s
501 [Progress] 1000/2000 hours completed
502 [Metrics] MASE: 2.2405, PI Coverage:
          0.9048
503 [Refit] Adapting SARIMA on 2161 hours
          (window=90d)
504      ✓ Incremental update on 25 new
          points
505 [ 1019] 2020-08-04T00:00:00Z | Adapted
          (reason=scheduled) | elapsed=8.029s
506 [Refit] Adapting SARIMA on 2161 hours
          (window=90d)
507      ✓ Incremental update on 25 new
          points
508 [ 1043] 2020-08-05T00:00:00Z | Adapted
          (reason=scheduled) | elapsed=8.489s
509 [Refit] Adapting SARIMA on 2161 hours
          (window=90d)
510      ✓ Incremental update on 24 new
          points
511 [ 1066] 2020-08-05T23:00:00Z | Adapted
          (reason=drift) | elapsed=9.640s
512 [Refit] Adapting SARIMA on 2161 hours
          (window=90d)
513      ✓ Incremental update on 2 new
          points
514 [ 1067] 2020-08-06T00:00:00Z | Adapted
          (reason=scheduled) | elapsed=8.209s
```

```
515 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
516     ✓ Incremental update on 25 new  
points  
517 [ 1091] 2020-08-07T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=8.823s  
518 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
519     ✓ Incremental update on 25 new  
points  
520 [ 1115] 2020-08-08T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=9.931s  
521 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
522     ✓ Incremental update on 25 new  
points  
523 [ 1139] 2020-08-09T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=8.842s  
524 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
525     ✓ Incremental update on 25 new  
points  
526 [ 1163] 2020-08-10T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=9.009s  
527 [Metrics] MASE: 1.7332, PI Coverage:  
0.9524  
528 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
529     ✓ Incremental update on 25 new  
points  
530 [ 1187] 2020-08-11T00:00:00Z | Adapted
```

```
530 (reason=scheduled) | elapsed=9.076s
531 [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
532     ✓ Incremental update on 25 new
      points
533 [ 1211] 2020-08-12T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=8.223s
534 [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
535     ✓ Incremental update on 13 new
      points
536 [ 1223] 2020-08-12T12:00:00Z | Adapted
      (reason=drift) | elapsed=12.476s
537 [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
538     ✓ Incremental update on 2 new
      points
539 [ 1224] 2020-08-12T13:00:00Z | Adapted
      (reason=drift) | elapsed=10.637s
540 [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
541     ✓ Incremental update on 2 new
      points
542 [ 1225] 2020-08-12T14:00:00Z | Adapted
      (reason=drift) | elapsed=8.485s
543 [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
544     ✓ Incremental update on 2 new
      points
545 [ 1226] 2020-08-12T15:00:00Z | Adapted
      (reason=drift) | elapsed=9.462s
```

```
546 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
547     ✓ Incremental update on 2 new  
points  
548 [ 1227] 2020-08-12T16:00:00Z | Adapted  
(reason=drift) | elapsed=9.121s  
549 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
550     ✓ Incremental update on 2 new  
points  
551 [ 1228] 2020-08-12T17:00:00Z | Adapted  
(reason=drift) | elapsed=8.946s  
552 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
553     ✓ Incremental update on 2 new  
points  
554 [ 1229] 2020-08-12T18:00:00Z | Adapted  
(reason=drift) | elapsed=9.089s  
555 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
556     ✓ Incremental update on 2 new  
points  
557 [ 1230] 2020-08-12T19:00:00Z | Adapted  
(reason=drift) | elapsed=9.163s  
558 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
559     ✓ Incremental update on 2 new  
points  
560 [ 1231] 2020-08-12T20:00:00Z | Adapted  
(reason=drift) | elapsed=9.684s  
561 [Refit] Adapting SARIMA on 2161 hours
```

```
561 (window=90d)
562     ✓ Incremental update on 2 new
points
563 [ 1232] 2020-08-12T21:00:00Z | Adapted
(reason=drift) | elapsed=8.980s
564 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
565     ✓ Incremental update on 4 new
points
566 [ 1235] 2020-08-13T00:00:00Z | Adapted
(reason=scheduled) | elapsed=10.925s
567 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
568     ✓ Incremental update on 25 new
points
569 [ 1259] 2020-08-14T00:00:00Z | Adapted
(reason=scheduled) | elapsed=10.433s
570 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
571     ✓ Incremental update on 25 new
points
572 [ 1283] 2020-08-15T00:00:00Z | Adapted
(reason=scheduled) | elapsed=8.730s
573 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
574     ✓ Incremental update on 25 new
points
575 [ 1307] 2020-08-16T00:00:00Z | Adapted
(reason=scheduled) | elapsed=10.524s
576 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
```

```
577     ✓ Incremental update on 25 new
points
578 [ 1331] 2020-08-17T00:00:00Z | Adapted
(reason=scheduled) | elapsed=11.754s
579 [Metrics] MASE: 3.1629, PI Coverage:
0.8274
580 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
581     ✓ Incremental update on 25 new
points
582 [ 1355] 2020-08-18T00:00:00Z | Adapted
(reason=scheduled) | elapsed=9.411s
583 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
584     ✓ Incremental update on 25 new
points
585 [ 1379] 2020-08-19T00:00:00Z | Adapted
(reason=scheduled) | elapsed=11.687s
586 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
587     ✓ Incremental update on 25 new
points
588 [ 1403] 2020-08-20T00:00:00Z | Adapted
(reason=scheduled) | elapsed=12.522s
589 [Refit] Adapting SARIMA on 2161 hours
(window=90d)
590     ✓ Incremental update on 25 new
points
591 [ 1427] 2020-08-21T00:00:00Z | Adapted
(reason=scheduled) | elapsed=8.764s
592 [Refit] Adapting SARIMA on 2161 hours
```

```
592 (window=90d)
593     ✓ Incremental update on 25 new
      points
594 [ 1451] 2020-08-22T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=10.590s
595     [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
596     ✓ Incremental update on 25 new
      points
597 [ 1475] 2020-08-23T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=12.553s
598     [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
599     ✓ Incremental update on 25 new
      points
600 [ 1499] 2020-08-24T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=9.329s
601 [Progress] 1500/2000 hours completed
602     [Metrics] MASE: 2.1309, PI Coverage:
      0.7738
603     [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
604     ✓ Incremental update on 25 new
      points
605 [ 1523] 2020-08-25T00:00:00Z | Adapted
      (reason=scheduled) | elapsed=9.975s
606     [Refit] Adapting SARIMA on 2161 hours
      (window=90d)
607     ✓ Incremental update on 25 new
      points
608 [ 1547] 2020-08-26T00:00:00Z | Adapted
```

```
608 (reason=scheduled) | elapsed=11.836s
609 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
610     ✓ Incremental update on 25 new
  points
611 [ 1571] 2020-08-27T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=12.488s
612 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
613     ✓ Incremental update on 25 new
  points
614 [ 1595] 2020-08-28T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=10.040s
615 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
616     ✓ Incremental update on 25 new
  points
617 [ 1619] 2020-08-29T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=12.326s
618 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
619     ✓ Incremental update on 25 new
  points
620 [ 1643] 2020-08-30T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=15.909s
621 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
622     ✓ Incremental update on 25 new
  points
623 [ 1667] 2020-08-31T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=13.927s
```

```
624 [Metrics] MASE: 1.9766, PI Coverage:  
0.7440  
625 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
626 ✓ Incremental update on 25 new  
points  
627 [ 1691] 2020-09-01T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=8.992s  
628 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
629 ✓ Incremental update on 25 new  
points  
630 [ 1715] 2020-09-02T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=10.994s  
631 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
632 ✓ Incremental update on 25 new  
points  
633 [ 1739] 2020-09-03T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=12.551s  
634 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
635 ✓ Incremental update on 25 new  
points  
636 [ 1763] 2020-09-04T00:00:00Z | Adapted  
(reason=scheduled) | elapsed=11.268s  
637 [Refit] Adapting SARIMA on 2161 hours  
(window=90d)  
638 ✓ Incremental update on 25 new  
points  
639 [ 1787] 2020-09-05T00:00:00Z | Adapted
```

```
639 (reason=scheduled) | elapsed=13.003s
640 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
641     ✓ Incremental update on 25 new
  points
642 [ 1811] 2020-09-06T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=12.197s
643 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
644     ✓ Incremental update on 25 new
  points
645 [ 1835] 2020-09-07T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=10.344s
646 [Metrics] MASE: 1.9042, PI Coverage:
  0.9405
647 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
648     ✓ Incremental update on 25 new
  points
649 [ 1859] 2020-09-08T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=11.316s
650 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
651     ✓ Incremental update on 25 new
  points
652 [ 1883] 2020-09-09T00:00:00Z | Adapted
  (reason=scheduled) | elapsed=14.305s
653 [Refit] Adapting SARIMA on 2161 hours
  (window=90d)
654     ✓ Incremental update on 25 new
  points
```

```
655 [ 1907] 2020-09-10T00:00:00Z | Adapted  
      (reason=scheduled) | elapsed=15.952s  
656 [Refit] Adapting SARIMA on 2161 hours  
      (window=90d)  
657     ✓ Incremental update on 25 new  
          points  
658 [ 1931] 2020-09-11T00:00:00Z | Adapted  
      (reason=scheduled) | elapsed=12.435s  
659 [Refit] Adapting SARIMA on 2161 hours  
      (window=90d)  
660     ✓ Incremental update on 25 new  
          points  
661 [ 1955] 2020-09-12T00:00:00Z | Adapted  
      (reason=scheduled) | elapsed=14.512s  
662 [Refit] Adapting SARIMA on 2161 hours  
      (window=90d)  
663     ✓ Incremental update on 25 new  
          points  
664 [ 1979] 2020-09-13T00:00:00Z | Adapted  
      (reason=scheduled) | elapsed=12.084s  
665 [Progress] 2000/2000 hours completed  
666  
667 Live simulation completed: 2000 hours,  
      95 adaptations logged  
668 Saved: ../outputs/CH_online_updates.csv  
669 Saved: ../outputs/CH_rolling7d_metrics.  
      csv  
670  
671 =====  
      =====  
672 Live Simulation Summary for CH
```

```
673 =====
=====
674 Total updates logged: 95
675 Strategy used: rolling_sarima
676
677 Adaptation reasons:
678   scheduled: 83
679   drift: 11
680   initial: 1
681
682 Process finished with exit code 0
683
```