

Release notes for Bladed 4.4.0.49

13/03/2013

New features in 4.4 include:-

Base module:

- Steady Operation Loads calculation now runs when nacelle mounting has been defined.
- Protect project feature now only applies to PRJ files.
- A brand new interface between the simulation code and the external controller. Details can be found on the website.
- A new pitch actuator screen with additional functionality including setpoint trajectory planning, limit switches, end-stops and variable torque limits.
- Improved blade modelling to take account of non-parallel shear axis within a blade element.
- Additional options for the orientation of the output axis for user defined output on the blade.
- Enhanced encryption facility.

Offshore support structure module:

• A tool to auto-populate the moorings stiffness matrix for a catenary line mooring.

Electrical Dynamics Module:

• DFIG and synchronous generator grid-side converter reactive current demand can be provided from an turbine controller external DLL. Details can be found on the website.

Hardware test module:

- Ability to define state space model devices.
- A new plotter for runtime visualization of recorded channels.
- A new interface for communication between Bladed and Hardware Test Module, which makes it possible to scan a Bladed project file to retrieve the list of available device channels.
- Improved license handling now supports net dongles and the latest HASP runtime.
- The ability to start recording new channels after starting a test.
- Support for user configurable channel unit specification.
- Exports channel usage information as part of device export, so that users importing these file do no need to repeat channel usage configuration.
- Additional filter functions for use from within device scripts.

Tidal turbines:

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• Water particle acceleration from turbulence no longer contributes to loading on blades and support structure as this was leading to overly conservative results.

