Flexcom 2025.1.2

Flexcom 2025.1.2 corrects several program faults identified in the preceding version, Flexcom 2025.1.1.

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 2025.1.2 are also summarised here.

No.	Issue	Severity
1	Simulation crashes if restart file is not found	Minor
2	Simulation crashes if any of the ServoDyn input files (related to wind turbine control) are not found	Minor
3	GUI always assigns high/rigid values to axial and torsional stiffness of wind turbine blades	Minor
4	AeroDyn driver file is written incorrectly by Flexcom	Major

Issue 1: Simulation crashes if restart file is not found

- **Related Topics**: Restart Analyses
- **Description**: Flexcom crashes with a spurious error message, such as "the analysis process acm.exe did not close correctly" and/or "ACM stopped working. Error code: 0x0000009D", if the simulation restarts from a previous stage and if the preceding restart (RST) file cannot be found. This situation can easily occur if you forget to run the preceding stage. Flexcom 2025.1.2 issues an informative error message.
- **Workaround**: Run the preceding simulation manually or use the Run Root option to ensure that all preceding stages are successfully completed beforehand.

Issue 2: Simulation crashes if any of the ServoDyn input files (related to wind turbine control) are not found

- **Related Topics**: Wind Turbine Modelling
- **Description**: Flexcom crashes with a spurious error message, such as "the analysis process acm.exe did not close correctly", if any of the input files required by ServoDyn cannot be found. This situation can easily occur if you do not have all the required files stored in the relevant locations. Flexcom 2025.1.2 issues an informative error message.
- **Workaround**: Manually check that the following files are all present and correct:
  1. ServoDyn input file (DAT file extension)
  2. ServoDyn control algorithm file (DLL file extension)
  3. ServoDyn DLL input file (IN file extension)
  4. ServoDyn rotor performance file (TXT file extension)

Issue 3: GUI always assigns high/rigid values to axial and torsional stiffness of wind turbine blades

- **Related Topics**: Rotor Blade Model
- **Description**: Flexcom GUI always sets the axial and torsional stiffness of wind turbine blade elements to 1.0E+12, regardless of the values specified by the user under *BLADE STRUCTURE. Typically, this does not have any significant impact on global results as the flapwise and edgewise bending stiffness terms are assigned correct values.
- **Workaround**: There is no workaround, so you are advised to upgrade to Flexcom 2025.1.2 or later.

Issue 4: AeroDyn driver file is written incorrectly by Flexcom

- **Related Topics**: Wind Turbine Modelling
- **Description**: The AeroDyn driver file (*.dvr) is being written incorrectly by Flexcom 2025.1.1. This fault was introduced when some development code intended for internal testing was accidentally included in the main production version. Several entries in the driver file are hardwired at certain values rather than reflecting the user inputs relevant to a particular turbine setup, leading to incorrect initialisation of key variables within AeroDyn. Broadly speaking, mean values of aerodynamic loads appear to be reasonably correct, but there are unexpected fluctuations over time due to numerical instabilities.
- **Workaround**: There is no workaround, so you are advised to upgrade to Flexcom 2025.1.2 or later.