

Regression test

Test run started 2025-08-26T23:54:50Z  
Ashes version: 3.32.0

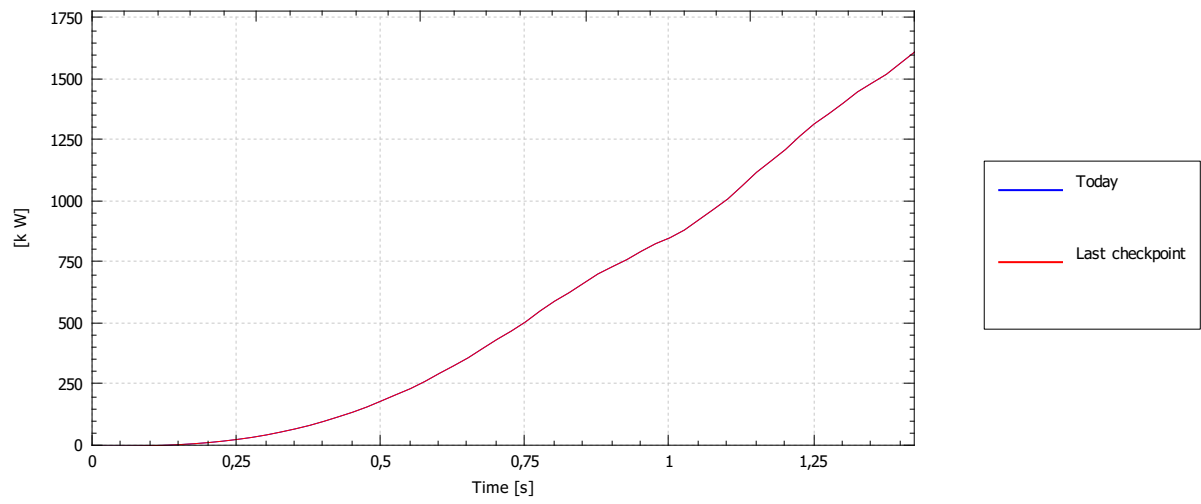
| Default Onshore     |                                            |             |      |
|---------------------|--------------------------------------------|-------------|------|
| Load case set 1     |                                            |             |      |
| Load case           | Time series                                | Error score |      |
| Uniform wind - 10ms | Power (aero)                               | 0.000000    | PASS |
|                     | Torque (aero)                              | 0.000000    | PASS |
|                     | Thrust (aero)                              | 0.000000    | PASS |
|                     | RPM                                        | 0.000000    | PASS |
|                     | TSR                                        | 0.000000    | PASS |
|                     | Representative demanded pitch angle        | 0.000000    | PASS |
|                     | Power coef. (CP)                           | 0.000000    | PASS |
|                     | Thrust coef. (CT)                          | 0.000000    | PASS |
|                     | Torque coef. (CQ)                          | 0.000000    | PASS |
|                     | Tip speed                                  | 0.000000    | PASS |
|                     | 1P (one revolution)                        | 0.000000    | PASS |
|                     | nP (blade passing)                         | 0.000000    | PASS |
|                     | Azimuth angle                              | 0.000000    | PASS |
|                     | Rotation per timestep                      | 0.000000    | PASS |
|                     | Wind speed at hub, magnitude               | 0.000000    | PASS |
|                     | Wind angle at hub                          | 0.000000    | PASS |
|                     | Yaw angle relative to forward              | 0.000000    | PASS |
|                     | Yaw angle to reference direction           | 0.000000    | PASS |
|                     | Yaw error                                  | 0.000000    | PASS |
|                     | Torque about yaw axis                      | 0.000000    | PASS |
|                     | Power (electrical)                         | 0.000000    | PASS |
|                     | Torque                                     | 0.000000    | PASS |
|                     | Torque on main shaft                       | 0.000000    | PASS |
|                     | Torque diff. on main shaft                 | 0.000000    | PASS |
|                     | RPM                                        | 0.000000    | PASS |
|                     | Filtered RPM                               | 0.000000    | PASS |
|                     | Electricity production                     | 0.000000    | PASS |
|                     | Region                                     | 0.000000    | PASS |
|                     | Demanded collective pitch angle            | 0.000000    | PASS |
|                     | Cumulative demanded collective pitch angle | 0.000000    | PASS |
|                     | Demanded collective pitch angle rate       | 0.000000    | PASS |
|                     | Set point                                  | 0.000000    | PASS |
|                     | RPM error                                  | 0.000000    | PASS |

|  |                                    |          |      |
|--|------------------------------------|----------|------|
|  | P term                             | 0.000000 | PASS |
|  | I term                             | 0.000000 | PASS |
|  | D term                             | 0.000000 | PASS |
|  | Gain scheduling factor             | 0.000000 | PASS |
|  | Root force (magnitude)             | 0.000000 | PASS |
|  | Root moment (magnitude)            | 0.000000 | PASS |
|  | Root moment (out-of-plane)         | 0.000000 | PASS |
|  | Root moment (in-plane)             | 0.000000 | PASS |
|  | Root moment about shaft            | 0.000000 | PASS |
|  | Pitch angle                        | 0.000000 | PASS |
|  | Tip deflection (out-of-plane)      | 0.000000 | PASS |
|  | Tip deflection (in-plane)          | 0.000000 | PASS |
|  | Root torque                        | 0.000000 | PASS |
|  | Position (x)                       | 0.000000 | PASS |
|  | Position (y)                       | 0.000000 | PASS |
|  | Position (z)                       | 0.000000 | PASS |
|  | Displacement (u)                   | 0.000000 | PASS |
|  | Displacement (v)                   | 0.000000 | PASS |
|  | Displacement (w)                   | 0.000000 | PASS |
|  | Displacement magnitude             | 0.000000 | PASS |
|  | Speed                              | 0.000000 | PASS |
|  | Acceleration, magnitude            | 0.000000 | PASS |
|  | Rotational displacement (ru)       | 0.000000 | PASS |
|  | Rotational displacement (rv)       | 0.000000 | PASS |
|  | Rotational displacement (rw)       | 0.000000 | PASS |
|  | Rotational displacement magnitude  | 0.000000 | PASS |
|  | Rotational speed                   | 0.000000 | PASS |
|  | Rotational acceleration mag        | 0.000000 | PASS |
|  | Displacement period                | 0.000000 | PASS |
|  | Displacement logarithmic decrement | 0.000000 | PASS |
|  | Displacement damping ratio         | 0.000000 | PASS |

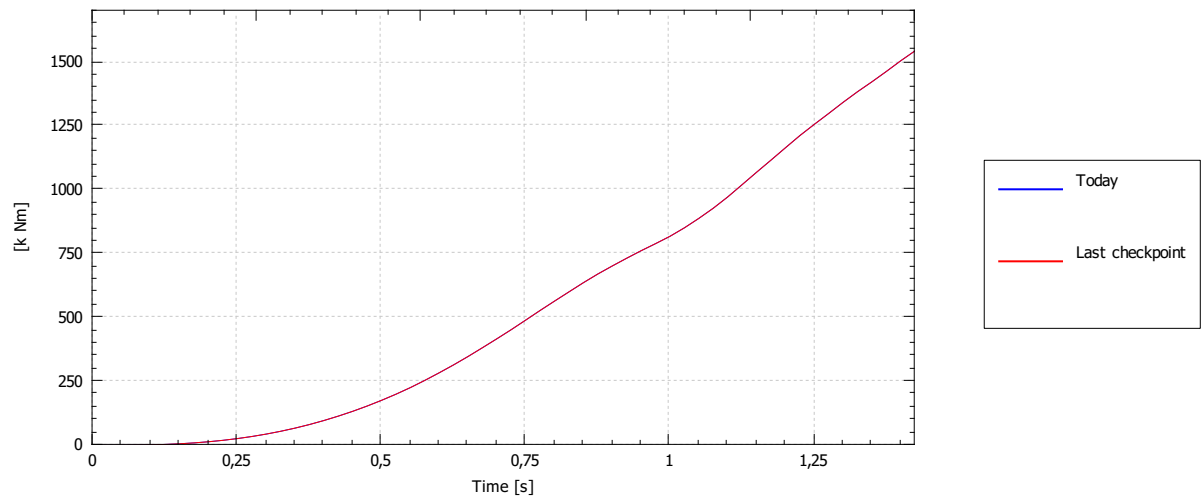
**Load case: Uniform wind - 10ms**

**Rotor**

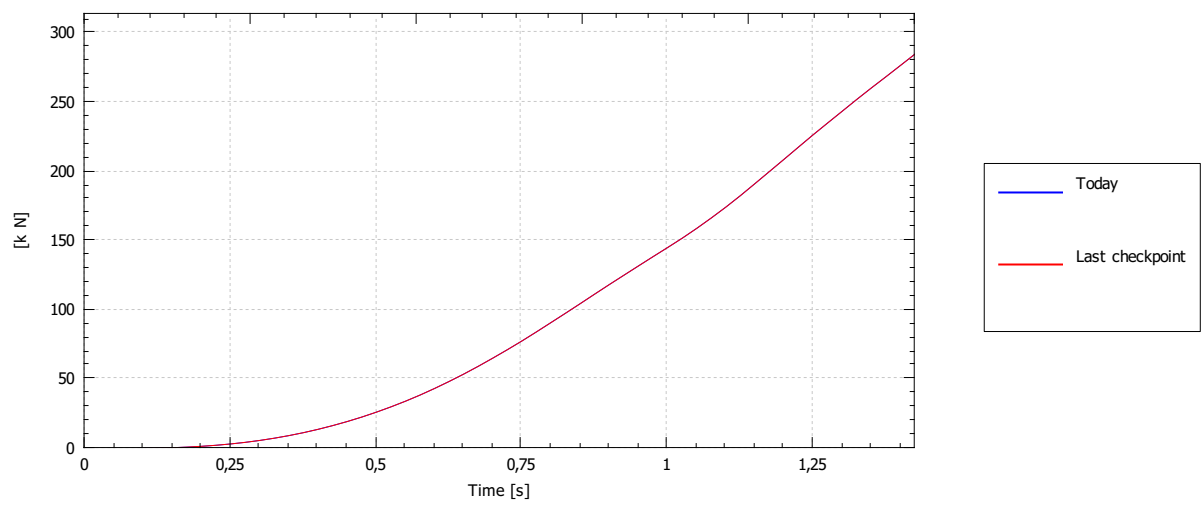
Power (aero)

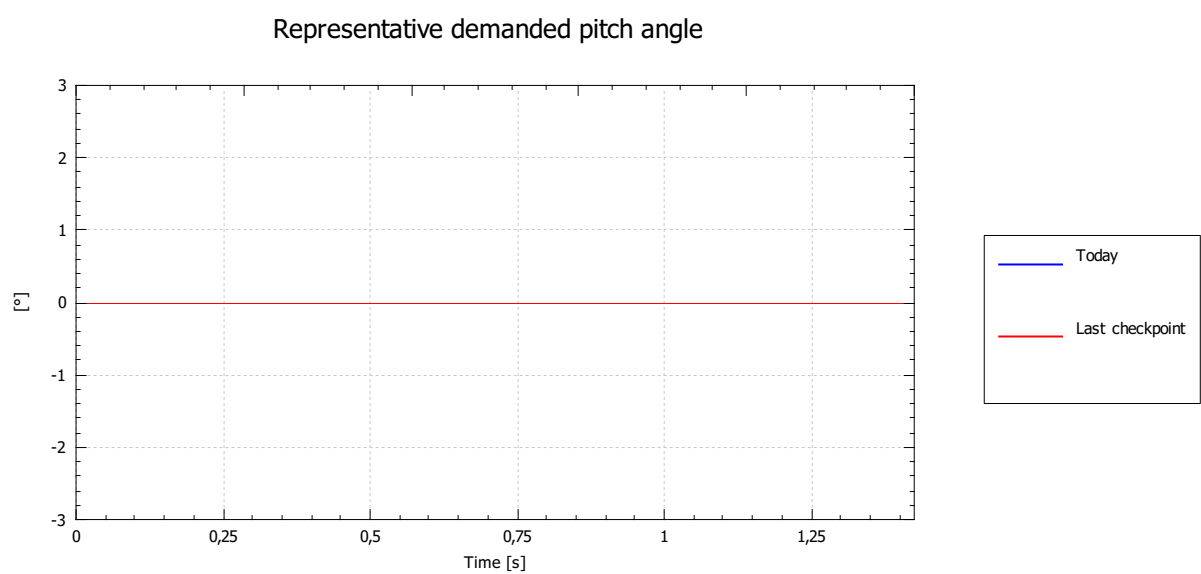
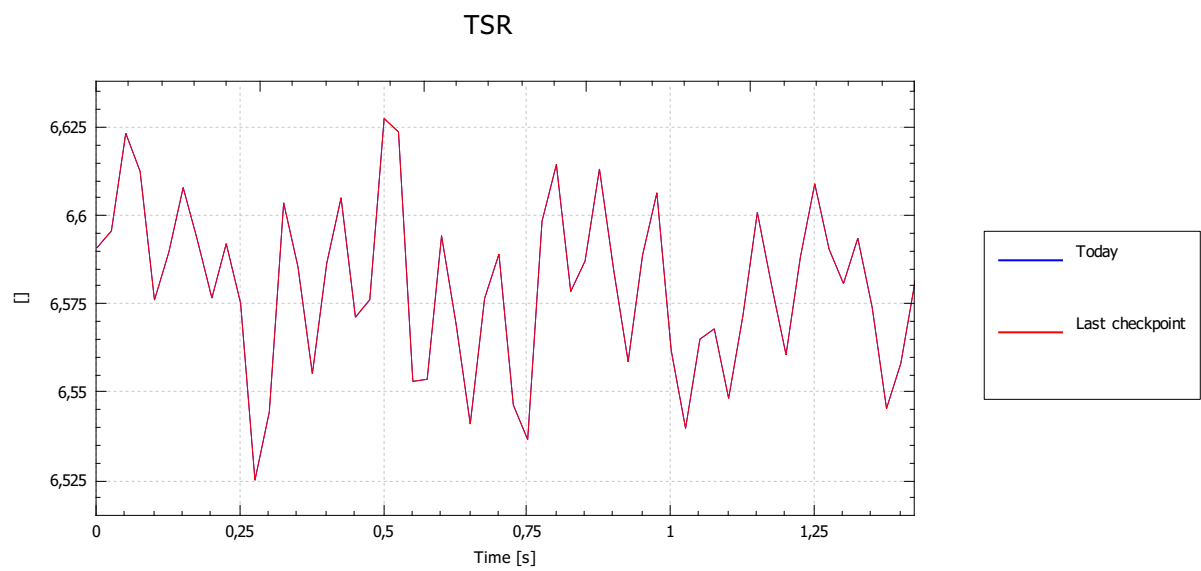
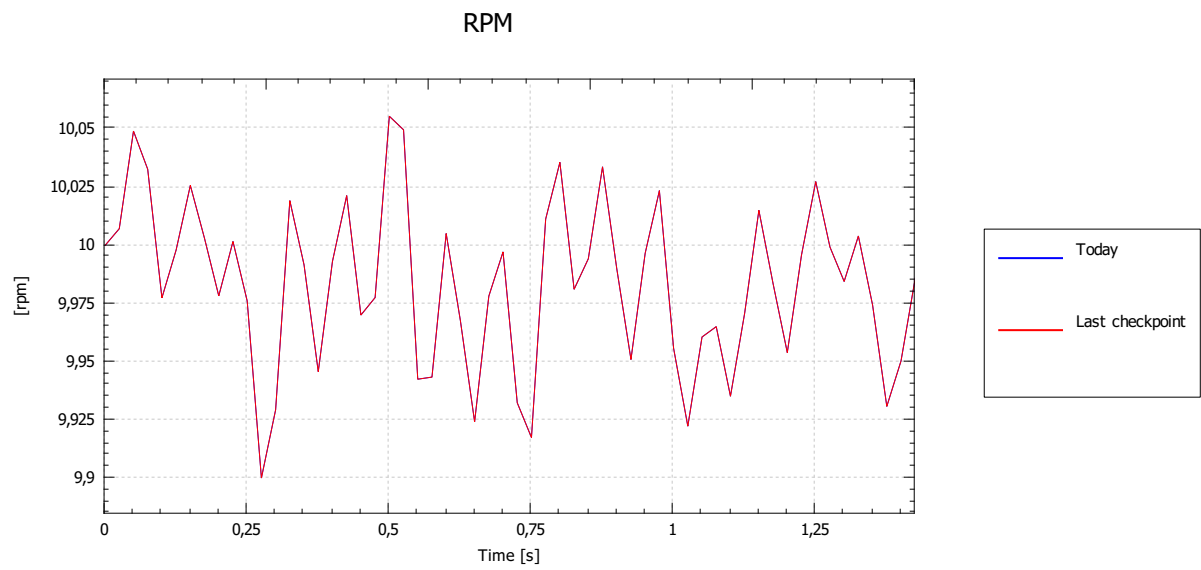


Torque (aero)

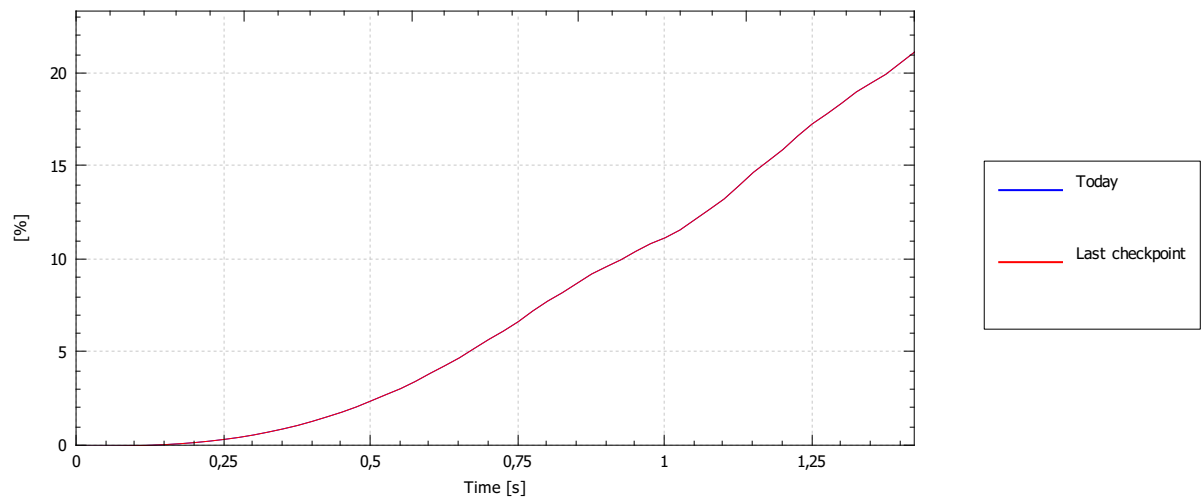


Thrust (aero)

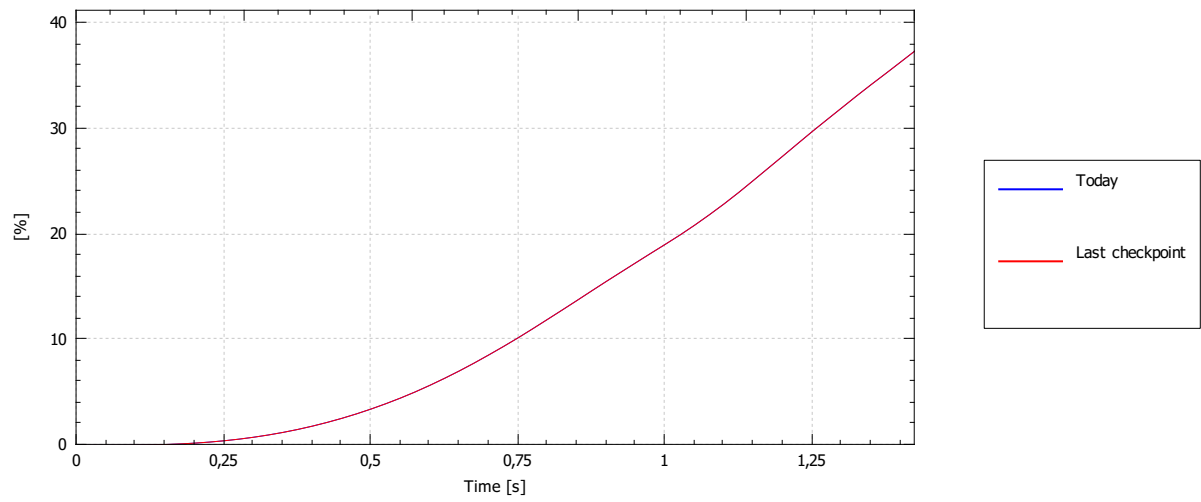




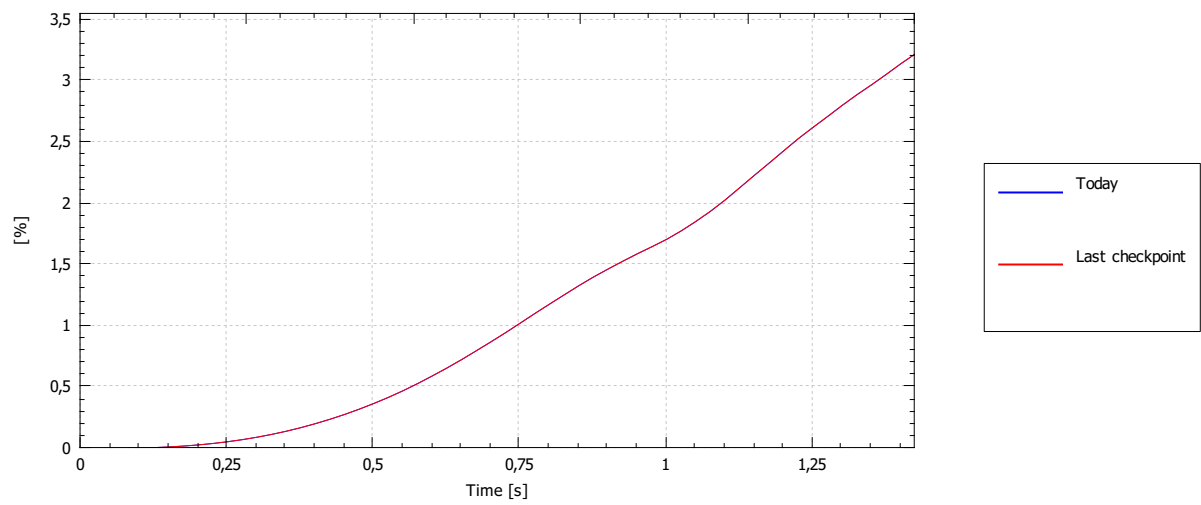
Power coef. (CP)



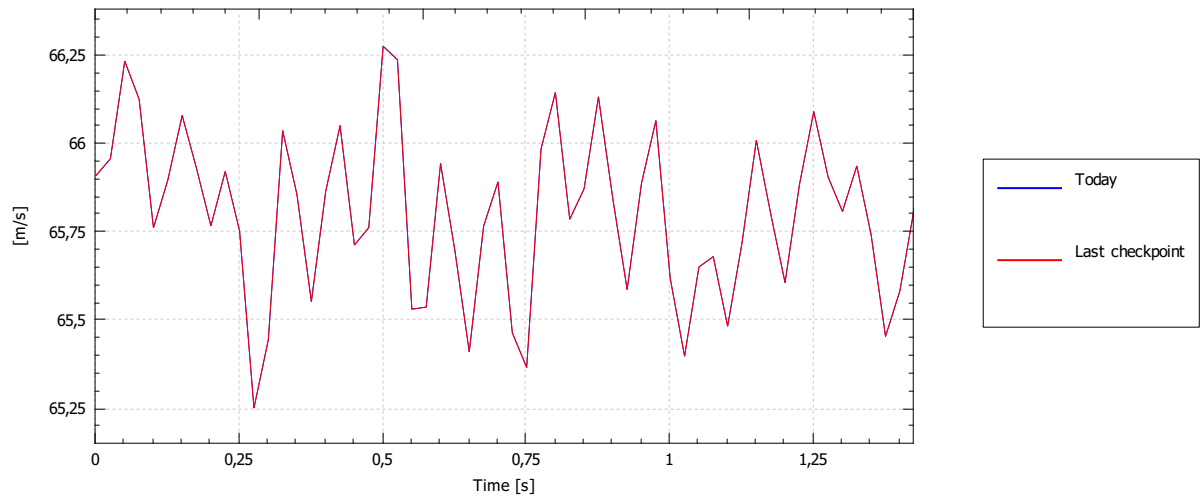
Thrust coef. (CT)



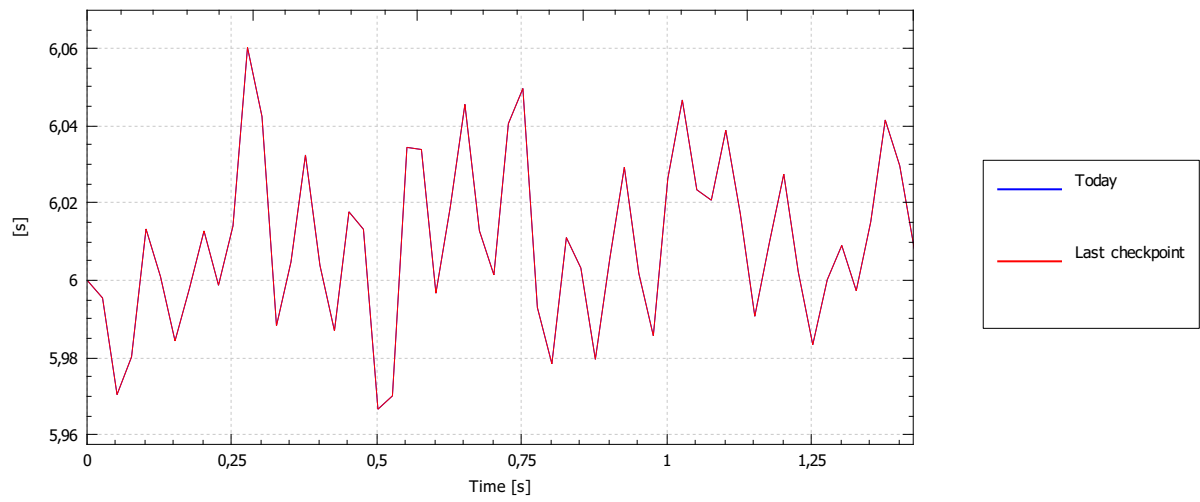
Torque coef. (CQ)



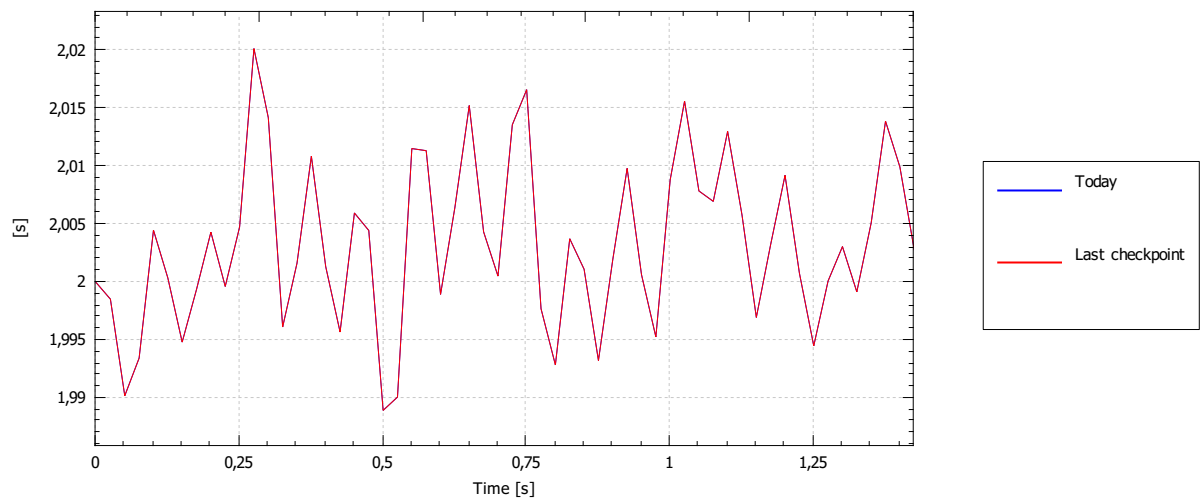
### Tip speed



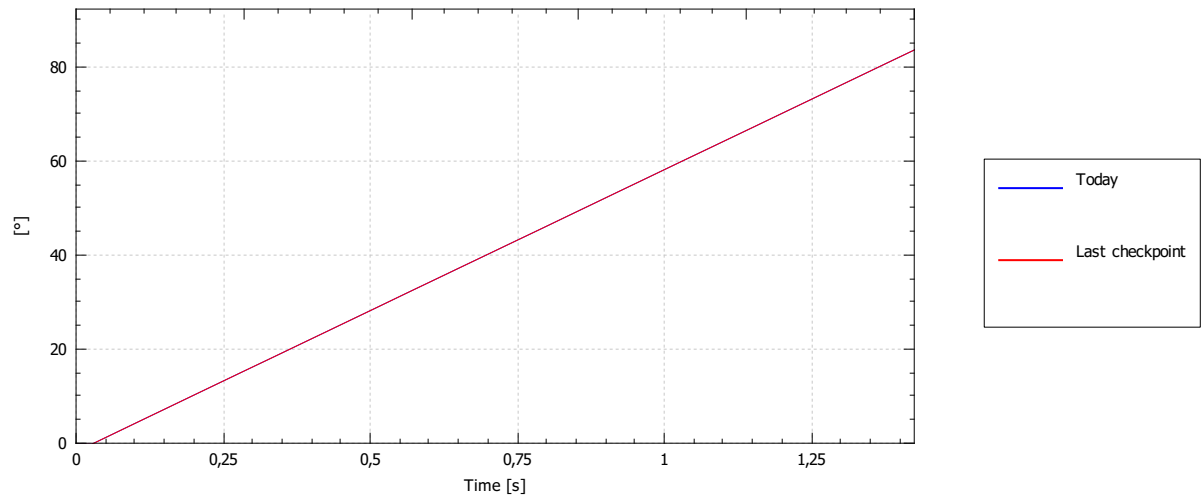
### 1P (one revolution)



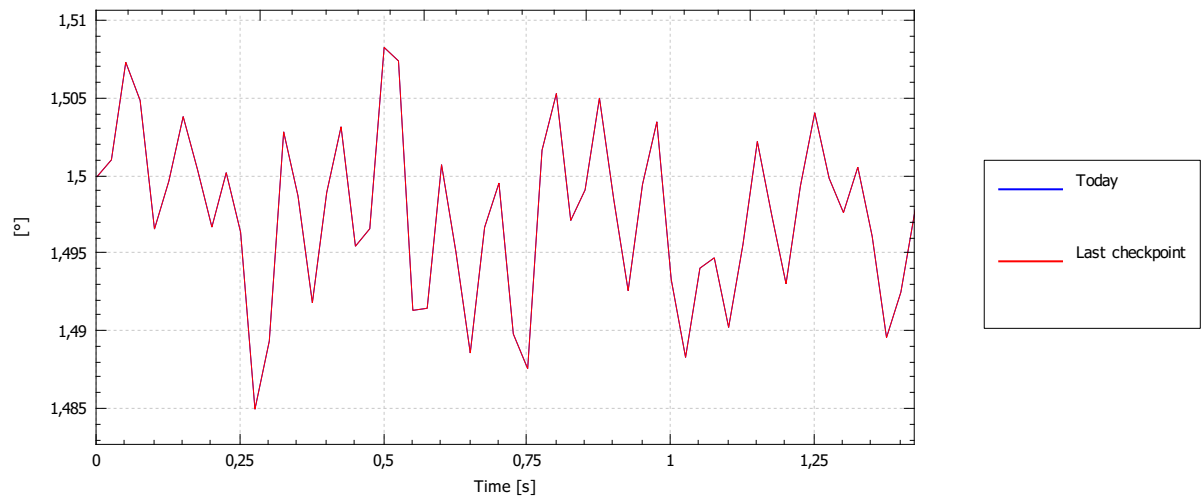
### nP (blade passing)



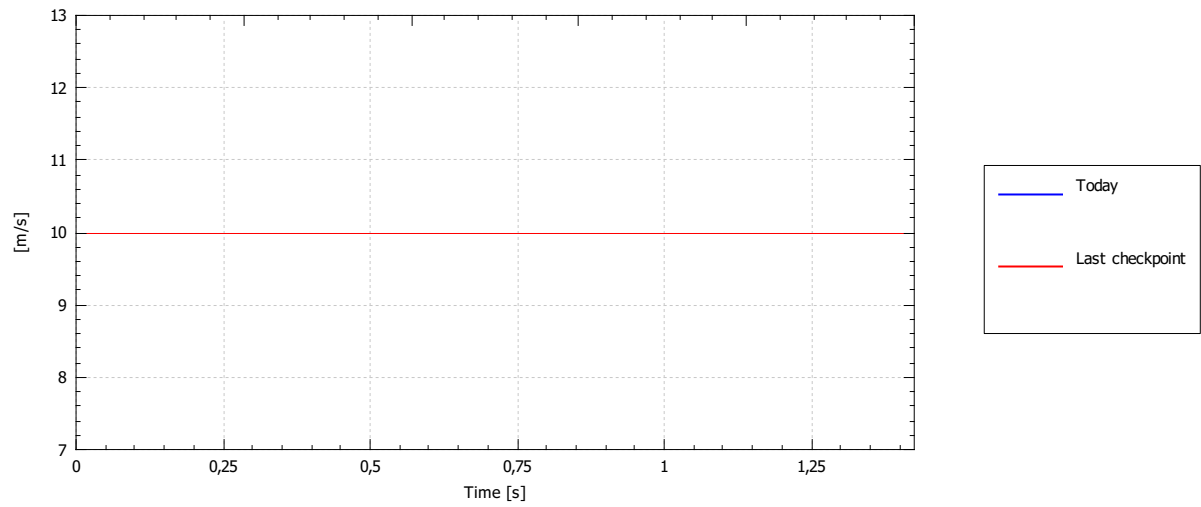
Azimuth angle



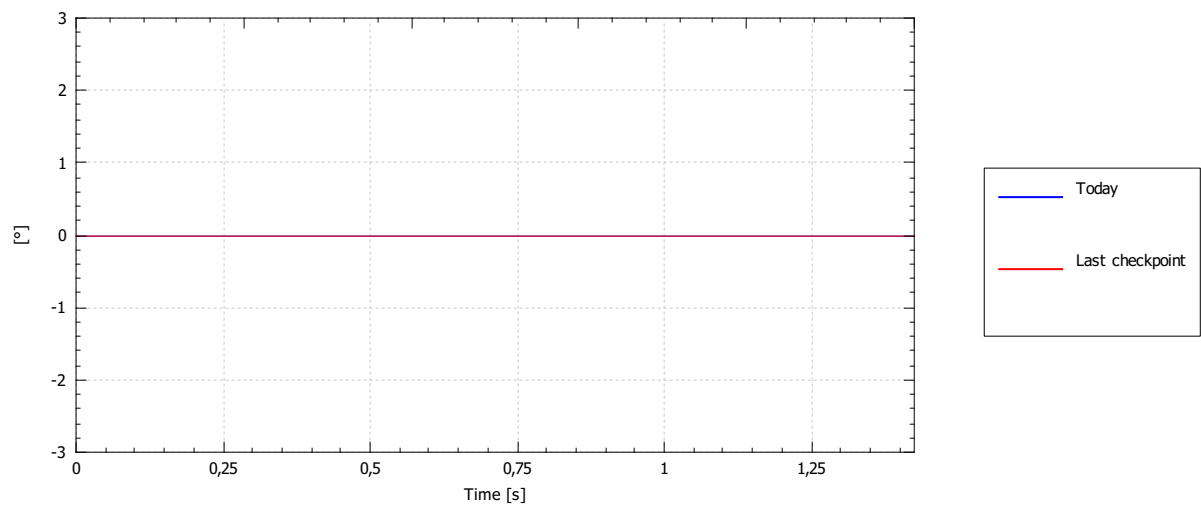
Rotation per timestep



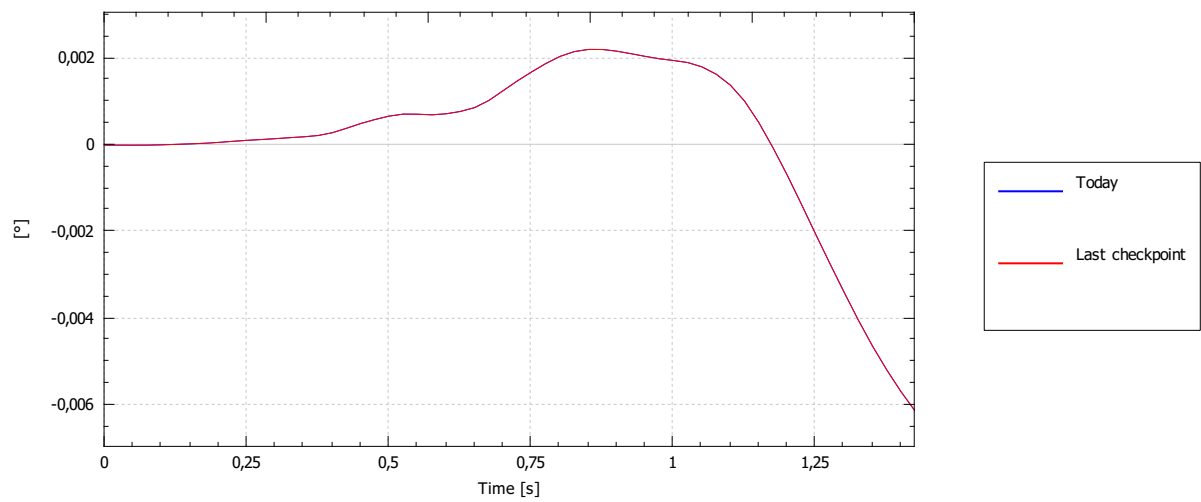
Wind speed at hub, magnitude



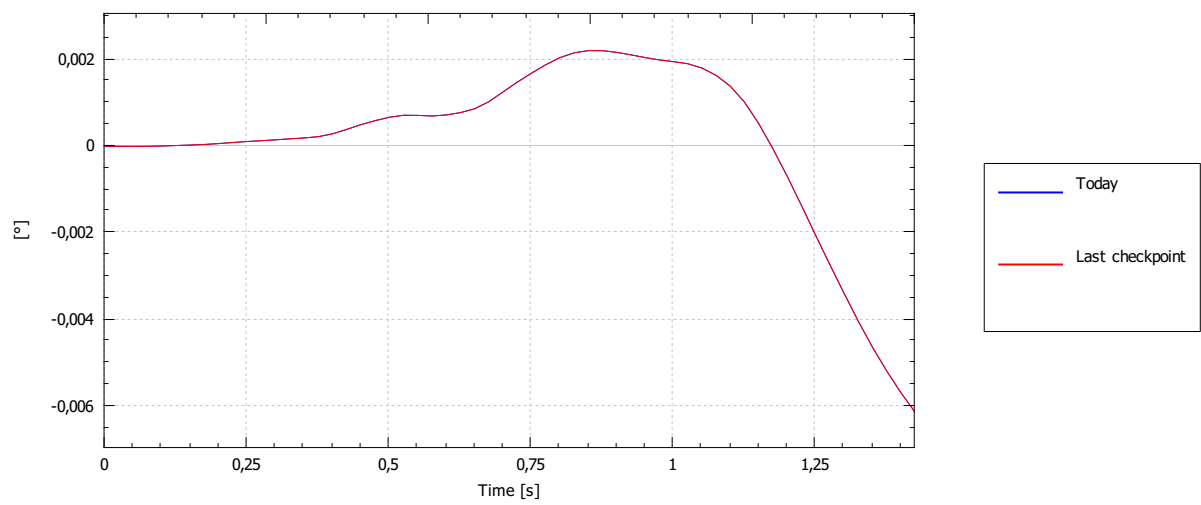
Wind angle at hub



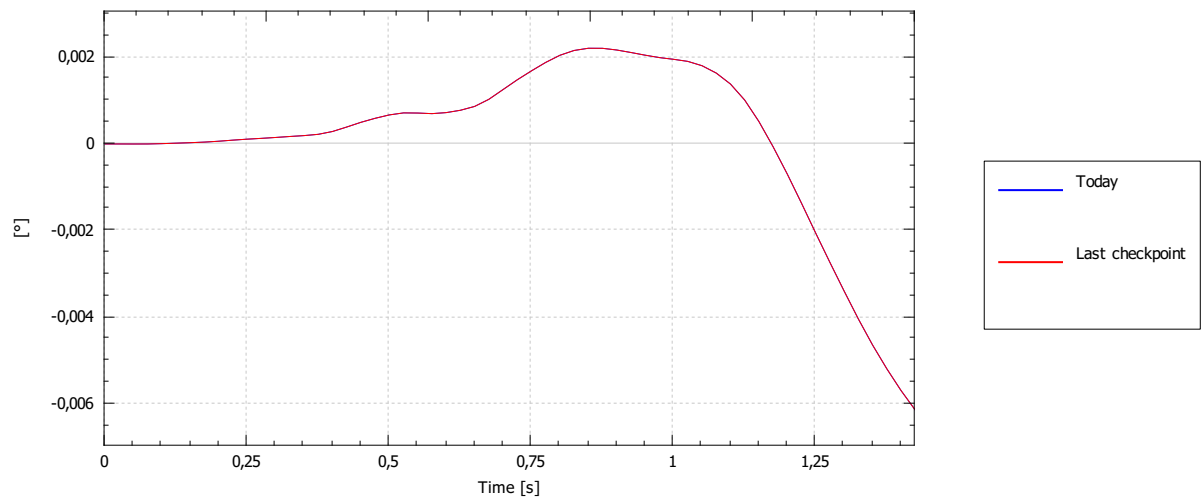
Yaw angle relative to forward



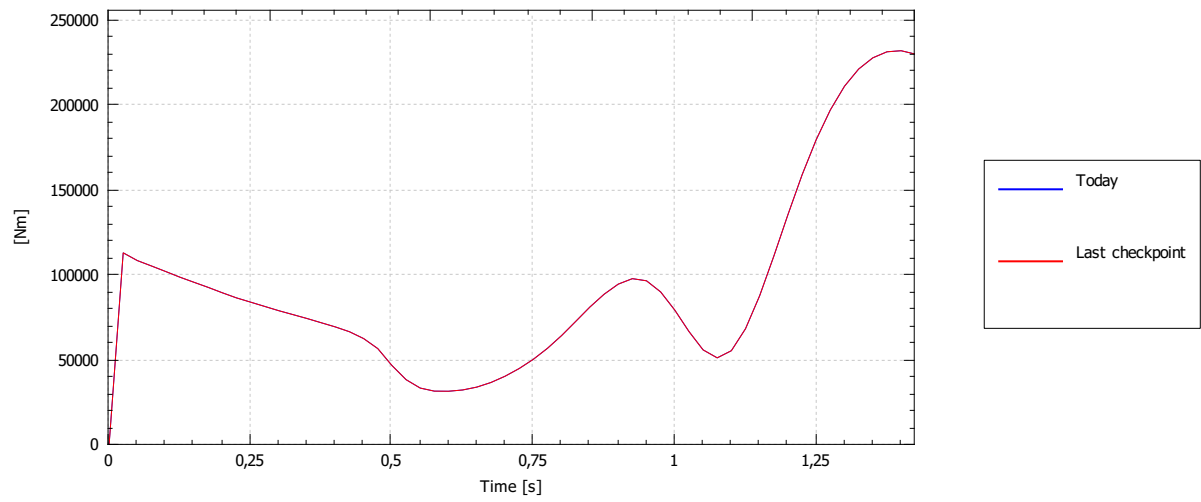
Yaw angle to reference direction



Yaw error

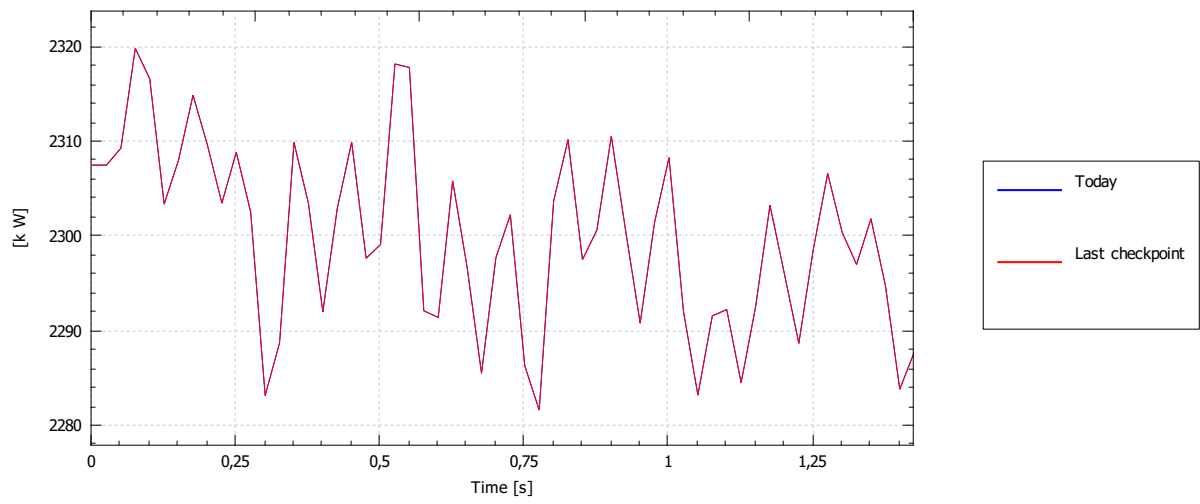


Torque about yaw axis

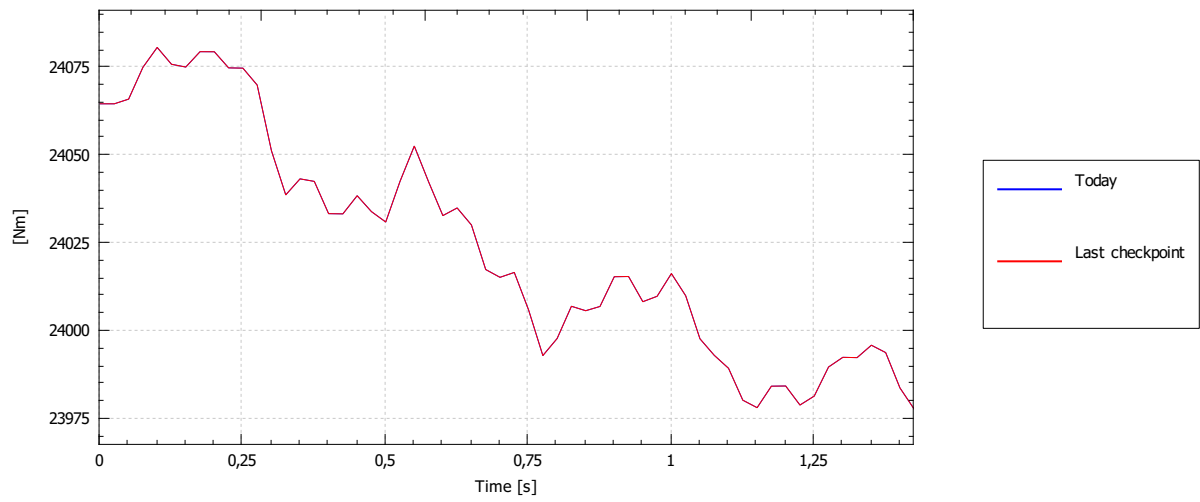


## Generator

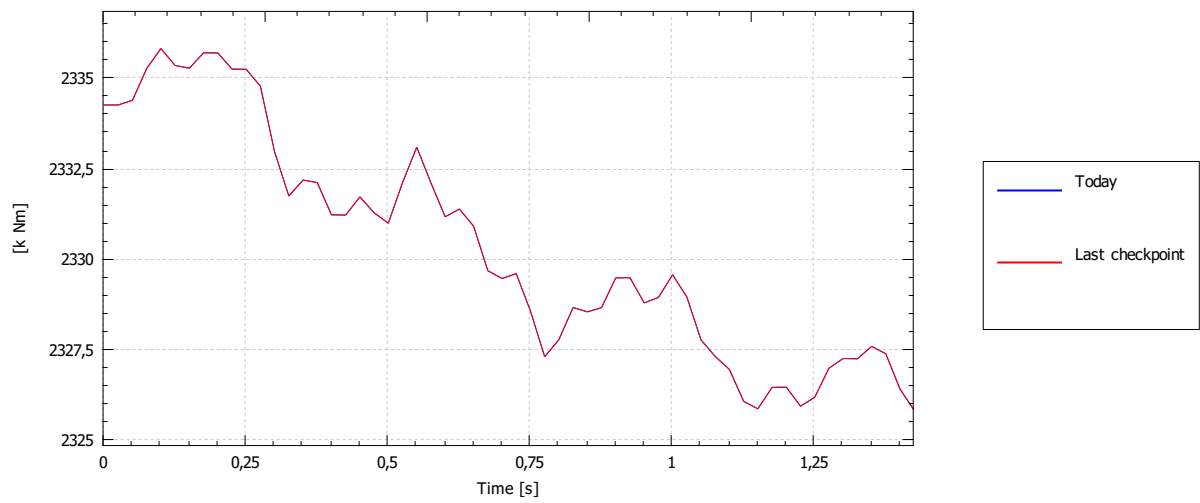
Power (electrical)



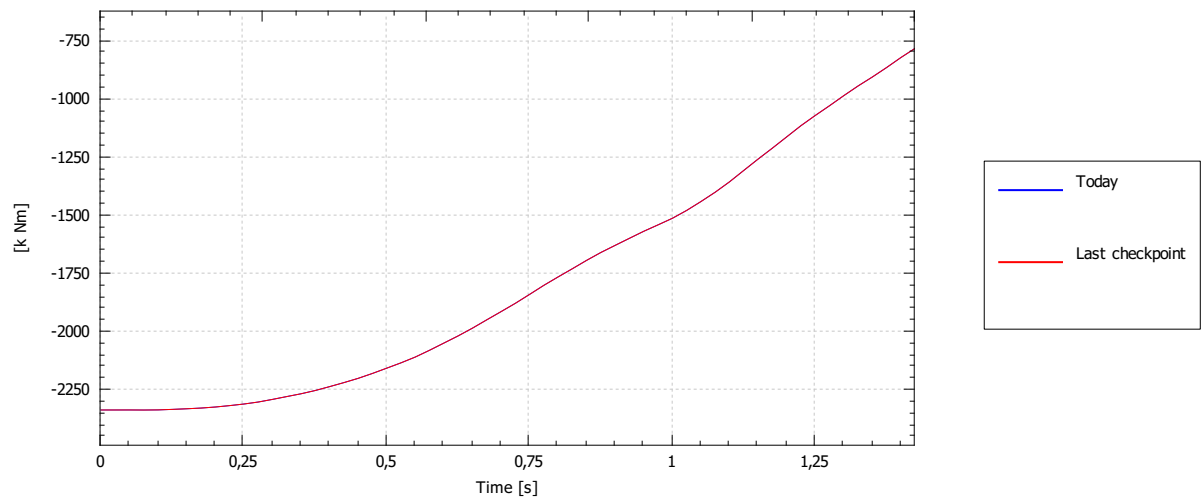
Torque



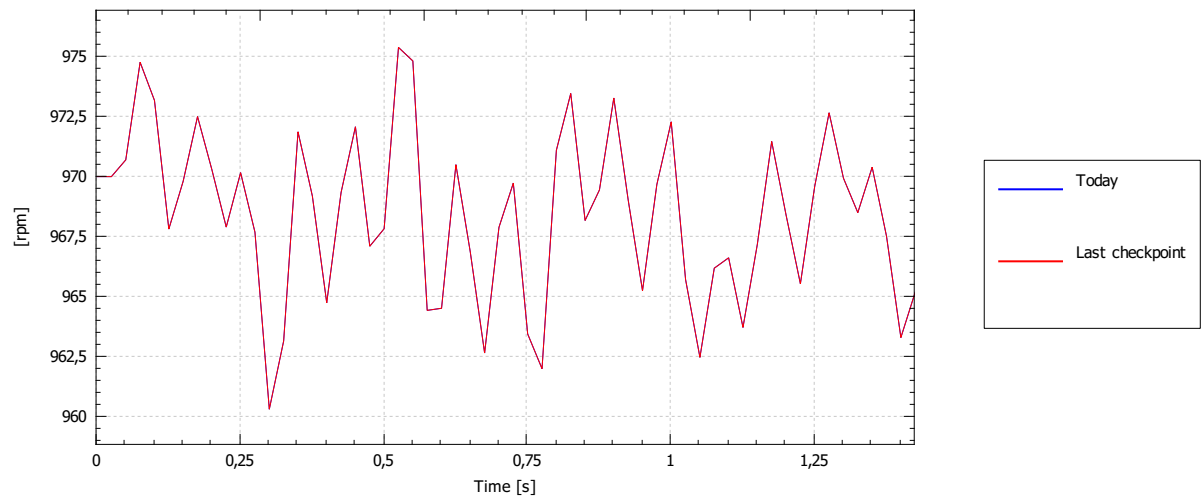
Torque on main shaft



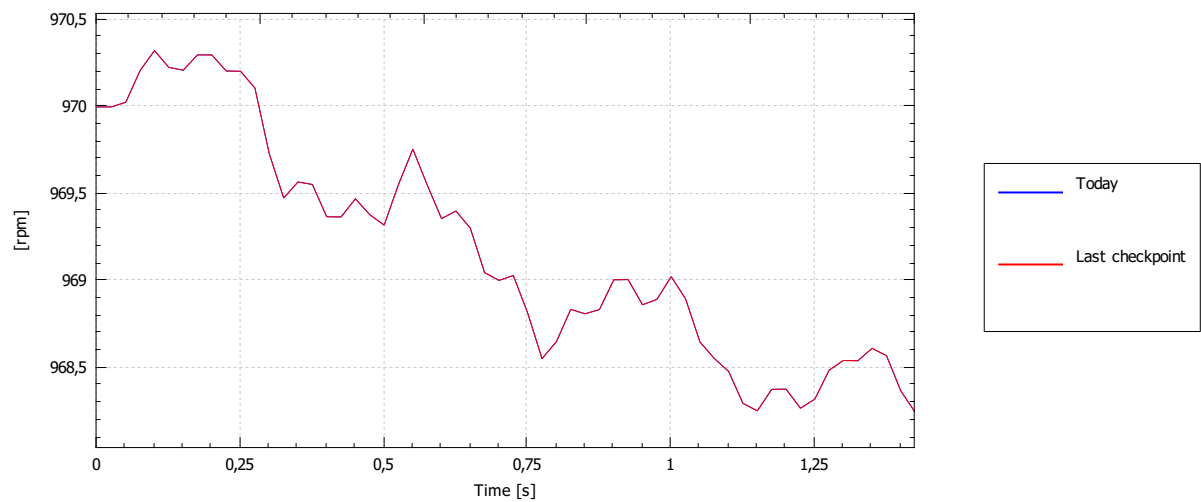
Torque diff. on main shaft



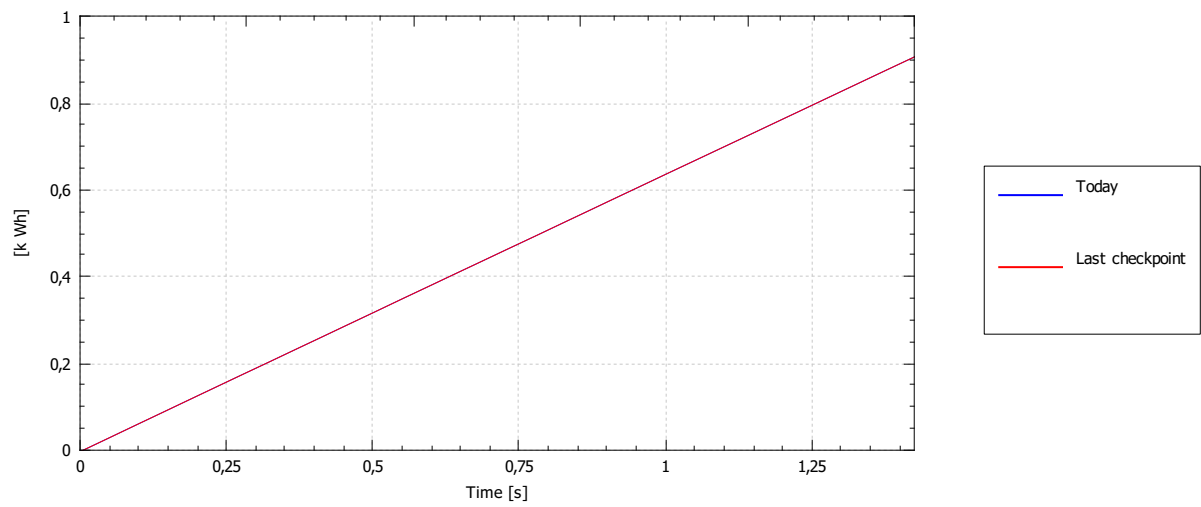
RPM



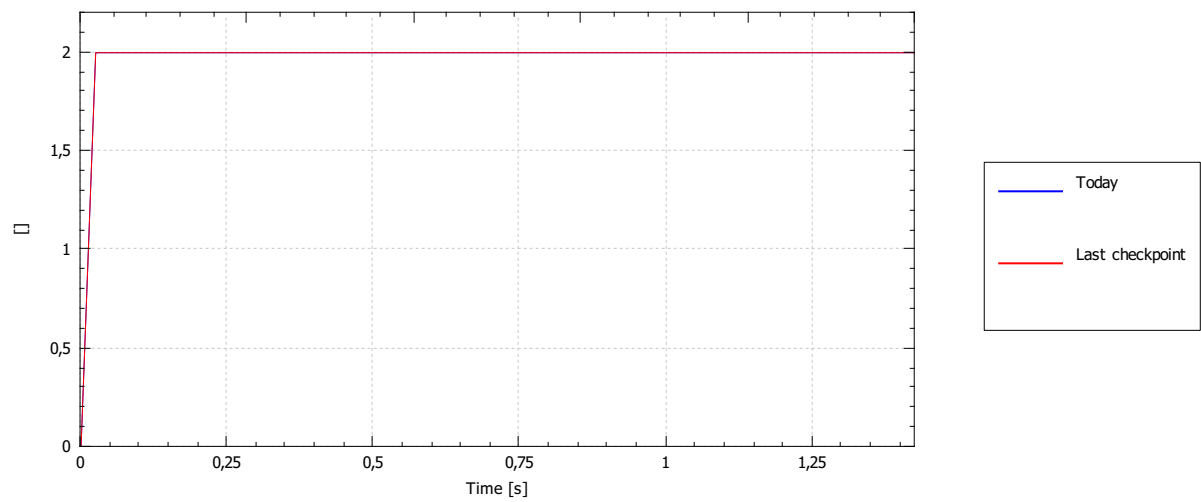
Filtered RPM



### Electricity production

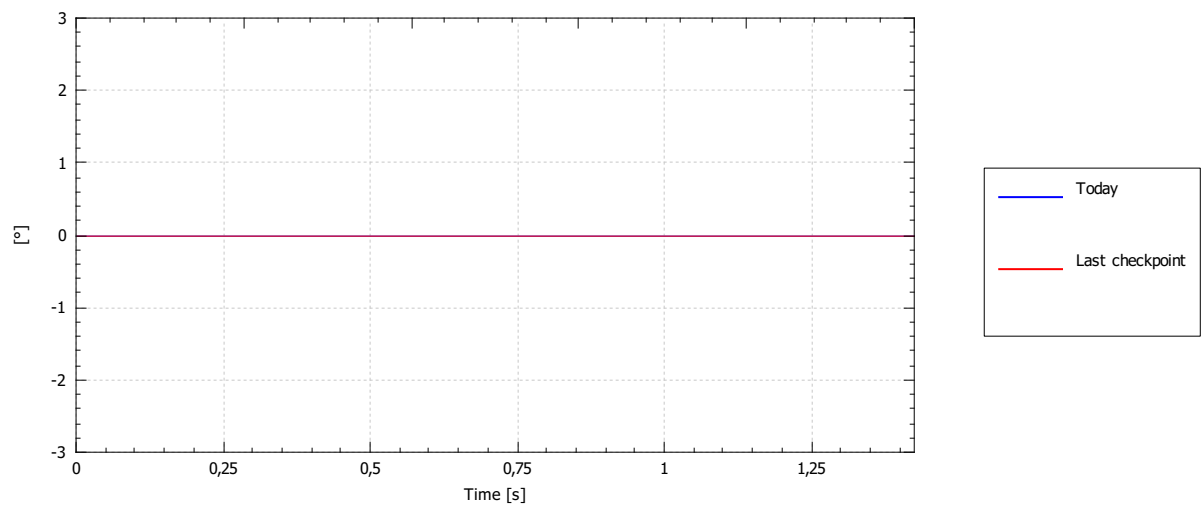


### Region

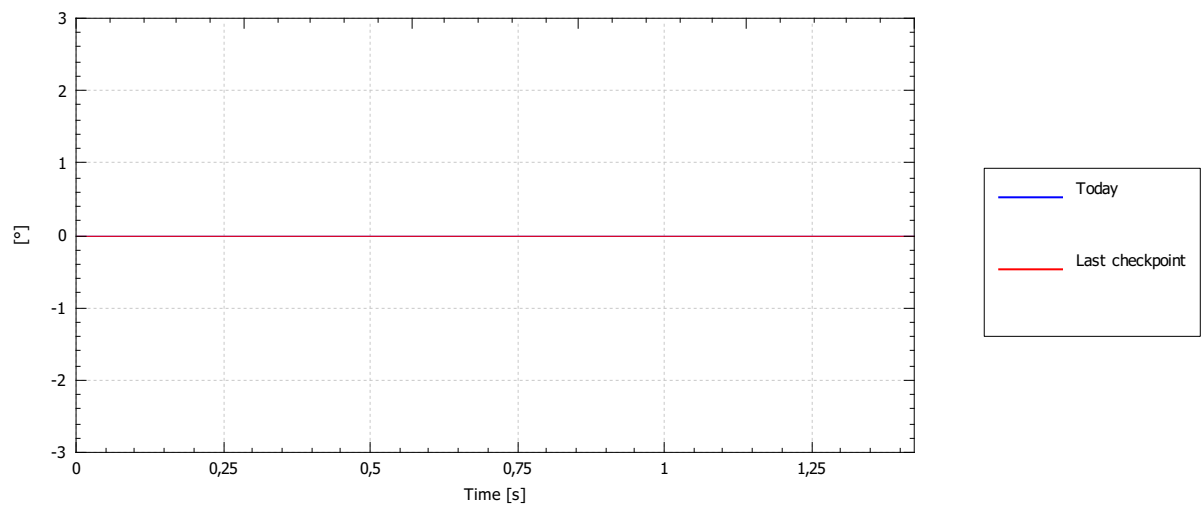


### Demanded pitch controller

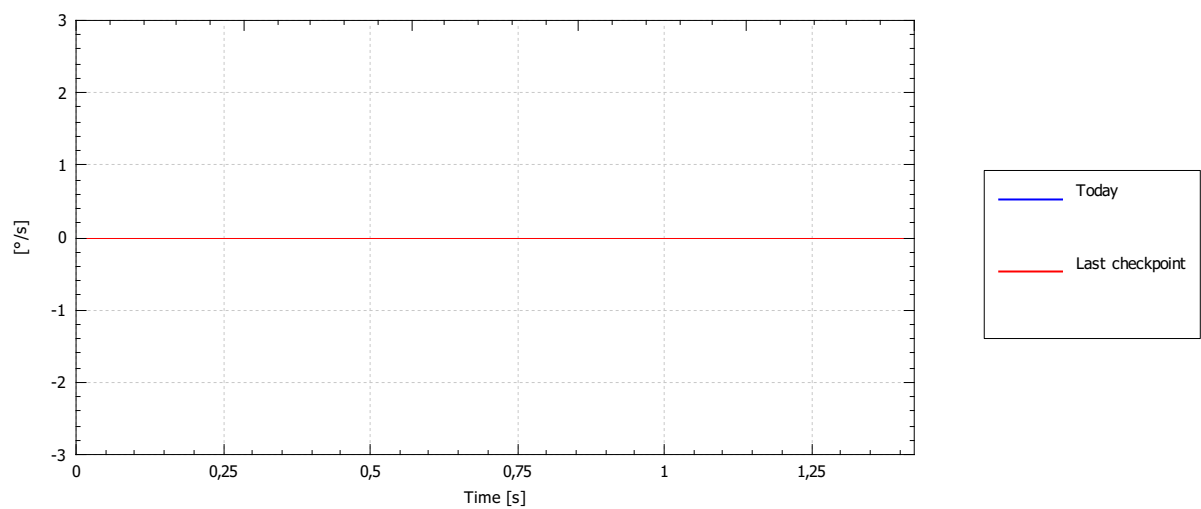
Demanded collective pitch angle



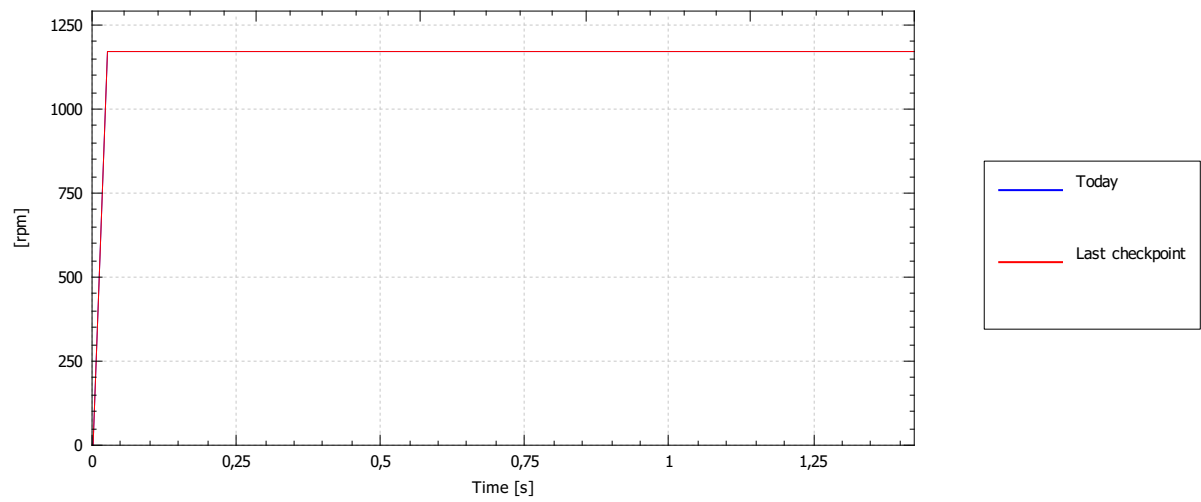
Cumulative demanded collective pitch angle



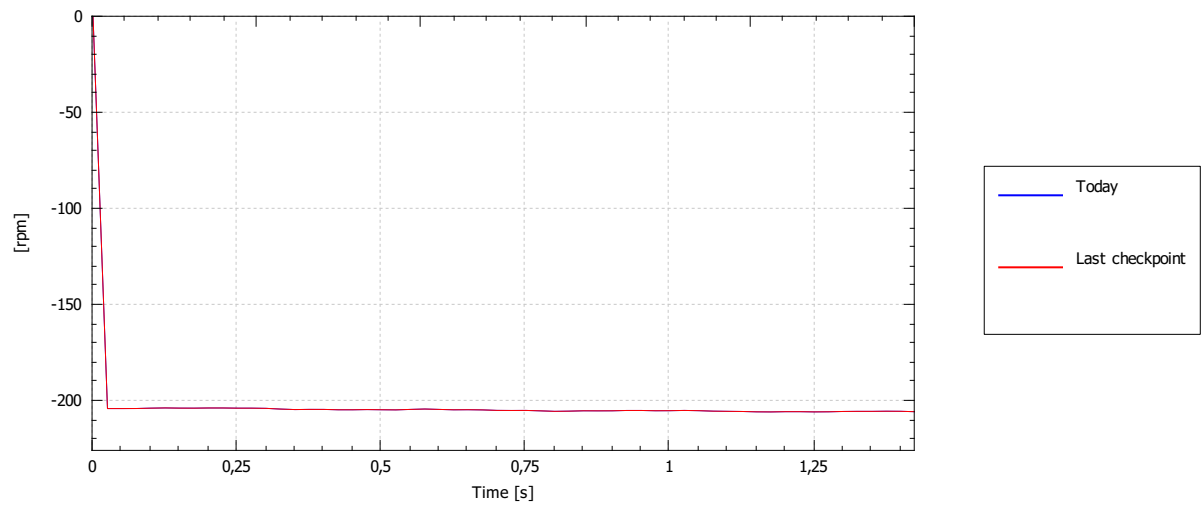
Demanded collective pitch angle rate



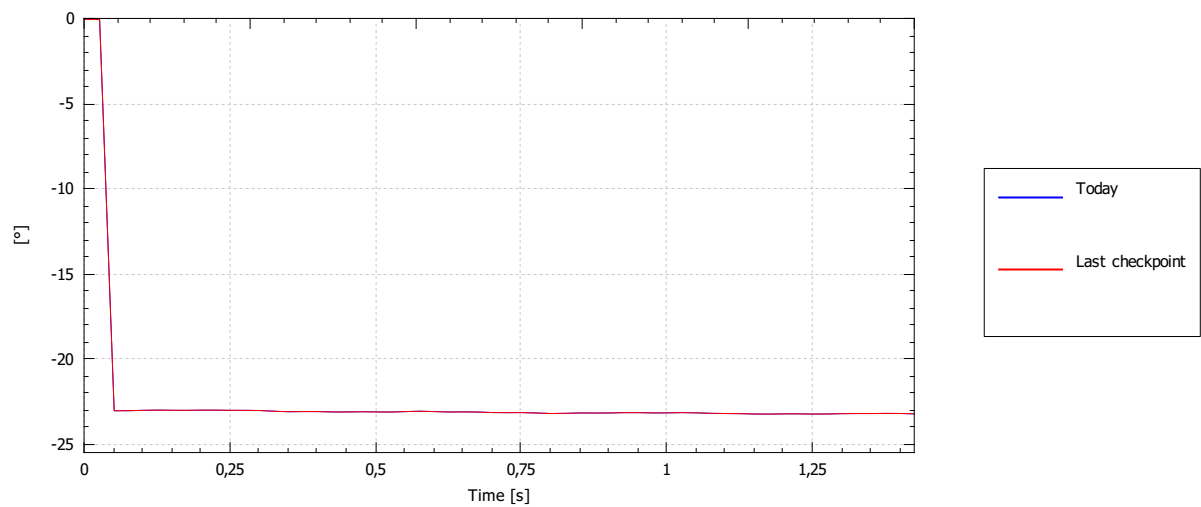
Set point



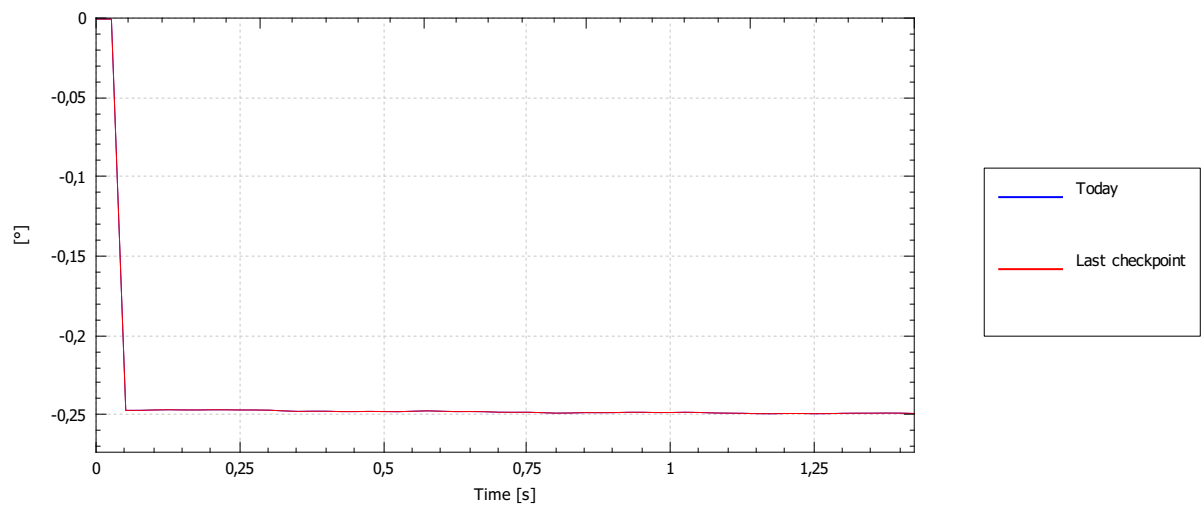
RPM error



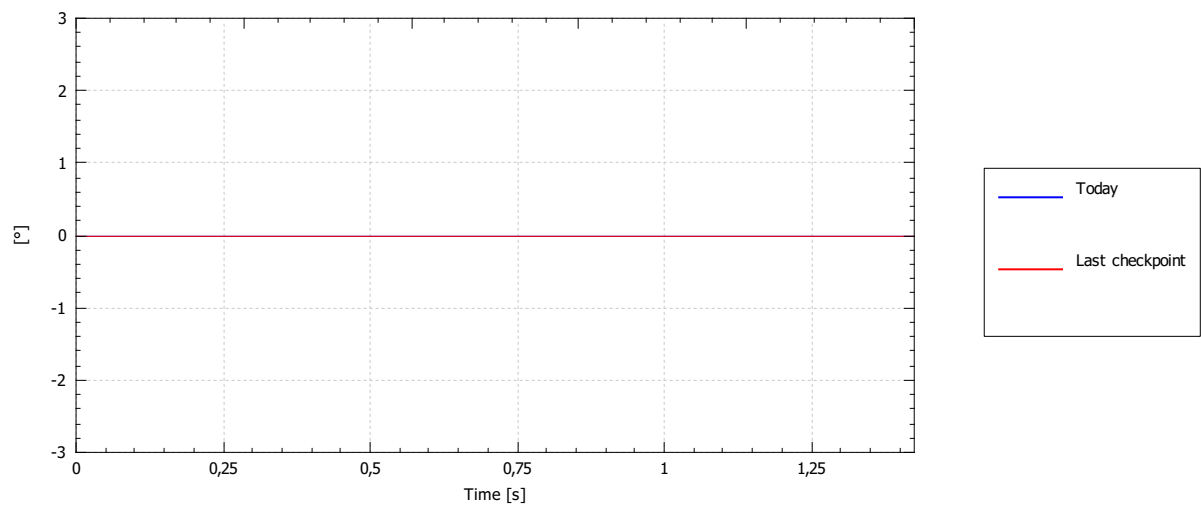
P term



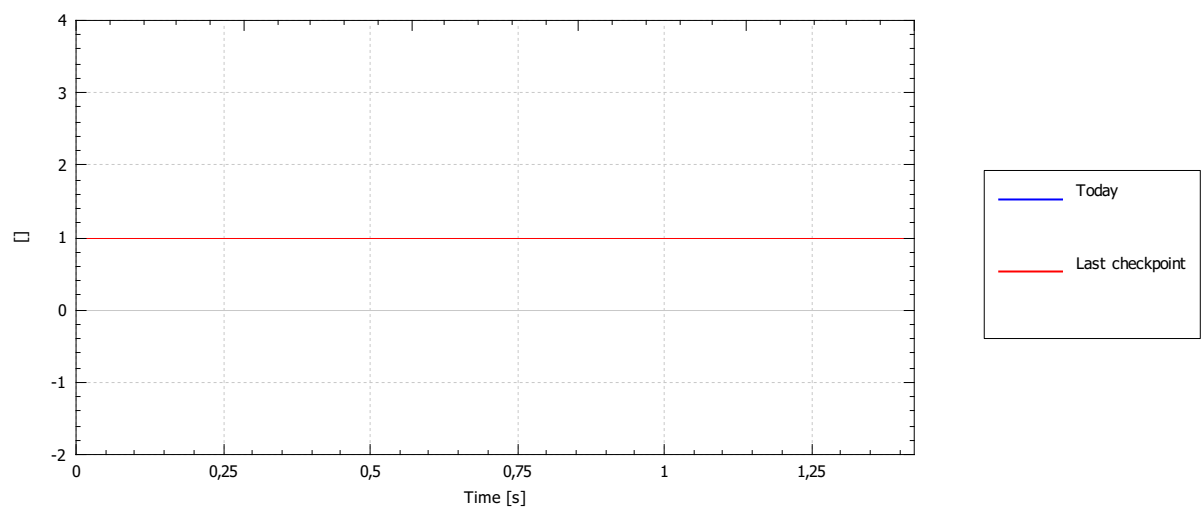
I term

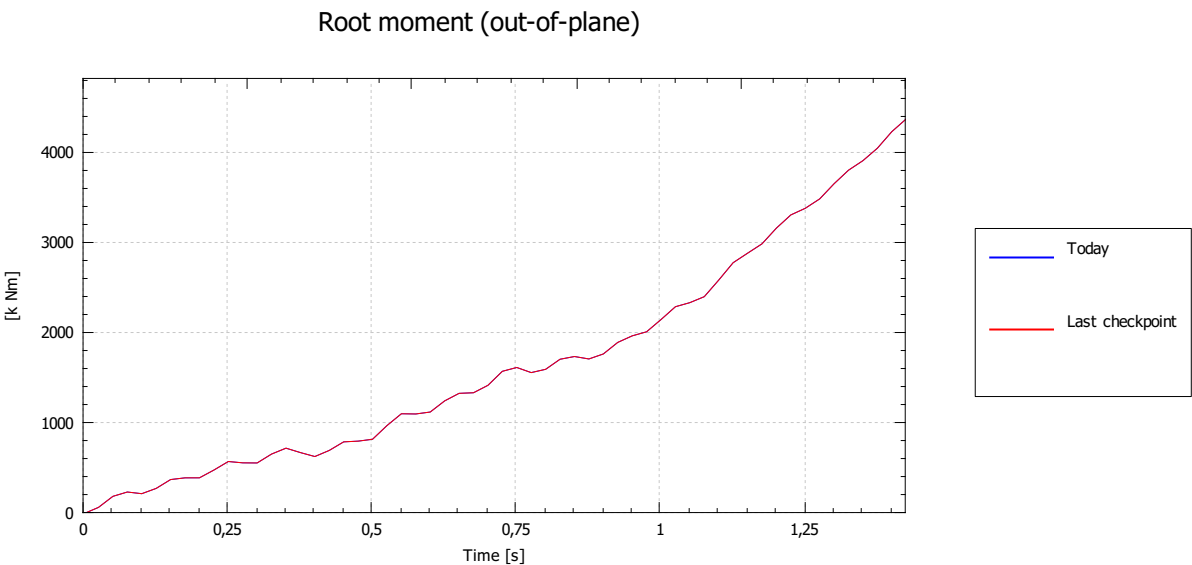
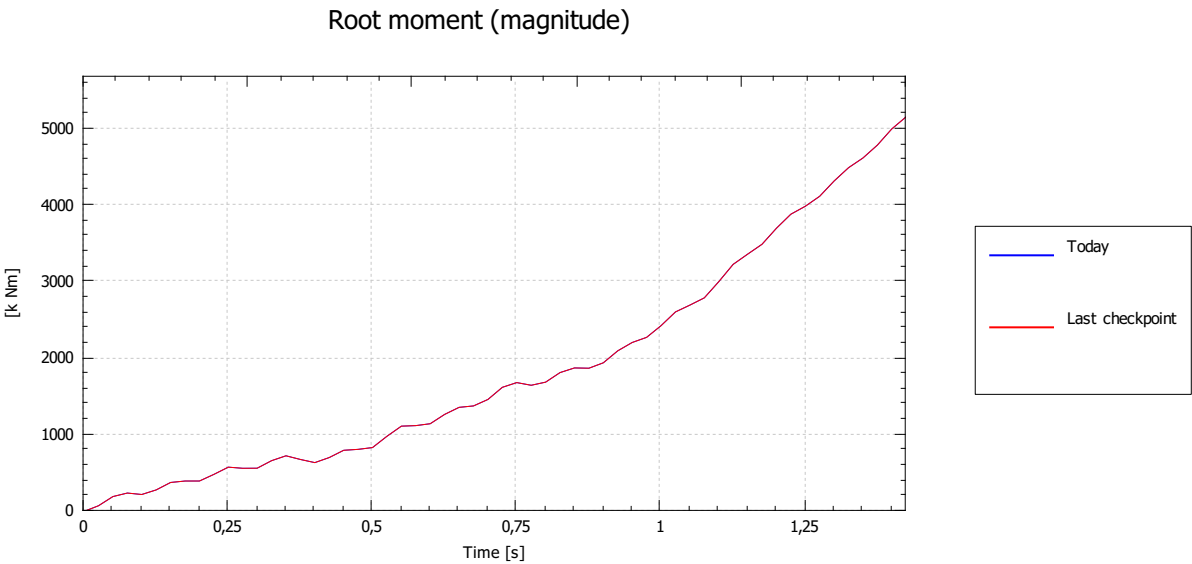
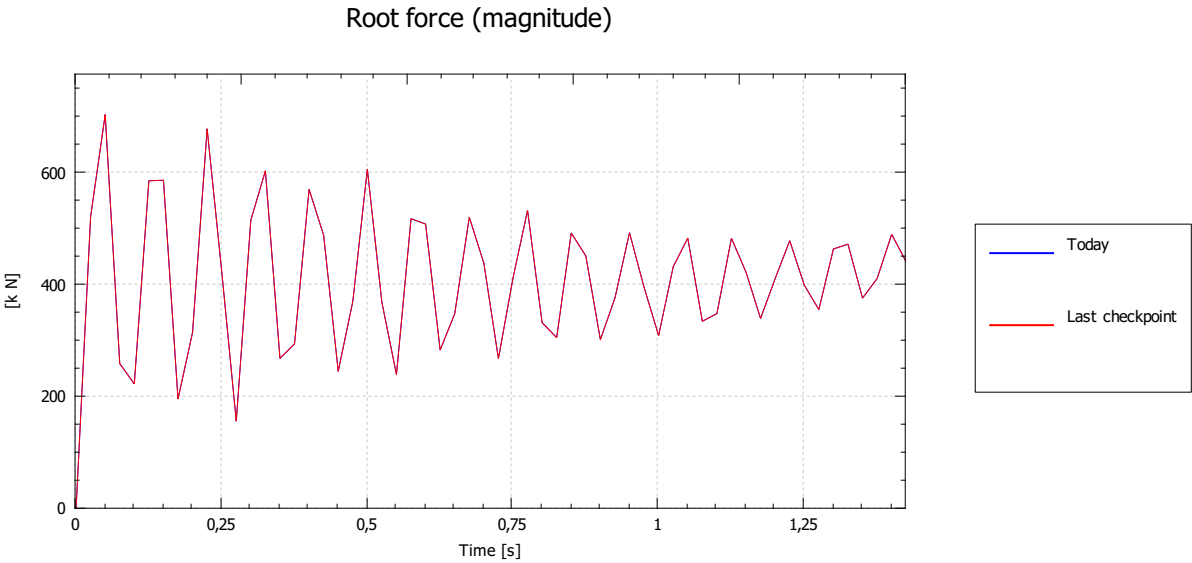


D term

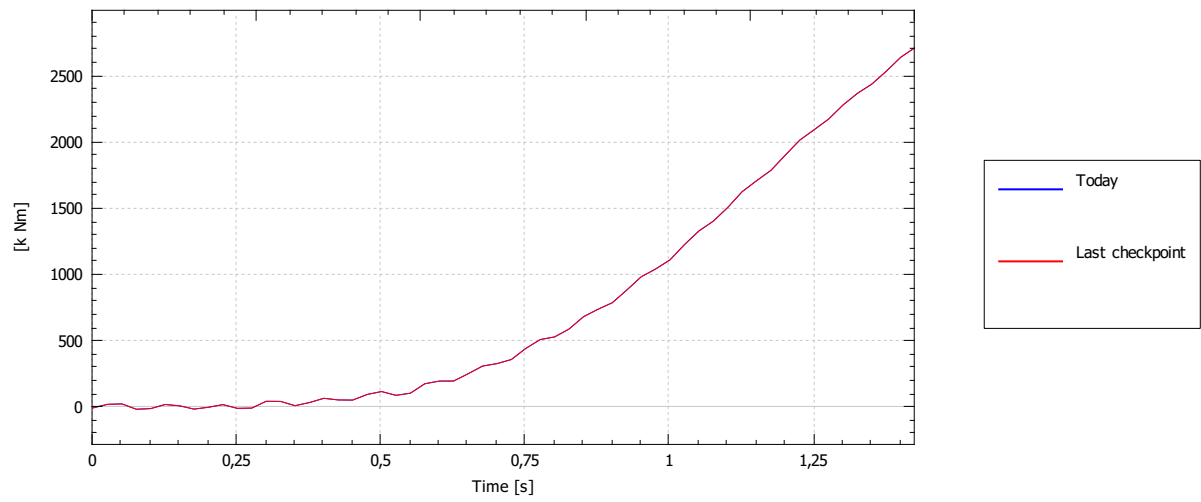


Gain scheduling factor

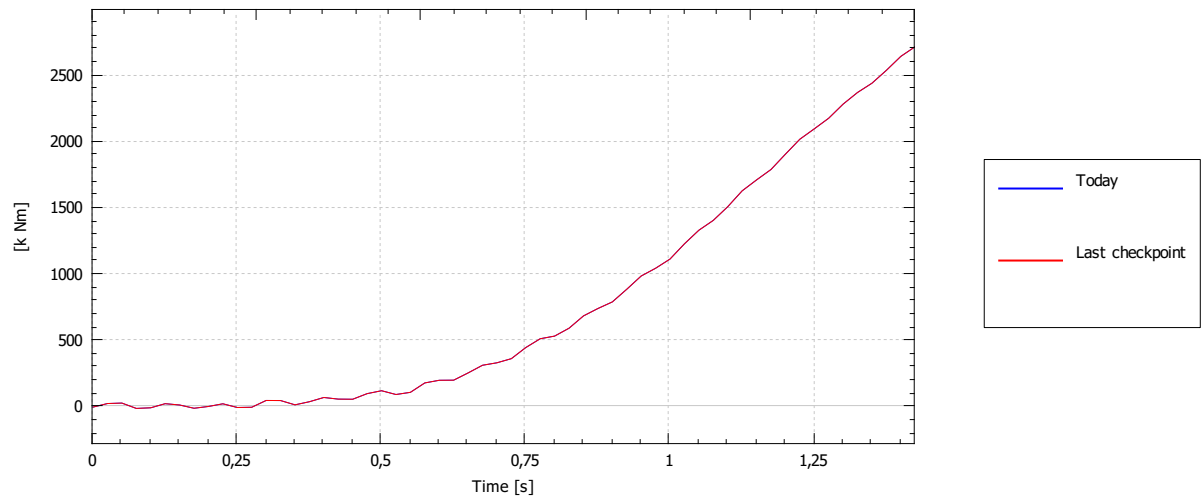




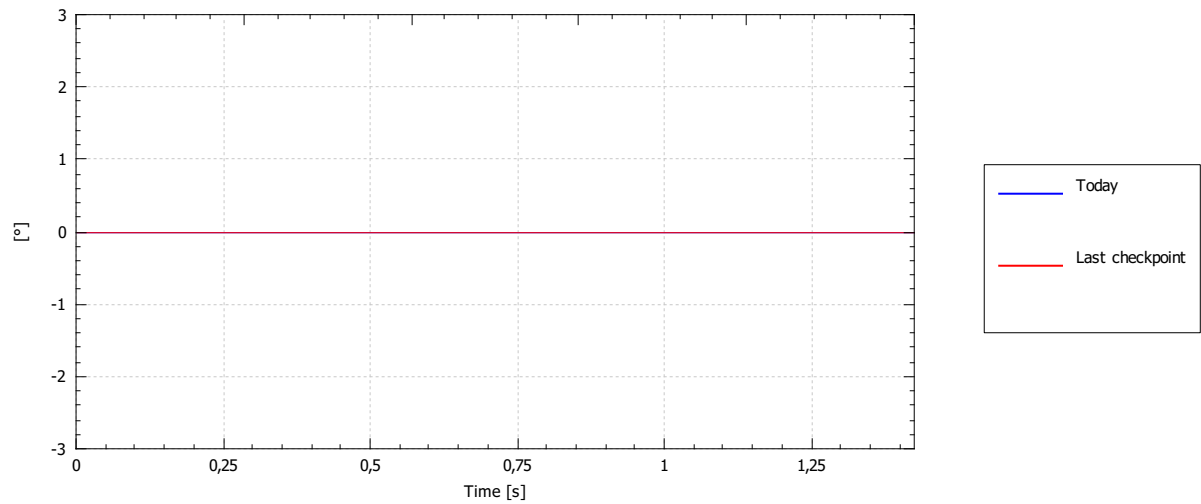
Root moment (in-plane)



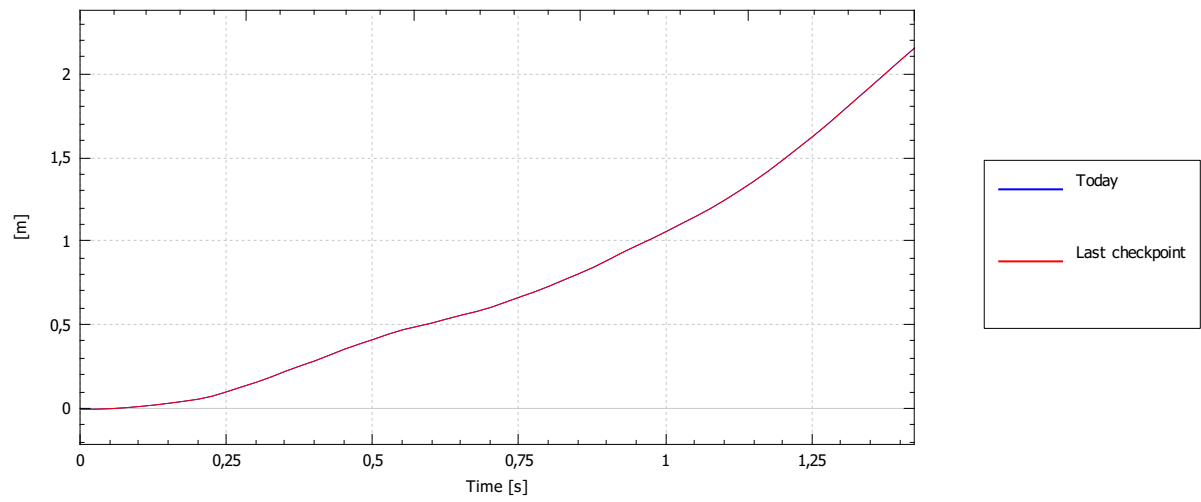
Root moment about shaft



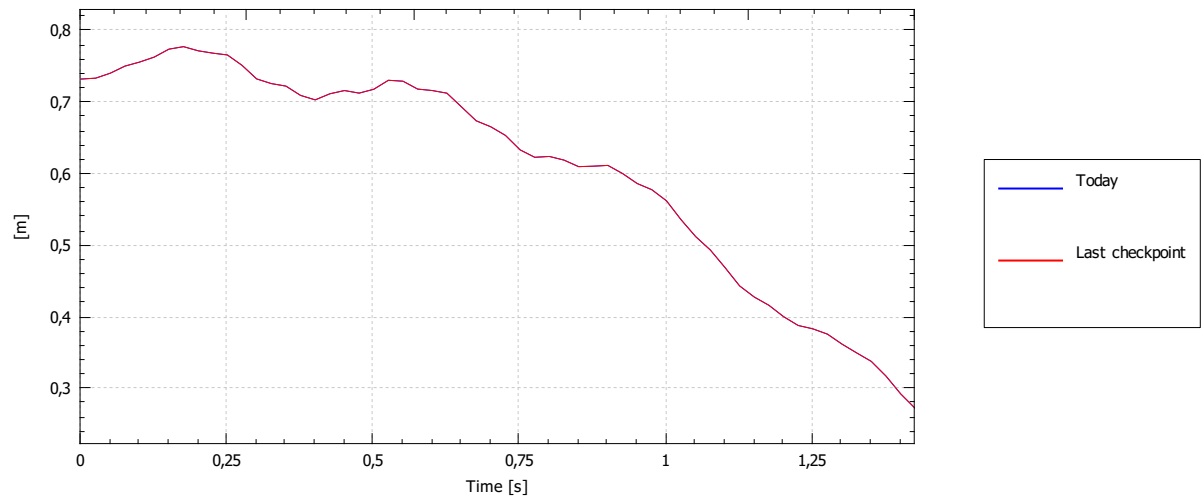
Pitch angle



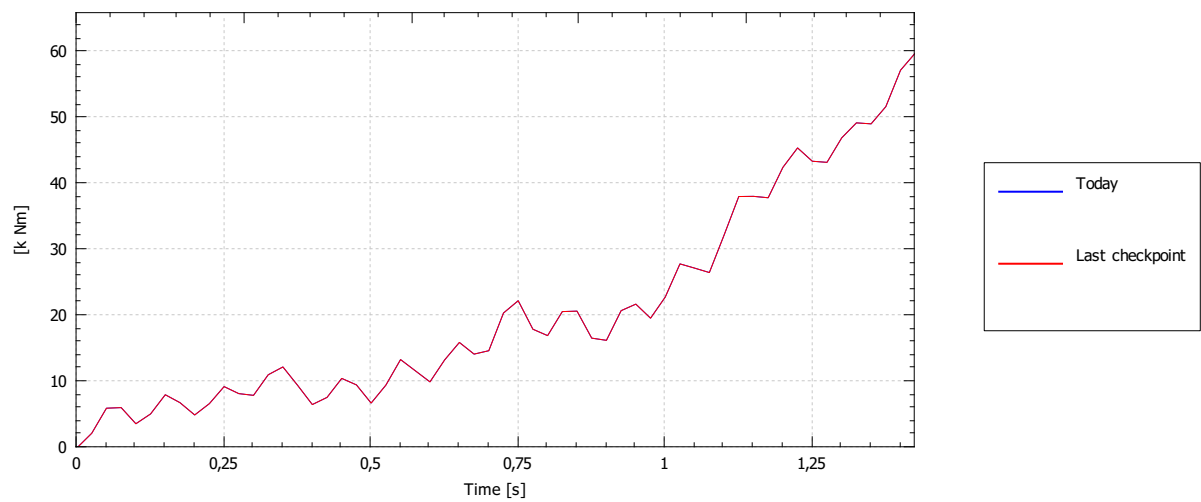
Tip deflection (out-of-plane)

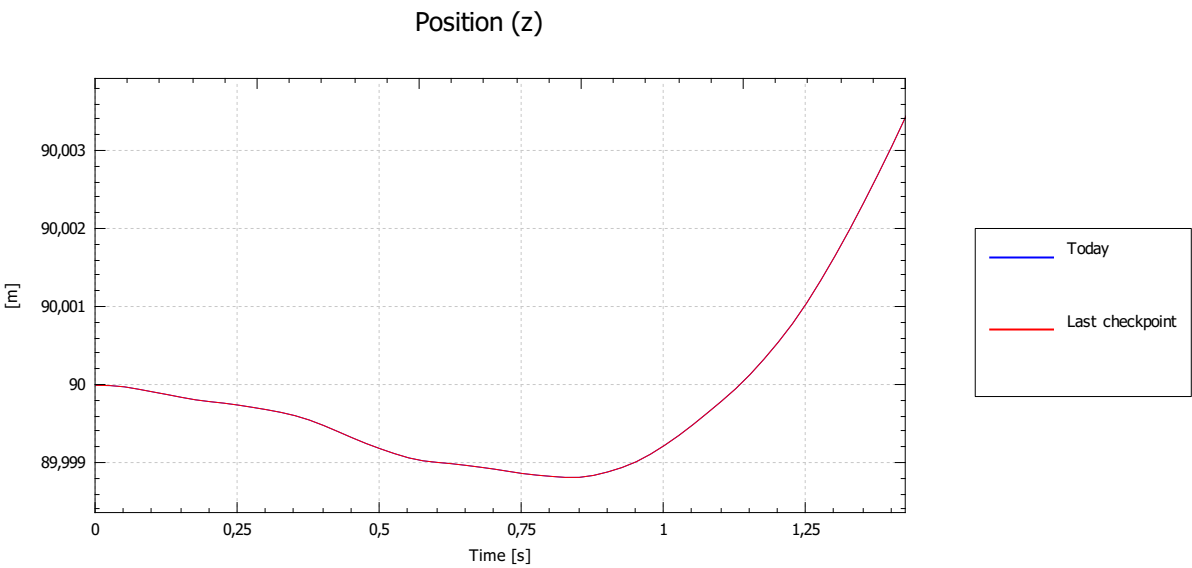
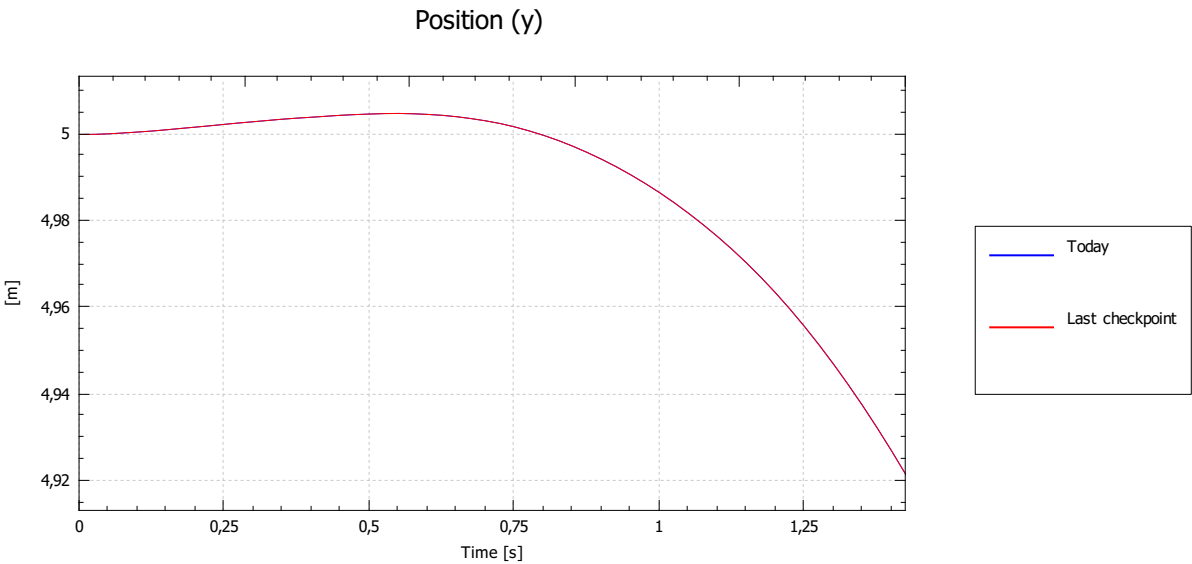
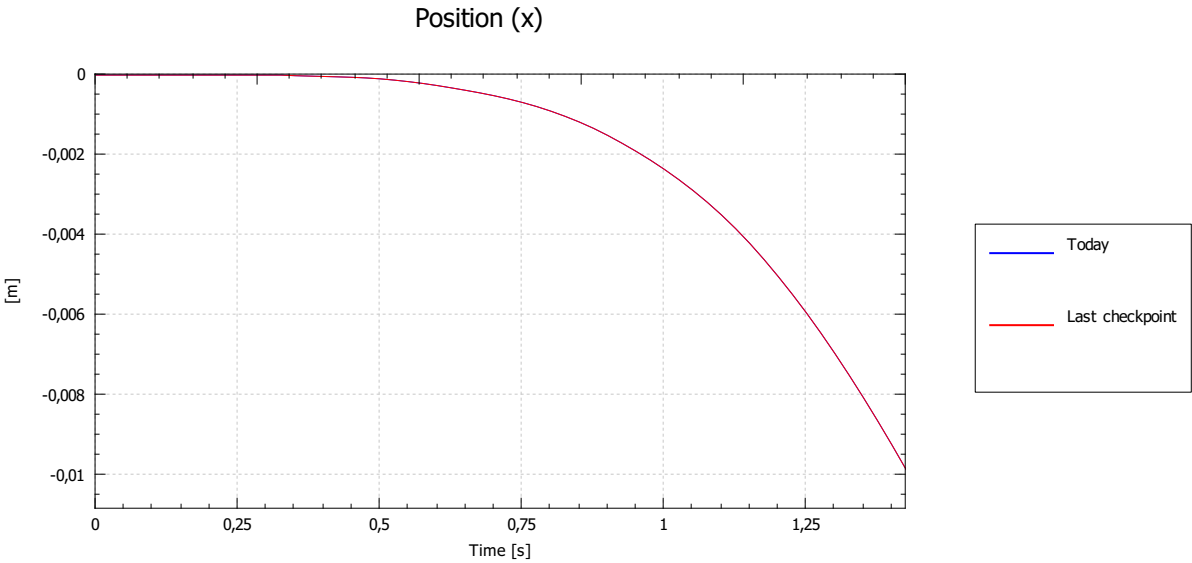


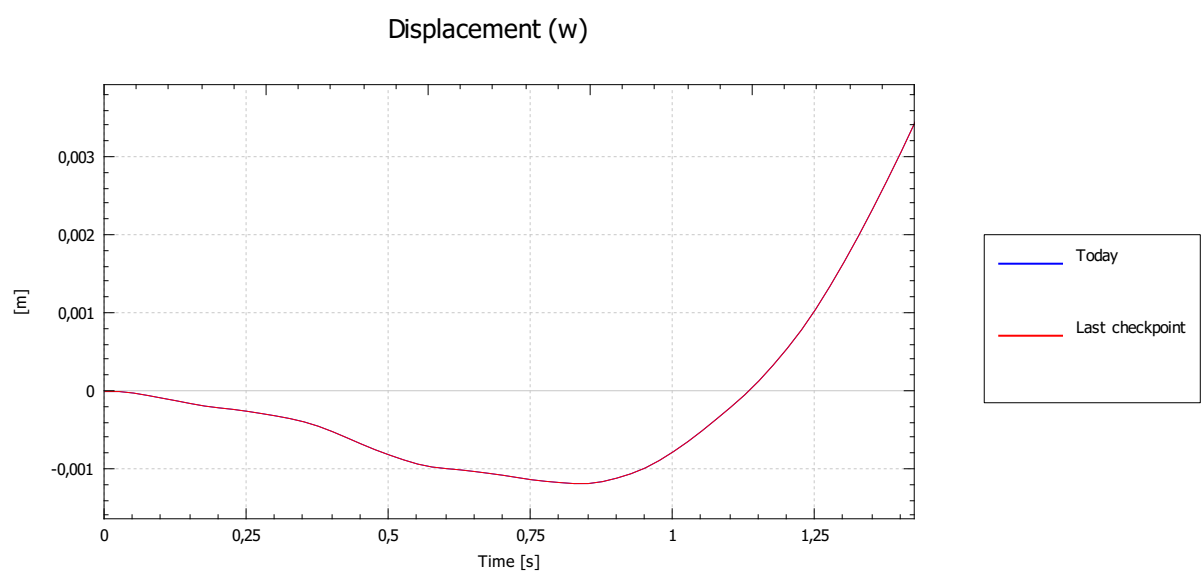
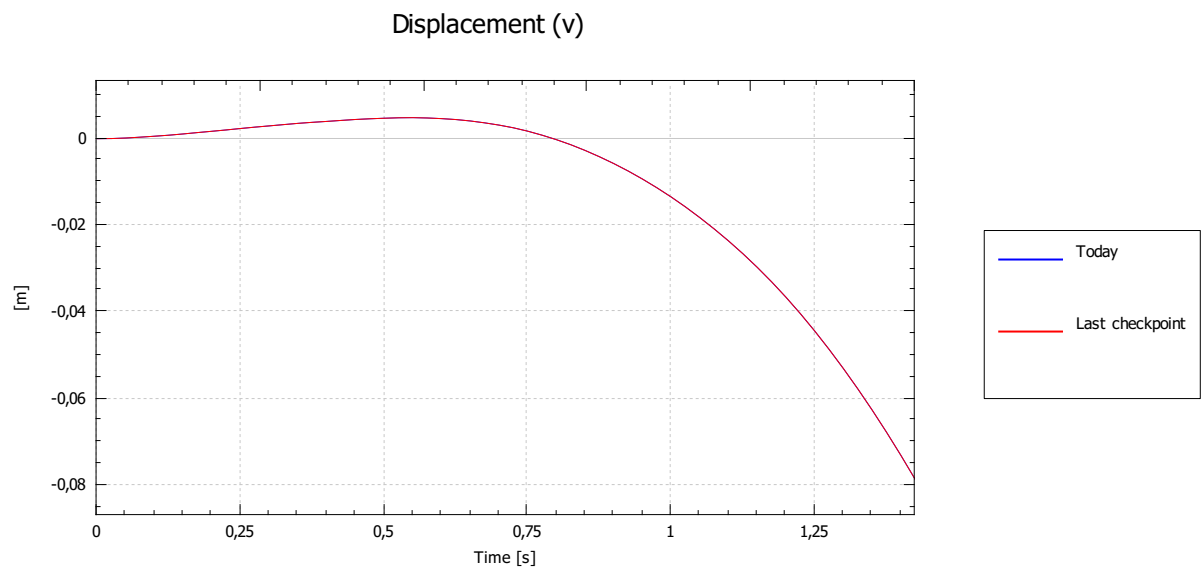
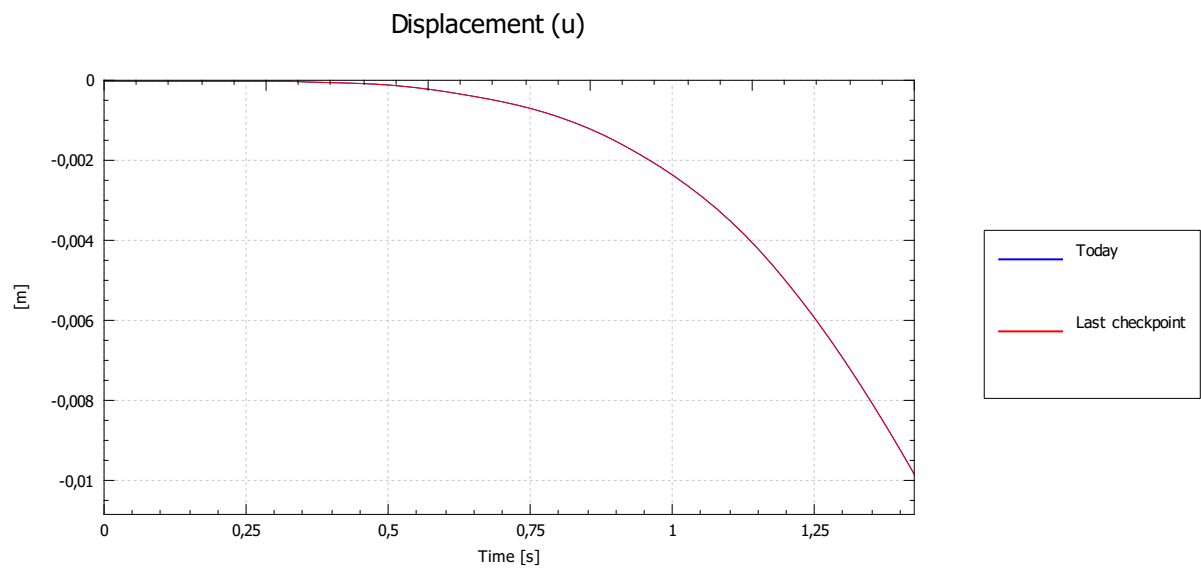
Tip deflection (in-plane)



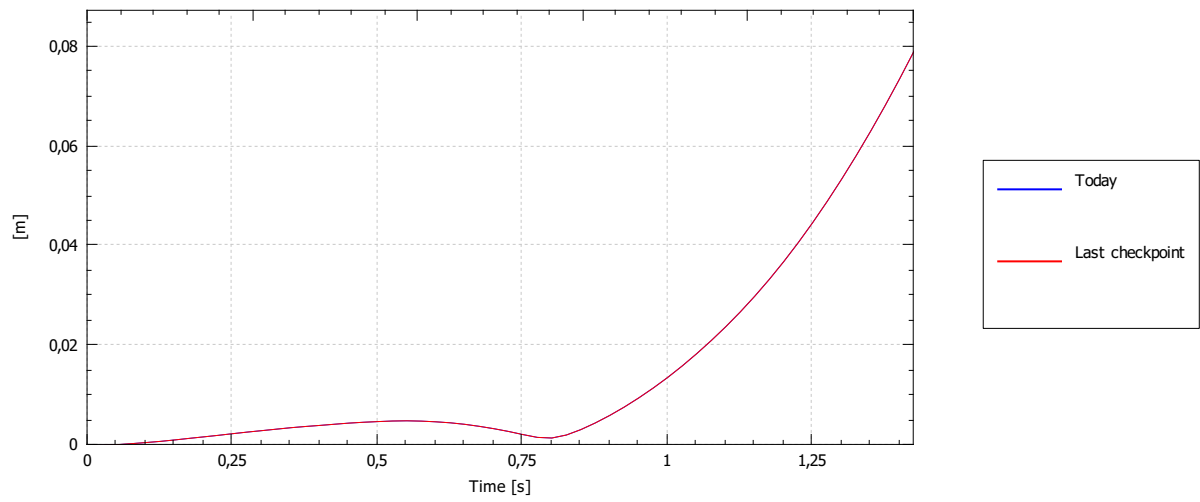
Root torque



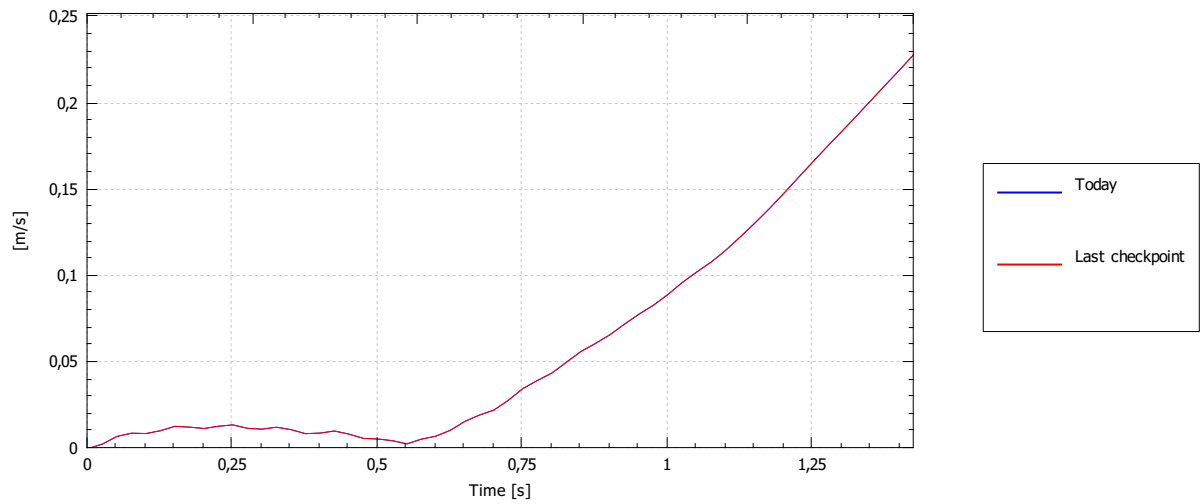




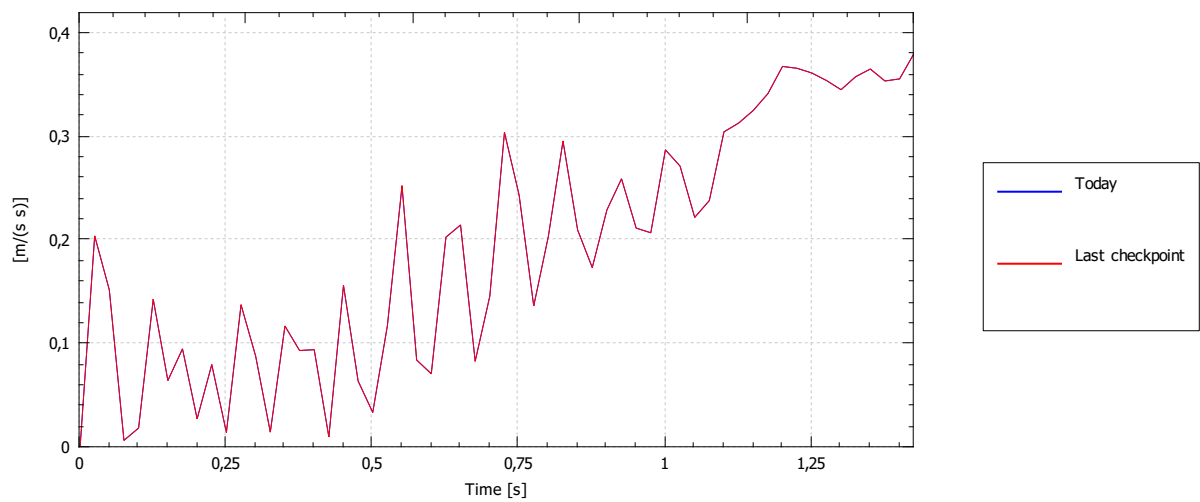
Displacement magnitude



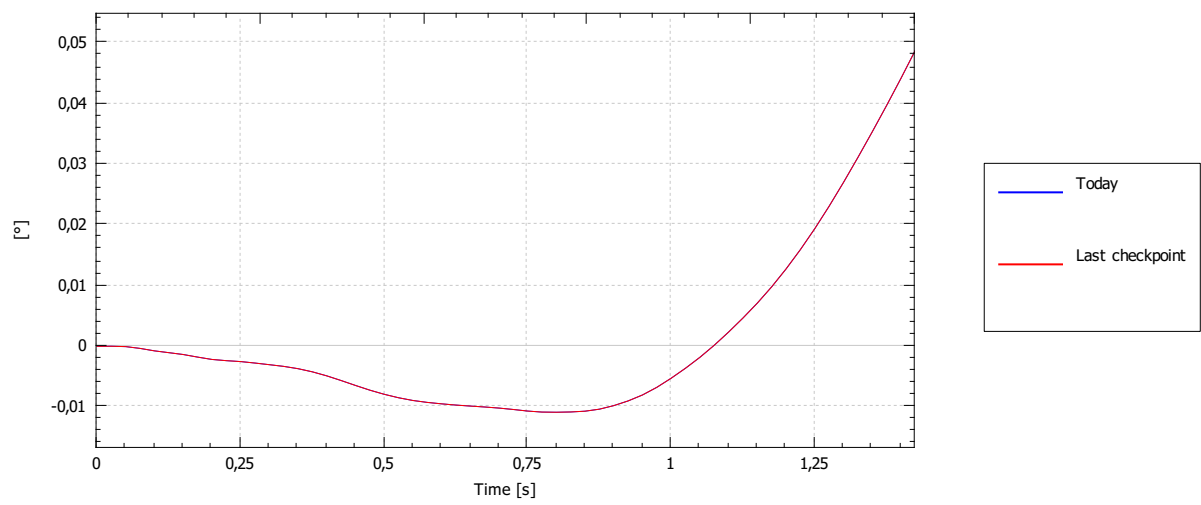
Speed



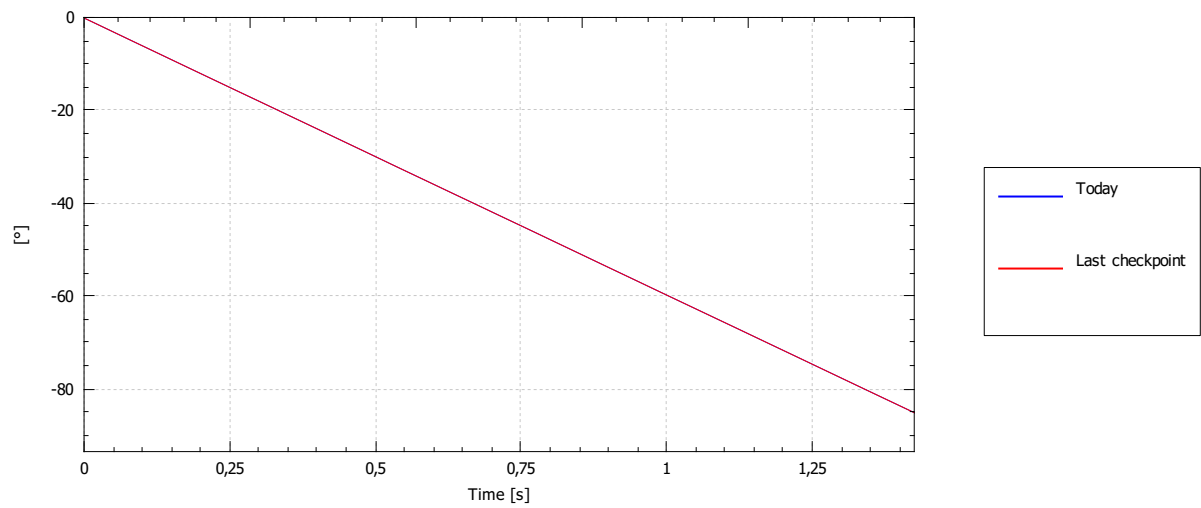
Acceleration, magnitude



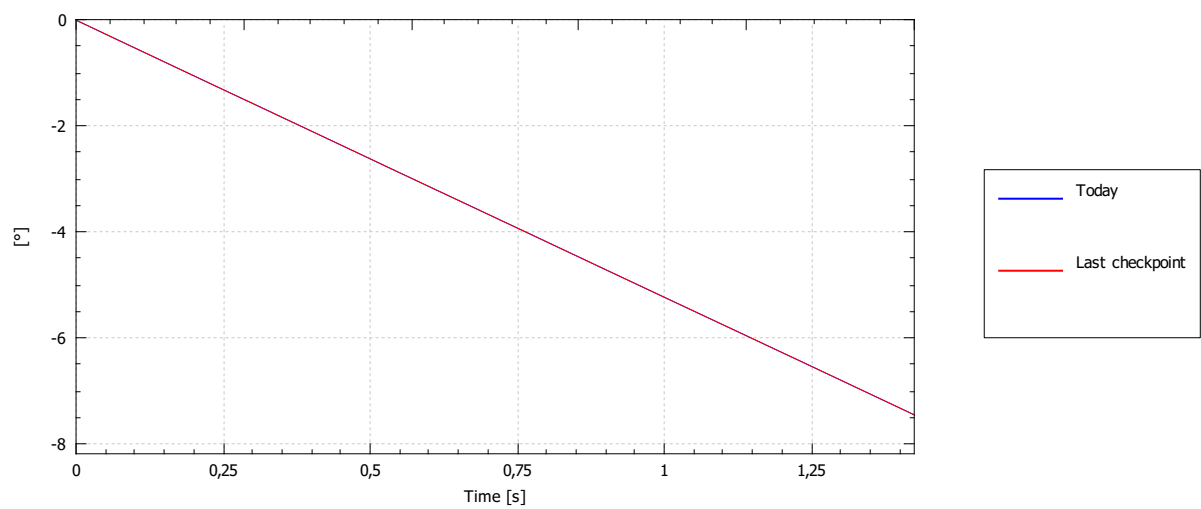
Rotational displacement (ru)



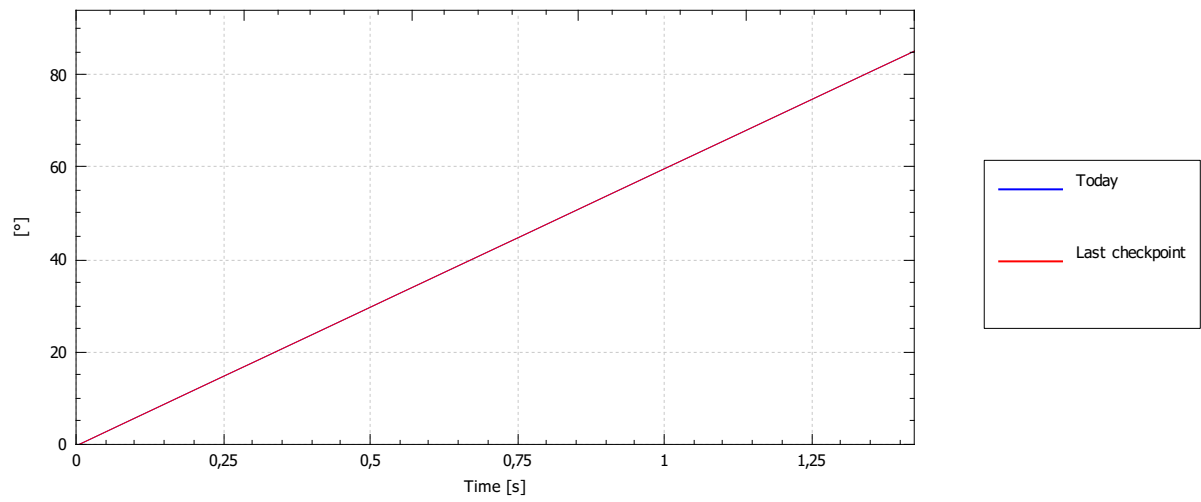
Rotational displacement (rv)



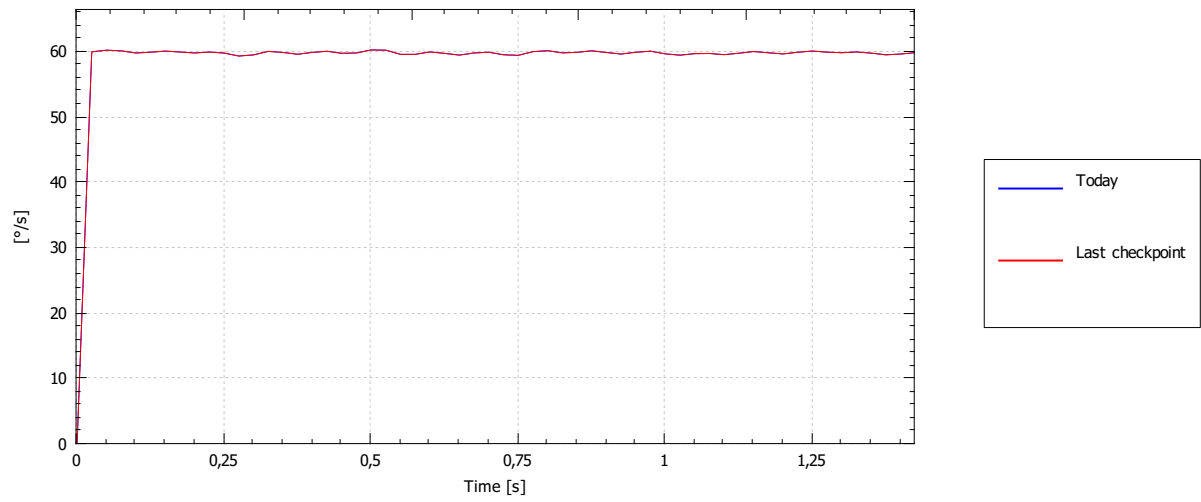
Rotational displacement (rw)



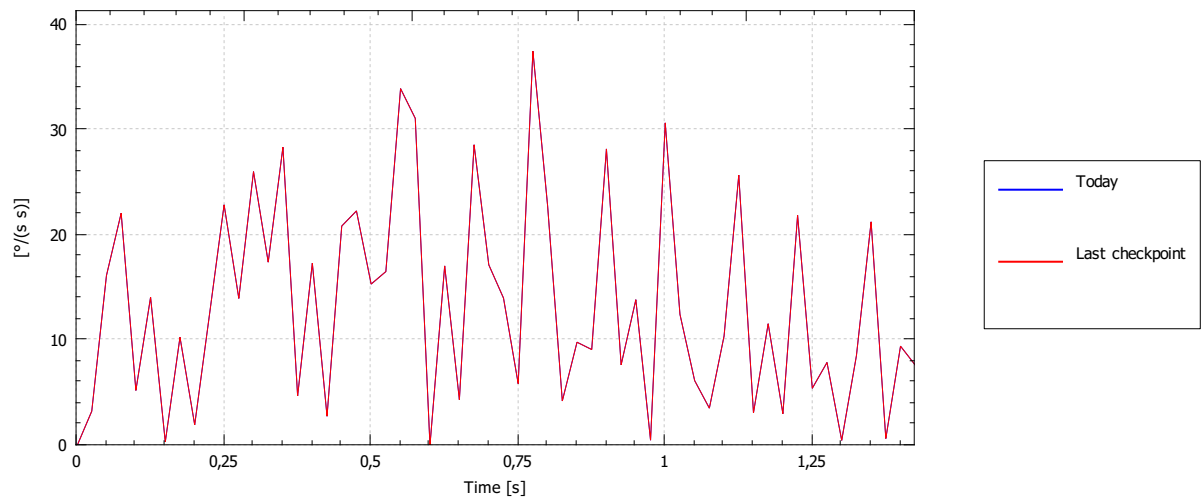
Rotational displacement magnitude



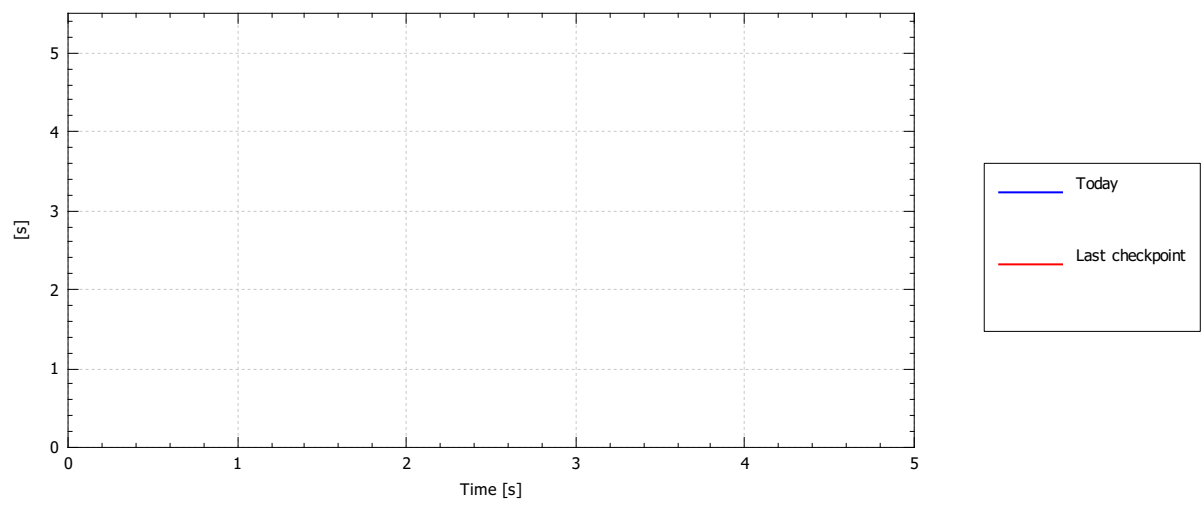
Rotational speed



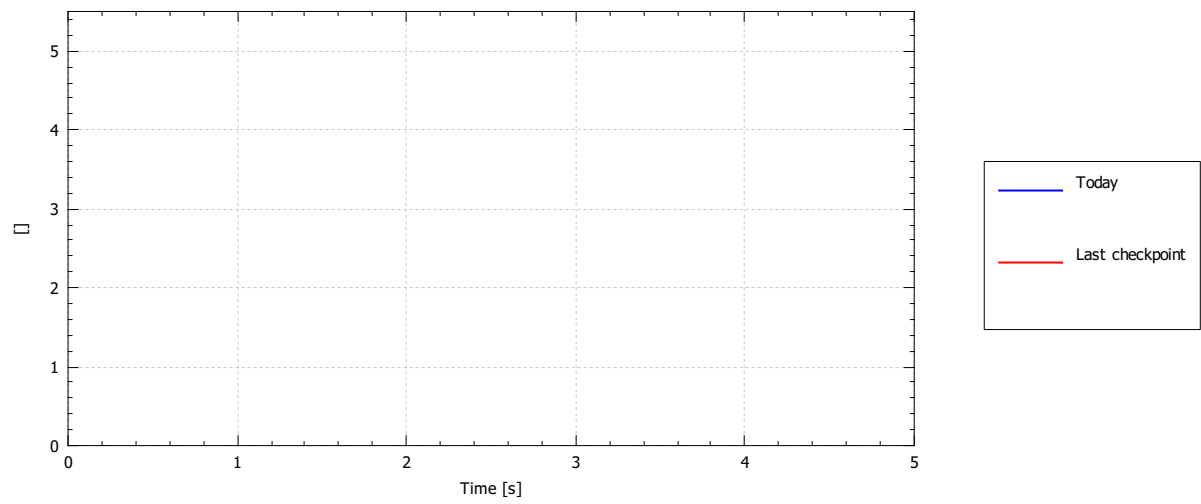
Rotational acceleration mag



Displacement period



Displacement logarithmic decrement



Displacement damping ratio

