



# PLUS+1<sup>®</sup> Autonomous Control Library 70405444v200

## Revision History

This file contains important supplementary and late-breaking information that may not appear in the main product documentation. We recommend that you read this file in its entirety.

## Version 2.00 (October 2021)

### What is Included

- Autonomous Control Library User Manual

### What is New

- Added block Angle\_to\_Curv
- Added block Curv\_to\_Angle
- Added block Edge\_Detect
- Added block Extract\_Ring
- Added block Feature\_Localization
- Added block Obstacle\_Avoidance
- Added block Obstacle\_Detection
- Added block Reflector\_Detection
- Added block Two\_Point\_Planner
- Added block Wall\_Detect
- Added block Yaw\_Estimate

### What is Changed

- Changes in block Wheel\_Odometry
  - Block renamed to Ackermann\_Yaw\_Rate
  - Output bus name changed from "Whl\_Odom" to "Yaw\_Rate"
    - Signal 'VelX' is removed
    - Signal 'VelX\_Std\_Dev' is removed
  - Input Signal name 'Update' changed to 'Updated'
- Changes in block Origin
  - In bus "UTM" Signal name 'Update' changed to 'Updated'
  - In bus "Para" Signal name 'Update' changed to 'Updated'
- Changes in block Path\_Follower
  - Input bus name "EKF\_Pos" changed to "Pos"
    - Signal 'Rel\_X' renamed to 'X'
    - Signal 'Rel\_Y' renamed to 'Y'
- Changes in block EKF\_Position
  - Block renamed to Position\_Filter

- Old buses "Rel\_UTM" and "GNSS\_Std\_Dev" are combined into single new bus "Pos\_XY"
  - Signal 'GNSS\_Easting\_Std\_Dev' renamed to 'X\_Std\_Dev'
  - Signal 'GNSS\_Northing\_Std\_Dev' renamed to 'Y\_Std\_Dev'
  - Signal 'Rel\_UtmX' renamed to 'X'
  - Signal 'Rel\_UtmY' renamed to 'Y'
  - Signal 'Update' renamed to 'Updated'
- Old bus "Whl\_Odom" is split into two new buses "Vel\_X" and "Yaw\_Rate"
  - 'VelX', 'VelX\_Std\_Dev' moved to bus "Vel\_X"
  - New 'Updated' signal added to bus "Vel\_X"
  - 'Yaw\_Rate', 'Yaw\_Rate\_Std\_Dev' and 'Update' signals moved to bus "Yaw\_Rate"
  - In "Yaw\_Rate" bus signal 'Update' (from "Whl\_Odom") renamed to 'Updated'
- "AccX" bus renamed to "Acc\_X"
  - Signal 'Update' renamed to 'Updated'
- In bus "Yaw" signal 'Update' renamed to 'Updated'
- "Output" bus renamed to "Pos"
  - Signal 'Rel\_X\_Std\_Dev' renamed to 'X\_Std\_Dev'
  - Signal 'Rel\_Y\_Std\_Dev' renamed to 'Y\_Std\_Dev'
  - Signal 'Rel\_X' renamed to 'X'
  - Signal 'Rel\_Y' renamed to 'Y'
- Changes in block Relative\_Pos
  - Added bus "Std\_Dev"
    - Added signal 'X\_Std\_Dev'
    - Added signal 'Y\_Std\_Dev'
  - In Bus "UTM" Signal 'Update' renamed to 'Updated'
  - In Bus "Origin" Signal 'Update' renamed to 'Updated'
  - Output bus name renamed from "Rel\_UTM" to "Pos\_XY"
    - Signal 'Rel\_X' renamed to 'X'
    - Signal 'Rel\_Y' renamed to 'Y'
    - Added signal 'X\_Std\_Dev'
    - Added signal 'Y\_Std\_Dev'
- Changes in block UTM\_Conv
  - Signal name 'Update' changed to 'Updated'
- Changes in block UTM\_Conv\_Zone
  - Signal name 'Update' changed to 'Updated'

### Known issues

- Having blocks from the Autonomous Control Library v1.00 and the Autonomous Control Library v2.00 in the same project may cause unexpected results. It is recommended to only use the latest function blocks in an application.

### Minimum Requirements

- PLUS+1 GUIDE 12.2 or greater
- PLUS+1 Service Tool 12.2 or greater

# **Version 1.00 (February 2020)**

## **What is Included**

- Autonomous Control Library User Manual

## **What is New**

- Initial release

## **Known issues**

- Do not use Autonomous Control Library function blocks in applications in version 11.0 of PLUS+1® GUIDE.
  - The PLUS+1® GUIDE compiler stops working when ACL function blocks are used in version 11.0.
  - You can successfully compile applications that use the blocks in PLUS+1® GUIDE version 10.1 and versions 11.1 and later.
  - ClearQuest: P100004836.

## **Minimum Requirements**

- PLUS+1 GUIDE 10.1 or greater
- PLUS+1 Service Tool 10.1 or greater

# Support

## Web

<https://www.danfoss.com/en/products/dps/software/software-and-tools/plus1-software/#tab-support>

## Create a PLUS+1 Helpdesk Case

<http://plus1helpdesk.danfoss.com/>

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