

## Flexcom 2026.1.2

Flexcom 2026.1.2 corrects several program faults identified in the preceding version, Flexcom 2026.1.1.

Our policy is to provide complete transparency to our Flexcom user community regarding any known software errors or limitations. Refer to [Known Software Faults](#) for further information on known faults in recent versions of Flexcom.

For your convenience, the fault corrections provided by Flexcom 2026.1.2 are also summarised here.

| No. | Issue                                                                                                             | Severity |
|-----|-------------------------------------------------------------------------------------------------------------------|----------|
| 1   | Responsiveness of Flexcom GUI                                                                                     | Minor    |
| 2   | User-defined Flexcom GUI settings not being saved                                                                 | Minor    |
| 3   | Hydrodynamic Data Importer does not read QTF data from ANSYS Aqwa files                                           | Minor    |
| 4   | Floating feedback control for FOWTs                                                                               | Minor    |
| 5   | Database write error where motion database storage is disabled                                                    | Minor    |
| 6   | QTF data reading error                                                                                            | Minor    |
| 7   | Hydrodynamic Data Importer does not read QTF data from WAMIT files data which use the Pressure Integration method | Minor    |

### Issue 1: Responsiveness of Flexcom GUI

- **Related Topics:** [User Interface](#)
- **Description:** Responsiveness of the Flexcom user interface can deteriorate if the program has been running continuously for some time. Whenever you open a keyword file, Flexcom loads the data into memory, so that it can display the model in the Model View for example. Due to a bug in the code, that memory which should become free when the keyword file is closed, is retained. This behaviour is known as a memory leak, meaning that the amount RAM used by the Flexcom GUI tends to grow continuously.
- **Workaround:** Close and relaunch the GUI if you feel it is not responding as quickly as you might expect.

### Issue 2: User-defined Flexcom GUI settings not being saved

- **Related Topics:** [Flexcom Settings Dialog](#)
- **Description:** User defined settings for the Flexcom GUI (e.g. to enable Licence Monitoring) are not always saved correctly. Although rare, the issue can occur when the Flexcom Configuration File is malformed. We do not know how this occurs on a user machine, but sometimes this file can exist but have zero size. In this case, Flexcom fails to load or save the config file. The next version will check for a zero size file and delete it rather than attempting to load it, resetting all options to their default values.
- **Workaround:** Manually delete the configuration file if you are experiencing any save issues with the Flexcom Settings dialog. The file is called FlexcomGlobal.config and is located in the C:\ProgramData\Wood\Flexcom\Version 2026.1.1.

### Issue 3: Hydrodynamic Data Importer does not read QTF data from ANSYS Aqwa files

- **Related Topics:** [Hydrodynamic Data Importer](#)
- **Description:** Any QTF data contained in .LIS files generated by ANSYS Aqwa is ignored during the data importation process.
- **Workaround:** Manually import the relevant QTF data. [Contact](#) Wood Group if you need assistance.

### Issue 4: Floating feedback control for FOWTs

- **Related Topics:** [Coupling between Flexcom and ServoDyn](#)
- **Description:** There are actually two issues here, but as they are so closely related, they are grouped together under the same fault heading.

ServoDyn provides three options for modelling floating feedback in the controller, namely: FI\_Mode = 0 (no nacelle velocity feedback), FI\_Mode = 1 (translational velocity feedback), and FI\_Mode = 2 (rotational velocity feedback). The relevant OpenFAST axis systems are as follows:

1. *Tower-Top/Base-Plate Coordinate System:* Fixed to the top of the tower. It translates and rotates as the platform moves and the tower bends, but it does not yaw with the nacelle.
2. *Nacelle/Yaw Coordinate System:* Translates and rotates with the top of the tower, plus it yaws with the nacelle.

**Issue A:** Translational velocities of the tower top node are supplied by Flexcom to ServoDyn in the tower system. This is consistent with the internal workings of OpenFAST, and while it is not necessarily incorrect, it is somewhat restrictive. Starting from Flexcom 2026.1.2, the translational velocities of the tower top node are supplied by Flexcom to ServoDyn in the nacelle system by default, but you may also select the tower system if you wish. Refer to the footnote on floating feedback for further information and discussion.

**Issue B:** Rotational accelerations of the nacelle (roll, pitch/nodding, and yaw) are passed as zero values from Flexcom to ServoDyn. This means that floating feedback is not captured by the controller. The issue may not be obvious for all turbine models but typically seems to manifest itself in unstable blade pitch for wind speeds above rated, even if the applied wind has constant speed. Starting from Flexcom 2026.1.2, the rotational velocities of the nacelle CoG node are supplied by Flexcom to ServoDyn (in the *Nacelle/Yaw Coordinate System*), and this corrects the issue.

Note that these issues relate specifically to floating wind turbine models only. Fixed base models are unaffected as floating feedback is disabled (FI\_Mode = 0).

- **Workaround:** Issue A may not necessarily represent a problem, depending on your perspective. Issue B may be circumvented by using translational velocity feedback (FI\_Mode = 1) rather than rotational velocity feedback

### Issue 5: Database write error where motion database storage is disabled

- **Related Topics:** [Data Storage Files](#)
- **Description:** The vast majority of Flexcom models create a motion database (DBM) file. However you may disable the DBM file completely if wish, by specifying `*DATABASE CONTENT -> EXCLUDE=1, 2, 3`. If you invoke this option in Flexcom 2026.1.1, you will receive an error message stating *"Error: Unable to write to direct access database file. system error number is 37. Error may be caused by a lack of disk space"*.
- **Workaround:** Retain at least one parameter from motion/velocity/acceleration to enable DBM file creation. For example, specify `*DATABASE CONTENT -> EXCLUDE=2, 3` instead.

### Issue 6: QTF data reading error

- **Related Topics:** [Floating Body](#)
- **Description:** If your Flexcom model contains more than one floating body, and you have specified a different number of QTF frequencies for each body, you will receive an error message stating *"QTF data must be specified at the same headings for each frequency used"*.
- **Workaround:** Specify the same number of QTF frequencies for both floating bodies in your model.

### Issue 7: Hydrodynamic Data Importer does not read QTF data from WAMIT files data which use the Pressure Integration method

- **Related Topics:** [Hydrodynamic Data Importer](#)
- **Description:** WAMIT offers two different approaches for the computation of second-order mean drift forces, the Momentum Conservation method and the Pressure Integration method. The latter provides drift components in all 6 degrees of freedom, and this data format is ignored during the data importation process.
- **Workaround:** Manually import the relevant QTF data. [Contact](#) Wood Group if you need assistance.

## Note on floating feedback control for FOWTs

OpenFAST supplies the tower top acceleration terms to the controller in the [Tower-Top/Base-Plate Coordinate System](#), which translates and rotates as the platform moves and the tower bends, but does not yaw with the nacelle. Flexcom allows the user to choose between the tower system and the [Nacelle/Yaw Coordinate System](#), which translates and rotates with the top of the tower, and also yaws with the nacelle. The rationale behind the Flexcom default is most readily explained via a simple example. Let's consider 3 separate models as follows:

1. Wind turbine model set up at 0 degrees. Steady wind applied at 0 degrees. The platform is forced to oscillate back and forth in the surge direction via a displacement-controlled sinusoidal boundary condition.
2. As per Model 1, but with the tower rotated by 90 degrees (e.g. simulation of a semi-sub yaw scenario). Note that the turbine also rotates with the tower. Steady wind applied at

90 degrees. The platform is forced to oscillate back and forth in the sway direction.

3. As per Model 1, but with turbine rotated by 90 degrees (e.g. simulation of a turbine yaw scenario). Note that the tower itself does not rotate. Steady wind applied at 90 degrees. The platform is forced to oscillate back and forth in the sway direction.

Hence in all 3 cases, the turbine is facing the incoming wind direction, and the platform is oscillating in the same direction. Floating feedback is enabled in the controller. One might intuitively expect all 3 models to have very similar behaviour if not identical.

- If the tower top acceleration terms are supplied in the Tower-Top/Base-Plate Coordinate System, the blade pitch computed by ServoDyn is consistent between Models 1 and 2, but not consistent with Model 3 (in which floating feedback is effectively ignored).
- If the tower top acceleration terms are supplied in the Nacelle/Yaw Coordinate System, the blade pitch computed by ServoDyn is consistent between Models 1, 2 and 3.

User control is provided via `*SERVODYN -> FF TTA AXIS=Floating Feedback Tower-Top Acceleration Axis System`, which can be `TOWER-TOP` or `NACELLE` (the default).