

# Vision-RTK 2 Release Notes

Release v2.58.0

**23 DECEMBER 2022**

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# 1. Overview

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This release consists of the following artefact:

- Image: `fp_release_vr2_2.58.0_178.9bdf660a7148c0fe69f928e1e70fbfac.swu`

At the time of release the following support documents and code are valid:

- Documentation
  - Release notes (this document): `VRTK2_FW2.58.0_release notes.pdf`
  - Integration manual: `VRTK2_integration_manual_v1.3.pdf`
  - Datasheet: `VRTK2_Datasheet_v1.0.pdf`
- Support software
  - [fixposition\\_driver-4.0.1](#)
  - [fixposition\\_gnss\\_tf-2.0.1](#)

For any questions or issues please send an email to [support@fixposition.com](mailto:support@fixposition.com)

## 2. Release notes

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The changes described here are with respect to the release 2.54.0.

### 2.1 Positioning

- Improved performance when using heavily quantized wheelspeeds (especially OBD2 based data input)
- Improved performance when stationary for long periods of time
- Eliminated zig zag refix behaviour

### 2.2 GNSS

- Updated the u-blox ZED-F9P receiver firmware to HPG 1.32

### 2.3 Webinterface

- Adjusted CAN interface config (see above)
- Added "Fixposition" wheelspeed sensor (see above)
- Improved the webinterface stability and responsiveness when the sensor has no or only very slow internet connectivity

### 2.4 Data interface

- Output pitch and roll estimation based on our IMU data in a new FP,TF message. No fusion initialization needed for this.
- Added support for a generic Fixposition CAN message for wheelspeed input. See Fixposition CAN message
- The video stream URL has changed, see Camera streaming
- Improved CAN interface configuration by separating it from the auxiliary sensor configuration.
- Added possibility to enable/disable the CAN interface.

- Added persistency across fw update for the CAN interface configuration.
- Enabling FP\_ODOMETRY output now also enables output of \$FP,TF,1,POI,IMU\_HORIZONTAL messages
- Improved latency in processing serial and TCP input (wheelspeed, RTCM3)

## 2.5 Other

- N/A

## 2.6 Known limitations

- For starter lkit extrinsics please reset fusion configuration.
- When doing “Reset settings” in either the “Sensor Fusion Settings” or “Output Settings”, all reset all fusion settings (extrinsics, mode, output configuration, etc.) as well as the auxillary sensors configuration are reset.
- If Wi-Fi connection is lost (for example, too far away from hotspot, phone or router) it can take up to two minutes for the connection to come up again. It takes up to 30 seconds for VRTK to detect that the Wi-Fi is gone and up to 90 seconds for it to notice that the Wi-Fi is back in range and reconnect. Typically, the process should take less than 1 minute

# 3. Software update instructions

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Depending on the currently installed version:

- 2.49.0 or later: Upgrade to 2.58.0 by installing the Image.
- 2.48.x or earlier: Do not install the Image. Contact Fixposition for upgrade options.

To install a upgrade image (.swu file):

1. Prepare the sensor for upgrade:
  - Ensure the sensor has a reliable power supply. A power outage during the firmware update process can render the sensor unusable.
  - Ensure that a reliable network connection is used. Using an ethernet connection is strongly recommended. Using a Wi-Fi connection is strongly discouraged.
2. Go to the webinterface (<http://10.0.1.1> in the default ethernet configuration) and go to System -> Firmware
3. Load the update image (the .swu image file) into the Software Update form (drag and drop, or click to open the system's file open dialogue in order to select the .swu image file)
4. Wait until the update has installed and the sensor has rebooted.
5. Verify that the settings in the Configuration -> Fusion page are correct for your setup and adjust them as needed